CTEH® CENTER FOR TOXICOLOGY AND ENVIRONMENTAL HEALTH, LLC

BNSF© Crude Oil Derailment

Air Monitoring and Sampling Report

Casselton, North Dakota

December 30, 2013 – January 3, 2014

CTEH® Project Number: 105820

Prepared by:

Center for Toxicology and Environmental Health, L.L.C

February 14, 2014

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Executive Summary

On December 30, 2013, BNSF Railways Company© (BNSF©) requested Center for Toxicology and Environmental Health, L.L.C. (CTEH®) to provide air monitoring and toxicological support for a crude oil train derailment and fire located west of Casselton, North Dakota. CTEH® personnel conducted real-time air monitoring and analytical air sampling in the work area and in the community. Air monitoring for the incident began at 9:30 PM on December 30, 2013 and ceased at 3:30 PM on January 3, 2014.

During the incident, real-time air monitoring was conducted for total volatile organic compounds (VOCs) and constituents potentially associated with crude oil vapors including benzene, hydrogen sulfide (H_2S), n-hexane, toluene, and xylene. In addition to monitoring for crude oil vapor constituents, monitoring was also performed for possible products of combustion of crude oil including carbon monoxide (CO), nitric oxide (NO), nitrogen dioxide (NO_2), sulfur dioxide (SO_2), and particulate matter ($PM_{2.5}$; respirable fine particles with a median diameter of 2.5 µm). Due to the potential for flammable vapors to exist, flammability was monitored as lower explosive limit (LEL). Oxygen levels were also monitored.

Oxygen levels were within typical normal breathing levels throughout the response. CTEH® detected no benzene, CO, H_2S, NO_2, SO_2, or VOCs in the air in the community.

Short-term detections of $PM_{2.5}$ in the community ranged between 0.004 mg/m^3 and 0.222 mg/m^3. Around midnight on December 31, 2013, a $PM_{2.5}$ reading of 0.222 mg/m^3 was recorded downwind of the derailment. This reading was the highest detection throughout the incident and was not sustained. Longer-term community-wide average concentrations of $PM_{2.5}$ before the fires were out were below 0.035 mg/m^3, the 24 hour National Ambient Air Quality Standard for $PM_{2.5}$. The results of the community air monitoring indicate that potential emissions from the derailment, release of crude oil, and fire did not adversely affect public health.

Benzene, toluene, and xylene were not detected in the air in the work area. During the response, low level concentrations of CO, $PM_{2.5}$, and VOCs were recorded in the work area. Sustained VOCs detections between 0.1 and 10.2 parts per million (ppm) were recorded in the staging area and while the tank cars were being moved. While there is no occupational standard for VOCs as a class, the occupational exposure guidelines for volatile petroleum mixtures derived from crude oil range from approximately 13 ppm for diesel fuel to 300 ppm for gasoline. All VOC readings representative of the work area were below occupational exposure guidelines for volatile petroleum mixtures.

Detections for CO ranged between 1 to 2 ppm in the work area, well below the occupational exposure guidelines. The highest detection of $PM_{2.5}$ in the work area (0.440 mg/m^3) was recorded on December 31, 2013 as a bulldozer was moving ballast in the staging area. The bulldozer operator was in a closed cab and no other workers were in the immediate area.

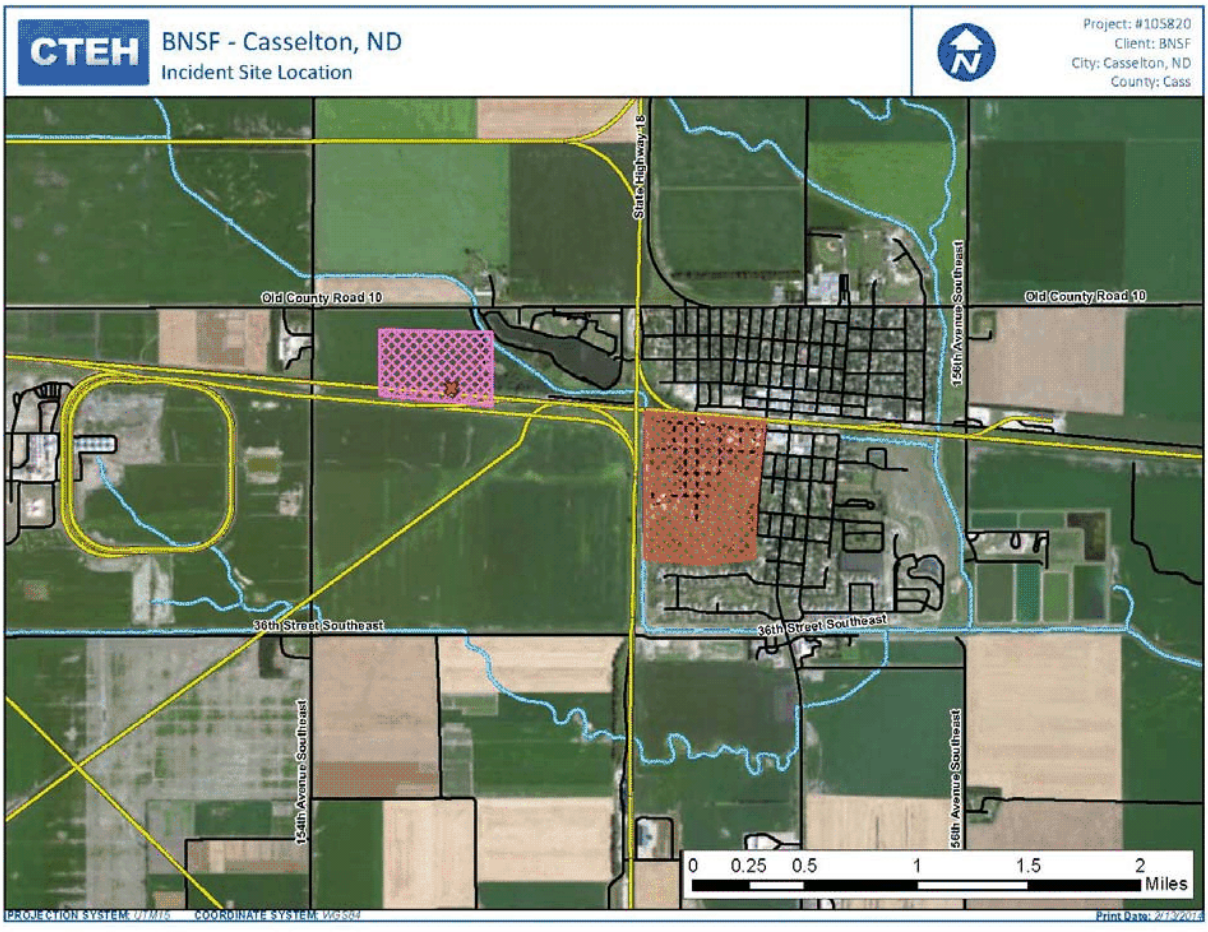
Although a TacTox responder detected H_2S air concentrations up to 2 ppm in the work area late in the night of December 30 and in the early morning hours of December 31, these readings are believed to be associated with instrument drift. The TacTox responder did not detect H_2S when using a detector tube for monitoring. In addition, there were no reports of sulfur or rotten egg odors at the derailment site by CTEH® personnel and CTEH® did not detect H_2S on its instruments.

In summary, the low levels of VOCs and CO detected in the ambient work area air did not exceed worker exposure guidelines. Although some elevated levels of $PM_{2.5}$ were detected in the work area, workers primarily worked up wind of the fire smoke, limiting their exposure to particulate and other emissions from the derailment and fire.

1.0 Description of the Incident and Response

On December 30, 2013, at approximately 4:00 PM Central Daylight Time[1], BNSF Railways Company© (BNSF©) requested Center for Toxicology and Environmental Health, L.L.C. (CTEH®) to provide air monitoring and toxicological support for a crude oil tank car derailment and fire located west of Casselton, ND. A train carrying grain derailed and collided with a train carrying crude oil, which was travelling on a parallel track and heading in the opposite direction. The derailment resulted in a fire involving grain cars and 18 crude oil tank cars. The neighborhood east of the derailment and closest to the derailment was voluntarily evacuated by the local police before CTEH® responders arrived on site. The evacuation was lifted at 3:00 PM on December 31, 2013. Figure 1.0 depicts the location where the incident occurred, the work area, and the voluntarily evacuated community.

Figure 1.0 Incident Site Location



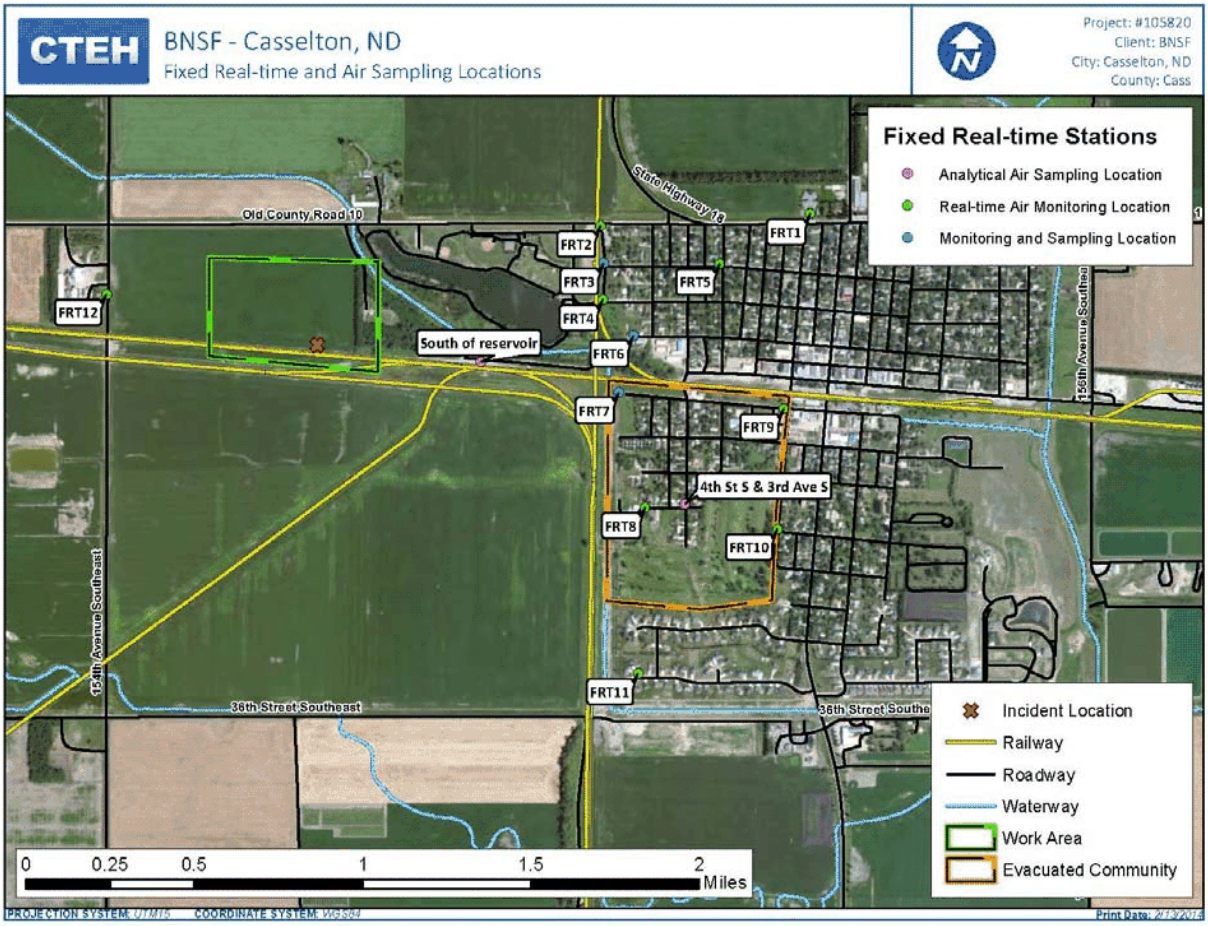
[1] All times reported are in Central Daylight Time.

TacTox responders from West Central Environmental Consultants (WCEC©) arrived onsite and began air monitoring at 9:30 PM on December 30, 2013. The real-time air monitoring data provided by WCEC© is presented in Appendix A. CTEH® personnel arrived on site at approximately 11:50 PM on December 30, 2013 and began real-time air monitoring in the evacuated community. WCEC© transitioned air monitoring operations in the work area to CTEH® responders at 3:20 AM on December 31, 2013. CTEH® personnel conducted real time air monitoring in the work area and the community for particulate and the chemicals of concern, discussed in section 2.1. Analytical air samples for volatile organic compounds (VOCs) were also collected during the response. Air monitoring ceased January 3, 2014 at approximately 3:30 PM when CTEH® was released from site.

2.0 Air Monitoring Strategy

Throughout the response, real-time air monitoring was conducted in the work area and the nearby community for the constituents potentially associated with crude oil vapors: benzene, hydrogen sulfide (H_2S), n-hexane, toluene, xylene and total VOCs; and for products of crude oil combustion: carbon monoxide (CO), nitric oxide (NO), nitrogen dioxide (NO_2), sulfur dioxide (SO_2), and respirable particulate matter with a median diameter of 2.5 microns ($PM_{2.5}$). The lower explosive limit (LEL) was monitored due to the possible presence of flammable vapors. Oxygen (O_2) levels were also monitored. Figure 2.0 shows the work area and the evacuated community. Fixed real-time stations were established in the closest occupied community to the incident and monitored throughout the response.

Figure 2.0 Fixed Real-time and Air Sampling Locations



Wind direction was also monitored by CTEH® responders throughout the course of the response. During the initial hours of the incident on December 30, 2013, the winds were primarily blowing away from the nearest community to the east of the derailment. Due to an anticipated change in the wind direction later that day, Casselton officials advised the community to the east of the derailment to evacuate. Daily wind roses are provided in Appendix B. Wind roses are meteorological diagrams which depict the distribution of wind direction and speed over a period of time. As presented in the wind roses for December 31, 2013 and January 1, 2014, the wind direction was predominantly from the north and not toward the community to the east. Properties directly south of the derailment site were agricultural and sparsely populated.

The following sections discuss the chemicals of interest during the response, their respective occupational and community exposure guidelines and the CTEH® Sampling and Analysis Plan (SAP).

2.1 Exposure Guidelines/Standards for the Potential Chemicals of Interest

The Occupational Safety and Health Administration (OSHA) and the American Conference of Governmental Industrial Hygienists (ACGIH) have established workplace exposure standards and guidelines, respectively. Likewise, the U.S. Department of Energy's Subcommittee on Consequence Assessment and Protective Actions (SCAPA) has established Protective Action Criteria (PACs) that may be used during an emergency response to evaluate the severity of the event and to facilitate decisions regarding what protective actions should be taken. Appendix C summarizes the worker and community exposure standards and guidelines for the constituents of crude oil and possible products of combustion of crude oil.

2.2 CTEH® Sampling and Analysis Plan (SAP)

CTEH® provided air monitoring and air sampling during initial response efforts and subsequent remediation operations. A SAP was developed based on the initial information available regarding the incident. This plan included site-specific action levels with initial sampling and analysis methodology. The SAP was revised and modified as more information became available and the project continued. The final SAP is provided as Appendix D.

3.0 Discussion of Real-time Air Monitoring Results

Real-time air monitoring and analytical air sampling were conducted to provide site management with information regarding the potential for chemical exposures within the general vicinity of the derailment incident and in the surrounding community. Cumulative maps and low altitude aerial imagery are provided in Appendix E. A complete summary of the manually-logged real-time readings is provided in Appendix F.

3.1 Community Real-time Air Monitoring Results

A total of 639 manually-logged real-time readings were recorded in the community between December 31, 2013 and January 3, 2014. A summary of these readings is provided in Table 3.1.

Table 3.1 Community Manually-Logged Real-Time Data Summary

Location Category	Analyte	Instrument	Number of Readings	Number of Detections	Average Detection	Detection Range
Community	Benzene	Gastec 121L	46	0	NA	< 0.1 ppm
	Benzene	UltraRAE	1	0	NA	< 0.05 ppm
	CO	MultiRAE	45	0	NA	< 1 ppm
	H_2S	MultiRAE	69	0	NA	< 1 ppm
	LEL	MultiRAE	76	0	NA	< 1 %
	NO_2	Gastec 9L	3	0	NA	< 0.1 ppm
	O_2	MultiRAE	28	28	20.9	20.9 %
	$PM_{2.5}$	AM510	51	51	0.018	0.003 – 0.222 mg/m^3
	SO_2	MultiRAE	20	0	NA	< 0.1 ppm
	VOC	MultiRAE	120	0	NA	< 0.1 ppm
Evacuated Community	Benzene	UltraRAE	13	0	NA	< 0.05 ppm
	CO	MultiRAE	28	0	NA	< 1 ppm
	H_2S	MultiRAE	29	0	NA	< 1 ppm
	NO_2	Gastec 9L	17	0	NA	< 0.1 ppm
	$PM_{2.5}$	AM510	60	60	0.012	0.004 – 0.081 mg/m^3
	SO_2	MultiRAE	1	0	NA	< 0.1 ppm
	VOC	MultiRAE	32	0	NA	< 0.1 ppm

ppm= parts per million

During the response, there were no detections for benzene, CO, H_2S, NO_2, SO_2, or VOCs in the community. Detections for $PM_{2.5}$ recorded in the community ranged from between 0.004 mg/m^3 and 0.222 mg/m^3. The highest instantaneous reading of 0.222 mg/m^3 $PM_{2.5}$ occurred around midnight on December 31, 2013, directly downwind of the burning tank cars where some smoke and odor was noted. However, these readings were not sustained. All oxygen concentrations recorded were with typical of ambient conditions.

3.2 Work Area Real-time Air Monitoring Results

Initial work area monitoring was conducted by a TacTox responder and began at 9:58 PM on December 30, 2013. CTEH® personnel began air monitoring in the work area at approximately 3:20 AM on December 31, 2013 after transitioning with the TacTox responder. Table 3.2 includes the real-time air monitoring data collected in the work area by CTEH® throughout the incident.

Table 3.2 Work Area Manually-Logged Real-Time Air Monitoring Data Summary

Analyte	Instrument	Number of Readings	Number of Detections	Average Detection	Detection Range
Benzene	Gastec 121L	19	0	NA	NA
	UltraRAE	6	0	NA	NA
CO	Gastec 1LC	1	0	NA	NA
	MultiRAE	33	5	1	1 - 2 ppm
H_2S	MultiRAE	52	0	NA	NA
LEL	MultiRAE	55	0	NA	NA
NO	MultiRAE	1	0	NA	NA
NO_2	Gastec 9L	19	0	NA	NA
O_2	MultiRAE	34	34	20.9	20.6 - 20.9 %
$PM_{2.5}$	AM510	22	22	5.7	0.009 - 0.44 mg/m^3
SO_2	MultiRAE	5	0	NA	NA
Toluene	Gastec 122L	3	0	NA	NA
VOC	MultiRAE	122	22	1.6	0.1 - 10.2 ppm
Xylene	Gastec 123L	4	0	NA	NA

NA= Not Applicable

As discussed above, CTEH® did not detect H_2S in the community or work area. Prior to CTEH® personnel arriving onsite, the TacTox responder reported VOC detections ranging between 0.1 and 0.6 ppm and H_2S detections ranging between 1 and 2 ppm using a MultiRAE Plus photoionization detector (PID). Colorimetric tubes were used to detect H_2S at the same time and did not detect the presence of H_2S above the instruments detection limit of 2.5 ppm, suggesting that the MultiRAE sensor may have been drifting. Electronic drift is defined as any interference in the PID's or electrochemical sensor's ability to accurately report the concentration of a chemical in the atmosphere and result in the reporting of false positives. Humidity, rapid temperature changes, and compromised batteries are examples of common causes of drift.

Readings of 1 ppm H_2S were sustained for one hour (10:15 PM to 11:15 PM, December 30, 2013) and instantaneous readings of 2 ppm H_2S occurred at 11:30 PM on December 30, 2013, and at 12:30 AM and 2:50 AM on December 31, 2013. ACGIH has established short term exposure limit of 5 ppm for hydrogen sulfide. This is a time weighted exposure that should not be exceeded at any time during a typical 8 hour work day. Even if the readings were not falsely positive, concentrations of H_2S in the work area did not appear to be sustained and therefore did not exceed the work area STEL. Sustained H_2S readings of 1 ppm were reported through 3:20 AM on December 31, 2013. Even if these readings were not false positives, concentrations of H_2S in ambient air did not exceed the occupational exposure guidelines. ACGIH has established a threshold limit value time weighted average (TLV-TWA) which is the

concentration for a normal 8-hour workday and a 40-hour workweek, to which nearly all workers may be repeatedly exposed, day after day, without adverse effect.

TacTox responders also used a MultiRAE equipped with a sensor for chlorine gas (Cl_2). Cl_2 is not associated with crude oil and United States Environmental Protection Agency (USEPA) air monitoring guidelines for oil spills, releases, or fires do not recommend monitoring for Cl_2 (USEPA, 2012). However, the TacTox responders reported the detection of Cl_2 in 11 of 13 readings collected at concentrations ranging from 0.1 to 0.6 ppm. The TacTox responders indicated that they believed the Cl_2 readings were potential false positives and attempted to detect Cl_2 with a chlorine-specific detector tube. Cl_2 was not detected by the detector tube. Given that Cl_2 is not associated with oil spills or fires and that it was not detected with a detector tube, it is likely that the "detections" of Cl_2 were associated with instrument drift.

During the response, real-time air monitoring in the work area detected low levels concentrations of VOCs, $PM_{2.5}$, and CO. CTEH® personnel recorded a total of 27 detections of VOCs in the work area. Ambient concentrations of VOCs ranged between 0.1 and 10.2 ppm. The highest VOC detections were recorded on December 31, 2013 in close proximity to the burning cars while workers were moving them to the staging area. Low level VOC levels, ranging between 0.1 ppm and 2.0 ppm, were recorded on January 1, 2014 in the work area and around smoldering rail ties and wrecked cars. While there is no occupational standard for VOCs as a class, the occupational exposure guidelines for volatile petroleum mixtures derived from crude oil range from approximately 13 ppm ($100mg/m^3$) for diesel fuel to 300 ppm for gasoline. All VOC readings representative of the work area were below occupational exposure guidelines for volatile petroleum mixtures.

A total of 5 detections ranging between 1 ppm and 2 ppm for CO were recorded in the work area. These readings were recorded on January 1, 2014 and January 2, 2014. These readings were recorded in the staging area while some railcars were still smoldering. In some instances these detections coincided with a combustion engine exhaust from a nearby vacuum truck.

CTEH® personnel recorded 22 detections for $PM_{2.5}$ in the work area. These detections ranged between 0.009 mg/m^3 and 0.440 mg/m^3. The highest detection of 0.440 mg/m^3 was recorded on December 31, 2013. A bulldozer was moving ballast around the staging area and causing dust emission. The bulldozer operator was in a closed cab and no other workers were in the immediate area. Because the AM510 monitors airborne particulate from any source, this reading was likely elevated due to the release of dust resulting from the operation of the bulldozer.

On January 2, 2014, CTEH® personnel were asked to conduct air monitoring for VOCs and LEL inside three crude oil tank cars. These tank cars were numbered 2, 3 and 18 based on their location in the staging area. This monitoring was performed using a MultiRAE Plus with attached tubing held in the

opening of the tank car. CTEH® personnel reported a maximum detection of 350 ppm VOCs and 5% LEL inside tank car 2. LEL concentrations were also detected in tank cars 3 and 18 at 1%. No LEL was detected in ambient conditions in the work area. A summary of this monitoring is provided in Table 3.3 below.

Table 3.3 Tank Car Real-Time Air Monitoring Data Summary

Location Category	Analyte	Instrument	Number of Readings	Number of Detections	Average Detection	Detection Range
Source – Tank	LEL	MultiRAE	4	3	2.3 %	1 - 5 %
Source - Tank	VOC	MultiRAE	5	5	99.9 ppm	20 - 350 ppm

4.0 Discussion of Analytical Air Sampling Results

Analytical air samples were collected in the community and on the east end of the work area. A total of seventeen samples were collected using 1-liter Minican™ cans with 24-hour regulators. These samples were collected at fixed stations from December 31, 2013 to January 2, 2014. Samples were sent to Galson Laboratories for analysis. Table 4.1 provides a summary of the samples analyses. No analytes were detected above the laboratory's reporting limits in any of the samples collected. Very low, estimated concentrations of carbon disulfide (3.3 parts per billion, 3.3 ppb) and propylene (2.2 ppb) were detected in two separate samples. These concentrations pose no risk to public health. The complete lab results are presented in Appendix G.

Table 4.1 Analytical Air Sampling Summary

Sampling Location	Location Category	Number of Samples	Sample Dates
South of Reservoir	Work Area	3	12/31/13, 1/1/14, 1/2/14
First Avenue North and Third Street North	Community	3	12/31/13, 1/1/14, 1/2/14
First Street North cul-de-sac	Community	3	12/31/13, 1/1/14, 1/2/14
First Street South cul-de-sac	Community	5	12/31/13, 1/1/14, 1/2/14
Fourth Street South and Third Avenue South	Community	3	12/31/13, 1/1/14, 1/2/14

5.0 Conclusion

During the initial response, while product was burning and smoking, low level concentrations of CO, $PM_{2.5}$, and VOCs recorded in the work area. Sustained VOCs detections were recorded levels well below occupational exposure guidelines protective of workers from volatile petroleum mixtures. CO was detected at concentrations well below occupational exposure guidelines. The intermittent CO detections were attributed to direct smoke plumes or vehicle exhaust from the vacuum trucks in the work area. Detections for $PM_{2.5}$ were observed, but response personnel generally worked from the upwind side of the derailment and avoided downwind exposure to the smoke.

Benzene, CO, H_2S, NO_2, SO_2, and VOCs were not detected in the community.

Detections for $PM_{2.5}$ recorded in the community ranged from between 0.004 mg/m^3 and 0.222 mg/m^3. These readings represent short time periods (generally 5 minutes or less) at a specific location and monitoring periods less than one hour do not have applicable health-based guidelines. However, for periods ranging from 8 hours to 16 hours, averages of multiple readings throughout the community were well below the National Ambient Air Quality Standard (NAAQS) for $PM_{2.5}$ that is protective of public health for a 24 hour period (0.035 mg/m^3). The average concentration of $PM_{2.5}$ from readings in the evacuated community from 7:00 AM to 3:00 PM on December 31, 2013 was 0.008 mg/m^3. The average concentration of $PM_{2.5}$ from readings in the community between the time the evacuation was lifted (the evacuation was lifted at 3:00 PM on December 31, 2013) and the time the fires were out (7:00 am on January 1, 2014) was 0.019 mg/m^3. These concentrations are below the 0.035 mg/m^3 NAAQS for $PM_{2.5}$ for a 24 hour period, indicating that average $PM_{2.5}$ concentrations occurring in the community over December 31, 2013 and January 1, 2014 did not pose a public health risk. Also, due to the very cold temperatures that occurred during the response, very few persons were likely to have experienced outdoor exposure to smoke particulate during the response. As noted in public health guidance, some protection from outdoor smoke particulate is afforded by remaining indoors (Lipsett, 2013).

In summary, air monitoring conducted in the community indicates that emissions from the Casselton derailment site did not adversely affect public health.

References

ACGIH. 2013 TLVs and BEIs: Based on the Documentation of the Threshold Limit values for Chemical Substances and Physical Agents and Biological Exposure Indices. Cincinnati, Ohio: American Conference of Governmental Industrial Hygienists; 2013b.

ACGIH. Guide to Occupational Exposure Values 2013. Cincinnati, Ohio: American Conference of Governmental Industrial Hygienists; 2013a.

AIHA. 2013 Emergency Response Planning Guidelines (ERPG) and Workplace Environmental Exposure Level (WEEL) Handbook. Falls Church, VA: American Industrial Hygiene Association; 2013.

Lipsett, M. et al. Wildfire smoke: a guide for public health officials. Sacramento, CA: California Office of Environmental Health Hazard Assessment; 2013 Jun. http://oehha.ca.gov/air/risk_assess/wildfirev8.pdf

National Research Council. Subcommittee on Acute Exposure Guideline Levels. Standing operating procedures for developing acute exposure guideline levels for hazardous chemicals. Washington, DC: National Academy Press; 2001.

OSHA. Air contaminant--permissible exposure limits 29CFR1910.1000.

Schwela, D. H.; Goldammer, J. G.; Morawska, L. H., and Simpson, O., Editors. Health guidelines for vegetation fire events. Geneva: World Health Organization, United Nations Environment Programme and World Meteorological Organization; 1999.

USEPA. Acute Exposure Guideline Levels: AEGL Chemicals. Washington, DC: U.S. Environmental Protection Agency; 2011. http://www.epa.gov/oppt/aegl/pubs/chemlist.htm

USEPA. Air Quality Index Reporting: Final Rule. Federal Register. 1999 Aug 4; 64(149):42530-42549.

Appendix A

TacTox Responder Data Summary

Work Area Manually-Logged Real-Time Detection Summary by WCEC©

Location Category	Analyte	Instrument	Number of Readings	Number of Detections	Average Detection	Detection Range
Work Area	Chlorine	Gastec 8La	1	0	NA	< 0.5 ppm
	Chlorine	MultiRAE	13	11	0.4	0.1 - 0.6 ppm
	H2S	Gastec 4LL	1	0	NA	< 2.5 ppm
	H2S	MultiRAE	13	11	1.3	1 - 2 ppm
	LEL	MultiRAE	13	0	NA	< 1 %
	O2	MultiRAE	13	13	20.5	19.9 - 20.9 %
	VOC	MultiRAE	13	12	0.3	0.1 - 0.6 ppm

This table summarizes the data collected by the Tactox responder from WCEC©. The initial work area monitoring was conducted by WCEC© on December 30, 2013 at approximately 9:30 PM until December 31, 2013 at 3:20 AM.

Appendix B

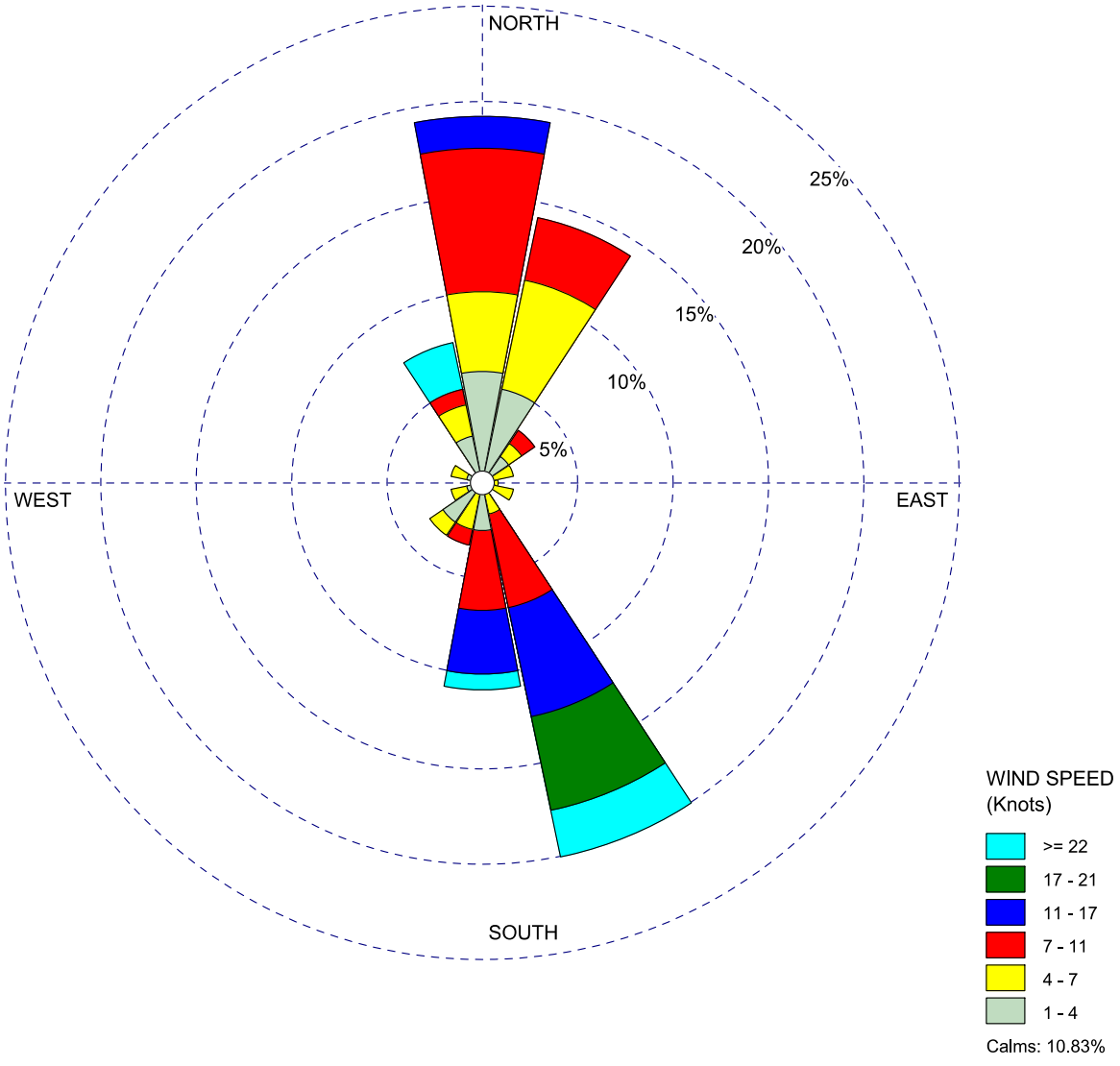
Windroses

WIND ROSE PLOT:

Wind Conditions - Station #KFAR
December 30, 2013 - January 3, 2014

DISPLAY:

Wind Speed
Direction (blowing from)



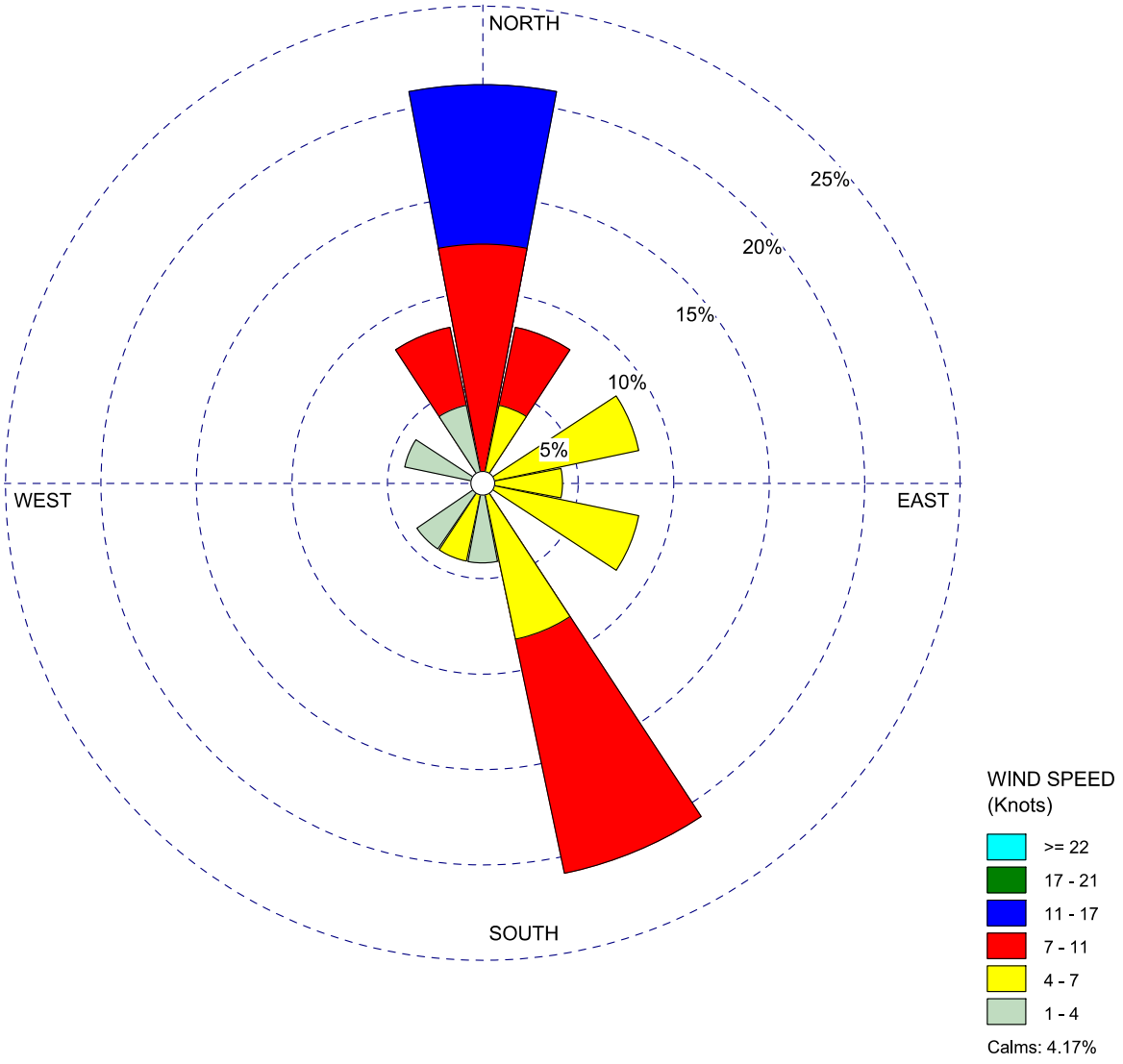
COMMENTS: Casselton, ND	DATA PERIOD: **Start Date: 12/30/2013 - 00:00** **End Date: 1/3/2014 - 23:00**	COMPANY NAME: **CTEH**	
	CALM WINDS: **10.83%**	TOTAL COUNT: **120 hrs.**	
	AVG. WIND SPEED: **8.08 Knots**		PROJECT NO.: **105820**

WIND ROSE PLOT:

Wind Conditions - Station #KFAR
December 30, 2013

DISPLAY:

Wind Speed
Direction (blowing from)



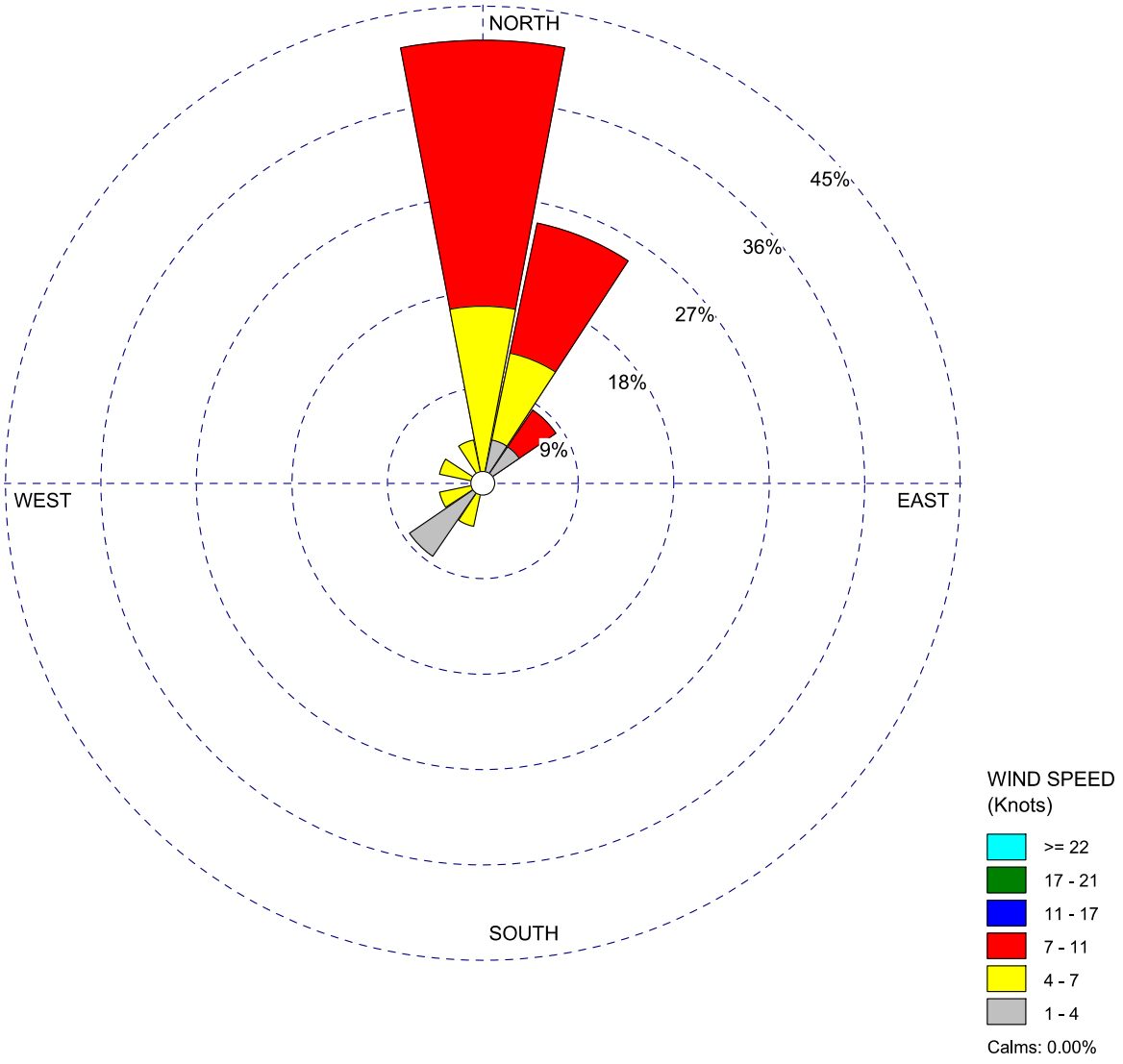
COMMENTS: Casselton, ND	DATA PERIOD: **Start Date: 12/30/2013 - 00:00** **End Date: 12/30/2013 - 23:00**	COMPANY NAME: **CTEH**	
	CALM WINDS: **4.17%**	TOTAL COUNT: **24 hrs.**	
	AVG. WIND SPEED: **6.58 Knots**		PROJECT NO.: **105820**

WIND ROSE PLOT:

Wind Conditions - Station #KFAR
December 31, 2013

DISPLAY:

Wind Speed
Direction (blowing from)



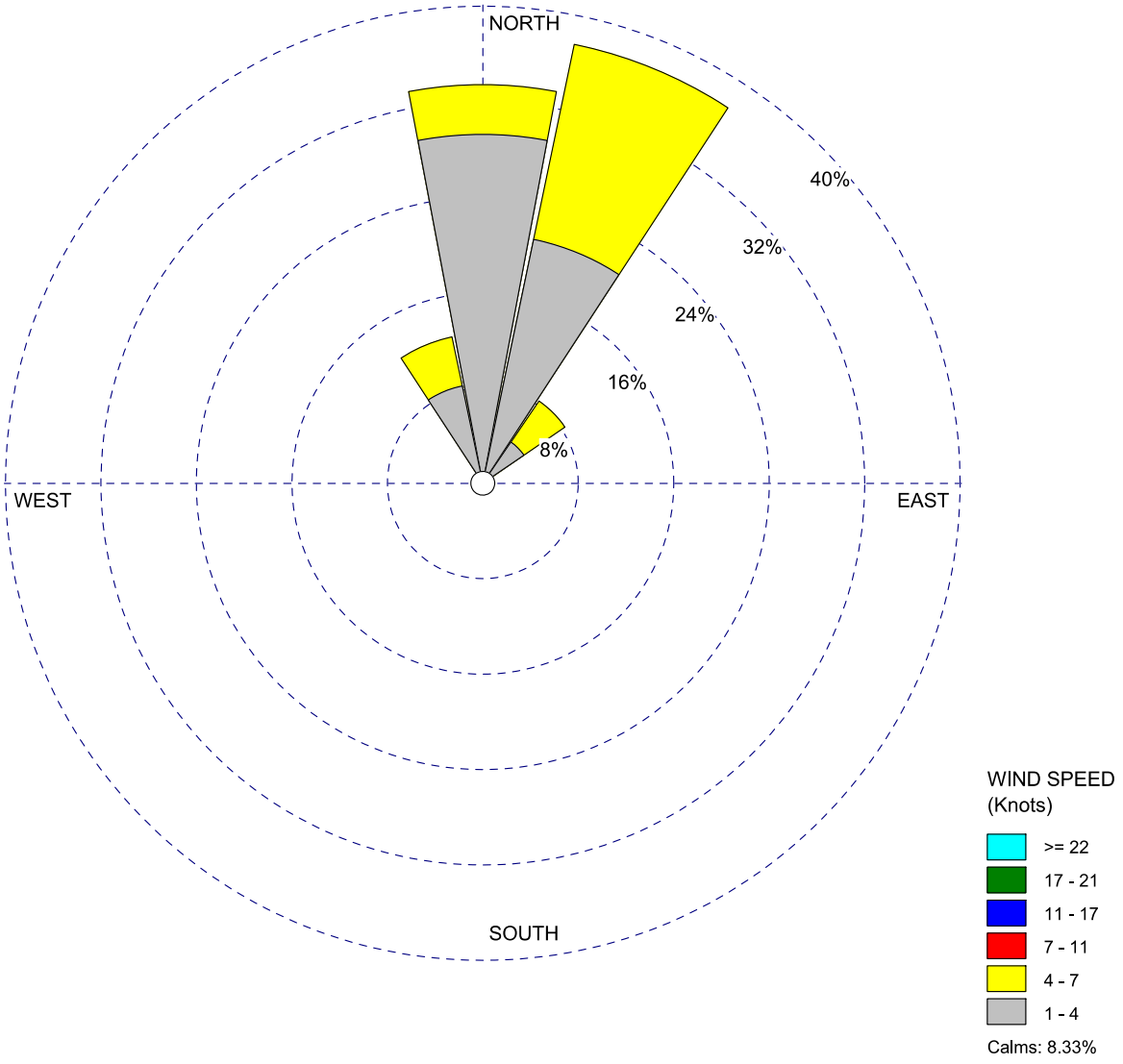
COMMENTS: Casselton, ND	DATA PERIOD: **Start Date: 12/31/2013 - 00:00** **End Date: 12/31/2013 - 23:00**	COMPANY NAME: **CTEH**	
	CALM WINDS: **0.00%**	TOTAL COUNT: **24 hrs.**	
	AVG. WIND SPEED: **6.50 Knots**		PROJECT NO.: **105820**

WIND ROSE PLOT:

Wind Conditions - Station #KFAR
January 1, 2014

DISPLAY:

Wind Speed
Direction (blowing from)



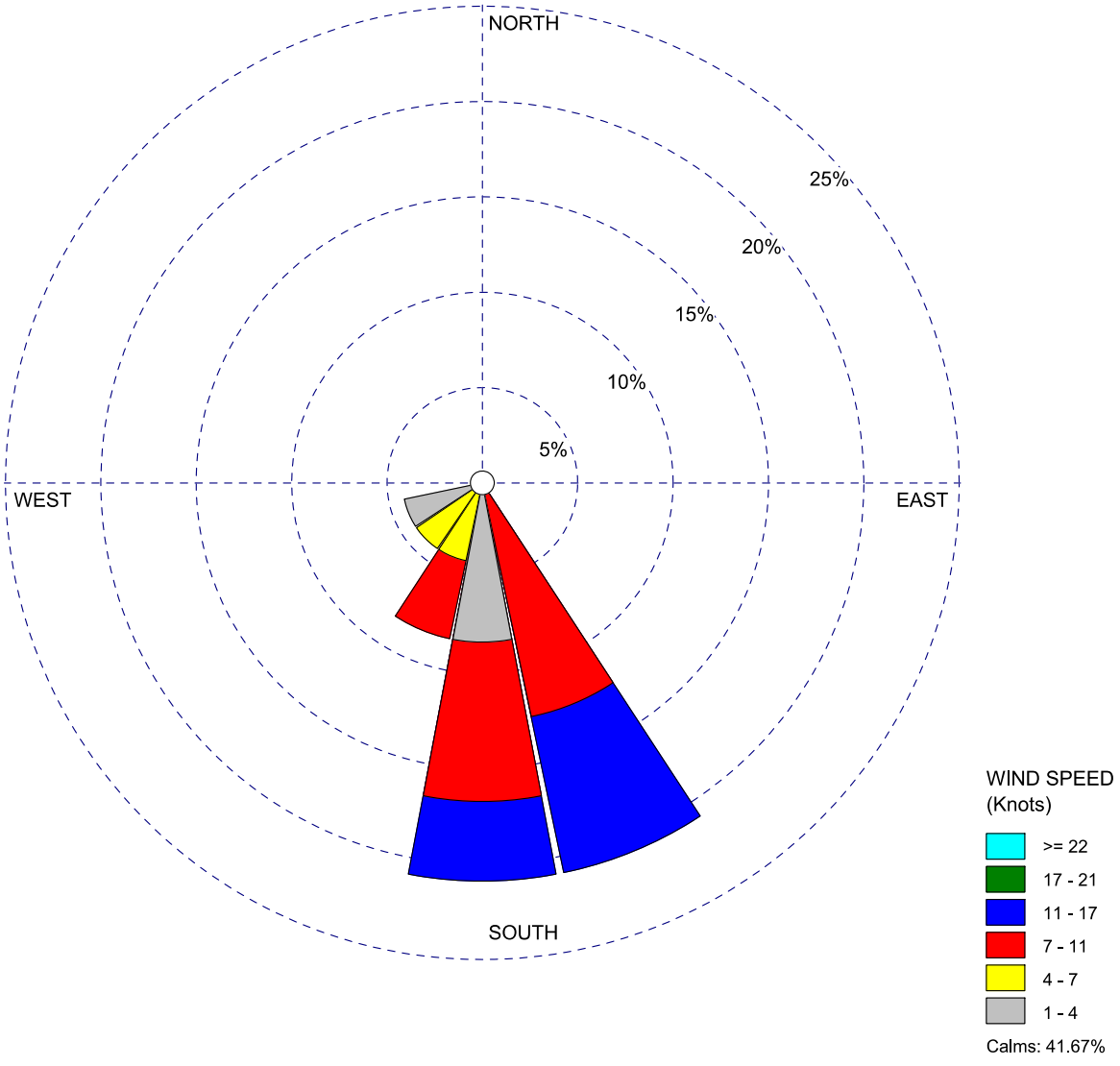
COMMENTS: Casselton, ND	DATA PERIOD: **Start Date: 1/1/2014 - 00:00** **End Date: 1/1/2014 - 23:00**	COMPANY NAME: **CTEH**	
	CALM WINDS: **8.33%**	TOTAL COUNT: **24 hrs.**	
	AVG. WIND SPEED: **3.75 Knots**		PROJECT NO.: **105820**

WIND ROSE PLOT:

Wind Conditions - Station #KFAR
January 2, 2014

DISPLAY:

Wind Speed
Direction (blowing from)



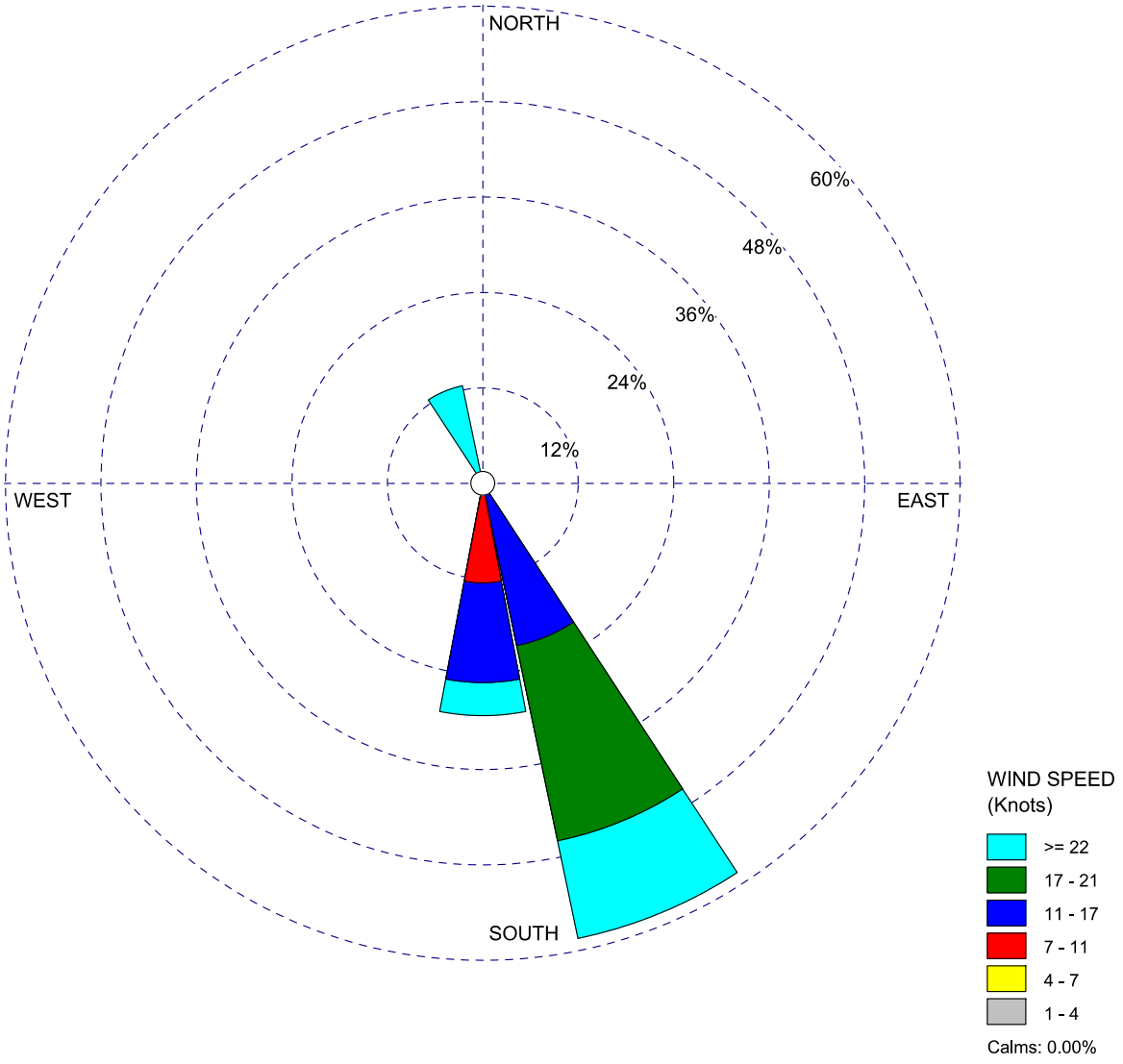
COMMENTS: Casselton, ND	DATA PERIOD: **Start Date: 1/2/2014 - 00:00** **End Date: 1/2/2014 - 23:00**	COMPANY NAME: **CTEH**	
	CALM WINDS: **41.67%**	TOTAL COUNT: **24 hrs.**	
	AVG. WIND SPEED: **4.83 Knots**		PROJECT NO.: **105820**

WIND ROSE PLOT:

Wind Conditions - Station #KFAR
January 3, 2014

DISPLAY:

Wind Speed
Direction (blowing from)



COMMENTS:	DATA PERIOD:	COMPANY NAME:	
Casselton, ND	**Start Date: 1/3/2014 - 00:00** **End Date: 1/3/2014 - 23:00**	**CTEH**	
	CALM WINDS:	TOTAL COUNT:	
	0.00%	**24 hrs.**	
	AVG. WIND SPEED:		PROJECT NO.:
	18.71 Knots		**105820**

Appendix C

Occupational and Community Exposure Standards and Guidelines

1.0 Exposure Guidelines and Recommendations

Various governmental agencies and professional organizations have developed exposure guidelines specific for the chemicals of interest in the workplace and for the general public. These are health-protective values developed to protect workers and the general public from overexposures. Occupational and community exposure guidelines and standards for the chemicals of interest are discussed in Sections 1.1 and 1.2, respectively.

1.1 Occupational Exposure Guidelines and Standards

The Occupational Safety and Health Administration (OSHA) and The American Conference of Governmental Industrial Hygienists (ACGIH) have established workplace exposure standards and guidelines, respectively. Table 1.1 summarizes the worker exposure standards and guidelines for the chemicals of potential concern for constituents of crude oil and the possible products of combustion of crude oil.

Table 1.1 Occupational Exposure Standards and Guidelines* for Constituents of Crude Oil

	ACGIH		OSHA	
Analyte	**TLV-TWA[a]**	**TLV-STEL[b]**	**PEL-TWA[c]**	**PEL-C[d]**
Constituents of Crude Oil				
Benzene	0.5 ppm	2.5 ppm	1 ppm	5 ppm
Ethylbenzene	100 ppm	125 ppm	100 ppm	NE
Hydrogen sulfide	1 ppm	NE	NE	NE
n-Hexane	50 ppm	NE	500 ppm	NE
Toluene	50 ppm	NE	200 ppm	NE
Xylene	100 ppm	150 ppm	100 ppm	NE
Possible Products of Combustion of Crude Oil				
Carbon monoxide	25 ppm	NE	50 ppm	NE
Nitrogen Dioxide	0.2 ppm	NE	NE	5 ppm
Sulfur Dioxide	NE	0.25 ppm	5 ppm	NE
Particulate Matter ($PM_{2.5}$)	3 mg/m^3	NE	5 mg/m^3	NE

* ACGIH 2013a

NE = Not Established

a. ACGIH TLV-TWA = Threshold Limit Value – Time Weighted Average (TLV-TWA). The TWA concentration for a conventional 8 – hour workday and a 40 – hour workweek, to which it is believed that nearly all workers may be repeatedly exposed, day after day, without adverse effect (ACGIH, 2013b).

b. ACGIH TLV-STEL = Threshold Limit Value – Short Term Exposure Limit (TLV-STEL). A 15 minute TWA exposure that should not be exceeded at any time during a workday, even if the 8-hour TWA is within the TLV-TWA. The TLV-STEL is the concentration to which it is believed that workers can be exposed continuously for a short period of time without suffering from 1) irritation, 2) chronic or irreversible tissue damage, 3) dose-rate dependent toxic effects, or 4) narcosis of sufficient degree to increase the likelihood of accidental injury, impaired self-rescue, or materially reduced

work efficiency. Exposures above the TLV-TWA up to the TLV-STEL should be less than 15 minutes, should occur not more than 4 times per day, and there should be at least 60 minutes between successive exposures in this range. (ACGIH, 2013b).

c. OSHA PEL-TWA = Permissible Exposure Limit – Time Weighted Average (PEL-TLV). Permissible concentration in air of a substance that shall not be exceeded in any 8 – hour work shift of a 40 – hour work week. (OSHA 29 CFR: 1910.1000).

d. OSHA PEL-Ceiling = Permissible Exposure Limit – Ceiling (PEL-C). The exposure limit that shall at no time be exceeded. If instantaneous monitoring is not feasible, then the ceiling shall be assessed as a 15 – minute time weighted average exposure, which shall not be exceeded at any time during the working day (OSHA 29 CFR: 1910.1000).

e. ACGIH© recommends that airborne concentrations of particulates should not exceed 3 mg/m^3 respirable particles. (ACGIH, 2013b)

1.2 Community Exposure Guidelines

The U.S. Department of Energy's Subcommittee on Consequence Assessment and Protective Actions (SCAPA) has established Protective Action Criteria (PACs) for over 3,300 chemicals for planning and response to uncontrolled releases of hazardous chemicals. These criteria, combined with estimates of exposure, provide the information necessary to evaluate chemical release events for the purpose of taking appropriate protective actions. During an emergency response, these criteria may be used to evaluate the severity of the event and to inform decisions regarding what protective actions should be taken.

PAC values are based on the following exposure limit values:

- Acute Exposure Guideline Level (AEGL) values published by the U.S. Environmental Protection Agency (EPA)
- Emergency Response Planning Guideline (ERPG) values produced by the American Industrial Hygiene Association (AIHA)
- Temporary Emergency Exposure Limit (TEEL) values developed by SCAPA

Definitions of AEGLs, and ERPGs can be found in the footnotes of Table 3.2. For any particular chemical the following hierarchy is used to establish its PAC:

- Use AEGLs (including final or interim values) if they are available.
- If AEGLs are not available, use ERPGs.
- If neither AEGLs or ERPGs are available, use TEELs

AEGLs, ERPGs, and TEELs have three common benchmark values for each chemical. Each successive benchmark is associated with an increased severity of potential effect(s) associated with exposure to the specified level. The three benchmarks present estimated threshold levels for:

- Mild, transient health effects.
- Irreversible or other serious health effects that could impair the ability to take protective action.
- Life-threatening health effects

Table 1.2 provides the PACs for the chemicals of interest during this response.

Table 1.2 Community Exposure Standards and Guidelines*

Chemical	PAC-1	PAC-2	PAC-3
Benzene	52 ppm	800 ppm	4000 ppm
Hexane	300 ppm	3300 ppm	8600 ppm
Hydrogen Sulfide (H_2S)	0.51 ppm	27 ppm	50 ppm
Nitric Oxide (NO)	0.5 ppm	12 ppm	20 ppm
Nitrogen dioxide (NO_2)	0.5 ppm	12 ppm	20 ppm
Particulate Matter (PM 2.5)	30 mg/m^3	330 mg/m^3	2000 mg/m^3
Sulfur dioxide (SO_2)	0.2 ppm	0.75 ppm	30 ppm
Toluene	200 ppm	1200 ppm	4500 ppm
Xylene	130 ppm	920 ppm	2500 ppm

*PAC values correspond to 60 minute values

1.3 Community Guidelines for Particulates

Based on $PM_{2.5}$ (particulate matter with an aerodynamic diameter of less than 2.5 microns) levels observed during activities associated with processes in the work area, established guidelines were used to set an action level of 0.1 mg/m^3. Several organizations, including the US Environmental Protection Agency (EPA, 1999), the California Office of Environmental Health Hazard Assessment with the Washington Department of Health (Lipsett, 2013) and the World Health Organization (Schwela, et al., 1999) have published guidelines and recommendations related to particulate air quality and health impact. For fire smoke and particulates from burned material disturbed during work activity, an action level was set at sustained readings of 1.5 mg/m^3 in the work area, based on the recommendation in Table 1.3.

Table 1.3 Recommended Actions for Public Health Officials for Particulate Matter [2,3]

AQI Category (AQI Values)	PM2.5 or PM10 Levels (ug/m^3)		
	1-3hr avg	8 hr avg	24 hr avg[1]
Good (0 to 50)	0 – 38	0 – 22	0 – 12
Moderate (51 to 100)	39 – 88	23 – 50	12.1 – 35.4
Unhealthy for Sensitive Groups (101 to 150)	89 – 138	51 – 79	35.5– 55.4
Unhealthy (151 to 200)	139 – 351	80 – 200	55.5 – 150.4
Very Unhealthy (201 to 300)	352 – 526	201 – 300	150.5 – 250.4
Hazardous (> 300)	> 526	> 300	> 250.5-500

[1]Revised 24 hour average breakpoints from the **Revised Air Quality Standards for Particle Pollution and Updates to the Air Quality Index**, US Environmental Protection Agency, December 14, 2012. Available at: http://www.epa.gov/airquality/particlepollution/actions.html#dec12.

[2]These 1- and 8-hr PM2.5 levels are estimated using the 24-hr breakpoints of the PM2.5 Air Quality Index included in the February 7, 2007 issue paper (http://www.epa.gov/airnow/aqi_issue_paper_020707.pdf) by dividing the 24-hr concentrations by the following ratios: 8-hr ratio is 0.7, 1-hr ratio is 0.4. Visibility is based on 1-hr values. If only PM10 measurements are available during smoky conditions, it can be assumed that the PM10 is composed primarily of fine particles (PM2.5), and that therefore the AQI and associated cautionary statements and advisories for PM2.5 may be used. This assumption is reflected in the column headings for Table 1.4.

[3]Washington and Montana have developed more precautionary breakpoints, which can be found at: http://www.deq.mt.gov/FireUpdates/BreakpointsRevised.asp and http://www.ecy.wa.gov/programs/air/pdfs/WAQA.pdf

Appendix D

CTEH® Sampling and Analysis Plan

CTEH CENTER FOR TOXICOLOGY AND ENVIRONMENTAL HEALTH, LLC

Preliminary Air Sampling and Analysis Plan

Version: 1.0 Effective Date: 12/30/2013

Incident:	105820- BNSF Crude Oil
Location:	Casselton, ND
Client:	BNSF
Version History:	**1.0**

CTEH Project-Specific Action Levels

Plan/Assignment: **WORK AREA**
Objective: Report air levels using handheld instruments before they reach those requiring respiratory protection. Stationary monitoring devices not utilized due to extreme low temperatures and battery life concerns.

Analyte	Plan	Action Level	Basis	Action to be Taken
Total VOCs	Work Area	100 ppm	Reading sustained for 15 minutes	Report reading to Site Management, recommend alternate work practices
Benzene	Work Area	0.5 ppm	OSHA PEL Action level – Reading sustained for 15 minutes	Evacuate Area or don air purifying respirator; report reading to Site Management
Toluene	Work Area	10 ppm	½ ACGIH® TLV – Reading sustained for 15 minutes	Report reading to Site Management, recommend alternate work practices
Ethyl Benzene	Work Area	10 ppm	½ ACGIH® TLV – Reading sustained for 15 minutes	Report reading to Site Management, recommend alternate work practices
Xylene	Work Area	50 ppm	½ ACGIH® TLV – Reading sustained for 15 minutes	Report reading to Site Management, recommend alternate work practices
Hydrogen Sulfide	Work Area	1 ppm	ACGIH® TLV – Reading sustained for 15 minutes	Evacuate Area, report reading to Site Management;
Hexane	Work Area	25 ppm	½ NIOSH TWA – Reading sustained for 15 minutes	Report reading to Site Management, recommend alternate work practices
Carbon Monoxide	Work Area	12.5 ppm	½ NIOSH TWA – Reading sustained for 15 minutes	Report reading to Site Management, recommend alternate work practices
Particulate Matter (PM 2.5)	Work Area	1.5 mg/m3	½ ACGIH Recommendation for respirable dust	Report reading to Site Management, recommend alternate work practices
Nitric oxide	Work Area	12.5	½ ACGIH® TLV – Reading sustained for 15 minutes	Report reading to Site Management, recommend alternate work practices
Nitrogen Dioxide	Work Area	0.1 ppm	½ ACGIH® TLV – Reading sustained for 15 minutes	Report reading to Site Management, recommend alternate work practices

Plan/Assignment: **Community**
Objective: Conduct real-time air monitoring in the closest occupied area and surrounding community.

Analyte	Plan	Action Level	Basis	Action to be Taken
Total VOCs	Community	0.5 ppm	Reading sustained for 15 minutes	Report reading to Site Management, Further investigation; recommend engineering control if possible.
Benzene	Community	0.05 ppm	Instrument Detection limit Reading sustained for 15 minutes	Report reading to Site Management, recommend engineering control if

				possible.
Toluene	Community	1.0 ppm	Acute MRL- Reading sustained for 15 minutes	Report reading to Site Management, recommend engineering control if possible.
Hexane	Community	1.2 ppm	ACGIH TLV/42 – Reading sustained for 15 minutes	Report reading to Site Management, recommend engineering control if possible.
Xylene	Community	2.0 ppm	Acute MRL – Reading sustained for 15 minutes	Report reading to Site Management, recommend engineering control if possible.
Hydrogen Sulfide	Community	1 ppm	Instrument Detection Limit ACGIH TLV®– Reading sustained for 15 minutes	Report reading to Site Management, recommend engineering control if possible.
Sulfur dioxide	Community	0.1 ppm	Instrument detection limit	Report reading to Site Management, recommend engineering control if possible.
Nitrogen dioxide	Community	0.1 ppm	Instrument detection limit	Report reading to Site Management, recommend engineering control if possible.
Nitric Oxide	Community	0.1 ppm	Instrument detection limit	Report reading to Site Management, recommend engineering control if possible.
Particulate Matter (PM2.5)	Community	0.1 mg/m3	Wildfire Smoke Guidelines	Report reading to Site Management, recommend engineering control if possible.

Plan: **All – FLAMMABILITY**

Objective: Report areas where flammability is most likely

Analyte	Instrument Reading	Corrected Value	Correction Factor	Basis	Action to be Taken
LEL	1 %	-	-	-	Egress and Notify Site Management, recommend alternate work practices

Methods/Resource Types

Chemical	Instrument	Detection Limit	Media/Tube#/ Lamp	Notes	Correction Factor
Total VOCs	MultiRAE	0.1 ppm	PID 10.6 eV lamp	--	1
Benzene	UltraRAE	0.05 ppm	PID 9.8 eV lamp	Change SEP tube frequently	0.55
	MultiRAE	0.1 ppm	PID 10.6 eV lamp	--	0.53
	Colorimetric	0.05 ppm	Gastec tube #121L	Measuring range: 0.1 to 10 Volume: 500 ml	1
	Analytical	2ug LOQ	3M 3520 Badge	Modified NIOSH 1500/1501	--
Ethylbenzene	MultiRAE	0.1 ppm	PID 10.6 eV lamp	--	0.52
	Analytical	2ug LOQ	3M 3520 Badge	Modified NIOSH 1500/1501	--

Chemical	Instrument	Detection Limit	Media/Tube#/ Lamp	Notes	Correction Factor
Toluene	MultiRAE	0.1 ppm	PID 10.6 eV lamp	--	0.5
	Colorimetric	0.5 ppm	Gastec tube #122L	Measuring range: 2 – 50 ppm Volume: 100 mL	1
	Analytical	2ug LOQ	3M 3520 Badge	Modified NIOSH 1500/1501	--
Xylene	MultiRAE	0.1 ppm	PID 10.6 eV lamp	--	0.39
	Colorimetric	0.1 ppm	Gastec tube #123L	Measuring range: 2 – 100 ppm Volume: 200 mL	1
	Analytical	2ug LOQ	3M 3520 Badge	Modified NIOSH 1500/1501	--
Hydrogen Sulfide	MultiRAE	1 ppm	Chemical Specific Sensor	Measuring range: 1.0 – 1,000 ppm	1
	Gastec	0.1 ppm	Gastec tube #4LL	Measuring range: 2.5 – 60 ppm Volume: 100 mL	1
LEL	MultiRAE	1%	--	Measuring range: 1 – 100%	1
Hexane	Gastec	1 ppm	Gastec tube #102L	Measuring Range: 50-1200 ppm Volume: 100 mL	1
	Analytical	--	3M 3520 Badge	Modified 1500/1501	--
Sulfur dioxide	MultiRAE	0.1 ppm	SO_2 Electrochemical sensor	Measuring range: 0 –20 ppm	0.1
	Gastec	0.01 ppm	Gastec tube #5Lb	Measuring range: 0.2 – 5.0 ppm Volume: 200 mL	1
Nitrogen dioxide	Gastec	0.5 ppm	Gastec tube #9L	Measuring range: 0.5 – 30 ppm Volume: 200 mL	1
Nitric Oxide	MultiRAE	1 ppm	NO Electrochemical Sensor	Measuring range: 0 – 250 ppm	1

General Information on Procedures (Assessment Techniques) Used

Procedure	Description
Hand-held Survey	CTEH staff members will utilize handheld instruments (e.g. MultiRAE Plus; UltraRAE, Gastec colorimetric detector tubes, etc.) to measure airborne chemical concentrations outdoors around the incident location as well as in the surrounding community. CTEH will use these hand-held instruments primarily to measure the breathing zone and locate sources. Additionally, measurements can be made at grade level, as well as in elevated workspaces, as indicated by chemical properties or site conditions
Analytical sampling	Analytical sampling can be used to validate the hand-held data monitoring data, or to provide data beyond the scope of the real-time instruments. Analytical samples will be collected as whole air samples in evacuated canisters or on specific collection media, and sent to an off-site laboratory for further chemical analysis.

Sampling Areas

Sampling Area	Description
Work Area	The general area around the incident location where workers are actively or sporadically participating in remediation activities.
Community/Residence	The community refers to the closest occupied area where individuals not participating in remediation activities could potentially be at risk for exposure.
Other	During the course of the remediation, some additional areas may be established which require a unique set of action levels or sampling (e.g. decontamination zones, etc.)

Quality Assurance/Quality Control Procedures

Method	Procedure
Real-time	• Real time instruments will be calibrated in excess of the manufacturer's recommendations. ○ At a minimum whenever indicated by site conditions or instrument readings. • Lot numbers and expiration dates will be recorded.
Analytical	• Chain of custody documents will be completed for each sample. • Co-located sampling for analytical analysis will be conducted, if necessary
Other	

Appendix E

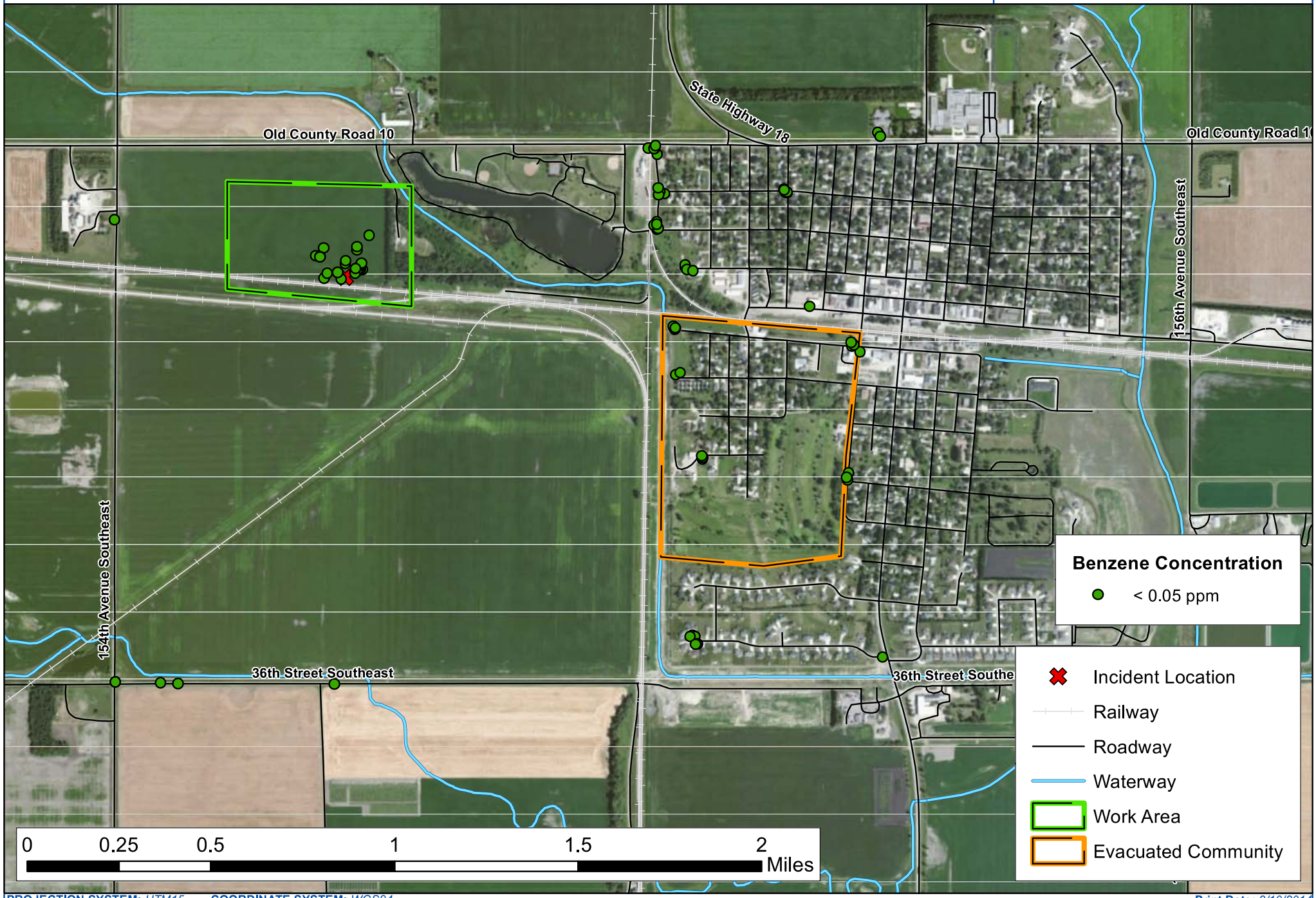
Maps and Low Altitude

Aerial Imagery

BNSF - Casselton, ND

Manually-Logged Real-Time Air Monitoring Readings (Benzene)

Project: #105820
Client: BNSF
City: Casselton, ND
County: Cass



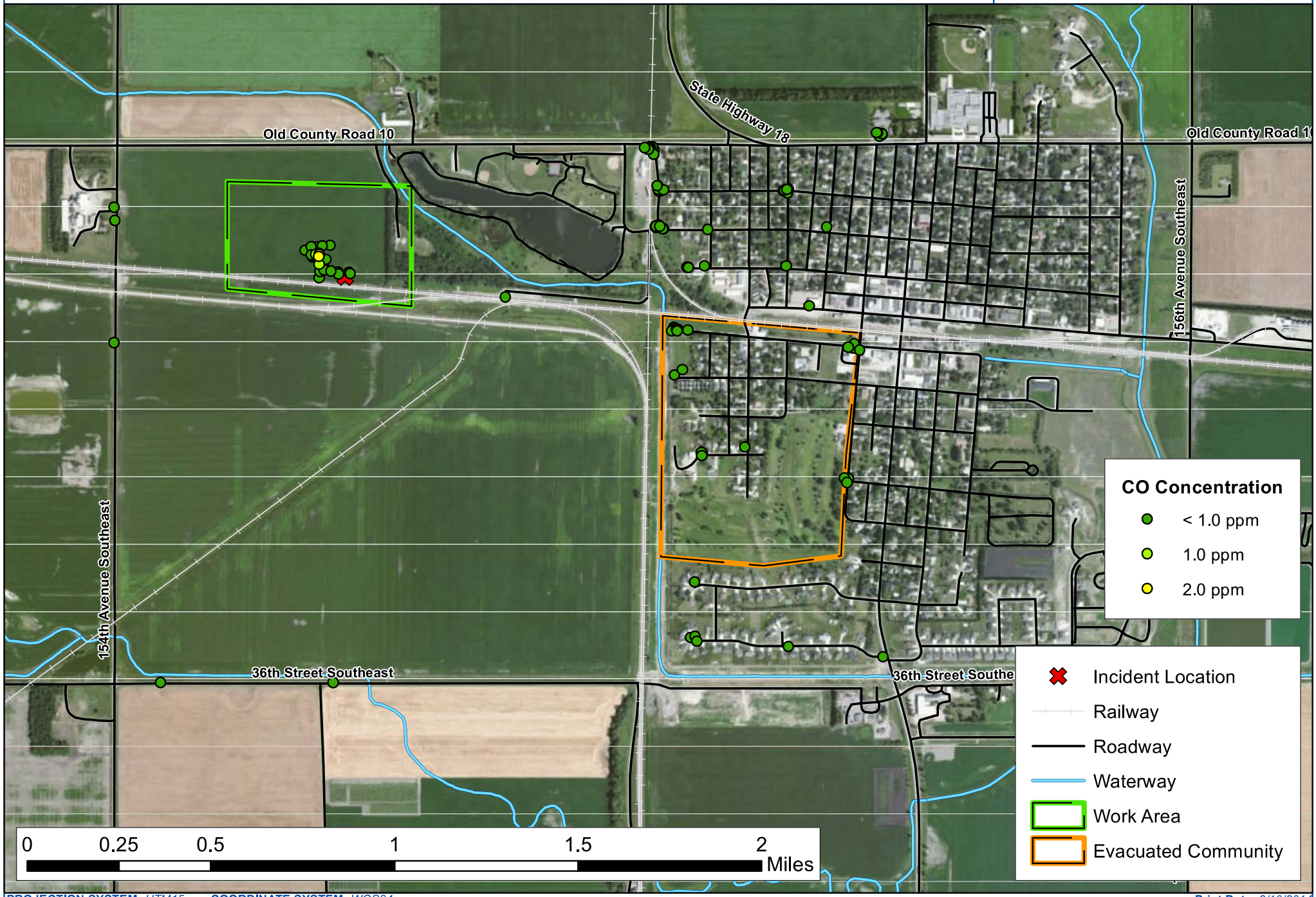
PROJECTION SYSTEM: *UTM15* COORDINATE SYSTEM: *WGS84*

Print Date: *2/10/2014*

BNSF - Casselton, ND

Manually-Logged Real-Time Air Monitoring Readings (CO)

Project: #105820
Client: BNSF
City: Casselton, ND
County: Cass



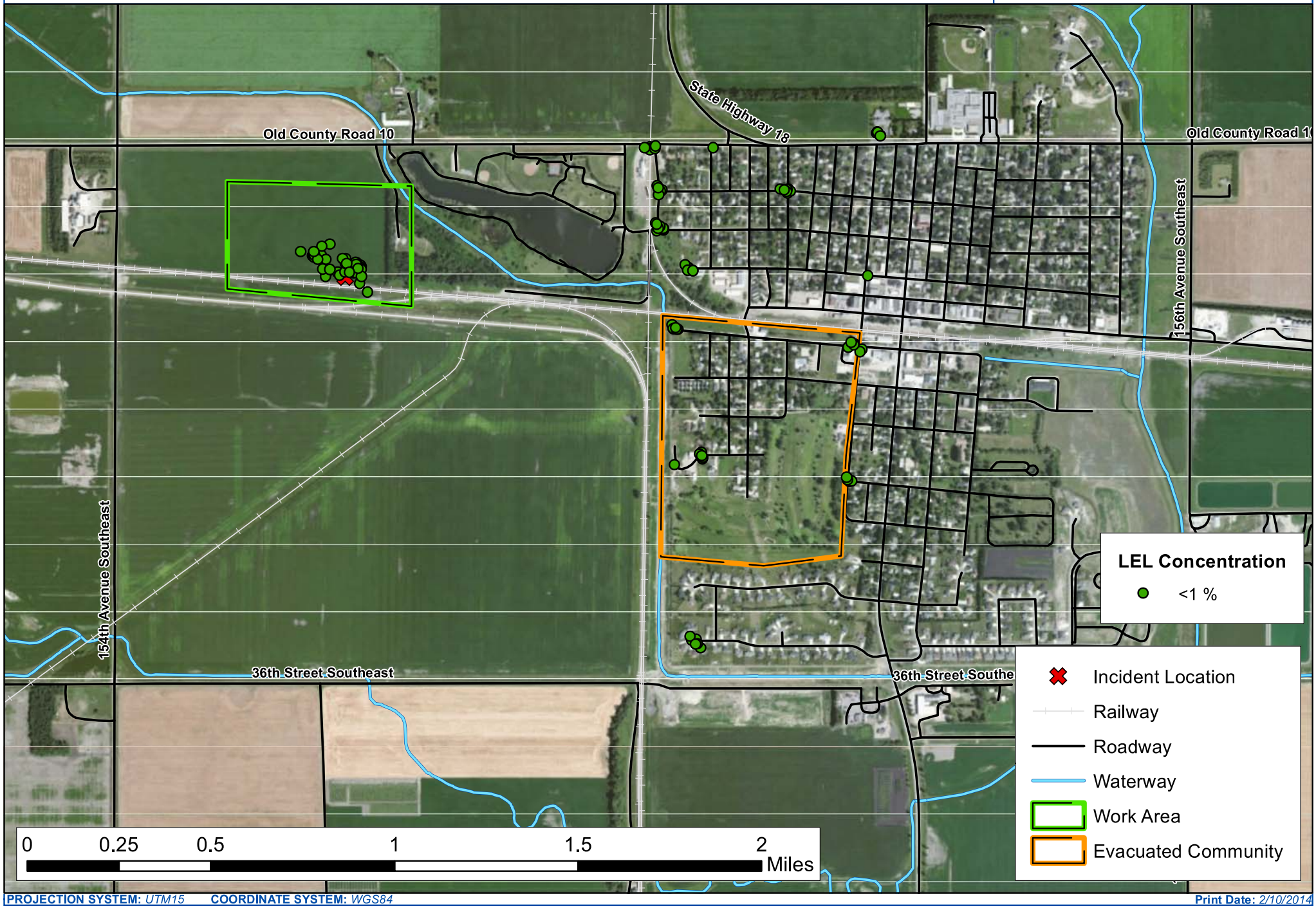
PROJECTION SYSTEM: *UTM15* COORDINATE SYSTEM: *WGS84*

Print Date: *2/10/2014*

BNSF - Casselton, ND

Manually-Logged Real-Time Air Monitoring Readings (LEL)

Project: #105820
Client: BNSF
City: Casselton, ND
County: Cass



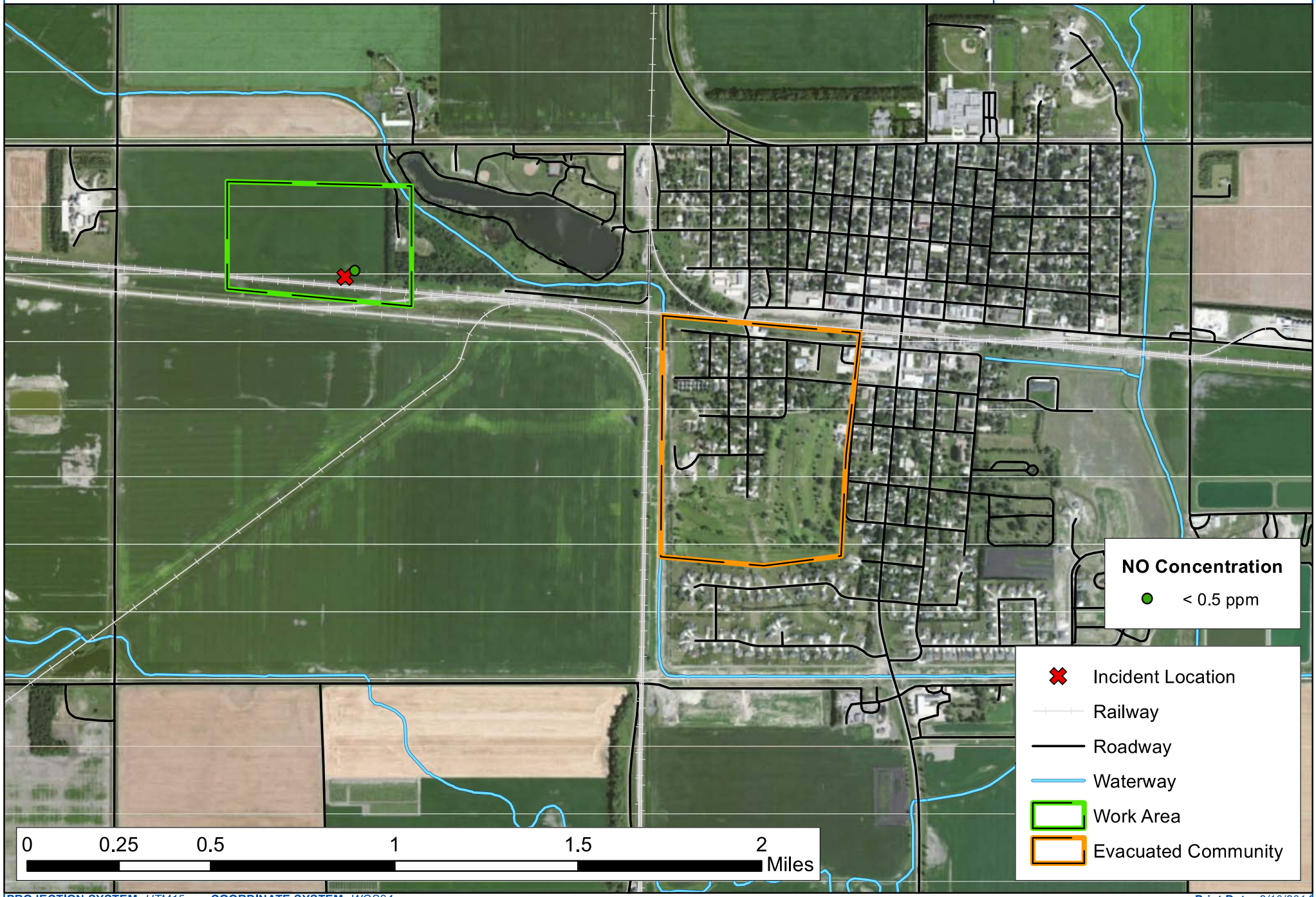
PROJECTION SYSTEM: *UTM15* COORDINATE SYSTEM: *WGS84*

Print Date: *2/10/2014*

BNSF - Casselton, ND

Manually-Logged Real-Time Air Monitoring Readings (NO)

Project: #105820
Client: BNSF
City: Casselton, ND
County: Cass



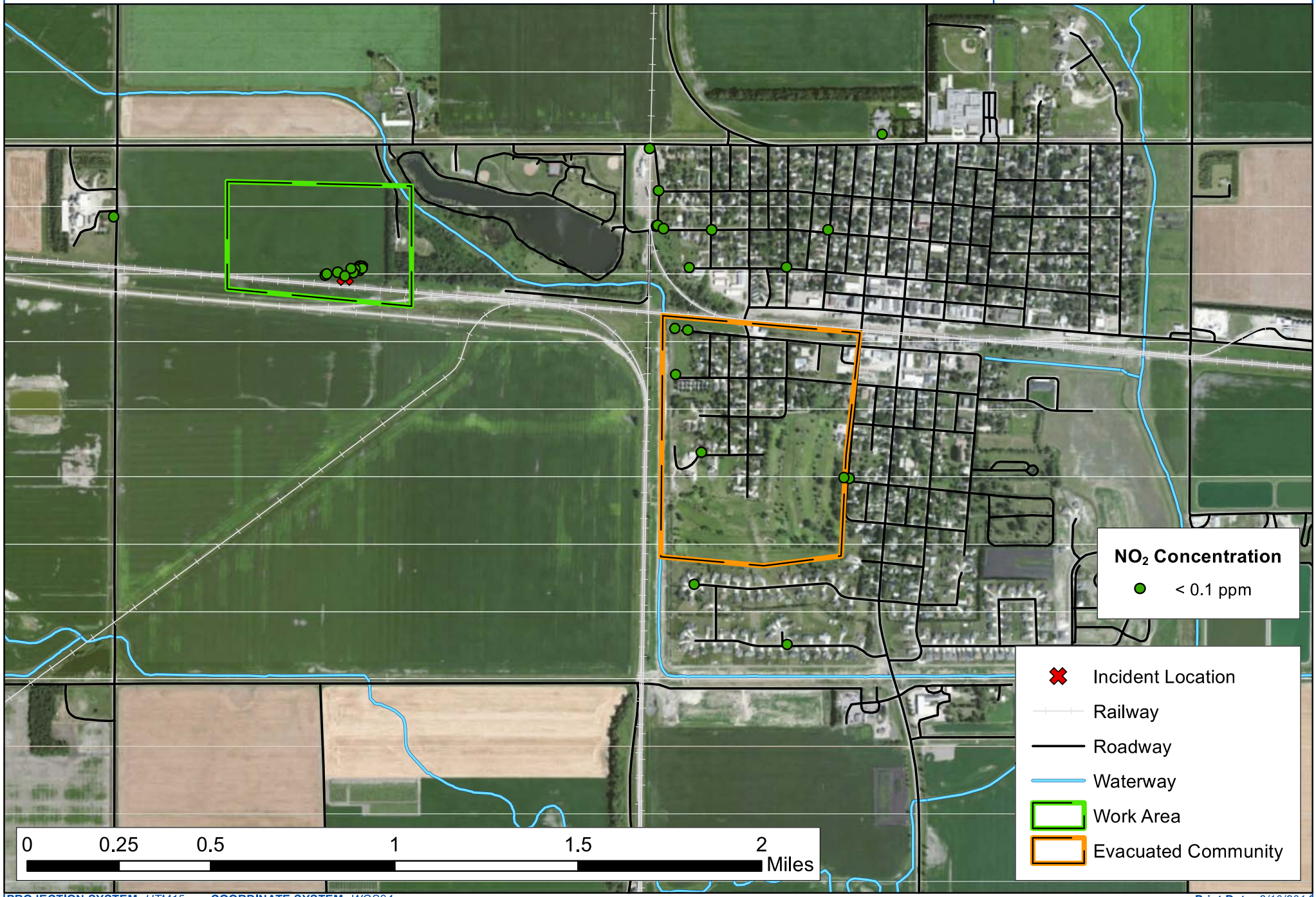
PROJECTION SYSTEM: *UTM15* COORDINATE SYSTEM: *WGS84*

Print Date: *2/10/2014*

BNSF - Casselton, ND

Manually-Logged Real-Time Air Monitoring Readings (NO_2)

Project: #105820
Client: BNSF
City: Casselton, ND
County: Cass



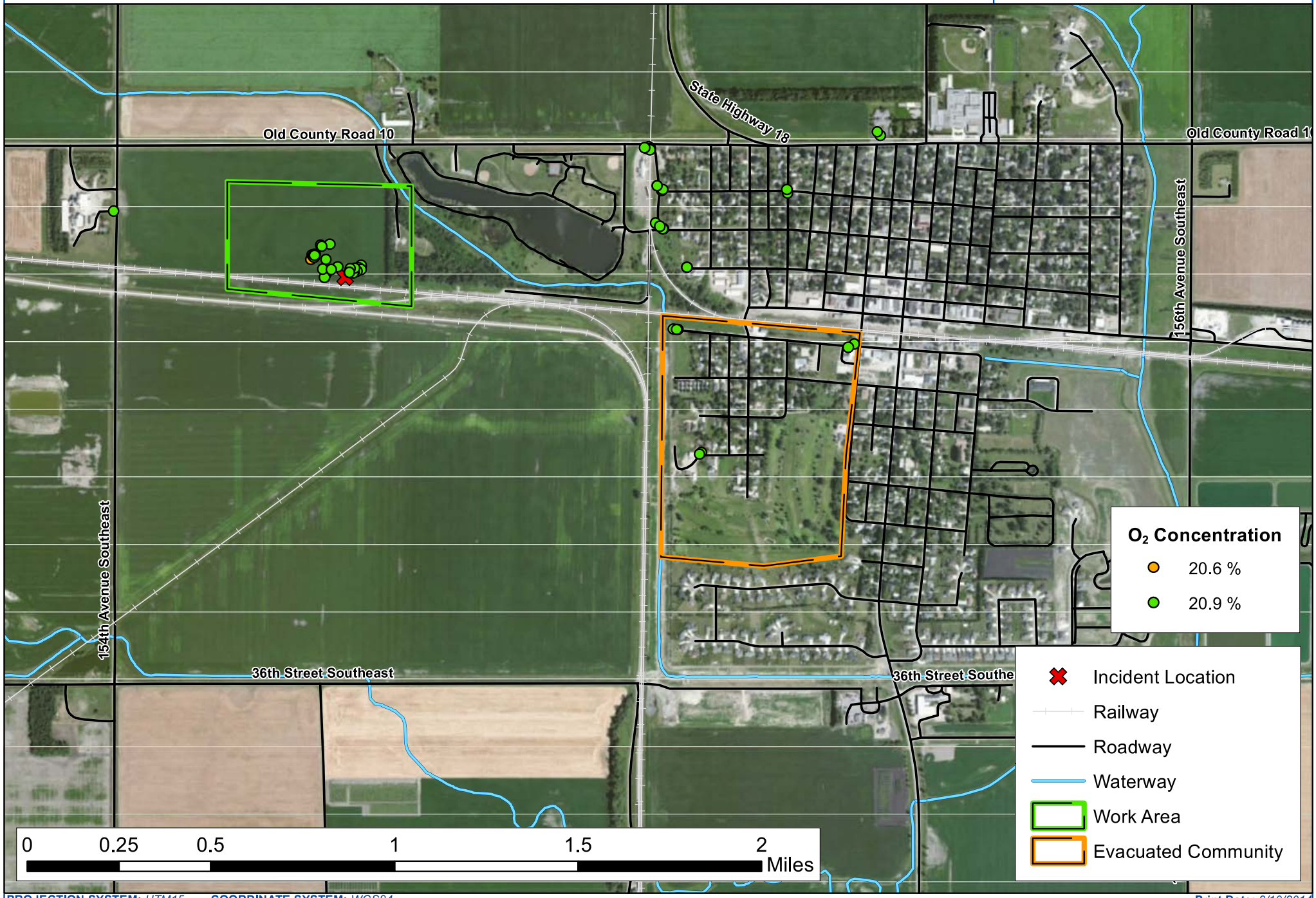
PROJECTION SYSTEM: *UTM15* COORDINATE SYSTEM: *WGS84*

Print Date: *2/10/2014*

BNSF - Casselton, ND

Manually-Logged Real-Time Air Monitoring Readings (O_2)

Project: #105820
Client: BNSF
City: Casselton, ND
County: Cass



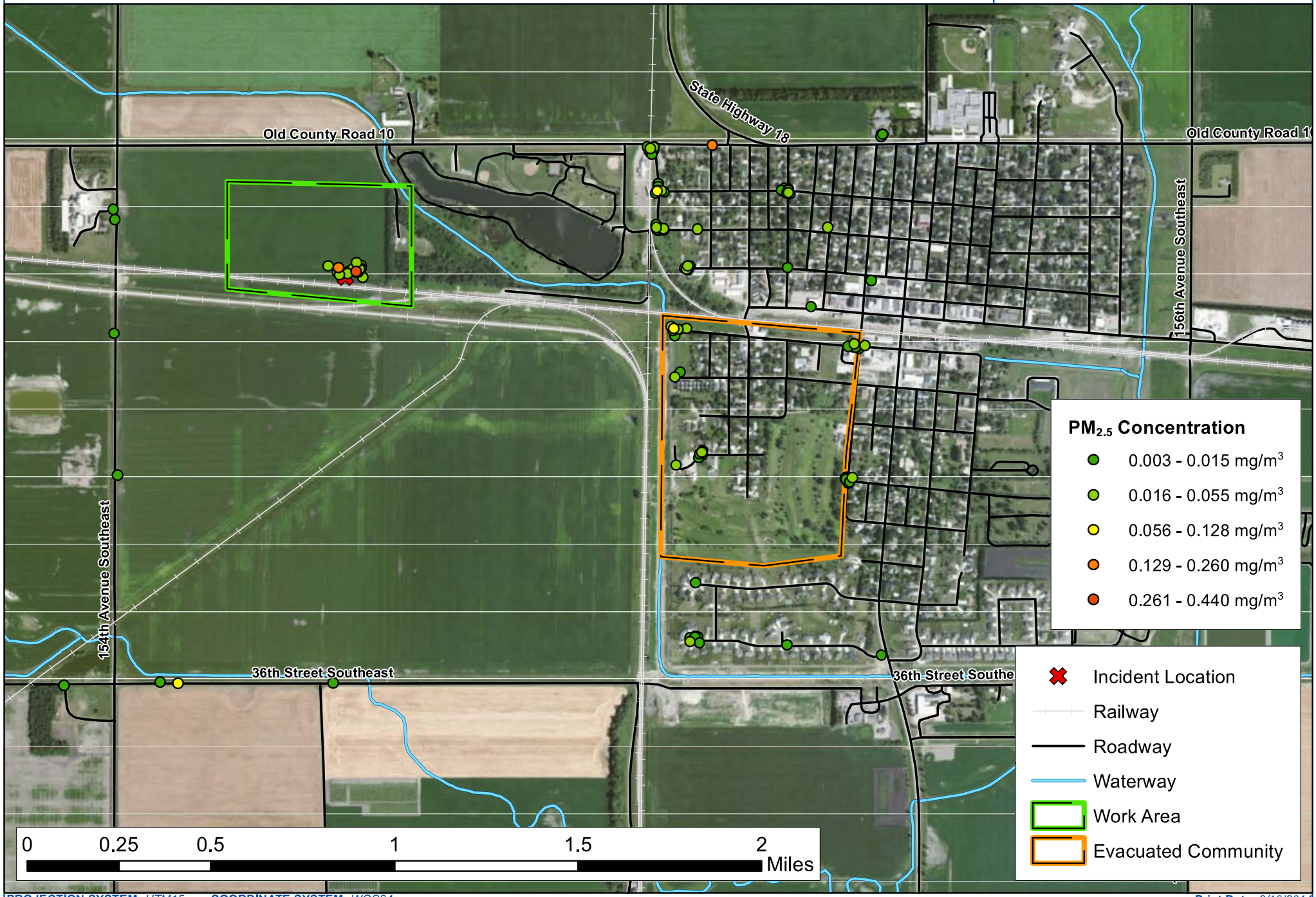
PROJECTION SYSTEM: *UTM15* COORDINATE SYSTEM: *WGS84*

Print Date: *2/10/2014*

BNSF - Casselton, ND

Manually-Logged Real-Time Air Monitoring Readings ($PM_{2.5}$)

Project: #105820
Client: BNSF
City: Casselton, ND
County: Cass



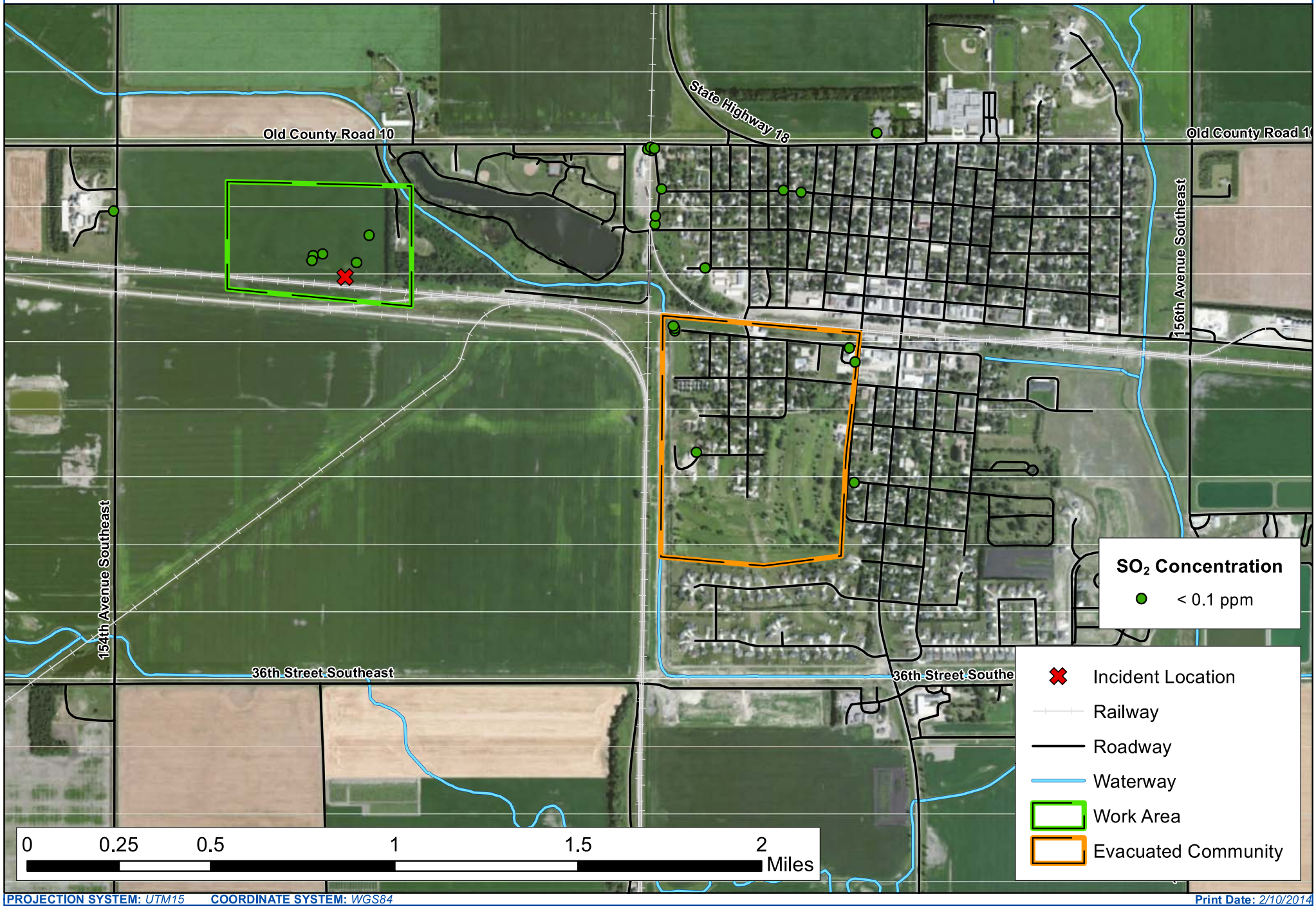
PROJECTION SYSTEM: *UTM15* COORDINATE SYSTEM: *WGS84*

Print Date: *2/10/2014*

BNSF - Casselton, ND

Manually-Logged Real-Time Air Monitoring Readings (SO_2)

Project: #105820
Client: BNSF
City: Casselton, ND
County: Cass



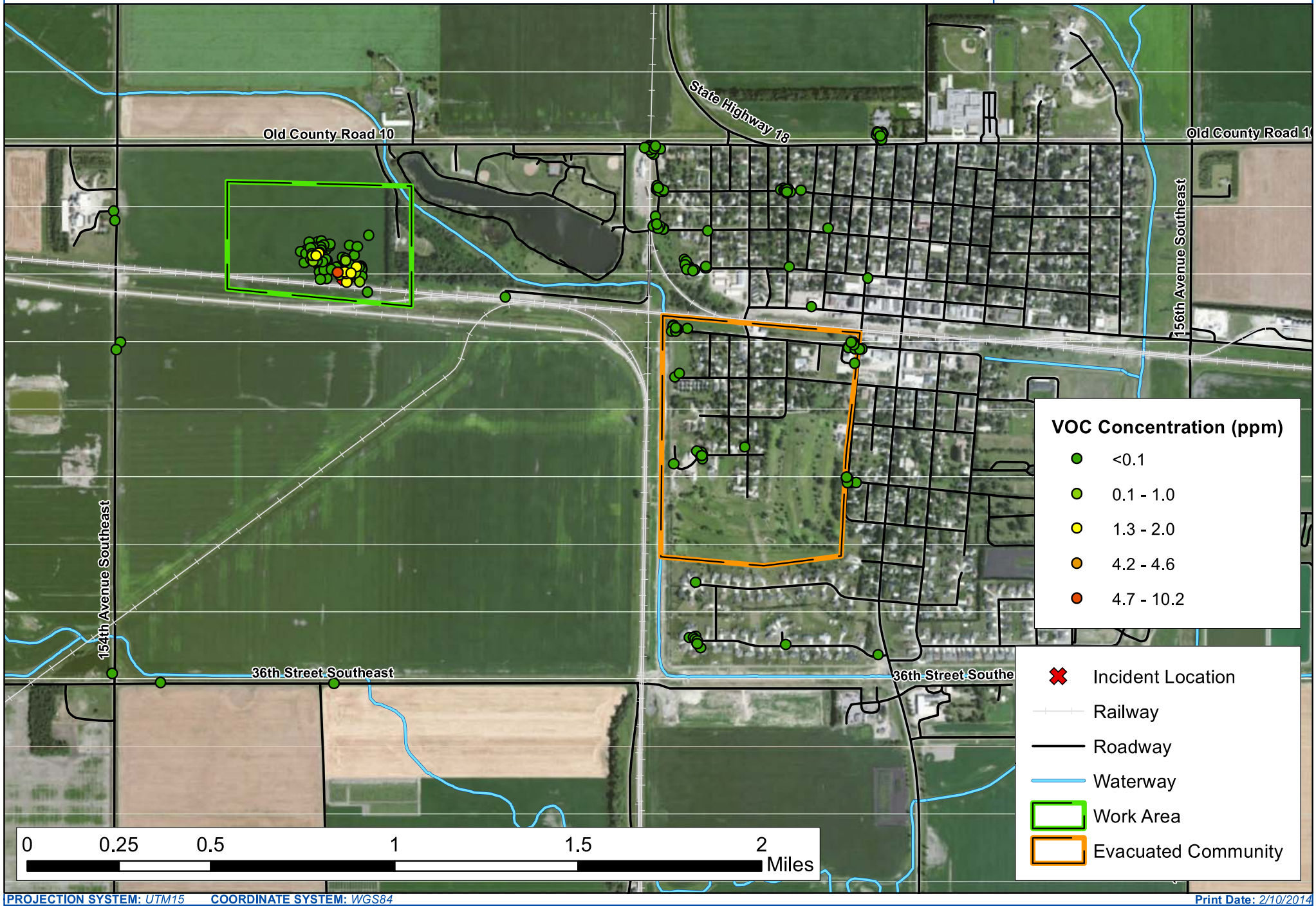
PROJECTION SYSTEM: *UTM15* COORDINATE SYSTEM: *WGS84*

Print Date: *2/10/2014*

CTEH

BNSF - Casselton, ND
Manually-Logged Real-Time Air Monitoring Readings (VOC)

Project: #105820
Client: BNSF
City: Casselton, ND
County: Cass



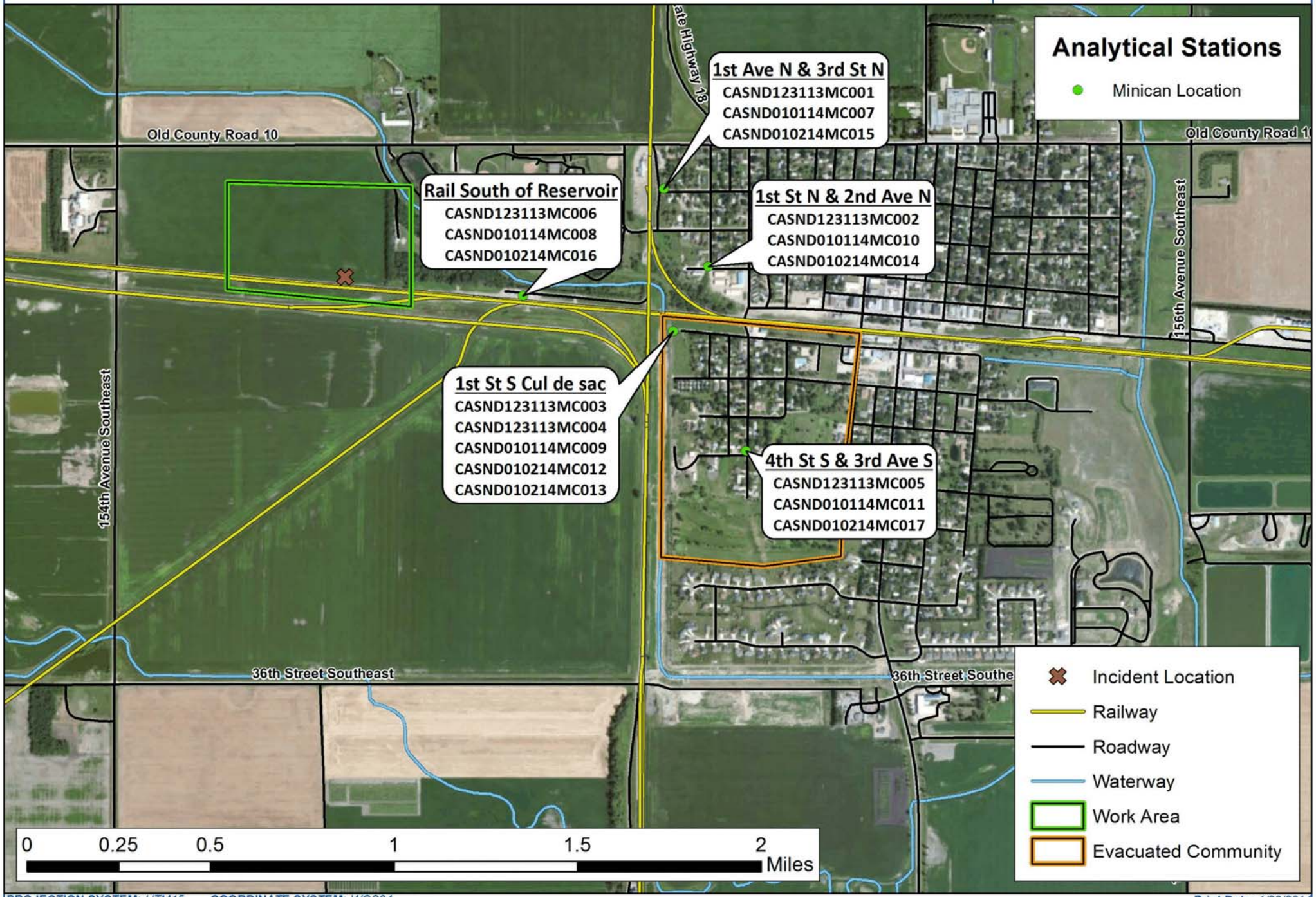
PROJECTION SYSTEM: *UTM15* COORDINATE SYSTEM: *WGS84*

Print Date: *2/10/2014*

BNSF - Casselton, ND

Analytical Air Sampling Locations

Project: #105820
Client: BNSF
City: Casselton, ND
County: Cass



PROJECTION SYSTEM: *UTM15* COORDINATE SYSTEM: *WGS84*

Print Date: *1/23/2014*


CASSELTON DERAILMENT
2014-1-1 1130
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Appendix F

Summary of Manually-logged Real-time Readings

Manually-Logged Real-Time Air Monitoring Readings

Date	Time	Location Category	Location Description	Latitude	Longitude	Instrument	Analyte	Concentration	Units	Comments
12/31/2013	1:55 AM	Evacuated Community	1st Ave N & 5th St N	46.904987	-97.22119	MultiRAE	VOC	<0.1	ppm	Exhaust fumes present; Light wind from the north. Exhaust odor present.
12/31/2013	1:58 AM	Evacuated Community	1st Ave N & 5th St N	46.905006	-97.221175	AM510	PM2.5	0.013	mg/m3	Area evacuated; Business; Slight Odor; PM 2.5. Slight smoky odor. Evacuated community, no work activity. Slight Breeze.
12/31/2013	2:00 AM	Evacuated Community	1st Ave N & 5th St N	46.904994	-97.221187	MultiRAE	VOC	<0.1	ppm	Area evacuated; Business; Slight Odor; Slight smoky odor. Evacuated community, no work activity. Slight breeze.
12/31/2013	2:00 AM	Evacuated Community	Intersection of 1st Avenue and 51st St North	46.905021	-97.221169	MultiRAE	H2S	<1	ppm	Exhaust fumes odor; Down wind; Light wind from the north. Light exhaust odor.
12/31/2013	2:02 AM	Evacuated Community	1st Ave N & 5th St N	46.905001	-97.221244	MultiRAE	SO2	<0.1	ppm	Area evacuated; Business; Slight Odor; Slight smoky odor. Evacuated community, no work activity. Slight breeze.
12/31/2013	2:04 AM	Evacuated Community	Intersection of 1st Avenue and 51st St North	46.905014	-97.22116	MultiRAE	CO	<1	ppm	Exhaust fumes odor; Light wind from the north. Light exhaust odor present.
12/31/2013	2:14 AM	Evacuated Community	1st Ave N	46.903903	-97.221022	AM510	PM2.5	0.081	mg/m3	Area evacuated; Business; Down wind; Slight Odor; PM 2.5. Slight smoky odor. Evacuated community, no work activity. Slight Breeze. Sustained PM detections, peaking around 0.114 mg/m3. Began to subside. Downwind of site.
12/31/2013	2:14 AM	Evacuated Community	1st Ave N & 3rd St N	46.903931	-97.221009	MultiRAE	VOC	<0.1	ppm	No odor; No odor. Light wind
12/31/2013	2:23 AM	Evacuated Community	1st Ave N & 3rd St N	46.903946	-97.221049	MultiRAE	VOC	<0.1	ppm	Area evacuated; Business; Slight Odor; Slight smoky odor. Evacuated community, no work activity. Slight breeze. Downwind.
12/31/2013	2:24 AM	Evacuated Community	1st Ave N & 3rd St N	46.903946	-97.221049	MultiRAE	H2S	<1	ppm	Area evacuated; Business; Slight Odor; Slight smoky odor. Evacuated community, no work activity. Slight breeze. Downwind.
12/31/2013	2:24 AM	Evacuated Community	1st Ave N & 3rd St N	46.902954	-97.221112	MultiRAE	CO	<1	ppm	No odor; No odor. Light wind

Date	Time	Location Category	Location Description	Latitude	Longitude	Instrument	Analyte	Concentration	Units	Comments
12/31/2013	2:26 AM	Evacuated Community	1st Ave N & 2nd St N	46.902926	-97.221055	AM510	PM2.5	0.015	mg/m3	Area evacuated; Business; Down wind; Slight Odor; PM 2.5. Slight smoky odor. Evacuated community, no work activity. Slight Breeze.
12/31/2013	2:27 AM	Evacuated Community	1st Ave N & 2nd St N	46.902927	-97.221065	MultiRAE	VOC	<0.1	ppm	Area evacuated; Business; Slight Odor; Slight smoky odor. Evacuated community, no work activity. Slight breeze. Downwind.
12/31/2013	2:27 AM	Evacuated Community	1st Ave N & 2nd St N	46.902922	-97.221095	MultiRAE	H2S	<1	ppm	Area evacuated; Business; Slight Odor; Slight smoky odor. Evacuated community, no work activity. Slight breeze. Downwind.
12/31/2013	2:30 AM	Evacuated Community	1st Ave N & 2nd St N	46.902964	-97.221054	Gastec 9L	NO2	<0.1	Ppm	
12/31/2013	2:31 AM	Evacuated Community	1st Ave N & 2nd St N	46.902934	-97.221052	MultiRAE	CO	<1	ppm	No odor; Area evacuated; No work activity; Down wind; Downwind in evacuated community. None to slight odor.
12/31/2013	2:35 AM	Evacuated Community	Intersection of 2nd street north and 2nd ave north.	46.902862	-97.218879	Gastec 9L	NO2	<0.1	Ppm	No odor; No odor present. Light wind.
12/31/2013	2:35 AM	Evacuated Community	2nd St N and 2nd Ave N	46.902883	-97.219441	AM510	PM2.5	0.029	mg/m3	No odor; Area evacuated; Residence; Down wind; Evacuated residential directly NE of site. Slight breeze. Little to no odor. PM 2.5
12/31/2013	2:37 AM	Evacuated Community	2nd St N and 2nd Ave N	46.902843	-97.219025	MultiRAE	VOC	<0.1	ppm	No odor; Area evacuated; Residence; Down wind; Evacuated residential directly NE of site. Slight breeze. Little to no odor.
12/31/2013	2:38 AM	Evacuated Community	2nd St N and 2nd Ave N	46.902869	-97.219021	MultiRAE	H2S	<1	ppm	No odor; Area evacuated; Residence; Down wind; Evacuated residential directly NE of site. Slight breeze. Little to no odor.
12/31/2013	2:40 AM	Evacuated Community	Intersection of 2nd street and 2nd avenue.	46.902875	-97.219036	MultiRAE	CO	<1	ppm	No odor; No odor. Light wind.
12/31/2013	2:43 AM	Evacuated Community	Western endpoint of 1st St N, cul de sac	46.901913	-97.219853	MultiRAE	VOC	<0.1	ppm	No odor; No odor. Light wind.
12/31/2013	2:43 AM	Evacuated Community	Western endpoint of 1st St N, cul de sac	46.901824	-97.219937	AM510	PM2.5	0.017	mg/m3	No odor; Area evacuated; Residence; No work activity; Down wind; Cul de sac. Slight breeze, downwind from site. No odor.

Date	Time	Location Category	Location Description	Latitude	Longitude	Instrument	Analyte	Concentration	Units	Comments
12/31/2013	2:45 AM	Evacuated Community	Western endpoint of 1st St N, cul de sac	46.901832	-97.2199	MultiRAE	H2S	<1	ppm	No odor; Area evacuated; Residence; No work activity; Down wind; Cul de sac. Slight breeze, downwind from site. No odor.
12/31/2013	2:46 AM	Evacuated Community	Western endpoint of 1st St N, cul de sac	46.901861	-97.219919	Gastec 9L	NO2	<0.1	ppm	No odor; No odor. Light wind.
12/31/2013	2:49 AM	Evacuated Community	Western endpoint of 1st St N, cul de sac	46.901861	-97.219919	UltraRAE	Benzene	<0.05	ppm	No odor; No odor. Light wind.
12/31/2013	2:55 AM	Evacuated Community	Beginning of evacuated community on 1st St S.	46.900201	-97.220384	MultiRAE	H2S	<1	ppm	Area evacuated; Residence; No work activity; Down wind; Moderate Odor; Good moderate smoke odor. Downwind at beginning of evacuated community. Slight breeze, non work activity. Site visible in distance.
12/31/2013	2:56 AM	Evacuated Community	Beginning of evacuated community on 1st St S.	46.900201	-97.220384	MultiRAE	VOC	<0.1	ppm	Area evacuated; Residence; No work activity; Down wind; Moderate Odor; Good moderate smoke odor. Downwind at beginning of evacuated community. Slight breeze, non work activity. Site visible in distance.
12/31/2013	2:56 AM	Evacuated Community	Western endpoint of 1st St S, cul de sac	46.900208	-97.220334	Gastec 9L	NO2	<0.1	ppm	Moderate Odor; Moderate smoke odor. Elevated particulate matter.
12/31/2013	2:58 AM	Evacuated Community	Beginning of evacuated community on 1st St S.	46.900201	-97.220384	AM510	PM2.5	0.067	mg/m3	Area evacuated; Residence; No work activity; Down wind; Moderate Odor; Good moderate smoke odor. Downwind at beginning of evacuated community. Slight breeze, non work activity. Site visible in distance. Brief elevated PM 2.5 peaking at around .135 mg/m3.
12/31/2013	2:59 AM	Evacuated Community	Western endpoint of 1st St S, cul de sac	46.900181	-97.220334	UltraRAE	Benzene	<0.05	ppm	Moderate Odor; Moderate smoke odor. Light wind.
12/31/2013	3:05 AM	Evacuated Community	Beginning of evacuated community on 2nd St S.	46.898902	-97.220332	MultiRAE	VOC	<0.1	ppm	Area evacuated; Residence; No work activity; Down wind; Slight Odor; Slight ethanol plant odor. Downwind at beginning of evacuated community. Slight breeze, non work activity. Site visible in distance.
12/31/2013	3:05 AM	Evacuated Community	Culdesac of 2nd street south	46.898955	-97.220343	MultiRAE	CO	<1	ppm	Slight Odor; Light ethanol odor from plant.

Date	Time	Location Category	Location Description	Latitude	Longitude	Instrument	Analyte	Concentration	Units	Comments
12/31/2013	3:06 AM	Evacuated Community	Beginning of evacuated community on 2nd St S.	46.898902	-97.220332	MultiRAE	H2S	<1	ppm	Area evacuated; Residence; No work activity; Down wind; Slight Odor; Slight ethanol plant odor. Downwind at beginning of evacuated community. Slight breeze, non work activity. Site visible in distance.
12/31/2013	3:08 AM	Evacuated Community	Beginning of evacuated community on 2nd St S.	46.898902	-97.220332	AM510	PM2.5	0.016	mg/m3	Area evacuated; Residence; No work activity; Down wind; Slight Odor; Slight ethanol plant odor. Downwind at beginning of evacuated community. Slight breeze, non work activity. Site visible in distance.
12/31/2013	3:09 AM	Evacuated Community	Culdesac of 2nd street south	46.898964	-97.220301	Gastec 9L	NO2	<0.1	ppm	Slight Odor; Light ethanol odor from plant.
12/31/2013	3:11 AM	Evacuated Community	Culdesac of 2nd street south.	46.898964	-97.220301	UltraRAE	Benzene	<0.05	ppm	Slight Odor; Light odor from ethanol plant.
12/31/2013	3:58 AM	Work Area	Derailment Site	46.90183	-97.232723	Gastec 9L	NO2	<0.1	ppm	
12/31/2013	4:02 AM	Work Area	Derailment Site	46.901809	-97.232705	Gastec 123L	Xylene	<1	ppm	
12/31/2013	4:09 AM	Work Area	Derailment Site	46.901797	-97.232642	Gastec 121L	Benzene	<0.1	ppm	
12/31/2013	4:10 AM	Evacuated Community	Cul de sac on Fairway Drive	46.893361	-97.219515	AM510	PM2.5	0.013	mg/m3	No odor; Area evacuated; Residence; Residential area. No odor. Slightly downwind of site. PM 2.5
12/31/2013	4:13 AM	Evacuated Community	Cul de sac on Fairway Drive	46.89338	-97.219561	MultiRAE	H2S	<1	ppm	No odor; Area evacuated; Residence; Residential area. No odor. Slightly downwind of site.
12/31/2013	4:14 AM	Evacuated Community	Cul de sac on Fairway Drive	46.893374	-97.219512	MultiRAE	VOC	<0.1	ppm	No odor; Area evacuated; Residence; Residential area. No odor. Slightly downwind of site.
12/31/2013	4:15 AM	Evacuated Community	Cul de sac on Fairway Drive	46.893385	-97.219554	MultiRAE	CO	<1	ppm	No odor; Area evacuated; Residence; Residential area. No odor. Slightly downwind of site.
12/31/2013	4:17 AM	Evacuated Community	Culdesac of fairway drive.	46.893323	-97.219563	Gastec 9L	NO2	<0.1	ppm	No odor; No odor. Light wind.
12/31/2013	4:18 AM	Work Area	Derailment Site	46.90188	-97.232694	MultiRAE	H2S	<1	ppm	
12/31/2013	4:19 AM	Work Area	Derailment Site	46.90188	-97.232694	MultiRAE	VOC	<0.1	ppm	

Date	Time	Location Category	Location Description	Latitude	Longitude	Instrument	Analyte	Concentration	Units	Comments
12/31/2013	4:20 AM	Work Area	Derailment Site	46.90188	-97.232694	MultiRAE	O2	20.9	%	
12/31/2013	4:20 AM	Work Area	Derailment Site	46.90188	-97.232694	MultiRAE	LEL	<1	%	
12/31/2013	4:21 AM	Work Area	Derailment Site	46.90188	-97.232694	Gastec 122L	Toluene	<0.5	ppm	
12/31/2013	4:22 AM	Evacuated Community	Western endpoint of Cottonwood Drive, cul de sac	46.891888	-97.219753	MultiRAE	VOC	<0.1	ppm	No odor; Area evacuated; Residence; Residential area. No odor. Slightly downwind of site.
12/31/2013	4:23 AM	Evacuated Community	Western endpoint of Cottonwood Drive, cul de sac	46.891887	-97.219731	AM510	PM2.5	0.011	mg/m3	No odor; Area evacuated; Residence; Residential area. No odor. Slightly downwind of site. PM 2.5
12/31/2013	4:24 AM	Evacuated Community	Western endpoint of Cottonwood Drive, cul de sac	46.891956	-97.219646	UltraRAE	Benzene	<0.05	ppm	No odor; Residence; No odor. Evacuated community. Slightly downwind of site.
12/31/2013	4:26 AM	Evacuated Community	Western endpoint of Cottonwood Drive, cul de sac	46.891891	-97.219714	MultiRAE	CO	<1	ppm	No odor; Residence; No odor. Evacuated community.
12/31/2013	4:26 AM	Work Area	Derailment Site	46.901872	-97.232644	Gastec 9L	NO2	<0.1	ppm	
12/31/2013	4:30 AM	Evacuated Community	Cottonwood Drive	46.891689	-97.215916	AM510	PM2.5	0.013	mg/m3	No odor; Area evacuated; Residence; Down wind; Residential area. No odor. Slightly downwind of site. PM 2.5
12/31/2013	4:30 AM	Evacuated Community	Residence along cottonwood drive.	46.891649	-97.215858	MultiRAE	CO	<1	ppm	No odor; Residence; No odor. Light wind. Evacuated community.
12/31/2013	4:31 AM	Evacuated Community	Cottonwood Drive	46.891706	-97.215963	MultiRAE	VOC	<0.1	ppm	No odor; Area evacuated; Residence; No work activity; Down wind; Residential area. No odor. Slightly downwind of site.
12/31/2013	4:31 AM	Work Area	Derailment Site	46.901869	-97.232697	AM510	PM2.5	0.022	mg/m3	We are using 2.5
12/31/2013	4:32 AM	Evacuated Community	Residence along cottonwood drive	46.891705	-97.215906	Gastec 9L	NO2	<0.1	ppm	No odor; Residence; No odor. Light wind. Evacuated community.

Date	Time	Location Category	Location Description	Latitude	Longitude	Instrument	Analyte	Concentration	Units	Comments
12/31/2013	4:32 AM	Evacuated Community	Cottonwood Drive	46.891744	-97.215951	MultiRAE	H2S	<1	ppm	No odor; Area evacuated; Residence; No work activity; Down wind; Residential area. No odor. Slightly downwind of site.
12/31/2013	4:34 AM	Work Area	Derailment Site	46.901588	-97.23263	AM510	PM2.5	0.024	mg/m3	We are using 2.5. Directly between burning railcars and workers. Very light smoke odor. Wind is blowing smoke southeast.
12/31/2013	4:35 AM	Evacuated Community	End of cottonwood drive near veterinary service.	46.891375	-97.212134	MultiRAE	CO	<1	ppm	No odor; Residence; Business; No odor. Light wind. Evacuated community.
12/31/2013	4:35 AM	Evacuated Community	Cottonwood drive and Langer	46.891427	-97.212328	MultiRAE	VOC	<0.1	ppm	Area evacuated; Residence; No work activity; Evacuated residential, no work. Slight breeze.
12/31/2013	4:37 AM	Evacuated Community	End of cottonwood drive near veterinary service.	46.891374	-97.212148	UltraRAE	Benzene	<0.05	ppm	No odor; Residence; Business; No odor. Light wind. Evacuated community.
12/31/2013	4:38 AM	Evacuated Community	Cottonwood drive and Langer	46.891408	-97.212189	MultiRAE	H2S	<1	ppm	Area evacuated; Residence; No work activity; Evacuated residential, no work. Slight breeze.
12/31/2013	4:39 AM	Evacuated Community	Cottonwood drive and Langer	46.891409	-97.212185	AM510	PM2.5	0.009	mg/m3	Area evacuated; Residence; No work activity; Evacuated residential, no work. Slight breeze. PM 2.5
12/31/2013	4:50 AM	Evacuated Community	6th Ave S & 4th St S	46.896179	-97.213504	MultiRAE	CO	<1	ppm	No odor; Residence; No odor. Light wind. Evacuated community.
12/31/2013	4:50 AM	Evacuated Community	6th Ave S & 4th St S	46.896218	-97.213504	MultiRAE	H2S	<1	ppm	No odor; Area evacuated; Residence; No odor, near golf course. No work activity
12/31/2013	4:52 AM	Evacuated Community	6th Ave S & 4th St S	46.89618	-97.213462	Gastec 9L	NO2	<0.1	ppm	No odor; Residence; No odor. Light wind. Evacuated community.
12/31/2013	4:52 AM	Evacuated Community	6th Ave S & 4th St S	46.896214	-97.21357	MultiRAE	VOC	<0.1	ppm	No odor; Area evacuated; Residence; No odor, near golf course. No work activity
12/31/2013	4:53 AM	Evacuated Community	6th Ave S & 4th St S	46.896208	-97.213546	AM510	PM2.5	0.014	mg/m3	No odor; Area evacuated; Residence; No odor, near golf course. No work activity. PM 2.5
12/31/2013	4:53 AM	Work Area	Derailment Site	46.901787	-97.232756	Gastec 123L	Xylene	<1	ppm	

Date	Time	Location Category	Location Description	Latitude	Longitude	Instrument	Analyte	Concentration	Units	Comments
12/31/2013	4:56 AM	Work Area	Derailment Site	46.901814	-97.232701	Gastec 121L	Benzene	<0.1	ppm	
12/31/2013	4:57 AM	Evacuated Community	2nd Street South	46.899002	-97.22015	MultiRAE	H2S	<1	ppm	No odor; Area evacuated; Residence; No odor, near golf course. No work activity.
12/31/2013	4:57 AM	Evacuated Community	Culdesac of 2nd street south.	46.899099	-97.220034	MultiRAE	CO	<1	ppm	No odor; Residence; No odor. Light wind. Evacuated community.
12/31/2013	4:58 AM	Evacuated Community	2nd St Street	46.899002	-97.22015	MultiRAE	VOC	<0.1	ppm	No odor; Area evacuated; Residence; No odor, near golf course. No work activity.
12/31/2013	4:59 AM	Evacuated Community	Culdesac of 2nd street south.	46.899017	-97.220109	UltraRAE	Benzene	<0.05	ppm	No odor; Residence; No odor. Light wind. Evacuated community.
12/31/2013	5:00 AM	Evacuated Community	6th Ave S & 4th St S	46.899027	-97.220114	AM510	PM2.5	0.015	mg/m3	No odor; Area evacuated; Residence; No odor, near golf course. No work activity. PM 2.5
12/31/2013	5:00 AM	Work Area	Derailment Site	46.901832	-97.232707	MultiRAE	H2S	<1	ppm	
12/31/2013	5:01 AM	Work Area	Derailment Site	46.901832	-97.232707	MultiRAE	VOC	<0.1	ppm	
12/31/2013	5:01 AM	Work Area	Derailment Site	46.901832	-97.232707	MultiRAE	O2	20.9	%	
12/31/2013	5:01 AM	Work Area	Derailment Site	46.901832	-97.232707	MultiRAE	LEL	<1	%	
12/31/2013	5:04 AM	Evacuated Community	2nd St S Cul de sac	46.900208	-97.219849	MultiRAE	VOC	<0.1	ppm	No odor; Area evacuated; Residence; Community Center; No odor, edge of evacuated community.
12/31/2013	5:04 AM	Evacuated Community	Culdesac of 2nd street south	46.900163	-97.219833	MultiRAE	CO	<1	ppm	No odor; Residence; No odor. Light wind. Evacuated community.
12/31/2013	5:05 AM	Evacuated Community	2nd St S Cul de sac	46.900215	-97.219874	MultiRAE	H2S	<1	ppm	No odor; Area evacuated; Residence; Community Center; No odor, edge of evacuated community.
12/31/2013	5:06 AM	Work Area	Derailment Site	46.901816	-97.232751	Gastec 9L	NO2	<0.1	ppm	
12/31/2013	5:06 AM	Evacuated Community	Culdesac of 2nd street south.	46.900163	-97.219833	Gastec 9L	NO2	<0.1	ppm	No odor; Residence; No odor. Light wind. Evacuated community.
12/31/2013	5:07 AM	Evacuated Community	2nd St S Cul de sac	46.900207	-97.219878	AM510	PM2.5	0.018	mg/m3	No odor; Area evacuated; Residence; Community Center; No odor, edge of evacuated community. PM 2.5

Date	Time	Location Category	Location Description	Latitude	Longitude	Instrument	Analyte	Concentration	Units	Comments
12/31/2013	5:09 AM	Work Area	Derailment Site	46.901817	-97.232734	AM510	PM2.5	0.021	mg/m3	Using 2.5
12/31/2013	5:14 AM	Work Area	Derailment Site	46.901736	-97.23279	AM510	PM2.5	0.025	mg/m3	Using 2.5. Light smoke odor. Wind is blowing southeast, only occasionally blowing towards the workers.
12/31/2013	5:23 AM	Work Area	Derailment Site	46.901883	-97.232725	Gastec 9L	NO2	<0.1	ppm	
12/31/2013	5:26 AM	Work Area	Derailment Site	46.901867	-97.232803	Gastec 123L	Xylene	<1	ppm	
12/31/2013	5:29 AM	Work Area	Derailment Site	46.901844	-97.232789	MultiRAE	H2S	<1	ppm	
12/31/2013	5:30 AM	Work Area	Derailment Site	46.901788	-97.23267	MultiRAE	VOC	<0.1	ppm	
12/31/2013	5:30 AM	Work Area	Derailment Site	46.901818	-97.232765	MultiRAE	O2	20.9	%	
12/31/2013	5:31 AM	Work Area	Derailment Site	46.901818	-97.232765	MultiRAE	LEL	<1	%	
12/31/2013	5:31 AM	Work Area	Derailment Site	46.901818	-97.232765	Gastec 121L	Benzene	<0.1	ppm	
12/31/2013	5:37 AM	Work Area	Derailment Site	46.901815	-97.232744	AM510	PM2.5	0.024	mg/m3	Using 2.5
12/31/2013	5:38 AM	Evacuated Community	Front Street and 5th Ave N	46.900795	-97.214942	MultiRAE	H2S	<1	ppm	No odor; Area evacuated; Residence; No odor, list crosswind. No activity.
12/31/2013	5:38 AM	Work Area	Derailment Site	46.90183	-97.232738	Gastec 122L	Toluene	<0.5	ppm	
12/31/2013	5:39 AM	Evacuated Community	Intersection of front street and 5th ave north.	46.90082	-97.215044	MultiRAE	CO	<1	ppm	No odor; No odor. Light wind. Evacuated community.
12/31/2013	5:39 AM	Evacuated Community	Front Street and 5th Ave N	46.900788	-97.21495	MultiRAE	VOC	<0.1	ppm	No odor; Area evacuated; Residence; No odor, list crosswind. No activity.
12/31/2013	5:40 AM	Evacuated Community	Front Street and 5th Ave N	46.900796	-97.214957	AM510	PM2.5	0.011	mg/m3	No odor; Area evacuated; Residence; No odor, list crosswind. No activity. PM 2.5

Date	Time	Location Category	Location Description	Latitude	Longitude	Instrument	Analyte	Concentration	Units	Comments
12/31/2013	5:41 AM	Evacuated Community	Intersection of front street and 5th ave north.	46.900808	-97.215029	UltraRAE	Benzene	<0.05	ppm	No odor; No odor. Light wind. Evacuated community.
12/31/2013	5:43 AM	Work Area	Derailment Site	46.901776	-97.232733	Gastec 9L	NO2	<0.1	ppm	
12/31/2013	5:45 AM	Evacuated Community	Intersection of 1st street north and 4th avenue north.	46.901883	-97.215957	MultiRAE	CO	<1	ppm	No odor; No odor. Light wind. Evacuated community.
12/31/2013	5:45 AM	Evacuated Community	1st St B and 4th Ave N	46.901861	-97.215822	MultiRAE	H2S	<1	ppm	No odor; Area evacuated; Residence; No odor, list crosswind. No activity.
12/31/2013	5:46 AM	Evacuated Community	1st St B and 4th Ave N	46.901861	-97.215822	MultiRAE	VOC	<0.1	ppm	No odor; Area evacuated; Residence; No odor, list crosswind. No activity.
12/31/2013	5:46 AM	Evacuated Community	1st Street N and 4th Ave N	46.901842	-97.215881	AM510	PM2.5	0.013	mg/m3	No odor; Area evacuated; Residence; No odor, list crosswind. No activity. PM 2.5
12/31/2013	5:46 AM	Evacuated Community	Intersection of 1st st north and 4th ave north.	46.901857	-97.215939	Gastec 9L	NO2	<0.1	ppm	No odor; Residence; No odor. Light wind. Evacuated community.
12/31/2013	5:50 AM	Evacuated Community	3rd St N & 4th Ave N	46.90392	-97.215845	MultiRAE	H2S	<1	ppm	No odor; Area evacuated; Residence; No odor, list crosswind. No activity. Evacuated residential.
12/31/2013	5:50 AM	Evacuated Community	3rd St N & 4th Ave N	46.903864	-97.215902	MultiRAE	CO	<1	ppm	No odor; Residence; No odor. Light wind. Evacuated community.
12/31/2013	5:51 AM	Evacuated Community	3rd St N & 4th Ave N	46.903907	-97.215875	MultiRAE	VOC	<0.1	ppm	No odor; Area evacuated; Residence; No work activity; No odor, list crosswind. No activity. Evacuated residential.
12/31/2013	5:52 AM	Evacuated Community	3rd St N & 4th Ave N	46.903924	-97.215848	AM510	PM2.5	0.017	mg/m3	No odor; Area evacuated; Residence; No work activity; No odor, list crosswind. No activity. Evacuated residential. PM 2.5
12/31/2013	5:52 AM	Evacuated Community	3rd St N & 4th Ave N	46.903864	-97.215902	UltraRAE	Benzene	<0.05	ppm	No odor; Residence; No odor. Light wind. Evacuated community.
12/31/2013	5:56 AM	Evacuated Community	Good Samaritan Society Retirement Home	46.905432	-97.212122	MultiRAE	H2S	<1	ppm	No odor; Area evacuated; Residence; Business; Community Center; No work activity; Retirement community. No wind, no odor.

Date	Time	Location Category	Location Description	Latitude	Longitude	Instrument	Analyte	Concentration	Units	Comments
12/31/2013	5:56 AM	Evacuated Community	Good Samaritan Society Retirement Home	46.905448	-97.212174	MultiRAE	CO	<1	ppm	No odor; Residence; No odor. Light wind. Evacuated community.
12/31/2013	5:58 AM	Work Area	Derailment Site	46.901864	-97.232801	Gastec 123L	Xylene	<1	ppm	
12/31/2013	5:58 AM	Evacuated Community	Good Samaritan Society Retirement Home	46.905442	-97.212127	MultiRAE	VOC	<0.1	ppm	No odor; Area evacuated; Residence; Business; Community Center; No work activity; Retirement community. No wind, no odor.
12/31/2013	5:59 AM	Evacuated Community	Good Samaritan Society Retirement Home	46.905434	-97.212154	Gastec 9L	NO2	<0.1	ppm	No odor; Residence; No odor. Light wind. Evacuated community.
12/31/2013	5:59 AM	Evacuated Community	Good Samaritan Society Retirement Home	46.905427	-97.212128	AM510	PM2.5	0.013	mg/m3	No odor; Area evacuated; Residence; Business; Community Center; No work activity; Retirement community. No wind, no odor. PM 2.5
12/31/2013	6:01 AM	Work Area	Derailment Site	46.901861	-97.232765	Gastec 9L	NO2	<0.1	ppm	
12/31/2013	6:03 AM	Work Area	Derailment Site	46.901861	-97.232765	Gastec 121L	Benzene	<0.1	ppm	
12/31/2013	6:05 AM	Work Area	Derailment Site	46.901853	-97.23275	AM510	PM2.5	0.023	mg/m3	Using 2.5
12/31/2013	6:06 AM	Evacuated Community	Intersection of 2nd St N and 5th Ave N	46.90294	-97.21434	MultiRAE	CO	<1	ppm	No odor; Residence; No odor. Light wind. Evacuated community.
12/31/2013	6:06 AM	Evacuated Community	2nd St N and 5th Ave N	46.902849	-97.214329	MultiRAE	H2S	<1	ppm	No odor; Area evacuated; Residence; Business; Community Center; No work activity; Evacuated community. No wind, no odor.
12/31/2013	6:08 AM	Evacuated Community	2nd St N and 5th Ave N	46.902907	-97.214292	MultiRAE	VOC	<0.1	ppm	No odor; Area evacuated; Residence; Business; Community Center; No work activity; Evacuated community. No wind, no odor.
12/31/2013	6:09 AM	Work Area	Derailment Site	46.901872	-97.232698	MultiRAE	H2S	<1	ppm	
12/31/2013	6:09 AM	Work Area	Derailment Site	46.901885	-97.232714	MultiRAE	VOC	<0.1	ppm	

Date	Time	Location Category	Location Description	Latitude	Longitude	Instrument	Analyte	Concentration	Units	Comments
12/31/2013	6:10 AM	Work Area	Derailment Site	46.901885	-97.232714	MultiRAE	O2	20.9	%	
12/31/2013	6:10 AM	Work Area	Derailment Site	46.901885	-97.232714	MultiRAE	LEL	<1	%	
12/31/2013	6:10 AM	Evacuated Community	2nd St N and 5th Ave N	46.902927	-97.214321	AM510	PM2.5	0.021	mg/m3	No odor; Area evacuated; Residence; Business; Community Center; No work activity; Evacuated community. No wind, no odor. PM 2.5
12/31/2013	6:11 AM	Evacuated Community	Intersection of 2nd St N and 5th Ave N	46.902864	-97.214304	Gastec 9L	NO2	<0.1	ppm	No odor; No odor. Light wind. Evacuated community.
12/31/2013	6:12 AM	Work Area	Derailment Site	46.901798	-97.232691	Gastec 122L	Toluene	<0.5	ppm	
12/31/2013	6:17 AM	Evacuated Community	1st Ave N & 5th St N	46.9051	-97.221202	MultiRAE	CO	<1	ppm	No odor; Residence; No odor. Light wind. Evacuated community.
12/31/2013	6:17 AM	Evacuated Community	1st Ave N & 5th St N	46.905099	-97.221171	MultiRAE	H2S	<1	ppm	No odor; Residence; Business; No work activity; FRT 2. Evacuated community. No odor, moderate cross breeze.
12/31/2013	6:18 AM	Evacuated Community	1st Ave N & 5th St N	46.905091	-97.221177	MultiRAE	VOC	<0.1	ppm	No odor; Residence; Business; No work activity; FRT 2. Evacuated community. No odor, moderate cross breeze.
12/31/2013	6:19 AM	Evacuated Community	1st Ave N & 5th St N	46.905091	-97.221177	AM510	PM2.5	0.016	mg/m3	No odor; Residence; Business; No work activity; FRT 2. Evacuated community. No odor, moderate cross breeze. PM 2.5
12/31/2013	6:24 AM	Evacuated Community	1st Ave N & 5th St N	46.905087	-97.221169	UltraRAE	Benzene	<0.05	ppm	No odor; Residence; No odor. Light wind. Evacuated community.
12/31/2013	6:27 AM	Evacuated Community	1st Ave N & 3rd St N	46.903894	-97.220957	MultiRAE	CO	<1	ppm	No odor; No odor. Light wind. Evacuated community.
12/31/2013	6:29 AM	Evacuated Community	1st Ave N & 3rd St N	46.903919	-97.220972	MultiRAE	VOC	<0.1	ppm	No odor; Area evacuated; Residence; No work activity; FRT3. Evacuated community, no odor. Moderate crosswinds.
12/31/2013	6:30 AM	Evacuated Community	1st Ave N & 3rd St N	46.903919	-97.220972	MultiRAE	H2S	<1	ppm	No odor; Area evacuated; Residence; No work activity; FRT3. Evacuated community, no odor. Moderate crosswinds.
12/31/2013	6:31 AM	Evacuated Community	1st Ave N & 3rd St N	46.903913	-97.220983	Gastec 9L	NO2	<0.1	ppm	No odor; Residence; No odor. Light wind. Evacuated community.

Date	Time	Location Category	Location Description	Latitude	Longitude	Instrument	Analyte	Concentration	Units	Comments
12/31/2013	6:31 AM	Evacuated Community	1st Ave N & 3rd St N	46.90393	-97.221002	AM510	PM2.5	0.012	mg/m3	No odor; Area evacuated; Residence; No work activity; FRT3. Evacuated community, no odor. Moderate crosswinds. PM 2.5
12/31/2013	6:34 AM	Evacuated Community	1st Ave N & 2nd St N	46.902991	-97.220973	MultiRAE	CO	<1	ppm	No odor; Residence; No odor. Light wind. Evacuated community.
12/31/2013	6:35 AM	Evacuated Community	1st Ave N & 2nd St N	46.902982	-97.221013	Gastec 9L	NO2	<0.1	ppm	No odor; Residence; No odor. Light wind. Evacuated community.
12/31/2013	6:36 AM	Evacuated Community	1st Ave N & 2nd St N	46.90296	-97.221086	MultiRAE	H2S	<1	ppm	No odor; Area evacuated; Residence; No work activity; Evacuated community. Light crosswind. No odors, no workers.
12/31/2013	6:38 AM	Evacuated Community	1st Ave N & 2nd St N	46.902954	-97.221035	MultiRAE	VOC	<0.1	ppm	No odor; Area evacuated; Residence; No work activity; Evacuated community. Light crosswind. No odors, no workers.
12/31/2013	6:39 AM	Evacuated Community	1st Ave N & 2nd St N	46.902962	-97.221026	AM510	PM2.5	0.013	mg/m3	No odor; Area evacuated; Residence; No work activity; Evacuated community. Light crosswind. No odors, no workers. PM2.5
12/31/2013	6:41 AM	Work Area	North side of wreck site, where hopper cars are being moved	46.901903	-97.232698	AM510	PM2.5	0.026	mg/m3	Up wind; PM 2.5
12/31/2013	6:48 AM	Work Area	North side of wreck site, where hopper cars are being moved	46.901873	-97.232712	MultiRAE	VOC	<0.1	ppm	Up wind;
12/31/2013	6:51 AM	Work Area	North side of wreck site, where hopper cars are being moved	46.901913	-97.232714	MultiRAE	LEL	<1	%	Up wind;
12/31/2013	6:51 AM	Work Area	North side of wreck site, where hopper cars are being moved	46.901908	-97.232686	MultiRAE	O2	20.9	%	Up wind;

Date	Time	Location Category	Location Description	Latitude	Longitude	Instrument	Analyte	Concentration	Units	Comments
12/31/2013	6:52 AM	Work Area	North side of wreck site, where hopper cars are being moved	46.901901	-97.232676	MultiRAE	H2S	<1	ppm	Up wind;
12/31/2013	6:58 AM	Work Area	North side of wreck site, where hopper cars are being moved	46.901873	-97.232748	Gastec 9L	NO2	<0.1	ppm	Up wind;
12/31/2013	7:07 AM	Work Area	North side of wreck site, where hopper cars are being moved	46.901464	-97.232742	MultiRAE	VOC	0.1	ppm	Slight Odor;
12/31/2013	7:08 AM	Work Area	North side of wreck site, where hopper cars are being moved	46.901422	-97.232742	MultiRAE	LEL	<1	%	Slight Odor;
12/31/2013	7:09 AM	Work Area	North side of wreck site, where hopper cars are being moved	46.901419	-97.23272	MultiRAE	H2S	<1	ppm	Slight Odor;
12/31/2013	7:39 AM	Work Area	North side of wreck site, where hopper cars are being moved	46.901832	-97.232732	MultiRAE	VOC	<0.1	ppm	No odor;
12/31/2013	7:40 AM	Work Area	North side of wreck site, where hopper cars are being moved	46.901862	-97.23272	MultiRAE	LEL	<1	%	No odor;
12/31/2013	7:42 AM	Work Area	North side of wreck site, where hopper cars are being moved	46.901881	-97.232699	MultiRAE	H2S	<1	ppm	No odor;

Date	Time	Location Category	Location Description	Latitude	Longitude	Instrument	Analyte	Concentration	Units	Comments
12/31/2013	7:43 AM	Work Area	North side of wreck site, where hopper cars are being moved	46.901881	-97.232699	Gastec 9L	NO2	<0.1	ppm	No odor;
12/31/2013	7:55 AM	Evacuated Community	3rd St N & 4th Ave N	46.903916	-97.216048	MultiRAE	CO	<1	ppm	No odor; Residence; No odor. Light wind. Evacuated community.
12/31/2013	7:55 AM	Evacuated Community	3rd St N & 4th Ave N	46.903985	-97.216071	MultiRAE	VOC	<0.1	ppm	No odor; Area evacuated; Residence; Evacuated Community. Slight breeze, no odors.
12/31/2013	7:57 AM	Evacuated Community	3rd St N & 4th Ave N	46.90397	-97.215997	MultiRAE	H2S	<1	ppm	No odor; Area evacuated; Residence; Evacuated Community. Slight breeze, no odors.
12/31/2013	7:58 AM	Evacuated Community	3rd St N & 4th Ave N	46.903986	-97.216012	AM510	PM2.5	0.014	mg/m3	No odor; Area evacuated; Residence; Evacuated Community. Slight breeze, no odors. PM 2.5
12/31/2013	7:59 AM	Evacuated Community	3rd St N & 4th Ave N	46.903957	-97.216035	UltraRAE	Benzene	<0.05	ppm	No odor; Residence; No odor. Light wind. Evacuated community.
12/31/2013	8:06 AM	Evacuated Community	Western endpoint of 1st St N, cul de sac	46.90185	-97.219797	MultiRAE	CO	<1	ppm	No odor; Residence; No odor. Light wind. Evacuated community.
12/31/2013	8:06 AM	Evacuated Community	Western endpoint of 1st St N, cul de sac	46.901879	-97.219768	MultiRAE	VOC	<0.1	ppm	No odor; Area evacuated; Residence; Evacuated Community. Slight breeze, no odors.
12/31/2013	8:07 AM	Evacuated Community	Western endpoint of 1st St N, cul de sac	46.901879	-97.219768	MultiRAE	H2S	<1	ppm	No odor; Area evacuated; Residence; Evacuated Community. Slight breeze, no odors.
12/31/2013	8:08 AM	Evacuated Community	Western endpoint of 1st St N, cul de sac	46.901846	-97.219764	Gastec 9L	NO2	<0.1	ppm	No odor; Residence; No odor. Light wind. Evacuated community.
12/31/2013	8:08 AM	Evacuated Community	Western endpoint of 1st St N, cul de sac	46.901858	-97.219769	AM510	PM2.5	0.01	mg/m3	No odor; Area evacuated; Residence; Evacuated Community. Slight breeze, no odors. PM 2.5
12/31/2013	8:15 AM	Evacuated Community	Western endpoint of 1st St S, cul de sac	46.900235	-97.220378	MultiRAE	CO	<1	ppm	No odor; Residence; No odor. Light wind. Evacuated community.
12/31/2013	8:16 AM	Evacuated Community	Western endpoint of 1st St S, cul de sac	46.900228	-97.220396	MultiRAE	VOC	<0.1	ppm	No odor; Area evacuated; Residence; Light crosswind. Evacuated community. No odors.

Date	Time	Location Category	Location Description	Latitude	Longitude	Instrument	Analyte	Concentration	Units	Comments
12/31/2013	8:17 AM	Evacuated Community	Western endpoint of 1st St S, cul de sac	46.900207	-97.220379	MultiRAE	H2S	<1	ppm	No odor; Area evacuated; Residence; Light crosswind. Evacuated community. No odors.
12/31/2013	8:18 AM	Evacuated Community	Western endpoint of 1st St S, cul de sac	46.900235	-97.220378	UltraRAE	Benzene	<0.05	ppm	No odor; Residence; No odor. Light wind. Evacuated community.
12/31/2013	8:20 AM	Evacuated Community	Western endpoint of 1st St S, cul de sac	46.900207	-97.220379	AM510	PM2.5	0.014	mg/m3	No odor; Area evacuated; Residence; Light crosswind. Evacuated community. No odors. PM 2.5
12/31/2013	8:26 AM	Evacuated Community	Western endpoint of 4th St S, cul de sac	46.896846	-97.219252	MultiRAE	CO	<1	ppm	No odor; Residence; No odor. Light wind. Evacuated community.
12/31/2013	8:27 AM	Evacuated Community	Western endpoint of 4th St S, cul de sac	46.896823	-97.219254	MultiRAE	VOC	<0.1	ppm	No odor; Area evacuated; Residence; No work activity; Light crosswind. No odors. No workers, evacuated community.
12/31/2013	8:28 AM	Evacuated Community	1st St S & 6th Ave S	46.896878	-97.219289	Gastec 9L	NO2	<0.1	ppm	No odor; Residence; No odor. Light wind. Evacuated community.
12/31/2013	8:29 AM	Evacuated Community	Western endpoint of 4th St S, cul de sac	46.896819	-97.219243	MultiRAE	H2S	<1	ppm	No odor; Area evacuated; Residence; No work activity; Light crosswind. No odors. No workers, evacuated community.
12/31/2013	8:30 AM	Evacuated Community	Western endpoint of 4th St S, cul de sac	46.896828	-97.219253	AM510	PM2.5	0.011	mg/m3	No odor; Area evacuated; Residence; No work activity; Light crosswind. No odors. No workers, evacuated community. PM 2.5
12/31/2013	8:34 AM	Evacuated Community	6th Ave S & 4th St S	46.899687	-97.213305	MultiRAE	CO	<1	ppm	No odor; Business; No odor. Light wind. Evacuated community.
12/31/2013	8:36 AM	Evacuated Community	1st St S & 6th Ave S	46.899721	-97.213291	MultiRAE	H2S	<1	ppm	No odor; Area evacuated; Business; No work activity; Slight breeze. No workers. Evacuated business sector.
12/31/2013	8:37 AM	Evacuated Community	1st St S & 6th Ave S	46.899716	-97.213327	MultiRAE	VOC	<0.1	ppm	No odor; Area evacuated; Business; No work activity; Slight breeze. No workers. Evacuated business sector.
12/31/2013	8:37 AM	Evacuated Community	6th Ave S & 4th St S	46.899739	-97.213353	UltraRAE	Benzene	<0.05	ppm	No odor; Business; No odor. Light wind. Evacuated community.
12/31/2013	8:38 AM	Evacuated Community	1st St S & 6th Ave S	46.899716	-97.213327	AM510	PM2.5	0.015	mg/m3	No odor; Area evacuated; Business; No work activity; Slight breeze. No workers. Evacuated business sector. PM 2.5

Date	Time	Location Category	Location Description	Latitude	Longitude	Instrument	Analyte	Concentration	Units	Comments
12/31/2013	8:41 AM	Evacuated Community	6th Ave S & 4th St S	46.896165	-97.213564	MultiRAE	H2S	<1	ppm	No odor; Area evacuated; Residence; Park; No work activity; Slight cross breeze. No workers. Evacuated residential.
12/31/2013	8:43 AM	Evacuated Community	6th Ave S & 4th St S	46.896186	-97.213573	MultiRAE	VOC	<0.1	ppm	No odor; Area evacuated; Residence; Park; No work activity; Slight cross breeze. No workers. Evacuated residential.
12/31/2013	8:43 AM	Evacuated Community	6th Ave S & 4th St S	46.896185	-97.213657	MultiRAE	CO	<1	ppm	No odor; Residence; No odor. Light wind. Evacuated community.
12/31/2013	8:44 AM	Evacuated Community	6th Ave S & 4th St S	46.896183	-97.213618	AM510	PM2.5	0.011	mg/m3	No odor; Area evacuated; Residence; Park; No work activity; Slight cross breeze. No workers. Evacuated residential. PM 2.5
12/31/2013	8:45 AM	Evacuated Community	6th Ave S & 4th St S	46.896196	-97.213675	Gastec 9L	NO2	<0.1	ppm	No odor; Residence; No odor. Light wind. Evacuated community.
12/31/2013	8:50 AM	Evacuated Community	Western endpoint of Cottonwood Drive, cul de sac	46.891924	-97.219541	MultiRAE	CO	<1	ppm	No odor; Residence; No odor. Light wind. Evacuated community.
12/31/2013	8:51 AM	Evacuated Community	Western endpoint of Cottonwood Drive, cul de sac	46.891922	-97.219521	MultiRAE	H2S	<1	ppm	No odor; Area evacuated; Residence; Light crosswind. No odors, evacuated community.
12/31/2013	8:51 AM	Evacuated Community	Western endpoint of Cottonwood Drive, cul de sac	46.891924	-97.219541	UltraRAE	Benzene	<0.05	ppm	No odor; Residence; No odor. Light wind. Evacuated community.
12/31/2013	8:53 AM	Evacuated Community	Western endpoint of Cottonwood Drive, cul de sac	46.891922	-97.219521	MultiRAE	VOC	<0.1	ppm	No odor; Area evacuated; Residence; Light crosswind. No odors, evacuated community.
12/31/2013	8:54 AM	Evacuated Community	Western endpoint of Cottonwood Drive, cul de sac	46.891922	-97.219521	AM510	PM2.5	0.011	mg/m3	No odor; Area evacuated; Residence; Light crosswind. No odors, evacuated community. PM 2.5
12/31/2013	9:04 AM	Work Area	Derailment Site	46.901781	-97.232748	Gastec 9L	NO2	<0.1	ppm	

Date	Time	Location Category	Location Description	Latitude	Longitude	Instrument	Analyte	Concentration	Units	Comments
12/31/2013	9:06 AM	Work Area	North side of wreck site, where hopper cars are being moved	46.901196	-97.232427	MultiRAE	VOC	<0.1	ppm	Moderate Odor; 15 feet from locomotive, but not directly downwind of smoke
12/31/2013	9:07 AM	Work Area	Derailment Site	46.9018	-97.232759	Gastec 121L	Benzene	<0.1	ppm	
12/31/2013	9:07 AM	Work Area	North side of wreck site, where hopper cars are being moved	46.901196	-97.232427	MultiRAE	LEL	<1	%	Moderate Odor; 15 feet from locomotive, but not directly downwind of smoke
12/31/2013	9:07 AM	Work Area	North side of wreck site, where hopper cars are being moved	46.901196	-97.232427	MultiRAE	H2S	<1	ppm	Moderate Odor; 15 feet from locomotive, but not directly downwind of smoke
12/31/2013	9:11 AM	Work Area	Derailment Site	46.901847	-97.232766	MultiRAE	H2S	<1	ppm	
12/31/2013	9:12 AM	Work Area	Derailment Site	46.901847	-97.232766	MultiRAE	VOC	<0.1	ppm	
12/31/2013	9:12 AM	Work Area	Derailment Site	46.901847	-97.232766	MultiRAE	O2	20.9	%	
12/31/2013	9:13 AM	Work Area	Derailment Site	46.901847	-97.232766	MultiRAE	LEL	<1	%	
12/31/2013	9:21 AM	Evacuated Community	Good Samaritan Society Retirement Home	46.905488	-97.212166	MultiRAE	VOC	<0.1	ppm	No odor; Residence; No odor. Light wind. Evacuated community.
12/31/2013	9:23 AM	Evacuated Community	Good Samaritan Society Retirement Home	46.905488	-97.212166	MultiRAE	H2S	<1	ppm	No odor; Residence; No odor. Light wind. Evacuated community.
12/31/2013	9:25 AM	Evacuated Community	Good Samaritan Society Retirement Home	46.905423	-97.212165	MultiRAE	CO	<1	ppm	No odor; Residence; No odor. Light wind. Evacuated community.
12/31/2013	9:43 AM	Work Area	Derailment Site	46.901839	-97.232784	Gastec 9L	NO2	<0.1	ppm	

Date	Time	Location Category	Location Description	Latitude	Longitude	Instrument	Analyte	Concentration	Units	Comments
12/31/2013	9:45 AM	Work Area	North side of wreck site, where hopper cars are being moved	46.901815	-97.232743	AM510	PM2.5	0.031	mg/m3	Up wind; Slight Odor;
12/31/2013	9:45 AM	Work Area	Derailment Site	46.901839	-97.232784	MultiRAE	H2S	<1	ppm	
12/31/2013	9:46 AM	Work Area	Derailment Site	46.901839	-97.232784	MultiRAE	VOC	<0.1	ppm	
12/31/2013	9:46 AM	Work Area	Derailment Site	46.901839	-97.232784	MultiRAE	O2	20.9	%	
12/31/2013	9:46 AM	Work Area	North side of wreck site, where hopper cars are being moved	46.901799	-97.232682	MultiRAE	VOC	<0.1	ppm	Up wind; Slight Odor;
12/31/2013	9:47 AM	Work Area	Derailment Site	46.901839	-97.232784	MultiRAE	LEL	<1	%	
12/31/2013	9:47 AM	Work Area	Derailment Site	46.901839	-97.232784	Gastec 121L	Benzene	<0.1	ppm	
12/31/2013	10:01 AM	Evacuated Community	Good Samaritan Society Retirement Home	46.905406	-97.212151	AM510	PM2.5	0.008	mg/m3	No odor; Residence; No odor. Light wind. Evacuated community. PM 2.5
12/31/2013	10:14 AM	Evacuated Community	1st Ave N & 5th St N	46.90492	-97.221267	AM510	PM2.5	0.009	mg/m3	No odor; Residence; No odor. Light wind. Evacuated community. PM 2.5
12/31/2013	10:17 AM	Work Area	Derailment Site	46.901971	-97.232682	Gastec 121L	Benzene	<0.1	ppm	
12/31/2013	10:18 AM	Work Area	Derailment Site	46.901825	-97.232686	AM510	PM2.5	0.024	mg/m3	Using 2.5
12/31/2013	10:19 AM	Work Area	Derailment Site	46.901825	-97.232686	MultiRAE	H2S	<1	ppm	
12/31/2013	10:19 AM	Work Area	Derailment Site	46.901803	-97.232657	MultiRAE	VOC	<0.1	ppm	
12/31/2013	10:20 AM	Work Area	Derailment Site	46.901797	-97.232692	MultiRAE	O2	20.9	%	

Date	Time	Location Category	Location Description	Latitude	Longitude	Instrument	Analyte	Concentration	Units	Comments
12/31/2013	10:20 AM	Work Area	Derailment Site	46.901797	-97.232692	MultiRAE	LEL	<1	%	
12/31/2013	10:22 AM	Evacuated Community	1st Ave N & 2nd St N	46.902849	-97.220998	AM510	PM2.5	0.01	mg/m3	No odor; Residence;
12/31/2013	10:26 AM	Work Area	Derailment Site	46.90182	-97.232656	Gastec 9L	NO2	<0.1	ppm	
12/31/2013	10:29 AM	Evacuated Community	3rd St N & 4th Ave N	46.903913	-97.215951	AM510	PM2.5	0.008	mg/m3	No odor; Residence; No odor. Light wind. Evacuated community. PM 2.5
12/31/2013	10:34 AM	Evacuated Community	Western endpoint of 1st St N, cul de sac	46.901786	-97.219832	AM510	PM2.5	0.007	mg/m3	No odor; Residence; No odor. Light wind. Evacuated community.
12/31/2013	10:40 AM	Evacuated Community	Western endpoint of 1st St S, cul de sac	46.900179	-97.220129	AM510	PM2.5	0.009	mg/m3	No odor; Residence; No odor. Light wind. Evacuated community.
12/31/2013	10:45 AM	Evacuated Community	Western endpoint of 4th St S, cul de sac	46.896794	-97.219267	AM510	PM2.5	0.009	mg/m3	No odor; Residence; No odor. Light wind. Evacuated community.
12/31/2013	10:51 AM	Evacuated Community	1st St S & 6th Ave S	46.899673	-97.213077	AM510	PM2.5	0.008	mg/m3	No odor; Business; No odor. Light wind. Evacuated community.
12/31/2013	11:00 AM	Evacuated Community	6th Ave S & 4th St S	46.896054	-97.213509	AM510	PM2.5	0.006	mg/m3	No odor; Residence; No odor. Light wind. Evacuated community.
12/31/2013	11:02 AM	Work Area	Derailment Site	46.90174	-97.232939	MultiRAE	H2S	<1	ppm	
12/31/2013	11:02 AM	Work Area	Derailment Site	46.90174	-97.232939	MultiRAE	VOC	<0.1	ppm	
12/31/2013	11:03 AM	Work Area	Derailment Site	46.90174	-97.232939	MultiRAE	O2	20.9	%	
12/31/2013	11:03 AM	Work Area	Derailment Site	46.90174	-97.232939	MultiRAE	LEL	<1	%	
12/31/2013	11:03 AM	Work Area	Derailment Site	46.90174	-97.232939	Gastec 121L	Benzene	<0.1	ppm	
12/31/2013	11:07 AM	Work Area	Derailment Site	46.901748	-97.232951	Gastec 9L	NO2	<0.1	ppm	

Date	Time	Location Category	Location Description	Latitude	Longitude	Instrument	Analyte	Concentration	Units	Comments
12/31/2013	11:08 AM	Evacuated Community	Western endpoint of Cottonwood Drive, cul de sac	46.891903	-97.219415	AM510	PM2.5	0.006	mg/m3	No odor; Residence; No odor. Light wind. Evacuated community.
12/31/2013	11:09 AM	Work Area	Derailment Site	46.901731	-97.232878	AM510	PM2.5	0.029	mg/m3	
12/31/2013	11:16 AM	Evacuated Community	1st Ave N & 5th St N	46.905052	-97.221241	AM510	PM2.5	0.005	mg/m3	No odor; Residence; No odor. Light wind. Evacuated community.
12/31/2013	11:20 AM	Evacuated Community	Good Samaritan Society Retirement Home	46.905428	-97.212157	AM510	PM2.5	0.007	mg/m3	No odor; Residence; No odor. Light wind. Evacuated community.
12/31/2013	11:24 AM	Work Area	Derailment Site	46.901732	-97.232825	MultiRAE	H2S	<1	ppm	
12/31/2013	11:25 AM	Work Area	Derailment Site	46.901752	-97.23285	MultiRAE	VOC	<0.1	ppm	
12/31/2013	11:25 AM	Work Area	Derailment Site	46.901752	-97.23285	MultiRAE	O2	20.9	%	
12/31/2013	11:25 AM	Work Area	Derailment Site	46.901752	-97.23285	MultiRAE	LEL	<1	%	
12/31/2013	11:26 AM	Work Area	Derailment Site	46.901752	-97.23285	Gastec 121L	Benzene	<0.1	ppm	
12/31/2013	11:26 AM	Evacuated Community	1st Ave N & 3rd St N	46.903912	-97.220999	AM510	PM2.5	0.005	mg/m3	No odor; Residence; No odor. Light wind. Evacuated community.
12/31/2013	11:27 AM	Work Area	Derailment Site	46.901782	-97.232847	AM510	PM2.5	0.042	mg/m3	Bulldozer is piling up gravel ~15 yards northwest
12/31/2013	11:28 AM	Evacuated Community	1st Ave N & 2nd St N	46.902877	-97.221048	AM510	PM2.5	0.007	mg/m3	No odor; Residence; No odor. Light wind. Evacuated community.
12/31/2013	11:28 AM	Work Area	North side of wreck site, where hopper cars are being moved	46.901771	-97.232938	MultiRAE	NO	<0.5	ppm	Slight Odor;
12/31/2013	11:32 AM	Work Area	Derailment Site	46.901799	-97.23291	Gastec 9L	NO2	<0.1	ppm	

Date	Time	Location Category	Location Description	Latitude	Longitude	Instrument	Analyte	Concentration	Units	Comments
12/31/2013	11:32 AM	Evacuated Community	3rd St N & 4th Ave N	46.903875	-97.21598	AM510	PM2.5	0.008	mg/m3	No odor; Residence; No odor. Light wind. Evacuated community.
12/31/2013	11:36 AM	Evacuated Community	Western endpoint of 1st St N, cul de sac	46.901891	-97.219735	AM510	PM2.5	0.006	mg/m3	No odor; Residence; No odor. Light wind. Evacuated community.
12/31/2013	11:50 AM	Evacuated Community	Western endpoint of 1st St S, cul de sac	46.900169	-97.220159	AM510	PM2.5	0.007	mg/m3	No odor; Residence; No odor. Light wind. Evacuated community.
12/31/2013	11:52 AM	Work Area	North side of wreck site, where hopper cars are being moved	46.901682	-97.232959	MultiRAE	VOC	<0.1	ppm	Up wind; Slight Odor;
12/31/2013	11:52 AM	Work Area	North side of wreck site, where hopper cars are being moved	46.901734	-97.232948	MultiRAE	O2	20.9	%	Up wind; Slight Odor;
12/31/2013	11:53 AM	Work Area	North side of wreck site, where hopper cars are being moved	46.901735	-97.232955	MultiRAE	LEL	<1	%	Up wind; Slight Odor;
12/31/2013	11:56 AM	Work Area	Derailment Site	46.901708	-97.232979	Gastec 9L	NO2	<0.1	ppm	
12/31/2013	11:57 AM	Work Area	Derailment Site	46.90171	-97.233001	MultiRAE	H2S	<1	ppm	
12/31/2013	11:57 AM	Work Area	Derailment Site	46.90171	-97.233001	MultiRAE	O2	20.9	%	
12/31/2013	11:58 AM	Work Area	Derailment Site	46.90171	-97.233001	MultiRAE	LEL	<1	%	
12/31/2013	11:58 AM	Work Area	Derailment Site	46.901695	-97.232911	Gastec 121L	Benzene	<0.1	ppm	
12/31/2013	11:59 AM	Work Area	Derailment Site	46.901747	-97.232892	MultiRAE	VOC	<0.1	ppm	
12/31/2013	12:00 PM	Work Area	Derailment Site	46.901747	-97.232892	AM510	PM2.5	0.44	mg/m3	Bulldozer is piling up gravel, dust causing slight elevation in readings in comparison to earlier detections.

Date	Time	Location Category	Location Description	Latitude	Longitude	Instrument	Analyte	Concentration	Units	Comments
12/31/2013	12:03 PM	Evacuated Community	Western endpoint of 4th St S, cul de sac	46.896918	-97.219242	AM510	PM2.5	0.007	mg/m3	No odor; Residence; No odor. Light wind. Evacuated community.
12/31/2013	12:08 PM	Evacuated Community	1st St S & 6th Ave S	46.899708	-97.213195	AM510	PM2.5	0.005	mg/m3	No odor; Business; No odor. Light wind. Evacuated community.
12/31/2013	12:12 PM	Evacuated Community	6th Ave S & 4th St S	46.896123	-97.213497	AM510	PM2.5	0.007	mg/m3	No odor; Residence; No odor. Light wind. Evacuated community.
12/31/2013	12:13 PM	Evacuated Community	Western endpoint of Cottonwood Drive, cul de sac	46.891912	-97.219526	AM510	PM2.5	0.007	mg/m3	No odor; Residence; No odor. Light wind. Evacuated community.
12/31/2013	12:24 PM	Evacuated Community	Good Samaritan Society Retirement Home	46.905427	-97.212188	AM510	PM2.5	0.005	mg/m3	No odor; Residence; No odor. Light wind. Evacuated community.
12/31/2013	12:26 PM	Work Area	Derailment Site	46.901837	-97.232942	MultiRAE	H2S	<1	ppm	
12/31/2013	12:29 PM	Work Area	Derailment Site	46.901837	-97.232942	MultiRAE	VOC	<0.1	ppm	
12/31/2013	12:29 PM	Work Area	Derailment Site	46.901837	-97.232942	MultiRAE	O2	20.9	%	
12/31/2013	12:29 PM	Work Area	Derailment Site	46.901837	-97.232942	MultiRAE	LEL	<1	%	
12/31/2013	12:31 PM	Work Area	Derailment Site	46.901837	-97.232942	AM510	PM2.5	0.023	mg/m3	
12/31/2013	12:33 PM	Evacuated Community	1st Ave N & 5th St N	46.905001	-97.221356	AM510	PM2.5	0.007	mg/m3	No odor; Residence; No odor. Light wind. Evacuated community.
12/31/2013	12:36 PM	Evacuated Community	1st Ave N & 3rd St N	46.903843	-97.22109	AM510	PM2.5	0.007	mg/m3	No odor; Residence; No odor. Light wind. Evacuated community.
12/31/2013	12:37 PM	Work Area	North side of wreck site, where hopper cars are being moved	46.901825	-97.232896	Gastec 121L	Benzene	<0.1	ppm	No odor; Up wind;
12/31/2013	12:39 PM	Work Area	Derailment Site	46.901821	-97.23312	MultiRAE	H2S	<1	ppm	

Date	Time	Location Category	Location Description	Latitude	Longitude	Instrument	Analyte	Concentration	Units	Comments
12/31/2013	12:39 PM	Evacuated Community	1st Ave N & 2nd St N	46.902937	-97.22108	AM510	PM2.5	0.006	mg/m3	No odor; Residence; No odor. Light wind. Evacuated community.
12/31/2013	12:40 PM	Work Area	Derailment Site	46.901821	-97.23312	MultiRAE	O2	20.9	%	
12/31/2013	12:41 PM	Work Area	Derailment Site	46.901824	-97.233079	MultiRAE	LEL	<1	%	
12/31/2013	12:41 PM	Work Area	Derailment Site	46.901824	-97.233079	MultiRAE	VOC	<0.1	ppm	
12/31/2013	12:42 PM	Work Area	Derailment Site	46.901818	-97.233005	AM510	PM2.5	0.024	mg/m3	
12/31/2013	12:43 PM	Work Area	Derailment Site	46.901824	-97.233079	Gastec 9L	NO2	<0.1	ppm	
12/31/2013	12:44 PM	Evacuated Community	3rd St N & 4th Ave N	46.903926	-97.216124	AM510	PM2.5	0.007	mg/m3	No odor; Residence; No odor. Light wind. Evacuated community.
12/31/2013	12:58 PM	Work Area	Derailment Site	46.901891	-97.233983	AM510	PM2.5	0.021	mg/m3	
12/31/2013	12:59 PM	Evacuated Community	Western endpoint of 1st St S, cul de sac	46.900018	-97.220331	AM510	PM2.5	0.007	mg/m3	No odor; Residence; No odor. Light wind. Evacuated community.
12/31/2013	1:02 PM	Work Area	North side of wreck site, where hopper cars are being moved	46.901564	-97.234151	Gastec 121L	Benzene	<0.1	ppm	No odor; Up wind;
12/31/2013	1:04 PM	Work Area	North side of wreck site, where hopper cars are being moved	46.901641	-97.234102	Gastec 9L	NO2	<0.1	ppm	No odor; Up wind;
12/31/2013	1:06 PM	Work Area	Derailment Site	46.901693	-97.234049	MultiRAE	H2S	<1	ppm	
12/31/2013	1:06 PM	Work Area	Derailment Site	46.901693	-97.234049	MultiRAE	VOC	<0.1	ppm	
12/31/2013	1:06 PM	Work Area	Derailment Site	46.901693	-97.234049	MultiRAE	O2	20.9	%	

Date	Time	Location Category	Location Description	Latitude	Longitude	Instrument	Analyte	Concentration	Units	Comments
12/31/2013	1:07 PM	Work Area	Derailment Site	46.901693	-97.234049	MultiRAE	LEL	<1	%	
12/31/2013	1:10 PM	Evacuated Community	Western endpoint of 4th St S, cul de sac	46.896724	-97.21939	AM510	PM2.5	0.006	mg/m3	No odor; Residence; No odor. Light wind. Evacuated community.
12/31/2013	1:14 PM	Evacuated Community	1st St S & 6th Ave S	46.89971	-97.213216	AM510	PM2.5	0.004	mg/m3	No odor; Business; No odor. Light wind. Evacuated community.
12/31/2013	1:15 PM	Work Area	Derailment Site	46.901671	-97.234088	MultiRAE	H2S	<1	ppm	
12/31/2013	1:15 PM	Work Area	Derailment Site	46.901671	-97.234088	MultiRAE	VOC	<0.1	ppm	
12/31/2013	1:16 PM	Work Area	Derailment Site	46.901671	-97.234088	MultiRAE	O2	20.9	%	
12/31/2013	1:16 PM	Work Area	Derailment Site	46.901671	-97.234088	MultiRAE	LEL	<1	%	
12/31/2013	1:26 PM	Evacuated Community	6th Ave S & 4th St S	46.896154	-97.213583	AM510	PM2.5	0.006	mg/m3	No odor; Residence; No odor. Light wind. Evacuated community.
12/31/2013	1:28 PM	Evacuated Community	Western endpoint of Cottonwood Drive, cul de sac	46.891896	-97.219534	AM510	PM2.5	0.006	mg/m3	No odor; Residence; No odor. Light wind. Evacuated community.
12/31/2013	1:34 PM	Work Area	Derailment Site	46.901596	-97.234059	MultiRAE	H2S	<1	ppm	
12/31/2013	1:34 PM	Work Area	Derailment Site	46.901592	-97.234081	MultiRAE	VOC	<0.1	ppm	
12/31/2013	1:34 PM	Work Area	Derailment Site	46.901611	-97.234079	MultiRAE	LEL	<1	%	
12/31/2013	1:35 PM	Work Area	Derailment Site	46.901592	-97.234135	MultiRAE	O2	20.9	%	
12/31/2013	1:39 PM	Work Area	North side of wreck site, where hopper cars are being moved	46.901699	-97.234021	Gastec 121L	Benzene	<0.1	ppm	No odor; Up wind;

Date	Time	Location Category	Location Description	Latitude	Longitude	Instrument	Analyte	Concentration	Units	Comments
12/31/2013	1:40 PM	Work Area	North side of wreck site, where hopper cars are being moved	46.901674	-97.234039	Gastec 9L	NO2	<0.1	ppm	No odor; Up wind;
12/31/2013	3:00 PM	Community	1st Ave N & 5th St N	46.905164	-97.221321	MultiRAE	H2S	<1	ppm	
12/31/2013	3:01 PM	Community	1st Ave N & 5th St N	46.90505	-97.221318	MultiRAE	VOC	<0.1	ppm	
12/31/2013	3:01 PM	Community	FRT-2	46.90506	-97.221338	Gastec 9L	NO2	<0.1	ppm	No odor;
12/31/2013	3:01 PM	Community	1st Ave N & 5th St N	46.905058	-97.221307	MultiRAE	O2	20.9	%	
12/31/2013	3:02 PM	Community	1st Ave N & 5th St N	46.905058	-97.221307	MultiRAE	LEL	<1	%	
12/31/2013	3:02 PM	Community	1st Ave N & 5th St N	46.905069	-97.221324	AM510	PM2.5	0.01	mg/m3	
12/31/2013	3:09 PM	Community	FRT-2	46.905069	-97.221379	Gastec 121L	Benzene	<0.1	ppm	No odor;
12/31/2013	3:12 PM	Community	FRT-3	46.903079	-97.221036	Gastec 121L	Benzene	<0.1	ppm	No odor;
12/31/2013	3:13 PM	Community	1st Ave N & 2nd St N	46.903003	-97.22107	AM510	PM2.5	0.011	mg/m3	
12/31/2013	3:14 PM	Community	1st Ave N & 2nd St N	46.903047	-97.221092	MultiRAE	H2S	<1	ppm	
12/31/2013	3:14 PM	Community	1st Ave N & 2nd St N	46.903047	-97.221092	MultiRAE	VOC	<0.1	ppm	
12/31/2013	3:15 PM	Community	1st Ave N & 2nd St N	46.903047	-97.221092	MultiRAE	O2	20.9	%	
12/31/2013	3:15 PM	Community	Driveway of unity seed company	46.903327	-97.242403	MultiRAE	H2S	<1	ppm	No odor; Residence; Business; Wind calm, west of derailment site
12/31/2013	3:15 PM	Community	1st Ave N & 2nd St N	46.903047	-97.221092	MultiRAE	LEL	<1	%	

Date	Time	Location Category	Location Description	Latitude	Longitude	Instrument	Analyte	Concentration	Units	Comments
12/31/2013	3:15 PM	Community	Driveway of house by south truck entrance	46.903411	-97.24244	AM510	PM2.5	0.005	mg/m3	No odor; Residence; No odor. Light wind. Evacuated community.
12/31/2013	3:18 PM	Community	Drive way unity seed company	46.903368	-97.242432	MultiRAE	VOC	<0.1	ppm	No odor; Residence; Business; Wind calm, west of site
12/31/2013	3:18 PM	Community	Driveway of house by south truck entrance	46.903473	-97.242409	MultiRAE	CO	<1	ppm	No odor; Residence; No odor. Light wind. Evacuated community.
12/31/2013	3:19 PM	Community	Driveway unity seed company	46.903368	-97.242432	MultiRAE	SO2	<0.1	ppm	No odor; Residence; Business; Wind calm west of site
12/31/2013	3:21 PM	Community	Drive way of unity seed company	46.903368	-97.242432	MultiRAE	O2	20.9	%	No odor; Residence; Business; Wind calm, west of site
12/31/2013	3:23 PM	Community	Driveway of house by south truck entrance	46.903222	-97.242429	Gastec 9L	NO2	<0.1	ppm	No odor; Residence; No odor. Light wind. Evacuated community.
12/31/2013	3:26 PM	Community	Access road southwest of incident	46.90007	-97.242407	AM510	PM2.5	0.006	mg/m3	No odor; No odor. Light wind. Evacuated community.
12/31/2013	3:27 PM	Community	About One kilometer	46.899842	-97.242177	MultiRAE	VOC	<0.1	ppm	No odor; Residence; Business; Wind calm west of site
12/31/2013	3:29 PM	Community	About one kilometer southwest of site	46.899637	-97.242329	MultiRAE	H2S	<1	ppm	No odor; Residence; Business; Wind calm, southwest of site
12/31/2013	3:29 PM	Community	Access road southwest of incident.	46.899824	-97.242418	MultiRAE	CO	<1	ppm	No odor; No odor. Light wind. Evacuated community.
12/31/2013	3:33 PM	Community	One kilometer south of site	46.899637	-97.242329	MultiRAE	VOC	<0.1	ppm	Residence; Business; Slight Odor; Wind calm out of the north, slight burning odor directly downwind of site
12/31/2013	3:38 PM	Community	Access road south of incident	46.890665	-97.239906	UltraRAE	Benzene	<0.05	ppm	Slight Odor; Light burning odor. Light wind. Evacuated community.
12/31/2013	3:40 PM	Community	Access road south of incident	46.890665	-97.239906	AM510	PM2.5	0.128	mg/m3	No odor; No odor. Light wind. Evacuated community.

Date	Time	Location Category	Location Description	Latitude	Longitude	Instrument	Analyte	Concentration	Units	Comments
12/31/2013	4:46 PM	Work Area	Next to rail car BNSF 486840	46.901559	-97.23404	MultiRAE	VOC	<0.1	ppm	No odor; Up wind; Next to rail car BNSF 486840
12/31/2013	5:25 PM	Work Area	20 yards south of sight incident	46.901726	-97.233622	MultiRAE	VOC	<0.1	ppm	No odor; wind, out of the north workers working to remove cars
12/31/2013	5:29 PM	Work Area	5 yards from derailed car on fire	46.901726	-97.233622	MultiRAE	VOC	4.2	ppm	Slight Odor; slight odor after workers move car that is on fire. Fluctuating between 4.2 and 2.0. currently no detection
12/31/2013	5:36 PM	Work Area	Incident area	46.901726	-97.233622	MultiRAE	H2S	<1	ppm	Slight Odor; wind, out of the north workers working to remove cars
12/31/2013	5:41 PM	Work Area	Incident area	46.901726	-97.233622	AM510	PM2.5	0.037	mg/m3	No odor; wind, out of the north workers working to remove cars
12/31/2013	6:30 PM	Work Area	Incident area	46.901869	-97.232877	MultiRAE	VOC	1.3	ppm	No odor; Workers clearing soil, wind calm
12/31/2013	6:31 PM	Work Area	Incident area	46.90198	-97.232871	MultiRAE	SO2	<0.1	ppm	No odor; Workers clearing soil, wind calm
12/31/2013	6:33 PM	Work Area	Incident area	46.90198	-97.232871	MultiRAE	LEL	<1	%	No odor; Wind calm, workers clearing soil
12/31/2013	6:35 PM	Work Area	Incident area	46.90198	-97.232871	AM510	PM2.5	0.045	mg/m3	No odor; Wind calm, workers clearing soil
12/31/2013	6:51 PM	Work Area	Next to derailed cars on track	46.901458	-97.233258	MultiRAE	VOC	1.3	ppm	No odor; Up wind; Next to derailed cars on track
12/31/2013	6:54 PM	Work Area	Next to derailed cars on track	46.901542	-97.233464	UltraRAE	Benzene	<0.05	ppm	Up wind; Slight Odor; Next to derailed cars on track
12/31/2013	7:14 PM	Community	Good Samaritan Society Retirement Home	46.905371	-97.212279	MultiRAE	CO	<1	ppm	No odor; Residence;
12/31/2013	7:15 PM	Community	Good Samaritan Society Retirement Home	46.905393	-97.212249	MultiRAE	LEL	<1	%	No odor; Residence;
12/31/2013	7:16 PM	Community	Good Samaritan Society Retirement Home	46.905371	-97.212279	MultiRAE	VOC	<0.1	ppm	No odor; Residence;

Date	Time	Location Category	Location Description	Latitude	Longitude	Instrument	Analyte	Concentration	Units	Comments
12/31/2013	7:17 PM	Community	Good Samaritan Society Retirement Home	46.905393	-97.212249	MultiRAE	H2S	<1	ppm	No odor; Residence;
12/31/2013	7:18 PM	Community	Good Samaritan Society Retirement Home	46.905393	-97.212249	MultiRAE	O2	20.9	%	No odor; Residence;
12/31/2013	7:22 PM	Work Area	Incident area	46.901726	-97.233622	MultiRAE	VOC	4.6	ppm	Slight Odor; workers moving rail cars and clearing dirt.
12/31/2013	7:22 PM	Community	Good Samaritan Society Retirement Home	46.905362	-97.212214	AM510	PM2.5	0.007	mg/m3	No odor; Residence;
12/31/2013	7:25 PM	Work Area	Incident area	46.901726	-97.233622	Gastec 9L	NO2	<0.1	ppm	Slight Odor; workers moving rail cars and clearing dirt
12/31/2013	7:26 PM	Work Area	Incident area	46.901726	-97.233622	MultiRAE	CO	<1	ppm	No odor; workers moving rail cars and clearing dirt
12/31/2013	7:30 PM	Work Area	Incident area	46.901726	-97.233622	MultiRAE	LEL	<1	%	No odor; workers moving rail cars and clearing dirt
12/31/2013	7:34 PM	Community	1st Ave N & 5th St N	46.905075	-97.221343	AM510	PM2.5	0.011	mg/m3	No odor; Residence;
12/31/2013	7:38 PM	Community	1st Ave N & 5th St N	46.905104	-97.221324	MultiRAE	CO	<1	ppm	No odor; Residence;
12/31/2013	7:38 PM	Community	1st Ave N & 5th St N	46.905104	-97.221324	MultiRAE	LEL	<1	%	No odor; Residence;
12/31/2013	7:39 PM	Community	1st Ave N & 5th St N	46.905096	-97.221357	MultiRAE	O2	20.9	%	No odor; Residence;
12/31/2013	7:39 PM	Community	1st Ave N & 5th St N	46.905096	-97.221357	MultiRAE	VOC	<0.1	ppm	No odor; Residence;
12/31/2013	7:40 PM	Community	1st Ave N & 5th St N	46.905089	-97.221368	MultiRAE	H2S	<1	ppm	No odor; Residence;
12/31/2013	7:55 PM	Community	1st Ave N & 3rd St N	46.903913	-97.220848	MultiRAE	LEL	<1	%	No odor; Residence;

Date	Time	Location Category	Location Description	Latitude	Longitude	Instrument	Analyte	Concentration	Units	Comments
12/31/2013	7:55 PM	Community	1st Ave N & 3rd St N	46.903913	-97.220848	MultiRAE	O2	20.9	%	No odor; Residence;
12/31/2013	7:56 PM	Community	1st Ave N & 3rd St N	46.903913	-97.220848	MultiRAE	VOC	<0.1	ppm	No odor; Residence;
12/31/2013	7:56 PM	Community	1st Ave N & 3rd St N	46.903913	-97.220848	MultiRAE	H2S	<1	ppm	No odor; Residence;
12/31/2013	7:56 PM	Community	1st Ave N & 3rd St N	46.903913	-97.220848	MultiRAE	CO	<1	ppm	No odor; Residence;
12/31/2013	7:56 PM	Community	1st Ave N & 3rd St N	46.903913	-97.220848	AM510	PM2.5	0.024	mg/m3	No odor; Residence;
12/31/2013	8:08 PM	Community	1st Ave N & 2nd St N	46.902896	-97.220786	AM510	PM2.5	0.022	mg/m3	Wood burning odor; Residence;
12/31/2013	8:09 PM	Community	1st Ave N & 2nd St N	46.902896	-97.220786	MultiRAE	CO	<1	ppm	Wood burning odor; Residence;
12/31/2013	8:09 PM	Community	1st Ave N & 2nd St N	46.902896	-97.220786	MultiRAE	H2S	<1	ppm	Wood burning odor; Residence;
12/31/2013	8:09 PM	Community	1st Ave N & 2nd St N	46.902896	-97.220786	MultiRAE	VOC	<0.1	ppm	Wood burning odor; Residence;
12/31/2013	8:09 PM	Community	1st Ave N & 2nd St N	46.902896	-97.220786	MultiRAE	O2	20.9	%	Wood burning odor; Residence;
12/31/2013	8:09 PM	Community	1st Ave N & 2nd St N	46.902896	-97.220786	MultiRAE	LEL	<1	%	Wood burning odor; Residence;
12/31/2013	8:09 PM	Community	1st Ave N & 2nd St N	46.902896	-97.220786	Gastec 9L	NO2	<0.1	ppm	Wood burning odor; Residence; QC: 20357
12/31/2013	8:10 PM	Work Area	In front of scrap pile	46.901688	-97.23328	MultiRAE	VOC	2	ppm	Moderate Odor; In front of scrap pile
12/31/2013	8:14 PM	Work Area	In front of scrap pile	46.901684	-97.233234	AM510	PM2.5	0.025	mg/m3	Moderate Odor; In front of scrap pile
12/31/2013	8:23 PM	Community	3rd St N & 4th Ave N	46.903845	-97.215912	MultiRAE	H2S	<1	ppm	Wood burning odor; Residence;
12/31/2013	8:23 PM	Community	3rd St N & 4th Ave N	46.903845	-97.215912	MultiRAE	VOC	<0.1	ppm	Wood burning odor; Residence;

Date	Time	Location Category	Location Description	Latitude	Longitude	Instrument	Analyte	Concentration	Units	Comments
12/31/2013	8:23 PM	Community	3rd St N & 4th Ave N	46.903845	-97.215912	AM510	PM2.5	0.016	mg/m3	Wood burning odor; Residence;
12/31/2013	8:25 PM	Community	3rd St N & 4th Ave N	46.903844	-97.215893	MultiRAE	O2	20.9	%	Wood burning odor; Residence;
12/31/2013	8:25 PM	Community	3rd St N & 4th Ave N	46.903844	-97.215893	MultiRAE	LEL	<1	%	Wood burning odor; Residence;
12/31/2013	8:25 PM	Community	3rd St N & 4th Ave N	46.903844	-97.215893	MultiRAE	CO	<1	ppm	Wood burning odor; Residence;
12/31/2013	8:32 PM	Community	Western endpoint of 1st St N, cul de sac	46.90181	-97.219867	AM510	PM2.5	0.018	mg/m3	No odor; Residence;
12/31/2013	8:32 PM	Community	Western endpoint of 1st St N, cul de sac	46.90186	-97.219852	MultiRAE	CO	<1	ppm	No odor; Residence;
12/31/2013	8:33 PM	Community	Western endpoint of 1st St N, cul de sac	46.90186	-97.219852	MultiRAE	H2S	<1	ppm	No odor; Residence;
12/31/2013	8:33 PM	Community	Western endpoint of 1st St N, cul de sac	46.90186	-97.219852	MultiRAE	VOC	<0.1	ppm	No odor; Residence;
12/31/2013	8:33 PM	Community	Western endpoint of 1st St N, cul de sac	46.90186	-97.219852	MultiRAE	O2	20.9	%	No odor; Residence;
12/31/2013	8:33 PM	Community	Western endpoint of 1st St N, cul de sac	46.90186	-97.219852	MultiRAE	LEL	<1	%	No odor; Residence;
12/31/2013	8:46 PM	Community	Western endpoint of 1st St S, cul de sac	46.900179	-97.220212	MultiRAE	CO	<1	ppm	No odor; Residence;
12/31/2013	8:46 PM	Community	Western endpoint of 1st St S, cul de sac	46.900179	-97.220212	MultiRAE	H2S	<1	ppm	No odor; Residence;
12/31/2013	8:46 PM	Community	Western endpoint of 1st St S, cul de sac	46.900179	-97.220212	MultiRAE	VOC	<0.1	ppm	No odor; Residence;

Date	Time	Location Category	Location Description	Latitude	Longitude	Instrument	Analyte	Concentration	Units	Comments
12/31/2013	8:46 PM	Community	Western endpoint of 1st St S, cul de sac	46.900179	-97.220212	MultiRAE	O2	20.9	%	No odor; Residence;
12/31/2013	8:47 PM	Community	Western endpoint of 1st St S, cul de sac	46.900179	-97.220212	MultiRAE	LEL	<1	%	No odor; Residence;
12/31/2013	8:47 PM	Community	Western endpoint of 1st St S, cul de sac	46.900179	-97.220212	AM510	PM2.5	0.019	mg/m3	No odor; Residence;
12/31/2013	8:53 PM	Community	Western endpoint of 4th St S, cul de sac	46.896874	-97.21928	AM510	PM2.5	0.017	mg/m3	No odor; Residence; Business;
12/31/2013	8:53 PM	Work Area	Incident area	46.901726	-97.233622	MultiRAE	VOC	<0.1	ppm	No odor; workers moving rail cars and clearing dirt
12/31/2013	8:54 PM	Community	Western endpoint of 4th St S, cul de sac	46.896871	-97.219296	MultiRAE	CO	<1	ppm	No odor; Residence; Business;
12/31/2013	8:54 PM	Community	Western endpoint of 4th St S, cul de sac	46.896871	-97.219296	MultiRAE	H2S	<1	ppm	No odor; Residence; Business;
12/31/2013	8:54 PM	Community	Western endpoint of 4th St S, cul de sac	46.896871	-97.219296	MultiRAE	VOC	<0.1	ppm	No odor; Residence; Business;
12/31/2013	8:54 PM	Community	Western endpoint of 4th St S, cul de sac	46.896871	-97.219296	MultiRAE	O2	20.9	%	No odor; Residence; Business;
12/31/2013	8:54 PM	Community	Western endpoint of 4th St S, cul de sac	46.896871	-97.219296	MultiRAE	LEL	<1	%	No odor; Residence; Business;
12/31/2013	8:55 PM	Work Area	Incident area	46.901726	-97.233622	UltraRAE	Benzene	<0.05	ppm	No odor; workers moving rail cars and clearing dirt
12/31/2013	8:56 PM	Work Area	Incident area	46.901726	-97.233622	MultiRAE	CO	<1	ppm	No odor; workers moving rail cars and clearing dirt
12/31/2013	8:57 PM	Work Area	Incident area	46.901726	-97.233622	MultiRAE	LEL	<1	%	No odor; workers moving rail cars and clearing dirt
12/31/2013	9:00 PM	Community	1st St S & 6th Ave S	46.899795	-97.21326	AM510	PM2.5	0.017	mg/m3	No odor; Business;

Date	Time	Location Category	Location Description	Latitude	Longitude	Instrument	Analyte	Concentration	Units	Comments
12/31/2013	9:00 PM	Community	1st St S & 6th Ave S	46.899795	-97.21326	MultiRAE	CO	<1	ppm	No odor; Residence; Up wind;
12/31/2013	9:00 PM	Community	1st St S & 6th Ave S	46.899795	-97.21326	MultiRAE	H2S	<1	ppm	No odor; Business; Up wind;
12/31/2013	9:01 PM	Community	1st St S & 6th Ave S	46.899795	-97.21326	MultiRAE	VOC	<0.1	ppm	No odor; Business; Up wind;
12/31/2013	9:01 PM	Community	1st St S & 6th Ave S	46.899795	-97.21326	MultiRAE	O2	20.9	%	No odor; Business; Up wind;
12/31/2013	9:01 PM	Community	1st St S & 6th Ave S	46.899795	-97.21326	MultiRAE	LEL	<1	%	No odor; Business; Up wind;
12/31/2013	10:16 PM	Work Area	Incident location	46.901726	-97.233622	MultiRAE	VOC	<0.1	ppm	No odor; workers moving rail cars and clearing dirt
12/31/2013	10:18 PM	Work Area	Incident location	46.901726	-97.233622	AM510	PM2.5	0.022	mg/m3	No odor; workers moving rail cars and clearing dirt
12/31/2013	10:51 PM	Work Area	Incident area	46.901726	-97.233622	MultiRAE	VOC	10.2	ppm	Slight Odor; exhaust order crews about to dump over flaming railcar
12/31/2013	10:59 PM	Work Area	Incident location	46.901726	-97.233622	UltraRAE	Benzene	<0.05	ppm	Slight Odor; exhaust order crews about to dump over blaming real car
12/31/2013	11:04 PM	Work Area	Incident area	46.901726	-97.233622	MultiRAE	CO	<1	ppm	Slight Odor; Product burning in berm area after being dumped by work crews. Wind out of the north
12/31/2013	11:05 PM	Work Area	Hot zone, near last fiery tank car.	46.901624	-97.233323	Gastec 9L	NO2	<0.1	ppm	Exhaust fumes odor; Exhaust fumes present; Up wind; Reading taken after contents of car were dumped out. Large burn occurring.
12/31/2013	11:06 PM	Work Area	Hot zone, near last fiery tank car.	46.901626	-97.233341	MultiRAE	H2S	<1	ppm	Exhaust fumes odor; Exhaust fumes present; Up wind; Reading taken after contents of car were dumped and on fire.
12/31/2013	11:25 PM	Community	15th ave, NW of site	46.896267	-97.24228	AM510	PM2.5	0.008	mg/m3	No odor; Down wind; Directly underneath visible smoke plume from site
12/31/2013	11:30 PM	Community	36th and15th ave, NW of site	46.890607	-97.244393	AM510	PM2.5	0.008	mg/m3	No odor; Residence; Down wind; Directly underneath visible smoke plume from site
12/31/2013	11:46 PM	Community	1st Ave N & 5th St N	46.905096	-97.221414	AM510	PM2.5	0.013	mg/m3	No odor; Residence; Up wind; Smoke plume visible on site, blowing NW.

Date	Time	Location Category	Location Description	Latitude	Longitude	Instrument	Analyte	Concentration	Units	Comments
12/31/2013	11:57 PM	Community	5th and 2nd	46.905138	-97.218846	AM510	PM2.5	0.222	mg/m3	Down wind; Slight Odor; Noticeable, slight burning odor.
1/1/2014	12:04 AM	Community	1st Ave N & 3rd St N	46.905079	-97.218813	MultiRAE	LEL	<1	%	Residence; Down wind; Slight Odor; Noticeable burning odor from site
1/1/2014	12:10 AM	Community	1st Ave N & 3rd St N	46.903892	-97.220802	MultiRAE	VOC	<0.1	ppm	Down wind; Slight Odor; FRT 03
1/1/2014	12:12 AM	Community	1st Ave N & 3rd St N	46.903884	-97.220768	AM510	PM2.5	0.012	mg/m3	No odor; Residence; No work activity; Calm wind
1/1/2014	12:20 AM	Community	1st Ave N & 2nd St N	46.902884	-97.220785	MultiRAE	VOC	<0.1	ppm	No odor; FRT 04
1/1/2014	12:20 AM	Community	1st Ave N & 2nd St N	46.902858	-97.220758	AM510	PM2.5	0.012	mg/m3	No odor; Residence; Down wind;
1/1/2014	12:22 AM	Community	1st Ave N & 2nd St N	46.90286	-97.220784	MultiRAE	LEL	<1	%	No odor; Residence; Down wind;
1/1/2014	12:27 AM	Community	3rd St N & 4th Ave N	46.903855	-97.215851	AM510	PM2.5	0.02	mg/m3	No odor; Down wind; FRT05
1/1/2014	12:27 AM	Community	3rd St N & 4th Ave N	46.903959	-97.216185	MultiRAE	LEL	<1	%	No odor; Residence; Down wind;
1/1/2014	12:28 AM	Community	3rd St N & 4th Ave N	46.903942	-97.21616	MultiRAE	VOC	<0.1	ppm	No odor; Residence; Down wind;
1/1/2014	12:33 AM	Work Area	Hot zone near last flaming tank car.	46.901752	-97.233156	AM510	PM2.5	0.009	mg/m3	Exhaust fumes odor; Exhaust fumes present; No wind. Tank car had just been rolled over to release more product.
1/1/2014	12:34 AM	Community	Western endpoint of 1st St N, cul de sac	46.901853	-97.219779	MultiRAE	VOC	<0.1	ppm	No odor; Business; Calm wind
1/1/2014	12:35 AM	Community	Western endpoint of 1st St N, cul de sac	46.901842	-97.219797	MultiRAE	LEL	<1	%	No odor; Business; Calm wind
1/1/2014	12:35 AM	Community	Western endpoint of 1st St N, cul de sac	46.901891	-97.219829	AM510	PM2.5	0.017	mg/m3	No odor; FRT06
1/1/2014	12:40 AM	Community	Western endpoint of 1st St S, cul de sac	46.900258	-97.220472	AM510	PM2.5	0.016	mg/m3	No odor; Down wind; FRT07

Date	Time	Location Category	Location Description	Latitude	Longitude	Instrument	Analyte	Concentration	Units	Comments
1/1/2014	12:41 AM	Community	Western endpoint of 1st St S, cul de sac	46.900296	-97.220399	MultiRAE	VOC	<0.1	ppm	No odor; Residence; Up wind; Visible smoke plume on site, blowing northward.
1/1/2014	12:42 AM	Community	Western endpoint of 1st St S, cul de sac	46.900303	-97.220444	MultiRAE	LEL	<1	%	No odor; Residence; Up wind; Visible smoke plume on site, blowing northward.
1/1/2014	12:46 AM	Work Area	Hot zone near last flaming tank car.	46.901717	-97.233167	MultiRAE	CO	<1	ppm	Exhaust fumes odor; Exhaust fumes present; No wind. Tank car had just been rolled over to release more product.
1/1/2014	12:46 AM	Work Area	Hot zone near last flaming tank car.	46.901716	-97.233161	MultiRAE	H2S	<1	ppm	Exhaust fumes odor; Exhaust fumes present; No wind. Tank car had just been rolled over to release more product.
1/1/2014	12:46 AM	Work Area	Hot zone near last flaming tank car.	46.901696	-97.233182	MultiRAE	VOC	<0.1	ppm	Exhaust fumes odor; Exhaust fumes present; No wind. Tank car had just been rolled over to release more product.
1/1/2014	12:46 AM	Work Area	Hot zone near last flaming tank car.	46.901717	-97.233155	MultiRAE	O2	20.9	%	Exhaust fumes odor; Exhaust fumes present;
1/1/2014	12:48 AM	Community	Western endpoint of 4th St S, cul de sac	46.896532	-97.220284	AM510	PM2.5	0.016	mg/m3	No odor; Down wind; FRT08
1/1/2014	12:48 AM	Community	Western endpoint of 4th St S, cul de sac	46.896565	-97.220378	MultiRAE	VOC	<0.1	ppm	No odor; Business; Up wind; Visible plume from site, blowing northward
1/1/2014	12:49 AM	Community	Western endpoint of 4th St S, cul de sac	46.896541	-97.220351	MultiRAE	LEL	<1	%	No odor; Business; Up wind; Visible plume from site, blowing northward
1/1/2014	12:56 AM	Work Area	No wind. Tank car had just been rolled over to release more product.	46.901984	-97.232895	MultiRAE	LEL	<1	%	Exhaust fumes odor; Exhaust fumes present; No wind. Tank car had just been rolled over to release more product.
1/1/2014	12:58 AM	Community	1st St S & 6th Ave S	46.899752	-97.212845	AM510	PM2.5	0.017	mg/m3	No odor; Down wind; FRT09
1/1/2014	12:59 AM	Community	1st St S & 6th Ave S	46.899653	-97.212978	MultiRAE	LEL	<1	%	No odor; Business;
1/1/2014	1:00 AM	Community	1st St S & 6th Ave S	46.899658	-97.212968	MultiRAE	VOC	<0.1	ppm	No odor; Business;

Date	Time	Location Category	Location Description	Latitude	Longitude	Instrument	Analyte	Concentration	Units	Comments
1/1/2014	1:08 AM	Community	6th Ave S & 4th St S	46.896192	-97.213337	AM510	PM2.5	0.019	mg/m3	No odor; Down wind; FRT10
1/1/2014	1:09 AM	Community	6th Ave S & 4th St S	46.896096	-97.213464	MultiRAE	LEL	<1	%	No odor; Residence;
1/1/2014	1:09 AM	Community	6th Ave S & 4th St S	46.896136	-97.213468	MultiRAE	VOC	<0.1	ppm	No odor; Residence;
1/1/2014	1:15 AM	Community	Western endpoint of Cottonwood Drive, cul de sac	46.891779	-97.219733	AM510	PM2.5	0.017	mg/m3	No odor; Down wind; FRT11
1/1/2014	1:16 AM	Community	Western endpoint of Cottonwood Drive, cul de sac	46.89181	-97.21967	MultiRAE	LEL	<1	%	No odor; Residence; No Airborne Dust Visible;
1/1/2014	1:16 AM	Community	Western endpoint of Cottonwood Drive, cul de sac	46.891894	-97.219601	MultiRAE	VOC	<0.1	ppm	No odor; Residence; No Airborne Dust Visible;
1/1/2014	1:22 AM	Work Area	75 feet west of main wreckage pile.	46.901847	-97.233586	AM510	PM2.5	0.26	mg/m3	Exhaust fumes odor; Exhaust fumes present; Cross wind from large smoke plume after tank car was agitated.
1/1/2014	1:22 AM	Work Area	75 feet west of main wreckage pile.	46.901862	-97.233608	MultiRAE	VOC	<0.1	ppm	Exhaust fumes odor; Exhaust fumes present; Cross wind from large smoke plume after tank car was agitated.
1/1/2014	1:22 AM	Work Area	75 feet west of main wreckage pile.	46.901862	-97.233608	MultiRAE	O2	20.9	%	Exhaust fumes odor; Exhaust fumes present; Cross wind from large smoke plume after tank car was agitated.
1/1/2014	1:22 AM	Work Area	75 feet west of main wreckage pile.	46.901935	-97.232885	MultiRAE	LEL	<1	%	Exhaust fumes odor; Exhaust fumes present; Cross wind from large smoke plume after tank car was agitated.
1/1/2014	2:36 AM	Work Area	Next to light plant beside scrap pile	46.901732	-97.232857	MultiRAE	VOC	<0.1	ppm	Slight Odor; Next to light plant beside scrap pile
1/1/2014	2:37 AM	Work Area	Next to light plant beside scrap pile	46.901732	-97.232857	MultiRAE	LEL	<1	%	Slight Odor; Next to light plant beside scrap pile
1/1/2014	2:44 AM	Community	1st Ave N & 5th St N	46.905056	-97.221299	AM510	PM2.5	0.016	mg/m3	No odor; Residence; Business;

Date	Time	Location Category	Location Description	Latitude	Longitude	Instrument	Analyte	Concentration	Units	Comments
1/1/2014	2:44 AM	Community	1st Ave N & 5th St N	46.905056	-97.221299	MultiRAE	CO	<1	ppm	No odor; Residence; Business;
1/1/2014	2:45 AM	Community	1st Ave N & 5th St N	46.905056	-97.221299	MultiRAE	H2S	<1	ppm	No odor; Residence; Business;
1/1/2014	2:45 AM	Community	1st Ave N & 5th St N	46.905056	-97.221299	MultiRAE	VOC	<0.1	ppm	No odor; Residence; Business;
1/1/2014	2:45 AM	Community	1st Ave N & 5th St N	46.905056	-97.221299	MultiRAE	O2	20.9	%	No odor; Residence; Business;
1/1/2014	2:45 AM	Community	1st Ave N & 5th St N	46.905056	-97.221299	MultiRAE	LEL	<1	%	No odor; Residence; Business;
1/1/2014	2:50 AM	Community	1st Ave N & 3rd St N	46.904099	-97.220993	AM510	PM2.5	0.007	mg/m3	No odor; Residence;
1/1/2014	2:50 AM	Community	1st Ave N & 3rd St N	46.90405	-97.221004	MultiRAE	CO	<1	ppm	No odor; Residence;
1/1/2014	2:50 AM	Community	1st Ave N & 3rd St N	46.904042	-97.221022	MultiRAE	H2S	<1	ppm	No odor; Residence;
1/1/2014	2:50 AM	Community	1st Ave N & 3rd St N	46.904042	-97.221023	MultiRAE	O2	20.9	%	No odor; Residence;
1/1/2014	2:50 AM	Community	1st Ave N & 3rd St N	46.904042	-97.221023	MultiRAE	VOC	<0.1	ppm	No odor; Residence;
1/1/2014	2:50 AM	Community	1st Ave N & 3rd St N	46.904042	-97.221023	MultiRAE	LEL	<1	%	No odor; Residence;
1/1/2014	2:56 AM	Community	1st Ave N & 2nd St N	46.90289	-97.220818	AM510	PM2.5	0.006	mg/m3	No odor; Residence;
1/1/2014	2:57 AM	Community	1st Ave N & 2nd St N	46.902892	-97.220814	MultiRAE	CO	<1	ppm	No odor; Residence;
1/1/2014	2:57 AM	Community	1st Ave N & 2nd St N	46.902892	-97.220814	MultiRAE	VOC	<0.1	ppm	No odor; Residence;
1/1/2014	2:57 AM	Community	1st Ave N & 2nd St N	46.902892	-97.220814	MultiRAE	O2	20.9	%	No odor; Residence;
1/1/2014	2:57 AM	Community	1st Ave N & 2nd St N	46.902892	-97.220814	MultiRAE	LEL	<1	%	No odor; Residence;

Date	Time	Location Category	Location Description	Latitude	Longitude	Instrument	Analyte	Concentration	Units	Comments
1/1/2014	3:06 AM	Community	3rd St N & 4th Ave N	46.903963	-97.215861	AM510	PM2.5	0.005	mg/m3	No odor; Residence;
1/1/2014	3:07 AM	Community	3rd St N & 4th Ave N	46.903963	-97.215861	MultiRAE	CO	<1	ppm	No odor; Residence;
1/1/2014	3:07 AM	Community	3rd St N & 4th Ave N	46.903963	-97.215861	MultiRAE	H2S	<1	ppm	No odor; Residence;
1/1/2014	3:07 AM	Community	3rd St N & 4th Ave N	46.903963	-97.215861	MultiRAE	VOC	<0.1	ppm	No odor; Residence;
1/1/2014	3:07 AM	Community	3rd St N & 4th Ave N	46.903963	-97.215861	MultiRAE	LEL	<1	%	No odor; Residence;
1/1/2014	3:12 AM	Work Area	In front of scrap pile	46.901736	-97.233325	MultiRAE	LEL	<1	%	Slight Odor; In front of scrap pile
1/1/2014	3:14 AM	Work Area	In front of scrap pile	46.901736	-97.233325	MultiRAE	VOC	1.4	ppm	Slight Odor; In front of scrap pile
1/1/2014	3:15 AM	Community	Western endpoint of 1st St N, cul de sac	46.901842	-97.21979	MultiRAE	LEL	<1	%	No odor; Residence;
1/1/2014	3:15 AM	Community	Western endpoint of 1st St N, cul de sac	46.901842	-97.21979	MultiRAE	CO	<1	ppm	No odor; Residence;
1/1/2014	3:15 AM	Community	Western endpoint of 1st St N, cul de sac	46.901842	-97.21979	AM510	PM2.5	0.006	mg/m3	No odor; Residence;
1/1/2014	3:15 AM	Community	Western endpoint of 1st St N, cul de sac	46.901858	-97.219852	MultiRAE	H2S	<1	ppm	No odor; Residence;
1/1/2014	3:15 AM	Community	Western endpoint of 1st St N, cul de sac	46.901857	-97.219857	MultiRAE	VOC	<0.1	ppm	No odor; Residence;
1/1/2014	3:15 AM	Community	Western endpoint of 1st St N, cul de sac	46.901857	-97.219857	MultiRAE	O2	20.9	%	No odor; Residence;
1/1/2014	3:33 AM	Community	Western endpoint of 1st St S, cul de sac	46.90019	-97.220381	AM510	PM2.5	0.007	mg/m3	No odor; Residence;

Date	Time	Location Category	Location Description	Latitude	Longitude	Instrument	Analyte	Concentration	Units	Comments
1/1/2014	3:33 AM	Community	Western endpoint of 1st St S, cul de sac	46.90019	-97.220381	MultiRAE	CO	<1	ppm	No odor; Residence;
1/1/2014	3:33 AM	Community	Western endpoint of 1st St S, cul de sac	46.90019	-97.220381	MultiRAE	H2S	<1	ppm	No odor; Residence;
1/1/2014	3:34 AM	Community	Western endpoint of 1st St S, cul de sac	46.900191	-97.220387	MultiRAE	O2	20.9	%	No odor; Residence;
1/1/2014	3:34 AM	Community	Western endpoint of 1st St S, cul de sac	46.900191	-97.220387	MultiRAE	VOC	<0.1	ppm	No odor; Residence;
1/1/2014	3:34 AM	Community	Western endpoint of 1st St S, cul de sac	46.900191	-97.220387	MultiRAE	LEL	<1	%	No odor; Residence;
1/1/2014	3:36 AM	Work Area	Behind scrap pile	46.901763	-97.233148	MultiRAE	VOC	<0.1	ppm	Slight Odor; Behind scrap pile
1/1/2014	3:37 AM	Work Area	Behind scrap pile	46.901747	-97.233138	MultiRAE	LEL	<1	%	Slight Odor; Behind scrap pile
1/1/2014	3:40 AM	Community	Western endpoint of 4th St S, cul de sac	46.896828	-97.219358	MultiRAE	VOC	<0.1	ppm	No odor; Residence; Business;
1/1/2014	3:41 AM	Community	Western endpoint of 4th St S, cul de sac	46.896828	-97.219358	MultiRAE	O2	20.9	%	No odor; Residence; Business;
1/1/2014	3:41 AM	Community	Western endpoint of 4th St S, cul de sac	46.896828	-97.219358	MultiRAE	LEL	<1	%	No odor; Residence; Business;
1/1/2014	3:41 AM	Community	Western endpoint of 4th St S, cul de sac	46.896828	-97.219358	AM510	PM2.5	0.008	mg/m3	No odor; Residence; Business;
1/1/2014	3:46 AM	Community	1st St S & 6th Ave S	46.899725	-97.213508	AM510	PM2.5	0.006	mg/m3	No odor; Business;
1/1/2014	3:46 AM	Community	1st St S & 6th Ave S	46.899707	-97.213503	MultiRAE	H2S	<1	ppm	No odor; Business;
1/1/2014	3:46 AM	Community	1st St S & 6th Ave S	46.899707	-97.213503	MultiRAE	VOC	<0.1	ppm	No odor; Business;

Date	Time	Location Category	Location Description	Latitude	Longitude	Instrument	Analyte	Concentration	Units	Comments
1/1/2014	3:47 AM	Community	1st St S & 6th Ave S	46.899707	-97.213503	MultiRAE	O2	20.9	%	No odor; Business;
1/1/2014	3:47 AM	Community	1st St S & 6th Ave S	46.899707	-97.213503	MultiRAE	LEL	<1	%	No odor; Business;
1/1/2014	3:47 AM	Community	1st St S & 6th Ave S	46.899707	-97.213503	MultiRAE	CO	<1	ppm	No odor; Business;
1/1/2014	4:10 AM	Work Area	Beside scrap pile	46.901711	-97.232895	MultiRAE	VOC	0.2	ppm	Slight Odor; Beside scrap pile
1/1/2014	4:10 AM	Work Area	Beside scrap pile	46.901708	-97.232882	MultiRAE	LEL	<1	%	Slight Odor; Beside scrap pile
1/1/2014	4:30 AM	Work Area	Incident area	46.901678	-97.233588	MultiRAE	CO	<1	ppm	Slight Odor; workers moving debris and setting new rail. reading taken outside of Berm where crude oil was burning
1/1/2014	4:30 AM	Work Area	Incident area	46.90165	-97.233541	MultiRAE	LEL	<1	%	Slight Odor; workers moving debris and setting new rail. reading taken outside of Berm where crude oil was burning
1/1/2014	4:30 AM	Work Area	Incident area	46.901653	-97.233541	AM510	PM2.5	0.055	mg/m3	Slight Odor; workers moving debris and setting new rail. reading taken outside of Berm where crude oil was burning
1/1/2014	4:30 AM	Work Area	Incident area	46.901652	-97.233539	MultiRAE	VOC	0.6	ppm	Slight Odor; Peak reading. Taken on the outside of the berm were crude oil was burning.
1/1/2014	4:37 AM	Work Area	Incident area	46.901953	-97.232785	MultiRAE	H2S	<1	ppm	Slight Odor; workers moving debris and setting new rail. reading taken outside of Berm where crude oil was burning
1/1/2014	4:53 AM	Community	1st St S & 6th Ave S	46.90157	-97.212724	MultiRAE	VOC	<0.1	ppm	No odor; Business;
1/1/2014	4:53 AM	Community	1st St S & 6th Ave S	46.901502	-97.212606	AM510	PM2.5	0.003	mg/m3	No odor; Business;
1/1/2014	4:54 AM	Community	1st St S & 6th Ave S	46.901629	-97.212727	MultiRAE	LEL	<1	%	No odor; Business;
1/1/2014	4:55 AM	Work Area	Beside scrap pile	46.901611	-97.232665	MultiRAE	VOC	<0.1	ppm	No odor; Beside scrap pile
1/1/2014	4:56 AM	Work Area	Beside scrap pile	46.901611	-97.232676	MultiRAE	LEL	<1	%	No odor; Beside scrap pile

Date	Time	Location Category	Location Description	Latitude	Longitude	Instrument	Analyte	Concentration	Units	Comments
1/1/2014	4:58 AM	Community	6th Ave S & 4th St S	46.896087	-97.213435	AM510	PM2.5	0.004	mg/m3	No odor; Residence;
1/1/2014	4:59 AM	Community	6th Ave S & 4th St S	46.89607	-97.213442	MultiRAE	VOC	<0.1	ppm	No odor; Residence;
1/1/2014	5:00 AM	Community	6th Ave S & 4th St S	46.896108	-97.213375	MultiRAE	LEL	<1	%	No odor; Residence;
1/1/2014	5:04 AM	Community	Western endpoint of Cottonwood Drive, cul de sac	46.891742	-97.21936	AM510	PM2.5	0.003	mg/m3	No odor; Residence;
1/1/2014	5:05 AM	Community	Western endpoint of Cottonwood Drive, cul de sac	46.891844	-97.219534	MultiRAE	VOC	<0.1	ppm	No odor; Residence;
1/1/2014	5:06 AM	Community	Western endpoint of Cottonwood Drive, cul de sac	46.891846	-97.219503	MultiRAE	LEL	<1	%	No odor; Residence;
1/1/2014	5:21 AM	Work Area	Incident area	46.901726	-97.233622	MultiRAE	VOC	<0.1	ppm	No odor; workers moving debris and setting new rail. reading taken outside of Berm where crude oil was burning
1/1/2014	6:09 AM	Work Area	Beside scrap pile	46.90185	-97.232754	MultiRAE	VOC	<0.1	ppm	No odor; Beside scrap pile
1/1/2014	6:10 AM	Work Area	Beside scrap pile	46.901821	-97.232807	MultiRAE	LEL	<1	%	No odor; Beside scrap pile
1/1/2014	6:40 AM	Community	1st Ave N & 5th St N	46.905112	-97.221148	MultiRAE	VOC	<0.1	ppm	No odor; Residence;
1/1/2014	6:40 AM	Community	1st Ave N & 5th St N	46.905102	-97.221149	AM510	PM2.5	0.005	mg/m3	No odor; Residence;
1/1/2014	6:41 AM	Community	1st Ave N & 5th St N	46.905098	-97.221143	MultiRAE	LEL	<1	%	No odor; Residence;
1/1/2014	6:45 AM	Community	1st Ave N & 3rd St N	46.903996	-97.220954	MultiRAE	VOC	<0.1	ppm	No odor; Residence;
1/1/2014	6:45 AM	Community	1st Ave N & 3rd St N	46.90403	-97.220984	AM510	PM2.5	0.004	mg/m3	No odor; Residence;

Date	Time	Location Category	Location Description	Latitude	Longitude	Instrument	Analyte	Concentration	Units	Comments
1/1/2014	6:46 AM	Community	1st Ave N & 3rd St N	46.90397	-97.220969	MultiRAE	LEL	<1	%	No odor; Residence;
1/1/2014	6:48 AM	Community	1st Ave N & 2nd St N	46.902884	-97.220804	MultiRAE	VOC	<0.1	ppm	No odor; Residence;
1/1/2014	6:48 AM	Community	1st Ave N & 2nd St N	46.90288	-97.220787	AM510	PM2.5	0.008	mg/m3	No odor; Residence;
1/1/2014	6:49 AM	Community	1st Ave N & 2nd St N	46.902907	-97.220804	MultiRAE	LEL	<1	%	No odor; Residence;
1/1/2014	6:55 AM	Community	3rd St N & 4th Ave N	46.90388	-97.215784	MultiRAE	VOC	<0.1	ppm	No odor; Residence;
1/1/2014	6:55 AM	Community	3rd St N & 4th Ave N	46.90383	-97.215809	AM510	PM2.5	0.006	mg/m3	No odor; Residence;
1/1/2014	6:56 AM	Community	3rd St N & 4th Ave N	46.903898	-97.215792	MultiRAE	LEL	<1	%	No odor; Residence;
1/1/2014	7:01 AM	Community	Western endpoint of 1st St N, cul de sac	46.90182	-97.219872	MultiRAE	VOC	<0.1	ppm	No odor; Business;
1/1/2014	7:01 AM	Community	Western endpoint of 1st St N, cul de sac	46.901815	-97.219804	AM510	PM2.5	0.005	mg/m3	No odor; Business;
1/1/2014	7:02 AM	Community	Western endpoint of 1st St N, cul de sac	46.901848	-97.21981	MultiRAE	LEL	<1	%	No odor; Business;
1/1/2014	7:06 AM	Community	Western endpoint of 1st St S, cul de sac	46.900197	-97.220418	MultiRAE	VOC	<0.1	ppm	No odor; Residence; Light-colored smoke plume visible on site, blowing northward.
1/1/2014	7:06 AM	Community	Western endpoint of 1st St S, cul de sac	46.900147	-97.220403	AM510	PM2.5	0.006	mg/m3	No odor; Residence; Light-colored smoke plume visible on site, blowing northward.
1/1/2014	7:07 AM	Community	Western endpoint of 1st St S, cul de sac	46.900203	-97.220389	MultiRAE	LEL	<1	%	No odor; Residence; Light-colored smoke plume visible on site, blowing northward.
1/1/2014	8:12 AM	Work Area	Work area, north side	46.902718	-97.232377	MultiRAE	VOC	<0.1	ppm	No odor;

Date	Time	Location Category	Location Description	Latitude	Longitude	Instrument	Analyte	Concentration	Units	Comments
1/1/2014	8:13 AM	Work Area	Work area, north side	46.902719	-97.232376	MultiRAE	H2S	<1	ppm	No odor;
1/1/2014	8:14 AM	Work Area	Work area, north side	46.902717	-97.232373	MultiRAE	SO2	<0.1	ppm	No odor;
1/1/2014	8:14 AM	Work Area	Work area, north side	46.902717	-97.232373	UltraRAE	Benzene	<0.05	ppm	No odor;
1/1/2014	8:17 AM	Community	FRT12 - House on 154 Ave SE	46.903134	-97.242381	AM510	PM2.5	0.003	mg/m3	No odor; Residence; FRT12. No wind, snowing. In front of residence, train currently passing.
1/1/2014	8:20 AM	Community	FRT12 - House on 154 Ave SE	46.90312	-97.242388	MultiRAE	VOC	<0.1	ppm	No odor; Residence; FRT12. No wind, snowing. In front of residence, train currently passing.
1/1/2014	8:21 AM	Community	FRT12 - House on 154 Ave SE	46.90312	-97.242388	MultiRAE	CO	<1	ppm	No odor; Residence; FRT12. No wind, snowing. In front of residence, train currently passing.
1/1/2014	8:32 AM	Community	House by south truck entrance on 154th Ave SE	46.903144	-97.242404	Gastec 121L	Benzene	<0.1	ppm	No odor; Residence; No odor. Moderate snowfall.
1/1/2014	9:20 AM	Community	FRT13 - Farm road S of site, W end	46.890689	-97.240592	AM510	PM2.5	0.008	mg/m3	No odor; No work activity; Down wind; Farm road, downwind of site. No odors.
1/1/2014	9:21 AM	Community	FRT13 - Farm road S of site, W end	46.890685	-97.240583	MultiRAE	CO	<1	ppm	No odor; No work activity; Down wind; Farm road, downwind of site. No odors.
1/1/2014	9:23 AM	Community	FRT13 - Farm road S of site, W end	46.890682	-97.240581	MultiRAE	VOC	<0.1	ppm	No odor; No work activity; Down wind; Farm road, downwind of site. No odors.
1/1/2014	9:26 AM	Community	FRT13-Farm road south of derailment, west side.	46.89068	-97.240589	Gastec 121L	Benzene	<0.1	ppm	No odor; No odor. Light snowfall.
1/1/2014	9:33 AM	Community	FRT14 - Farm road S of site, E end	46.890674	-97.233799	AM510	PM2.5	0.009	mg/m3	No odor; No work activity; Down wind; Farm road, downwind of site. No odors.
1/1/2014	9:34 AM	Community	FRT14 - Farm road S of site, E end	46.890682	-97.233794	MultiRAE	CO	<1	ppm	No odor; No work activity; Down wind; Farm road, downwind of site. No odors.
1/1/2014	9:35 AM	Community	FRT14 - Farm road S of site, E end	46.890658	-97.233767	MultiRAE	VOC	<0.1	ppm	No odor; No work activity; Down wind; Farm road, downwind of site. No odors.

Date	Time	Location Category	Location Description	Latitude	Longitude	Instrument	Analyte	Concentration	Units	Comments
1/1/2014	9:38 AM	Community	FRT14-Farm Road south of derailment, east side	46.890647	-97.233742	Gastec 121L	Benzene	<0.1	ppm	No odor; No odor. Light snowfall.
1/1/2014	9:40 AM	Work Area	At railcar wrecking area	46.902431	-97.234128	MultiRAE	VOC	<0.1	ppm	No odor; Down wind; NTSB inspection escort
1/1/2014	9:41 AM	Work Area	At railcar wrecking area	46.90242	-97.234109	MultiRAE	H2S	<1	ppm	No odor; Down wind;
1/1/2014	9:51 AM	Community	Good Samaritan Society Retirement Home	46.905435	-97.212139	AM510	PM2.5	0.009	mg/m3	No odor; Residence; Business; No work activity; No odor, no work activity. Community open. Light breeze and light snow.
1/1/2014	9:52 AM	Community	Good Samaritan Society Retirement Home	46.905399	-97.21226	Gastec 121L	Benzene	<0.1	ppm	No odor; Residence; No odor. Light snowfall.
1/1/2014	9:53 AM	Community	Good Samaritan Society Retirement Home	46.905438	-97.212157	MultiRAE	CO	<1	ppm	No odor; Residence; Business; No work activity; No odor, no work activity. Community open. Light breeze and light snow.
1/1/2014	9:54 AM	Community	Good Samaritan Society Retirement Home	46.905438	-97.212157	MultiRAE	VOC	<0.1	ppm	No odor; Residence; Business; No work activity; No odor, no work activity. Community open. Light breeze and light snow.
1/1/2014	9:55 AM	Work Area	Railcar wrecking area	46.902215	-97.234202	MultiRAE	VOC	<0.1	ppm	Down wind; Slight Odor;
1/1/2014	9:56 AM	Work Area	Railcar wrecking area	46.902215	-97.234202	MultiRAE	H2S	<1	ppm	Down wind; Slight Odor;
1/1/2014	9:57 AM	Work Area	Railcar wrecking area	46.902215	-97.234202	MultiRAE	SO2	<0.1	ppm	Down wind; Slight Odor;
1/1/2014	10:01 AM	Community	1st Ave N & 5th St N	46.904896	-97.221233	AM510	PM2.5	0.014	mg/m3	No odor; Residence; No work activity; No odors, light cross wind. Light snow. No work activity.
1/1/2014	10:02 AM	Community	1st Ave N & 5th St N	46.904897	-97.221174	MultiRAE	CO	<1	ppm	No odor; Residence; No work activity; No odors, light cross wind. Light snow. No work activity.
1/1/2014	10:02 AM	Community	1st Ave N & 5th St N	46.904897	-97.221029	Gastec 121L	Benzene	<0.1	ppm	No odor; Residence; No odor. Light snowfall.

Date	Time	Location Category	Location Description	Latitude	Longitude	Instrument	Analyte	Concentration	Units	Comments
1/1/2014	10:03 AM	Community	1st Ave N & 5th St N	46.904897	-97.221174	MultiRAE	VOC	<0.1	ppm	No odor; Residence; No work activity; No odors, light cross wind. Light snow. No work activity.
1/1/2014	10:08 AM	Community	1st Ave N & 3rd St N	46.903832	-97.220729	Gastec 121L	Benzene	<0.1	ppm	No odor; Residence; No odor. Light snowfall.
1/1/2014	10:10 AM	Work Area	Railcar wrecking area	46.90215	-97.234574	MultiRAE	VOC	<0.1	ppm	Down wind; Slight Odor;
1/1/2014	10:11 AM	Work Area	Railcar wrecking area	46.90216	-97.234574	MultiRAE	H2S	<1	ppm	Down wind; Slight Odor;
1/1/2014	10:11 AM	Work Area	Railcar wrecking area	46.90216	-97.234574	MultiRAE	SO2	<0.1	ppm	Down wind; Slight Odor;
1/1/2014	10:12 AM	Community	1st Ave N & 3rd St N	46.903945	-97.220993	MultiRAE	CO	<1	ppm	No odor; Residence; Light snow. Light crosswind. No odors.
1/1/2014	10:13 AM	Community	1st Ave N & 3rd St N	46.903912	-97.220991	MultiRAE	VOC	<0.1	ppm	No odor; Residence; Light snow. Light crosswind. No odors.
1/1/2014	10:14 AM	Community	1st Ave N & 3rd St N	46.903921	-97.220992	AM510	PM2.5	0.006	mg/m3	No odor; Residence; Light snow. Light crosswind. No odors.
1/1/2014	10:19 AM	Community	1st Ave N & 2nd St N	46.90289	-97.22104	Gastec 121L	Benzene	<0.1	ppm	No odor; Residence; No odor. Light snowfall.
1/1/2014	10:19 AM	Community	1st Ave N & 2nd St N	46.902929	-97.221056	AM510	PM2.5	0.038	mg/m3	Wood burning odor; Residence; Light crosswind and light snow. Moderate wood burning odor. No workers present.
1/1/2014	10:20 AM	Community	1st Ave N & 2nd St N	46.902929	-97.221056	MultiRAE	CO	<1	ppm	Wood burning odor; Residence; Light crosswind and light snow. Moderate wood burning odor. No workers present.
1/1/2014	10:21 AM	Community	1st Ave N & 2nd St N	46.902949	-97.221065	MultiRAE	VOC	<0.1	ppm	Wood burning odor; Residence; Light crosswind and light snow. Moderate wood burning odor. No workers present.
1/1/2014	10:36 AM	Work Area	Wrecking area	46.902028	-97.234022	MultiRAE	VOC	<0.1	ppm	Down wind; Slight Odor;
1/1/2014	11:13 AM	Work Area	In wrecked car area	46.902189	-97.234404	MultiRAE	VOC	0.4	ppm	Exhaust fumes odor; Vac Trucks Present; Crude oil odor; Down wind; In wrecked car area. Moderate smoke and exhaust fume odor. Sustained VOC reading. Vac trucks operating.

Date	Time	Location Category	Location Description	Latitude	Longitude	Instrument	Analyte	Concentration	Units	Comments
1/1/2014	11:54 AM	Work Area	Wrecked car area	46.901861	-97.234156	MultiRAE	VOC	<0.1	ppm	Exhaust fumes odor; Down wind; Slight Odor; Wrecked car area. Moving cars. NTSB looking for car ID. Light snow and breeze.
1/1/2014	11:58 AM	Work Area	Wrecked car area	46.901933	-97.234389	MultiRAE	VOC	<0.1	ppm	Exhaust fumes odor; Down wind; Slight Odor; Wrecked car area. Moving cars. NTSB looking for car ID. Light snow and breeze.
1/1/2014	12:02 PM	Work Area	Wrecked car area	46.902519	-97.234366	MultiRAE	VOC	<0.1	ppm	Exhaust fumes odor; Down wind; Slight Odor; Wrecked car area. Moving cars. NTSB looking for car ID. Light snow and breeze.
1/1/2014	12:08 PM	Work Area	Wrecked car area	46.902228	-97.234353	MultiRAE	VOC	1.5	ppm	Exhaust fumes odor; Crude oil odor; Down wind; Slight Odor; Wrecked car area. Moving cars. NTSB looking for car ID. Light snow and breeze. Vac trucks in close proximity.
1/1/2014	12:09 PM	Work Area	Wrecked car area	46.902228	-97.234353	MultiRAE	CO	1	ppm	Exhaust fumes odor; Crude oil odor; Down wind; Slight Odor; Wrecked car area. Moving cars. NTSB looking for car ID. Light snow and breeze. Vac trucks in close proximity.
1/1/2014	12:38 PM	Work Area	Center of tank cars that were moved from the tracks	46.902222	-97.234421	MultiRAE	VOC	1.4	ppm	Exhaust fumes odor; Vac Trucks Present; Light burning and exhaust odor. Vac truck present removing oil from a tank car.
1/1/2014	12:46 PM	Work Area	South side of tank cars. Downwind of last smoking tank car.	46.902061	-97.234674	MultiRAE	VOC	0.1	ppm	Slight Odor; Light burning odor. Light snowfall.
1/1/2014	12:49 PM	Work Area	South of tank cars, downwind of last burning tank car.	46.902069	-97.234663	MultiRAE	O2	20.6	%	Light burning odor. Light snowfall.
1/1/2014	12:57 PM	Work Area	South of tank cars. East and downwind of burning tank car.	46.90196	-97.234819	MultiRAE	H2S	<1	ppm	Light burning odor. Light snowfall.
1/1/2014	1:35 PM	Work Area	Wrecked car area	46.902196	-97.234349	MultiRAE	CO	2	ppm	Exhaust fumes odor; Exhaust fumes present; Crude oil odor; Down wind; Moderate Odor; Downwind of smoking railcar. Moderate odor. Will confirm via Gastec. Car smoking more than was previously. Update: ND on Gastec.

Date	Time	Location Category	Location Description	Latitude	Longitude	Instrument	Analyte	Concentration	Units	Comments
1/1/2014	1:40 PM	Work Area	Wrecked car area	46.902254	-97.23432	MultiRAE	VOC	0.1	ppm	Exhaust fumes odor; Exhaust fumes present; Crude oil odor; Down wind; Moderate Odor; Downwind of smoking railcar. Moderate odor. Car smoking more than was previously. Vac trucks has been operating here but is currently not in operation.
1/1/2014	1:41 PM	Work Area	Wrecked car area	46.902171	-97.234339	Gastec 1LC	CO	<0.5	ppm	Exhaust fumes odor; Exhaust fumes present; Crude oil odor; Down wind; Moderate Odor; Downwind of smoking railcar. Moderate odor. Car smoking more than was previously. Area where vac truck has been operating, but was currently not there. Light wind and Snow. Pulled to try to confirm MultiRAE CO reading of 2ppm
1/1/2014	2:04 PM	Work Area	Wrecked car area	46.902051	-97.234582	MultiRAE	VOC	0.1	ppm	Wood burning odor; Exhaust fumes odor; Exhaust fumes present; Down wind; Moderate Odor; Moderate odor from smoking cars and smoking wood from Railroad. Slightly elevated VOC meeting, peaking at 0.7 ppm. Downwind from two remaining smoking cars.
1/1/2014	2:04 PM	Community	Good Samaritan Society Retirement Home	46.905451	-97.212369	MultiRAE	VOC	<0.1	ppm	No odor;
1/1/2014	2:06 PM	Community	Good Samaritan Society Retirement Home	46.905462	-97.212393	MultiRAE	H2S	<1	ppm	No odor;
1/1/2014	2:07 PM	Work Area	Wrecked car area	46.902044	-97.234577	MultiRAE	H2S	<1	ppm	Wood burning odor; Exhaust fumes odor; Exhaust fumes present; Down wind; Moderate Odor; Moderate odor from smoking cars and smoking wood from Railroad. Downwind from two remaining smoking cars.
1/1/2014	2:07 PM	Community	Good Samaritan Society Retirement Home	46.905465	-97.212388	MultiRAE	SO2	<0.1	ppm	No odor;
1/1/2014	2:08 PM	Community	Good Samaritan Society Retirement Home	46.905467	-97.212385	MultiRAE	LEL	<1	%	No odor;
1/1/2014	2:19 PM	Community	1st Ave N & 3rd St N	46.90394	-97.220814	MultiRAE	VOC	<0.1	ppm	No odor;

Date	Time	Location Category	Location Description	Latitude	Longitude	Instrument	Analyte	Concentration	Units	Comments
1/1/2014	2:19 PM	Community	1st Ave N & 3rd St N	46.903949	-97.220812	MultiRAE	O2	20.9	%	No odor;
1/1/2014	2:20 PM	Community	1st Ave N & 3rd St N	46.903942	-97.220827	MultiRAE	LEL	<1	%	No odor;
1/1/2014	2:21 PM	Community	1st Ave N & 3rd St N	46.903938	-97.220819	MultiRAE	H2S	<1	ppm	No odor;
1/1/2014	2:21 PM	Work Area	Wrecked car area	46.902311	-97.234092	MultiRAE	VOC	<0.1	ppm	Exhaust fumes odor; Exhaust fumes present; Slight Odor; East in wrecks car area. Crosswind with snow. Slight odor.
1/1/2014	2:21 PM	Community	1st Ave N & 3rd St N	46.903955	-97.220853	MultiRAE	SO2	<0.1	ppm	No odor;
1/1/2014	2:23 PM	Work Area	Wrecked car area	46.902292	-97.23407	MultiRAE	H2S	<1	ppm	Exhaust fumes odor; Exhaust fumes present; Slight Odor; East in wrecks car area. Crosswind with snow. Slight odor.
1/1/2014	2:24 PM	Community	1st Ave N & 5th St N	46.905052	-97.221427	MultiRAE	VOC	<0.1	ppm	No odor;
1/1/2014	2:24 PM	Community	1st Ave N & 5th St N	46.90505	-97.221435	MultiRAE	O2	20.9	%	No odor;
1/1/2014	2:25 PM	Community	1st Ave N & 5th St N	46.90503	-97.221393	MultiRAE	H2S	<1	ppm	No odor;
1/1/2014	2:25 PM	Community	1st Ave N & 5th St N	46.90503	-97.221393	MultiRAE	SO2	<0.1	ppm	No odor;
1/1/2014	2:28 PM	Work Area	Wrecked car area	46.902527	-97.234412	MultiRAE	H2S	<1	ppm	No odor; No Visible Oil; North in wrecks car area. Upwind with snow. No odor.
1/1/2014	2:29 PM	Work Area	Wrecked car area	46.902527	-97.234412	MultiRAE	VOC	<0.1	ppm	No odor; No Visible Oil; North in wrecks car area. Upwind with snow. No odor.
1/1/2014	2:30 PM	Work Area	Wrecked car area	46.902423	-97.234729	MultiRAE	VOC	<0.1	ppm	Exhaust fumes odor; Exhaust fumes present; Up wind; Slight Odor; Northwest in wrecked car area. Upwind with snow. Slight odor.
1/1/2014	2:31 PM	Work Area	Wrecked car area	46.902411	-97.234719	MultiRAE	H2S	<1	ppm	Exhaust fumes odor; Exhaust fumes present; Up wind; Slight Odor; Northwest in wrecked car area. Upwind with snow. Slight odor.
1/1/2014	2:32 PM	Work Area	Wrecked car area	46.902229	-97.234763	MultiRAE	VOC	<0.1	ppm	Exhaust fumes odor; Exhaust fumes present; Up wind; Slight Odor; west in wrecked car area. Crosswind with snow. Slight odor.

Date	Time	Location Category	Location Description	Latitude	Longitude	Instrument	Analyte	Concentration	Units	Comments
1/1/2014	2:33 PM	Work Area	Wrecked car area	46.902229	-97.234763	MultiRAE	H2S	<1	ppm	Exhaust fumes odor; Exhaust fumes present; Up wind; Slight Odor; west in wrecked car area. Crosswind with snow. Slight odor.
1/1/2014	2:34 PM	Work Area	Wrecked car area	46.90201	-97.234572	MultiRAE	VOC	0.7	ppm	Inside Smoke Plume; Wood burning odor; Exhaust fumes odor; Exhaust fumes present; Down wind; Moderate Odor; West in wrecked car area. Downwind with snow. Moderate odor. Downwind of multiple smoking cars and wooden rail ties.
1/1/2014	2:35 PM	Work Area	Wrecked car area	46.902033	-97.234624	MultiRAE	SO2	<1	ppm	Inside Smoke Plume; Wood burning odor; Exhaust fumes odor; Exhaust fumes present; Down wind; Moderate Odor; West in wrecked car area. Downwind with snow. Moderate odor. Downwind of multiple smoking cars and wooden rail ties.
1/1/2014	2:36 PM	Work Area	Wrecked car area	46.902022	-97.234604	MultiRAE	H2S	<1	ppm	Inside Smoke Plume; Wood burning odor; Exhaust fumes odor; Exhaust fumes present; Down wind; Moderate Odor; West in wrecked car area. Downwind with snow. Moderate odor. Downwind of multiple smoking cars and wooden rail ties.
1/1/2014	2:39 PM	Work Area	Wrecked car area	46.902164	-97.234464	MultiRAE	VOC	2	ppm	Inside Smoke Plume; Wood burning odor; Exhaust fumes odor; Vac Trucks Present; Exhaust fumes present; Down wind; Moderate Odor; West in wrecked car area. Downwind with snow. Moderate odor. Downwind of multiple smoking cars and wooden rail ties. Sustained VOC readings, peaking above 2ppm. Pulling benzene Gastec.
1/1/2014	2:43 PM	Work Area	Wrecked car area	46.902162	-97.234468	Gastec 121L	Benzene	<0.1	ppm	Inside Smoke Plume; Wood burning odor; Exhaust fumes odor; Vac Trucks Present; Exhaust fumes present; Down wind; Moderate Odor; West in wrecked car area. Downwind with snow. Moderate odor. Downwind of multiple smoking cars and wooden rail ties. Sustained VOC readings, peaking above 2ppm. MultiRAE readings not benzene.
1/1/2014	3:11 PM	Community	1st Ave N & 2nd St N	46.903017	-97.221096	MultiRAE	VOC	<0.1	ppm	No odor;
1/1/2014	3:12 PM	Community	1st Ave N & 2nd St N	46.903019	-97.221111	MultiRAE	H2S	<1	ppm	No odor;
1/1/2014	3:12 PM	Community	1st Ave N & 2nd St N	46.903019	-97.221111	MultiRAE	SO2	<0.1	ppm	No odor;
1/1/2014	3:16 PM	Community	3rd St N & 4th Ave N	46.903926	-97.215377	MultiRAE	VOC	<0.1	ppm	No odor;

Date	Time	Location Category	Location Description	Latitude	Longitude	Instrument	Analyte	Concentration	Units	Comments
1/1/2014	3:17 PM	Community	3rd St N & 4th Ave N	46.90388	-97.21533	MultiRAE	H2S	<1	ppm	No odor;
1/1/2014	3:17 PM	Community	3rd St N & 4th Ave N	46.903868	-97.21535	MultiRAE	SO2	<0.1	ppm	No odor;
1/1/2014	3:18 PM	Work Area	North of wrecked car area.	46.902561	-97.234254	MultiRAE	VOC	<0.1	ppm	No odor; Up wind; No odor. Light snowfall.
1/1/2014	3:21 PM	Community	Western endpoint of 1st St N, cul de sac	46.901828	-97.219134	MultiRAE	VOC	<0.1	ppm	No odor;
1/1/2014	3:21 PM	Work Area	Northwest of wrecked car area.	46.902536	-97.234733	MultiRAE	VOC	<0.1	ppm	No odor; No odor. Light snowfall.
1/1/2014	3:21 PM	Community	Western endpoint of 1st St N, cul de sac	46.901828	-97.219139	MultiRAE	H2S	<1	ppm	No odor;
1/1/2014	3:22 PM	Community	Western endpoint of 1st St N, cul de sac	46.901828	-97.219135	MultiRAE	SO2	<0.1	ppm	No odor;
1/1/2014	3:22 PM	Work Area	Southwest of wrecked car area.	46.902186	-97.234813	MultiRAE	VOC	<0.1	ppm	No odor; Down wind; No odor. Light snowfall.
1/1/2014	3:25 PM	Work Area	East of wrecked car area.	46.902164	-97.234406	MultiRAE	VOC	0.1	ppm	Down wind; Exhaust and burning odor present. Light snowfall.
1/1/2014	3:26 PM	Work Area	East of wrecked car area.	46.902143	-97.234367	MultiRAE	CO	2	ppm	Exhaust and burning odor present. Light snowfall.
1/1/2014	3:27 PM	Community	Western endpoint of 1st St S, cul de sac	46.900172	-97.220339	MultiRAE	VOC	<0.1	ppm	No odor;
1/1/2014	3:28 PM	Community	Western endpoint of 1st St S, cul de sac	46.900172	-97.220339	MultiRAE	H2S	<1	ppm	No odor;
1/1/2014	3:28 PM	Community	Western endpoint of 1st St S, cul de sac	46.900144	-97.220325	MultiRAE	SO2	<0.1	ppm	No odor;

Date	Time	Location Category	Location Description	Latitude	Longitude	Instrument	Analyte	Concentration	Units	Comments
1/1/2014	3:35 PM	Community	Western endpoint of 4th St S, cul de sac	46.896909	-97.21947	MultiRAE	VOC	<0.1	ppm	No odor;
1/1/2014	3:35 PM	Community	Western endpoint of 4th St S, cul de sac	46.896863	-97.219463	MultiRAE	H2S	<1	ppm	No odor;
1/1/2014	3:36 PM	Community	Western endpoint of 4th St S, cul de sac	46.896871	-97.219482	MultiRAE	SO2	<0.1	ppm	No odor;
1/1/2014	3:41 PM	Community	1st St S & 6th Ave S	46.899698	-97.213489	MultiRAE	VOC	<0.1	ppm	No odor;
1/1/2014	3:42 PM	Community	1st St S & 6th Ave S	46.899675	-97.213474	MultiRAE	H2S	<1	ppm	No odor;
1/1/2014	3:43 PM	Community	1st St S & 6th Ave S	46.899688	-97.213454	MultiRAE	SO2	<0.1	ppm	No odor;
1/1/2014	5:31 PM	Community	1st St S & 6th Ave S	46.89927	-97.213246	MultiRAE	VOC	<0.1	ppm	No odor;
1/1/2014	5:32 PM	Community	1st St S & 6th Ave S	46.89927	-97.213246	MultiRAE	H2S	<1	ppm	No odor;
1/1/2014	5:32 PM	Community	1st St S & 6th Ave S	46.899305	-97.213223	MultiRAE	SO2	<0.1	ppm	No odor;
1/1/2014	5:35 PM	Community	6th Ave S & 4th St S	46.896061	-97.213196	MultiRAE	VOC	<0.1	ppm	No odor;
1/1/2014	5:36 PM	Community	6th Ave S & 4th St S	46.896064	-97.213247	MultiRAE	H2S	<1	ppm	No odor;
1/1/2014	5:37 PM	Community	6th Ave S & 4th St S	46.896065	-97.213268	MultiRAE	SO2	<0.1	ppm	No odor;
1/1/2014	5:38 PM	Work Area	Wrecked Car Area	46.902412	-97.234233	MultiRAE	VOC	<0.1	ppm	Inside Smoke Plume; Exhaust fumes odor; Crude oil odor; Down wind; Moderate Odor; In work area after car re-arrangement. Strong smoke odor from smoking car.
1/1/2014	5:41 PM	Community	Good Samaritan Society Retirement Home	46.90541	-97.212393	MultiRAE	VOC	<0.1	ppm	No odor;

Date	Time	Location Category	Location Description	Latitude	Longitude	Instrument	Analyte	Concentration	Units	Comments
1/1/2014	5:41 PM	Work Area	Wrecked Car Area	46.902291	-97.234491	MultiRAE	VOC	<0.1	ppm	Down wind; Slight Odor; In wrecked car area after car rearrangement. Slight odor, downwind of smoking car. No worker activity
1/1/2014	5:43 PM	Community	Good Samaritan Society Retirement Home	46.90543	-97.212432	MultiRAE	H2S	<1	ppm	No odor;
1/1/2014	5:43 PM	Community	Good Samaritan Society Retirement Home	46.905461	-97.212378	MultiRAE	SO2	<0.1	ppm	No odor;
1/1/2014	5:44 PM	Work Area	Wrecked Car Area	46.902064	-97.234257	MultiRAE	VOC	<0.1	ppm	Down wind; Slight Odor; In wrecked car area after car rearrangement. Slight odor, downwind of smoking car. No worker activity
1/1/2014	5:46 PM	Community	1st Ave N & 5th St N	46.905129	-97.221329	MultiRAE	VOC	<0.1	ppm	No odor;
1/1/2014	5:46 PM	Community	1st Ave N & 5th St N	46.905112	-97.221302	MultiRAE	H2S	<1	ppm	No odor;
1/1/2014	5:47 PM	Community	1st Ave N & 5th St N	46.905086	-97.221291	MultiRAE	SO2	<0.1	ppm	No odor;
1/1/2014	5:48 PM	Community	1st Ave N & 2nd St N	46.90323	-97.221082	MultiRAE	VOC	<0.1	ppm	No odor;
1/1/2014	5:48 PM	Work Area	By rail reconstruction	46.901857	-97.233659	MultiRAE	VOC	<0.1	ppm	No odor; By ongoing rail reconstruction, no odors. Only current work activity ongoing. Light snow.
1/1/2014	5:48 PM	Community	1st Ave N & 2nd St N	46.90323	-97.221082	MultiRAE	H2S	<1	ppm	No odor;
1/1/2014	5:49 PM	Community	1st Ave N & 2nd St N	46.903234	-97.221087	MultiRAE	SO2	<0.1	ppm	No odor;
1/1/2014	5:50 PM	Work Area	By debris pile	46.901925	-97.233125	MultiRAE	VOC	<0.1	ppm	No odor; By debris pile north of rail. Light snow. No odor. No work activity on immediate area.
1/1/2014	5:53 PM	Community	3rd St N & 4th Ave N	46.903924	-97.216035	MultiRAE	VOC	<0.1	ppm	No odor;
1/1/2014	5:54 PM	Community	3rd St N & 4th Ave N	46.903925	-97.216054	MultiRAE	H2S	<1	ppm	No odor;

Date	Time	Location Category	Location Description	Latitude	Longitude	Instrument	Analyte	Concentration	Units	Comments
1/1/2014	5:55 PM	Community	3rd St N & 4th Ave N	46.903925	-97.216049	MultiRAE	SO2	<0.1	ppm	No odor;
1/1/2014	5:58 PM	Community	Western endpoint of 1st St N, cul de sac	46.901828	-97.219093	MultiRAE	VOC	<0.1	ppm	No odor;
1/1/2014	5:59 PM	Community	Western endpoint of 1st St N, cul de sac	46.901828	-97.219124	MultiRAE	H2S	<1	ppm	No odor;
1/1/2014	5:59 PM	Community	Western endpoint of 1st St N, cul de sac	46.901828	-97.219144	MultiRAE	SO2	<0.1	ppm	No odor;
1/1/2014	6:00 PM	Work Area	East of gravel pile, in general work area.	46.902181	-97.232943	MultiRAE	VOC	<0.1	ppm	Exhaust fumes odor; Exhaust fumes present; No work activity; Up wind; General work area east of gravel pile and wrecked car area. High traffic including heavy machinery. Exhaust odors.
1/1/2014	6:03 PM	Work Area	East of gravel pile in general work area.	46.902317	-97.23286	UltraRAE	Benzene	<0.05	ppm	No odor; Exhaust and burning odor present. Light snowfall.
1/1/2014	6:05 PM	Work Area	In between rows of wrecked tank cars	46.902373	-97.234158	UltraRAE	Benzene	<0.05	ppm	No odor; Exhaust and burning odor present. Light snowfall.
1/1/2014	6:05 PM	Work Area	Wrecked car area	46.902424	-97.233942	MultiRAE	VOC	<0.1	ppm	Crude oil odor; No work activity; Down wind; Moderate Odor; In wrecked car area, just south of smoking car. Moderate odor, no workers present. Downwind, light snow.
1/1/2014	6:10 PM	Community	Western endpoint of 1st St S, cul de sac	46.900213	-97.220293	MultiRAE	VOC	<0.1	ppm	No odor;
1/1/2014	6:11 PM	Community	Western endpoint of 1st St S, cul de sac	46.900198	-97.220293	MultiRAE	H2S	<1	ppm	No odor;
1/1/2014	6:11 PM	Community	Western endpoint of 1st St S, cul de sac	46.900201	-97.220321	MultiRAE	SO2	<0.1	ppm	No odor;
1/2/2014	8:12 AM	Community	Good Samaritan Society Retirement Home	46.905275	-97.212228	MultiRAE	VOC	<0.1	ppm	No odor; Residence; Business; Wind calm

Date	Time	Location Category	Location Description	Latitude	Longitude	Instrument	Analyte	Concentration	Units	Comments
1/2/2014	8:16 AM	Community	Good Samaritan Society Retirement Home	46.905477	-97.212322	Gastec 121L	Benzene	<0.1	ppm	No odor; Residence; Business; Wind calm
1/2/2014	8:17 AM	Community	Good Samaritan Society Retirement Home	46.905477	-97.212322	MultiRAE	H2S	<1	ppm	No odor; Residence; Business; Wind calm
1/2/2014	8:20 AM	Community	1st Ave N & 5th St N	46.904948	-97.221257	MultiRAE	VOC	<0.1	ppm	No odor; Residence; Business; Wind calm
1/2/2014	8:21 AM	Community	1st Ave N & 5th St N	46.90505	-97.221132	MultiRAE	SO2	<0.1	ppm	No odor; Residence; Business; Wind calm
1/2/2014	8:24 AM	Work Area	Work area in wrecking area	46.902198	-97.234477	MultiRAE	VOC	<0.1	ppm	Wood burning odor; Exhaust fumes odor; Exhaust fumes present; Slight Odor;
1/2/2014	8:25 AM	Work Area	Work area in wrecking area	46.902198	-97.234477	MultiRAE	LEL	<1	%	Wood burning odor; Exhaust fumes odor; Exhaust fumes present; Slight Odor;
1/2/2014	8:26 AM	Work Area	Work area in wrecking area	46.902198	-97.234477	MultiRAE	CO	1	ppm	Wood burning odor; Exhaust fumes odor; Exhaust fumes present; Slight Odor;
1/2/2014	8:26 AM	Community	1st Ave N & 5th St N	46.90505	-97.221132	Gastec 121L	Benzene	<0.1	ppm	No odor; Residence; Business; Wind calm
1/2/2014	8:33 AM	Community	1st Ave N & 2nd St N	46.902065	-97.219961	MultiRAE	VOC	<0.1	ppm	No odor; Residence; Wind calm
1/2/2014	8:34 AM	Community	1st Ave N & 2nd St N	46.902843	-97.221042	MultiRAE	H2S	<1	ppm	No odor; Residence; Wind calm
1/2/2014	8:35 AM	Community	1st Ave N & 2nd St N	46.902843	-97.221042	MultiRAE	LEL	<1	%	Residence; Wind calm
1/2/2014	8:36 AM	Community	1st Ave N & 2nd St N	46.902996	-97.221157	Gastec 121L	Benzene	<0.1	ppm	No odor; Residence; Wind calm
1/2/2014	8:47 AM	Community	1st Ave N & 3rd St N	46.902996	-97.221157	MultiRAE	VOC	<0.1	ppm	No odor; Residence; Wind calm
1/2/2014	8:47 AM	Work Area	Wrecking area	46.901879	-97.234282	MultiRAE	VOC	<0.1	ppm	Wood burning odor; Exhaust fumes odor; Exhaust fumes present; Slight Odor;
1/2/2014	8:47 AM	Work Area	Derailment Site	46.902438	-97.233909	MultiRAE	CO	<1	ppm	

Date	Time	Location Category	Location Description	Latitude	Longitude	Instrument	Analyte	Concentration	Units	Comments
1/2/2014	8:47 AM	Community	1st Ave N & 3rd St N	46.903902	-97.220892	MultiRAE	LEL	<1	%	No odor; Residence; Wind calm
1/2/2014	8:47 AM	Work Area	Wrecking area	46.901933	-97.234351	MultiRAE	CO	1	ppm	Wood burning odor; Exhaust fumes odor; Exhaust fumes present; Slight Odor;
1/2/2014	8:48 AM	Work Area	Derailment Site	46.902438	-97.233909	MultiRAE	H2S	<1	ppm	
1/2/2014	8:49 AM	Work Area	Derailment Site	46.902471	-97.233929	MultiRAE	VOC	<0.1	ppm	
1/2/2014	8:49 AM	Work Area	Derailment Site	46.902471	-97.233929	MultiRAE	O2	20.9	%	
1/2/2014	8:49 AM	Community	1st Ave N & 3rd St N	46.903896	-97.220932	Gastec 121L	Benzene	<0.1	ppm	No odor; Residence; Wind calm
1/2/2014	8:50 AM	Work Area	Derailment Site	46.902471	-97.233929	MultiRAE	LEL	<1	%	
1/2/2014	8:50 AM	Work Area	Wrecking area	46.902163	-97.234548	MultiRAE	VOC	<0.1	ppm	Wood burning odor; Exhaust fumes odor; Exhaust fumes present; Slight Odor;
1/2/2014	8:50 AM	Work Area	Wrecking area	46.902163	-97.234548	MultiRAE	CO	<1	ppm	Wood burning odor; Exhaust fumes odor; Exhaust fumes present; Slight Odor;
1/2/2014	8:54 AM	Community	3rd St N & 4th Ave N	46.903896	-97.220932	MultiRAE	VOC	<0.1	ppm	No odor; Residence; Wind calm
1/2/2014	8:55 AM	Community	3rd St N & 4th Ave N	46.903872	-97.215965	MultiRAE	H2S	<1	ppm	No odor; Residence; Wind calm
1/2/2014	8:57 AM	Community	3rd St N & 4th Ave N	46.903872	-97.215965	Gastec 121L	Benzene	<0.1	ppm	No odor; Residence; Wind calm
1/2/2014	9:03 AM	Work Area	Derailment site	46.902184	-97.234557	MultiRAE	LEL	<1	%	
1/2/2014	9:03 AM	Work Area	Derailment site	46.902184	-97.234557	MultiRAE	H2S	<1	ppm	
1/2/2014	9:13 AM	Work Area	Derailment	46.902185	-97.234612	MultiRAE	CO	<1	ppm	
1/2/2014	9:13 AM	Work Area	Derailment	46.902185	-97.234612	MultiRAE	VOC	<0.1	ppm	

Date	Time	Location Category	Location Description	Latitude	Longitude	Instrument	Analyte	Concentration	Units	Comments
1/2/2014	9:13 AM	Work Area	Derailment	46.902185	-97.234612	MultiRAE	O2	20.9	%	
1/2/2014	9:28 AM	Community	Western endpoint of 1st St N, cul de sac	46.902008	-97.219896	MultiRAE	VOC	<0.1	ppm	No odor; Residence; Business; Wind calm
1/2/2014	9:30 AM	Community	Western endpoint of 1st St N, cul de sac	46.90192	-97.219928	MultiRAE	LEL	<1	%	No odor; Residence; Business; Wind calm
1/2/2014	9:31 AM	Community	Western endpoint of 1st St N, cul de sac	46.90192	-97.219928	MultiRAE	H2S	<1	ppm	No odor; Residence; Business; Wind calm
1/2/2014	9:33 AM	Community	Western endpoint of 1st St N, cul de sac	46.90192	-97.219928	Gastec 121L	Benzene	<0.1	ppm	No odor; Residence; Business; Wind calm
1/2/2014	9:37 AM	Community	Western endpoint of 1st St S, cul de sac	46.90192	-97.219928	MultiRAE	VOC	<0.1	ppm	No odor; Residence; Business; Wind calm
1/2/2014	9:38 AM	Community	Western endpoint of 1st St S, cul de sac	46.900265	-97.220385	MultiRAE	H2S	<1	ppm	No odor; Residence; Wind calm
1/2/2014	9:39 AM	Community	Western endpoint of 1st St S, cul de sac	46.900271	-97.220396	MultiRAE	SO2	<0.1	ppm	No odor; Residence; Wind calm
1/2/2014	9:42 AM	Community	Western endpoint of 1st St S, cul de sac	46.900271	-97.220396	Gastec 121L	Benzene	<0.1	ppm	No odor; Residence; Wind calm
1/2/2014	9:47 AM	Community	Western endpoint of 4th St S, cul de sac	46.900271	-97.220396	MultiRAE	VOC	<0.1	ppm	No odor; Residence; Business; Wind calm
1/2/2014	9:47 AM	Community	Western endpoint of 4th St S, cul de sac	46.896695	-97.219243	MultiRAE	H2S	<1	ppm	No odor; Residence; Business; Wind calm
1/2/2014	9:48 AM	Community	Western endpoint of 4th St S, cul de sac	46.896696	-97.219244	MultiRAE	LEL	<1	%	No Visible Oil; Residence; Business; Wind calm
1/2/2014	9:51 AM	Community	Western endpoint of 4th St S, cul de sac	46.896696	-97.219244	Gastec 121L	Benzene	<0.1	ppm	No odor; Residence; Business; Wind calm

Date	Time	Location Category	Location Description	Latitude	Longitude	Instrument	Analyte	Concentration	Units	Comments
1/2/2014	9:51 AM	Work Area	Wrecking area	46.901963	-97.234131	MultiRAE	VOC	<0.1	ppm	Wood burning odor; Exhaust fumes odor; Exhaust fumes present; Slight Odor;
1/2/2014	9:53 AM	Work Area	Wrecking area	46.901941	-97.234189	MultiRAE	CO	<1	ppm	Wood burning odor; Exhaust fumes odor; Exhaust fumes present; Slight Odor;
1/2/2014	9:55 AM	Community	1st St S & 6th Ave S	46.896696	-97.219244	MultiRAE	VOC	<0.1	ppm	No odor; Business; Wind calm
1/2/2014	9:56 AM	Work Area	Wrecking area	46.901538	-97.234293	MultiRAE	VOC	<0.1	ppm	Wood burning odor; Exhaust fumes odor; Exhaust fumes present; Slight Odor;
1/2/2014	9:56 AM	Community	1st St S & 6th Ave S	46.899583	-97.213036	MultiRAE	LEL	<1	%	No odor; Residence; Business; Wind calm
1/2/2014	9:58 AM	Work Area	Wrecking area	46.901581	-97.234338	MultiRAE	CO	<1	ppm	Wood burning odor; Exhaust fumes odor; Exhaust fumes present; Slight Odor;
1/2/2014	10:00 AM	Community	1st St S & 6th Ave S	46.899583	-97.213036	Gastec 121L	Benzene	<0.1	ppm	No odor; Residence; Business; Wind calm
1/2/2014	10:03 AM	Community	6th Ave S & 4th St S	46.899662	-97.213237	MultiRAE	VOC	<0.1	ppm	No odor; Residence; Wind calm
1/2/2014	10:04 AM	Community	6th Ave S & 4th St S	46.896145	-97.213542	MultiRAE	LEL	<1	%	No odor; Residence; Wind calm
1/2/2014	10:04 AM	Community	6th Ave S & 4th St S	46.896144	-97.213541	MultiRAE	H2S	<1	ppm	No odor; Residence; Wind calm
1/2/2014	10:05 AM	Community	6th Ave S & 4th St S	46.896145	-97.213537	Gastec 121L	Benzene	<0.1	ppm	No odor; Residence; Wind calm
1/2/2014	10:12 AM	Community	Western endpoint of Cottonwood Drive, cul de sac	46.896145	-97.213537	MultiRAE	VOC	<0.1	ppm	No odor; Residence; Wind calm
1/2/2014	10:12 AM	Community	Western endpoint of Cottonwood Drive, cul de sac	46.891922	-97.219733	MultiRAE	LEL	<1	%	No odor; Residence; Wind calm
1/2/2014	10:13 AM	Community	Western endpoint of Cottonwood Drive, cul de sac	46.891922	-97.219733	MultiRAE	H2S	<1	ppm	No odor; Residence; Wind calm

Date	Time	Location Category	Location Description	Latitude	Longitude	Instrument	Analyte	Concentration	Units	Comments
1/2/2014	10:14 AM	Community	Western endpoint of Cottonwood Drive, cul de sac	46.891922	-97.219733	Gastec 121L	Benzene	<0.1	ppm	No odor; Residence; Wind calm
1/2/2014	10:23 AM	Work Area	Derailment Site	46.902208	-97.234512	MultiRAE	H2S	<1	ppm	
1/2/2014	10:24 AM	Work Area	Derailment Site	46.902208	-97.234512	MultiRAE	CO	<1	ppm	
1/2/2014	10:24 AM	Work Area	Derailment Site	46.902208	-97.234512	MultiRAE	VOC	<0.1	ppm	
1/2/2014	10:25 AM	Work Area	Derailment Site	46.902208	-97.234512	MultiRAE	O2	20.9	%	
1/2/2014	10:25 AM	Work Area	Derailment Site	46.902208	-97.234512	MultiRAE	LEL	<1	%	
1/2/2014	10:40 AM	Work Area	Derailment Site	46.902163	-97.234532	MultiRAE	H2S	<1	ppm	
1/2/2014	10:40 AM	Work Area	Derailment Site	46.902163	-97.234532	MultiRAE	CO	<1	ppm	
1/2/2014	10:41 AM	Work Area	Derailment Site	46.902163	-97.234532	MultiRAE	VOC	<0.1	ppm	
1/2/2014	10:41 AM	Work Area	Derailment Site	46.902163	-97.234532	MultiRAE	O2	20.9	%	
1/2/2014	10:41 AM	Work Area	Derailment Site	46.902163	-97.234532	MultiRAE	LEL	<1	%	
1/2/2014	10:52 AM	Work Area - Tank	Derailment Site	46.902278	-97.234595	MultiRAE	VOC	350	ppm	Attached tubing. Checking inside tank 2 before it is vacuumed out.
1/2/2014	10:54 AM	Work Area - Tank	Derailment Site	46.902307	-97.23454	MultiRAE	LEL	5	%	Workers asked us to see LEL levels in Tank 2 (hottest tank here)
1/2/2014	10:57 AM	Community	FRT13 farm southwest of site	46.890923	-97.242493	MultiRAE	VOC	<0.1	ppm	No odor; Residence; Wind calm
1/2/2014	11:00 AM	Community	Farm road southwest of Site	46.890712	-97.242373	MultiRAE	H2S	<1	ppm	No odor; Residence; Wind calm

Date	Time	Location Category	Location Description	Latitude	Longitude	Instrument	Analyte	Concentration	Units	Comments
1/2/2014	11:01 AM	Community	FRT13	46.890705	-97.242369	Gastec 121L	Benzene	<0.1	ppm	No odor; Residence; Wind calm
1/2/2014	11:04 AM	Work Area - Tank	Derailment Site	46.902247	-97.234568	MultiRAE	VOC	20	ppm	Checking tank 18 levels inside with tubing.
1/2/2014	11:05 AM	Work Area - Tank	Derailment Site	46.902247	-97.234568	MultiRAE	LEL	1	%	Checking tank 18 levels inside with tubing.
1/2/2014	11:06 AM	Work Area - Tank	Derailment Site	46.902295	-97.234588	MultiRAE	VOC	20	ppm	Checking tank 3 levels inside with tubing.
1/2/2014	11:06 AM	Work Area - Tank	Derailment Site	46.902295	-97.234588	MultiRAE	LEL	1	%	Checking tank 3 levels inside with tubing.
1/2/2014	11:11 AM	Work Area	Wrecking area	46.902305	-97.234868	MultiRAE	VOC	<0.1	ppm	Wood burning odor; Exhaust fumes odor; Exhaust fumes present; Slight Odor;
1/2/2014	11:12 AM	Work Area	Wrecking area	46.902305	-97.234889	MultiRAE	CO	<1	ppm	Wood burning odor; Exhaust fumes odor; Exhaust fumes present; Slight Odor;
1/2/2014	11:12 AM	Work Area	Wrecking area	46.902298	-97.234875	MultiRAE	H2S	<1	ppm	Wood burning odor; Exhaust fumes odor; Exhaust fumes present; Slight Odor;
1/2/2014	11:14 AM	Work Area	Wrecking area	46.901978	-97.234927	MultiRAE	VOC	<0.1	ppm	Wood burning odor; Exhaust fumes odor; Exhaust fumes present; Slight Odor;
1/2/2014	11:15 AM	Work Area	Wrecking area	46.901733	-97.234331	MultiRAE	VOC	<0.1	ppm	Wood burning odor; Exhaust fumes odor; Exhaust fumes present; Slight Odor;
1/2/2014	11:15 AM	Work Area	Wrecking area	46.901745	-97.234311	MultiRAE	CO	<1	ppm	Wood burning odor; Exhaust fumes odor; Exhaust fumes present; Slight Odor;
1/2/2014	11:16 AM	Work Area	Derailment Site	46.90216	-97.23457	MultiRAE	LEL	<1	%	
1/2/2014	11:17 AM	Work Area	Derailment Site	46.90216	-97.23457	MultiRAE	O2	20.9	%	
1/2/2014	11:17 AM	Work Area	Derailment Site	46.90216	-97.23457	MultiRAE	VOC	<0.1	ppm	
1/2/2014	11:17 AM	Work Area	Derailment Site	46.90216	-97.23457	MultiRAE	H2S	<1	ppm	
1/2/2014	11:17 AM	Work Area	Derailment Site	46.902141	-97.234513	MultiRAE	CO	<1	ppm	

Date	Time	Location Category	Location Description	Latitude	Longitude	Instrument	Analyte	Concentration	Units	Comments
1/2/2014	11:22 AM	Community	FRT12 farm road west of site	46.890705	-97.242369	Gastec 121L	Benzene	<0.1	ppm	No odor; Residence; Wind calm
1/2/2014	11:41 AM	Work Area	Wrecking area	46.902348	-97.234361	MultiRAE	VOC	<0.1	ppm	Wood burning odor; Exhaust fumes odor; Exhaust fumes present; Slight Odor;
1/2/2014	12:25 PM	Work Area	in staging area	46.902445	-97.233153	MultiRAE	VOC	<0.1	ppm	No odor; Down wind; Slight Odor;
1/2/2014	12:33 PM	Work Area	Parking area	46.902407	-97.232853	Gastec 121L	Benzene	<0.1	ppm	No odor; Wind calm
1/2/2014	12:46 PM	Work Area	Tank staging area	46.902405	-97.23283	MultiRAE	VOC	<0.1	ppm	No odor; Wind out of the south, workers product vacuuming from tank
1/2/2014	1:00 PM	Community	1st Ave N & 3rd St N	46.903929	-97.220781	MultiRAE	VOC	<0.1	ppm	No odor;
1/2/2014	1:00 PM	Community	1st Ave N & 3rd St N	46.903942	-97.220789	MultiRAE	CO	<1	ppm	No odor;
1/2/2014	1:01 PM	Community	1st Ave N & 3rd St N	46.903942	-97.220789	MultiRAE	H2S	<1	ppm	No odor;
1/2/2014	1:06 PM	Work Area	Tank 18	46.902164	-97.234602	MultiRAE	VOC	<0.1	ppm	Slight Odor; workers documenting damage
1/2/2014	1:08 PM	Work Area	Tank 7	46.902164	-97.234602	MultiRAE	VOC	0.4	ppm	Slight Odor; workers documenting damage, reading not sustained, lasted about 20 seconds
1/2/2014	1:11 PM	Work Area	Work area south of reservoir	46.901058	-97.227001	MultiRAE	VOC	<0.1	ppm	No odor;
1/2/2014	1:12 PM	Work Area	Work area south of reservoir	46.901058	-97.227001	MultiRAE	H2S	<1	ppm	No odor;
1/2/2014	1:13 PM	Work Area	Work area south of reservoir	46.901058	-97.227001	MultiRAE	CO	<1	ppm	No odor;
1/2/2014	1:16 PM	Work Area	Tank 7	46.902164	-97.234602	MultiRAE	H2S	<1	ppm	Slight Odor; workers documenting damage
1/2/2014	1:17 PM	Work Area	Tank 7	46.902164	-97.234602	MultiRAE	LEL	<1	%	Slight Odor; workers documenting damage

Date	Time	Location Category	Location Description	Latitude	Longitude	Instrument	Analyte	Concentration	Units	Comments
1/2/2014	1:21 PM	Work Area	by tank car 16 in tank staging area	46.902139	-97.234306	Gastec 121L	Benzene	<0.05	ppm	Slight Odor; light breeze from sw
1/2/2014	1:29 PM	Community	Western endpoint of 1st St S, cul de sac	46.900124	-97.220463	MultiRAE	VOC	<0.1	ppm	No odor;
1/2/2014	1:29 PM	Community	Western endpoint of 1st St S, cul de sac	46.90013	-97.220458	MultiRAE	H2S	<1	ppm	No odor;
1/2/2014	1:30 PM	Community	Western endpoint of 1st St S, cul de sac	46.900141	-97.220458	MultiRAE	CO	<1	ppm	No odor;
1/2/2014	1:38 PM	Work Area - Tank	Tank 2	46.902164	-97.234602	MultiRAE	VOC	75	ppm	Slight Odor; workers documenting damage, put MR in picture hole on end of tank. Reading dropped immediately after removing from hole.
1/2/2014	1:40 PM	Community	Western endpoint of 1st St N, cul de sac	46.901878	-97.21912	MultiRAE	VOC	<0.1	ppm	No odor;
1/2/2014	1:41 PM	Community	Western endpoint of 1st St N, cul de sac	46.901891	-97.219154	MultiRAE	H2S	<1	ppm	No odor;
1/2/2014	1:41 PM	Community	Western endpoint of 1st St N, cul de sac	46.901891	-97.219154	MultiRAE	CO	<1	ppm	No odor;
1/2/2014	1:45 PM	Community	Intersection of 3rd Ave S and 4th St S	46.897021	-97.217578	MultiRAE	VOC	<0.1	ppm	No odor;
1/2/2014	1:45 PM	Community	Intersection of 3rd Ave S and 4th St S	46.897021	-97.217578	MultiRAE	CO	<1	ppm	No odor;
1/2/2014	1:45 PM	Community	Intersection of 3rd Ave S and 4th St S	46.897021	-97.217578	MultiRAE	H2S	<1	ppm	No odor;
1/2/2014	2:02 PM	Work Area	North End of staging area by tank 11	46.902451	-97.234169	MultiRAE	VOC	<0.1	ppm	Slight Odor; light breeze from the south west, workers opening tank cars

Date	Time	Location Category	Location Description	Latitude	Longitude	Instrument	Analyte	Concentration	Units	Comments
1/2/2014	2:16 PM	Work Area	northwest corner of staging area	46.902357	-97.234551	MultiRAE	VOC	<0.1	ppm	Slight Odor; light breeze from southwest
1/2/2014	2:26 PM	Community	Good Samaritan Society Retirement Home	46.905477	-97.212332	MultiRAE	VOC	<0.1	ppm	No odor;
1/2/2014	2:27 PM	Community	Good Samaritan Society Retirement Home	46.905466	-97.212349	MultiRAE	H2S	<1	ppm	No odor;
1/2/2014	2:28 PM	Community	Good Samaritan Society Retirement Home	46.905474	-97.212343	MultiRAE	CO	<1	ppm	No odor;
1/2/2014	2:30 PM	Work Area	Tank car staging area	46.902128	-97.234304	Gastec 121L	Benzene	<0.1	ppm	No odor; workers documenting damage
1/2/2014	2:31 PM	Community	1st Ave N & 5th St N	46.905088	-97.221349	MultiRAE	VOC	<0.1	ppm	No odor;
1/2/2014	2:32 PM	Community	1st Ave N & 5th St N	46.905077	-97.221352	MultiRAE	H2S	<1	ppm	No odor;
1/2/2014	2:32 PM	Community	1st Ave N & 5th St N	46.905078	-97.221357	MultiRAE	CO	<1	ppm	No odor;
1/2/2014	3:10 PM	Work Area	Wrecking area	46.902398	-97.234387	MultiRAE	VOC	<0.1	ppm	Wood burning odor; Exhaust fumes odor; Exhaust fumes present; Slight Odor;
1/2/2014	3:11 PM	Work Area	Wrecking area	46.902397	-97.234429	MultiRAE	CO	<1	ppm	Wood burning odor; Exhaust fumes odor; Exhaust fumes present; Slight Odor;
1/2/2014	3:15 PM	Work Area	Wrecking area	46.901998	-97.234341	MultiRAE	VOC	<0.1	ppm	No odor;
1/2/2014	3:15 PM	Work Area	Wrecking area	46.901995	-97.234334	MultiRAE	CO	<1	ppm	No odor;
1/2/2014	4:08 PM	Work Area	in staging area	46.902171	-97.234191	MultiRAE	VOC	<0.1	ppm	Slight Odor; light breeze from the south
1/2/2014	4:13 PM	Work Area	by tank car 10 with ntsb	46.902174	-97.234252	MultiRAE	LEL	<1	%	No odor; light breeze from south

Date	Time	Location Category	Location Description	Latitude	Longitude	Instrument	Analyte	Concentration	Units	Comments
1/2/2014	4:16 PM	Work Area	by tank 10	46.902451	-97.234277	MultiRAE	O2	20.9	%	No odor; light breeze from south
1/2/2014	4:46 PM	Community	1st Ave N & 2nd St N	46.902965	-97.221065	MultiRAE	VOC	<0.1	ppm	No odor;
1/2/2014	4:47 PM	Community	1st Ave N & 2nd St N	46.902965	-97.221065	MultiRAE	CO	<1	ppm	No odor;
1/2/2014	4:47 PM	Community	1st Ave N & 2nd St N	46.902965	-97.221065	MultiRAE	H2S	<1	ppm	No odor;
1/2/2014	4:50 PM	Community	3rd St N & 4th Ave N	46.903937	-97.21598	MultiRAE	VOC	<0.1	ppm	No odor;
1/2/2014	4:50 PM	Community	3rd St N & 4th Ave N	46.903936	-97.216003	MultiRAE	H2S	<1	ppm	No odor;
1/2/2014	4:50 PM	Work Area	staging area	46.902074	-97.234336	MultiRAE	VOC	<0.1	ppm	No odor; light breeze from the south
1/2/2014	4:51 PM	Community	3rd St N & 4th Ave N	46.903925	-97.216022	MultiRAE	CO	<1	ppm	No odor;
1/2/2014	5:08 PM	Work Area	20 yards from soil pile	46.90212	-97.233427	MultiRAE	VOC	<0.1	ppm	No odor; Workers piling soil, wind out of the east
1/2/2014	5:10 PM	Work Area	20 yards from soil pile	46.901955	-97.233304	Gastec 121L	Benzene	<0.1	ppm	No odor; Workers piling soil, wind out of the east
1/2/2014	5:12 PM	Community	Western endpoint of Cottonwood Drive, cul de sac	46.891801	-97.219459	MultiRAE	VOC	<0.1	ppm	No odor;
1/2/2014	5:12 PM	Community	Western endpoint of Cottonwood Drive, cul de sac	46.891792	-97.219473	MultiRAE	H2S	<1	ppm	No odor;
1/2/2014	5:13 PM	Community	Western endpoint of Cottonwood Drive, cul de sac	46.891793	-97.219461	MultiRAE	CO	<1	ppm	No odor;
1/2/2014	5:16 PM	Community	6th Ave S & 4th St S	46.896069	-97.213536	MultiRAE	VOC	<0.1	ppm	No odor;

Date	Time	Location Category	Location Description	Latitude	Longitude	Instrument	Analyte	Concentration	Units	Comments
1/2/2014	5:17 PM	Community	6th Ave S & 4th St S	46.896069	-97.213544	MultiRAE	H2S	<1	ppm	No odor;
1/2/2014	5:18 PM	Community	6th Ave S & 4th St S	46.896065	-97.213548	MultiRAE	CO	<1	ppm	No odor;
1/2/2014	5:20 PM	Community	1st St S & 6th Ave S	46.899652	-97.213048	MultiRAE	VOC	<0.1	ppm	No odor;
1/2/2014	5:21 PM	Community	1st St S & 6th Ave S	46.899655	-97.213048	MultiRAE	H2S	<1	ppm	No odor;
1/2/2014	5:21 PM	Community	1st St S & 6th Ave S	46.899634	-97.21305	MultiRAE	CO	<1	ppm	No odor;
1/2/2014	5:25 PM	Community	Western endpoint of 4th St S, cul de sac	46.896779	-97.219292	MultiRAE	VOC	<0.1	ppm	No odor;
1/2/2014	5:25 PM	Community	Western endpoint of 4th St S, cul de sac	46.896776	-97.219291	MultiRAE	H2S	<1	ppm	No odor;
1/2/2014	5:25 PM	Community	Western endpoint of 4th St S, cul de sac	46.896779	-97.219281	MultiRAE	CO	<1	ppm	No odor;
1/2/2014	5:28 PM	Community	Western endpoint of 1st St S, cul de sac	46.900125	-97.220291	MultiRAE	VOC	<0.1	ppm	No odor;
1/2/2014	5:29 PM	Community	Western endpoint of 1st St S, cul de sac	46.900125	-97.220291	MultiRAE	H2S	<1	ppm	No odor;
1/2/2014	5:29 PM	Community	Western endpoint of 1st St S, cul de sac	46.900135	-97.22025	MultiRAE	CO	<1	ppm	No odor;
1/2/2014	5:35 PM	Work Area	20 yards from soil pile	46.901955	-97.233304	MultiRAE	LEL	<1	%	No odor; Workers piling soil, wind out of the east
1/2/2014	5:35 PM	Work Area	by excavation activities.	46.902014	-97.233302	MultiRAE	VOC	<0.1	ppm	Slight Odor; calm winds
1/2/2014	5:50 PM	Community	Western endpoint of 1st St S, cul de sac	46.900178	-97.220256	MultiRAE	CO	<1	ppm	

Date	Time	Location Category	Location Description	Latitude	Longitude	Instrument	Analyte	Concentration	Units	Comments
1/2/2014	5:50 PM	Community	Western endpoint of 1st St S, cul de sac	46.900188	-97.220268	MultiRAE	H2S	<1	ppm	
1/2/2014	5:51 PM	Community	Western endpoint of 1st St S, cul de sac	46.900188	-97.220268	MultiRAE	VOC	<0.1	ppm	
1/2/2014	5:51 PM	Community	Western endpoint of 1st St S, cul de sac	46.900188	-97.220268	MultiRAE	LEL	<1	%	
1/2/2014	5:52 PM	Community	Western endpoint of 1st St S, cul de sac	46.900188	-97.220268	MultiRAE	O2	20.9	%	
1/2/2014	6:07 PM	Community	3rd St N & 4th Ave N	46.903951	-97.215912	MultiRAE	CO	<1	ppm	
1/2/2014	6:07 PM	Community	3rd St N & 4th Ave N	46.903951	-97.215912	MultiRAE	H2S	<1	ppm	
1/2/2014	6:08 PM	Community	3rd St N & 4th Ave N	46.903951	-97.215912	MultiRAE	VOC	<0.1	ppm	
1/2/2014	6:08 PM	Community	3rd St N & 4th Ave N	46.903951	-97.215912	MultiRAE	O2	20.9	%	
1/2/2014	6:09 PM	Community	3rd St N & 4th Ave N	46.903951	-97.215912	MultiRAE	LEL	<1	%	
1/2/2014	6:12 PM	Community	1st Ave N & 2nd St N	46.902961	-97.220925	MultiRAE	CO	<1	ppm	
1/2/2014	6:12 PM	Community	1st Ave N & 2nd St N	46.902961	-97.220925	MultiRAE	H2S	<1	ppm	
1/2/2014	6:12 PM	Community	1st Ave N & 2nd St N	46.902961	-97.220925	MultiRAE	VOC	<0.1	ppm	
1/2/2014	6:13 PM	Community	1st Ave N & 2nd St N	46.902961	-97.220925	MultiRAE	O2	20.9	%	
1/2/2014	6:13 PM	Community	1st Ave N & 2nd St N	46.902961	-97.220925	MultiRAE	LEL	<1	%	
1/2/2014	6:14 PM	Community	1st Ave N & 3rd St N	46.904051	-97.221023	MultiRAE	CO	<1	ppm	

Date	Time	Location Category	Location Description	Latitude	Longitude	Instrument	Analyte	Concentration	Units	Comments
1/2/2014	6:15 PM	Community	1st Ave N & 3rd St N	46.904051	-97.221023	MultiRAE	VOC	<0.1	ppm	
1/2/2014	6:15 PM	Community	1st Ave N & 3rd St N	46.904051	-97.221023	MultiRAE	O2	20.9	%	
1/2/2014	6:15 PM	Community	1st Ave N & 3rd St N	46.904051	-97.221023	MultiRAE	H2S	<1	ppm	
1/2/2014	6:16 PM	Community	1st Ave N & 3rd St N	46.904051	-97.221023	MultiRAE	LEL	<1	%	
1/2/2014	6:18 PM	Community	1st Ave N & 5th St N	46.905029	-97.221377	MultiRAE	CO	<1	ppm	
1/2/2014	6:19 PM	Community	1st Ave N & 5th St N	46.905021	-97.221311	MultiRAE	H2S	<1	ppm	
1/2/2014	6:19 PM	Community	1st Ave N & 5th St N	46.905021	-97.221311	MultiRAE	VOC	<0.1	ppm	
1/2/2014	6:19 PM	Community	1st Ave N & 5th St N	46.905021	-97.221311	MultiRAE	O2	20.9	%	
1/2/2014	6:20 PM	Community	1st Ave N & 5th St N	46.905021	-97.221311	MultiRAE	LEL	<1	%	
1/2/2014	6:44 PM	Community	Good Samaritan Society Retirement Home	46.905481	-97.212391	MultiRAE	CO	<1	ppm	
1/2/2014	6:44 PM	Community	Good Samaritan Society Retirement Home	46.905469	-97.212227	MultiRAE	H2S	<1	ppm	
1/2/2014	6:44 PM	Community	Good Samaritan Society Retirement Home	46.9055	-97.212349	MultiRAE	VOC	<0.1	ppm	
1/2/2014	6:45 PM	Work Area	Tank car staging area	46.902085	-97.233292	MultiRAE	VOC	<0.1	ppm	No odor; Workers moving second locomotive to north side of tracks
1/2/2014	6:45 PM	Community	Good Samaritan Society Retirement Home	46.9055	-97.212349	MultiRAE	O2	20.9	%	

Date	Time	Location Category	Location Description	Latitude	Longitude	Instrument	Analyte	Concentration	Units	Comments
1/2/2014	6:45 PM	Community	Good Samaritan Society Retirement Home	46.9055	-97.212349	MultiRAE	LEL	<1	%	
1/2/2014	6:46 PM	Work Area	Tank car staging area	46.902085	-97.233292	MultiRAE	LEL	<1	%	No odor; Workers moving second locomotive to north side of tracks
1/2/2014	6:47 PM	Work Area	Tank car staging area	46.902037	-97.23329	Gastec 121L	Benzene	<0.1	ppm	No odor; Workers moving second locomotive to north side of tracks
1/2/2014	6:48 PM	Community	1st Ave N & 5th St N	46.905075	-97.221529	MultiRAE	CO	<1	ppm	
1/2/2014	6:49 PM	Community	1st Ave N & 5th St N	46.905075	-97.221529	MultiRAE	H2S	<1	ppm	
1/2/2014	6:49 PM	Community	1st Ave N & 5th St N	46.905076	-97.221521	MultiRAE	VOC	<0.1	ppm	
1/2/2014	6:49 PM	Community	1st Ave N & 5th St N	46.905076	-97.221521	MultiRAE	O2	20.9	%	
1/2/2014	6:50 PM	Community	1st Ave N & 5th St N	46.905076	-97.221521	MultiRAE	LEL	<1	%	
1/2/2014	6:53 PM	Work Area	Tank car staging area	46.902037	-97.23329	MultiRAE	VOC	0.8	ppm	No odor; Peak reading, workers just moved rail car to North side, multiple side booms and other vehicles present. Readings dropped within 5 minutes.
1/2/2014	7:10 PM	Work Area	staging area	46.90195	-97.233252	MultiRAE	LEL	<1	%	light wind from south
1/2/2014	7:10 PM	Work Area	Tank car staging area	46.902084	-97.233417	MultiRAE	LEL	<1	%	No odor; Workers moving second parts to north side of tracks
1/3/2014	7:35 AM	Community	Good Samaritan Society Retirement Home	46.905471	-97.212316	MultiRAE	VOC	<0.1	ppm	No odor; Residence; Business; Wind out of the south
1/3/2014	7:36 AM	Community	Good Samaritan Society Retirement Home	46.905489	-97.212331	MultiRAE	LEL	<1	%	No odor; Residence; Business; Wind out of the south

Date	Time	Location Category	Location Description	Latitude	Longitude	Instrument	Analyte	Concentration	Units	Comments
1/3/2014	7:37 AM	Community	Good Samaritan Society Retirement Home	46.905489	-97.212331	Gastec 121L	Benzene	<0.1	ppm	No odor; Residence; Business; Wind out of the south
1/3/2014	7:45 AM	Community	1st Ave N & 5th St N	46.905045	-97.220892	MultiRAE	VOC	<0.1	ppm	No odor; Residence; Business; Wind out of the south
1/3/2014	7:46 AM	Community	1st Ave N & 5th St N	46.905053	-97.221129	MultiRAE	LEL	<1	%	No odor; Residence; Business; Wind out of the south
1/3/2014	7:47 AM	Community	1st Ave N & 5th St N	46.905048	-97.221118	MultiRAE	H2S	<1	ppm	No odor; Residence; Business; Wind out of the south
1/3/2014	7:47 AM	Community	1st Ave N & 5th St N	46.905057	-97.221149	Gastec 121L	Benzene	<0.1	ppm	No odor; Residence; Business; Wind out of the south
1/3/2014	7:55 AM	Community	1st Ave N & 3rd St N	46.905057	-97.221149	MultiRAE	VOC	<0.1	ppm	No odor; Residence; Business; Wind out of the south
1/3/2014	7:55 AM	Community	1st Ave N & 3rd St N	46.903802	-97.220982	MultiRAE	LEL	<1	%	No odor; Residence; Business; Wind out of the south
1/3/2014	7:56 AM	Community	1st Ave N & 3rd St N	46.903802	-97.220982	Gastec 121L	Benzene	<0.1	ppm	No odor; Residence; Business; Wind out of the south
1/3/2014	8:01 AM	Community	1st Ave N & 2nd St N	46.902962	-97.221179	MultiRAE	VOC	<0.1	ppm	No odor; Residence; Business; Wind out of the south
1/3/2014	8:02 AM	Community	1st Ave N & 2nd St N	46.902908	-97.220986	MultiRAE	LEL	<1	%	No odor; Residence; Business; Wind out of the south
1/3/2014	8:03 AM	Community	1st Ave N & 2nd St N	46.902908	-97.220986	Gastec 121L	Benzene	<0.1	ppm	No odor; Residence; Business; Wind out of the south
1/3/2014	8:11 AM	Community	3rd St N & 4th Ave N	46.902908	-97.220986	MultiRAE	VOC	<0.1	ppm	No odor; Residence; Business; Wind out of the south
1/3/2014	8:11 AM	Community	3rd St N & 4th Ave N	46.903893	-97.215942	MultiRAE	LEL	<1	%	No odor; Residence; Business; Wind out of the south
1/3/2014	8:12 AM	Community	3rd St N & 4th Ave N	46.903885	-97.215927	MultiRAE	H2S	<1	ppm	No odor; Residence; Business; Wind out of the south
1/3/2014	8:13 AM	Community	3rd St N & 4th Ave N	46.903885	-97.215927	Gastec 121L	Benzene	<0.1	ppm	No odor; Residence; Business; Wind out of the south

Date	Time	Location Category	Location Description	Latitude	Longitude	Instrument	Analyte	Concentration	Units	Comments
1/3/2014	8:21 AM	Community	Western endpoint of 1st St N, cul de sac	46.903885	-97.215927	MultiRAE	VOC	<0.1	ppm	No odor; Residence; Business; Wind out of the south
1/3/2014	8:21 AM	Community	Western endpoint of 1st St N, cul de sac	46.901783	-97.219828	MultiRAE	LEL	<1	%	No odor; Residence; Business; Wind out of the south
1/3/2014	8:22 AM	Community	Western endpoint of 1st St N, cul de sac	46.901794	-97.219843	MultiRAE	H2S	<1	ppm	No odor; Residence; Business; Wind out of the south
1/3/2014	8:23 AM	Community	Western endpoint of 1st St N, cul de sac	46.901798	-97.219857	Gastec 121L	Benzene	<0.1	ppm	No odor; Residence; Business; Wind out of the south
1/3/2014	8:27 AM	Work Area	Derailment Site	46.902121	-97.234589	MultiRAE	CO	<1	ppm	
1/3/2014	8:28 AM	Work Area	Derailment Site	46.902121	-97.234589	MultiRAE	H2S	<1	ppm	
1/3/2014	8:29 AM	Work Area	Derailment Site	46.902121	-97.234589	MultiRAE	VOC	<0.1	ppm	
1/3/2014	8:29 AM	Work Area	Derailment Site	46.902145	-97.234579	MultiRAE	O2	20.9	%	
1/3/2014	8:30 AM	Work Area	Derailment Site	46.902145	-97.234579	MultiRAE	LEL	<1	%	
1/3/2014	8:35 AM	Community	Western endpoint of 1st St S, cul de sac	46.901798	-97.219857	MultiRAE	VOC	<0.1	ppm	No odor; Residence; Wind out of the south
1/3/2014	8:35 AM	Community	Western endpoint of 1st St S, cul de sac	46.900223	-97.220302	MultiRAE	LEL	<1	%	No odor; Residence; Wind out of the south
1/3/2014	8:36 AM	Community	Western endpoint of 1st St S, cul de sac	46.900219	-97.220302	Gastec 121L	Benzene	<0.1	ppm	No odor; Residence; Wind out of the south
1/3/2014	8:50 AM	Work Area	Derailment Site	46.902136	-97.234528	MultiRAE	CO	<1	ppm	
1/3/2014	8:50 AM	Work Area	Derailment Site	46.902102	-97.23448	MultiRAE	H2S	<1	ppm	

Date	Time	Location Category	Location Description	Latitude	Longitude	Instrument	Analyte	Concentration	Units	Comments
1/3/2014	8:50 AM	Work Area	Derailment Site	46.90212	-97.234536	MultiRAE	VOC	<0.1	ppm	
1/3/2014	8:51 AM	Work Area	Derailment Site	46.90212	-97.234536	MultiRAE	O2	20.9	%	
1/3/2014	8:51 AM	Work Area	Derailment Site	46.90212	-97.234536	MultiRAE	LEL	<1	%	
1/3/2014	8:55 AM	Community	Western endpoint of 4th St S, cul de sac	46.900219	-97.220302	MultiRAE	VOC	<0.1	ppm	No odor; Residence; Wind out of the south
1/3/2014	8:56 AM	Community	Western endpoint of 4th St S, cul de sac	46.89674	-97.21922	MultiRAE	LEL	<1	%	No odor; Residence; Wind out of the south
1/3/2014	8:56 AM	Community	Western endpoint of 4th St S, cul de sac	46.896743	-97.21922	Gastec 121L	Benzene	<0.1	ppm	No odor; Residence; Wind out of the south
1/3/2014	9:02 AM	Work Area	Wrecking area, downwind of vac ops	46.902376	-97.234678	MultiRAE	VOC	<0.1	ppm	Exhaust fumes odor; Exhaust fumes present;
1/3/2014	9:03 AM	Work Area	Downwind of vac ops, wrecking area	46.902411	-97.234655	MultiRAE	CO	<1	ppm	Exhaust fumes odor; Exhaust fumes present;
1/3/2014	9:03 AM	Work Area	Derailment Site	46.901792	-97.234149	MultiRAE	CO	<1	ppm	
1/3/2014	9:04 AM	Work Area	Wrecking area, downwind of vac ops	46.902411	-97.234655	MultiRAE	H2S	<1	ppm	Exhaust fumes odor; Exhaust fumes present;
1/3/2014	9:04 AM	Work Area	Derailment Site	46.901792	-97.234149	MultiRAE	H2S	<1	ppm	
1/3/2014	9:04 AM	Work Area	Derailment Site	46.901792	-97.234149	MultiRAE	VOC	<0.1	ppm	
1/3/2014	9:04 AM	Community	1st St S & 6th Ave S	46.899835	-97.213302	MultiRAE	VOC	<0.1	ppm	No odor; Residence; Business; winds from south
1/3/2014	9:04 AM	Work Area	Derailment Site	46.901811	-97.234199	MultiRAE	O2	20.9	%	

Date	Time	Location Category	Location Description	Latitude	Longitude	Instrument	Analyte	Concentration	Units	Comments
1/3/2014	9:04 AM	Community	1st St S & 6th Ave S	46.896743	-97.21922	MultiRAE	LEL	<1	%	No odor; Business; Wind out of the south
1/3/2014	9:05 AM	Work Area	Derailment Site	46.901811	-97.234199	MultiRAE	LEL	<1	%	
1/3/2014	9:05 AM	Community	1st St S & 6th Ave S	46.899772	-97.213283	Gastec 121L	Benzene	<0.1	ppm	No odor; Business; Wind out of the south
1/3/2014	9:05 AM	Work Area	Wrecking area	46.90202	-97.234413	MultiRAE	VOC	<0.1	ppm	Exhaust fumes odor; Exhaust fumes present;
1/3/2014	9:07 AM	Work Area	Wrecking area	46.901997	-97.234204	MultiRAE	VOC	<0.1	ppm	Exhaust fumes odor; Exhaust fumes present;
1/3/2014	9:11 AM	Community	6th Ave S & 4th St S	46.899772	-97.213283	MultiRAE	VOC	<0.1	ppm	No odor; Residence; Wind out of the south
1/3/2014	9:14 AM	Community	6th Ave S & 4th St S	46.899772	-97.213283	MultiRAE	LEL	<1	%	No odor; Residence; Wind out of the south
1/3/2014	9:15 AM	Community	6th Ave S & 4th St S	46.896325	-97.213491	Gastec 121L	Benzene	<0.1	ppm	No odor; Residence; Wind out of the south
1/3/2014	9:18 AM	Work Area	Downwind of excavation ops	46.901713	-97.233099	MultiRAE	H2S	<1	ppm	Exhaust fumes odor; Exhaust fumes present; Slight Odor;
1/3/2014	9:18 AM	Work Area	Derailment Site	46.901704	-97.233075	MultiRAE	VOC	1.9	ppm	Bulldozer digging and piling soil near the railroad tracks where the derailment occurred. Both crude oil and exhaust odors present. Operator is in an enclosed cab.
1/3/2014	9:19 AM	Work Area	Downwind of excavation ops	46.90169	-97.233117	MultiRAE	CO	<1	ppm	Exhaust fumes odor; Exhaust fumes present; Slight Odor;
1/3/2014	9:19 AM	Work Area	Derailment Site	46.901719	-97.233138	MultiRAE	O2	20.9	%	Bulldozer digging and piling soil near the railroad tracks where the derailment occurred. Both crude oil and exhaust odors present. Operator is in an enclosed cab.
1/3/2014	9:20 AM	Work Area	Derailment Site	46.901719	-97.233138	MultiRAE	LEL	<1	%	Bulldozer digging and piling soil near the railroad tracks where the derailment occurred. Both crude oil and exhaust odors present. Operator is in an enclosed cab.
1/3/2014	9:22 AM	Community	Western endpoint of Cottonwood Drive, cul de sac	46.891617	-97.219329	MultiRAE	VOC	<0.1	ppm	No odor; Residence; Wind out of the south

Date	Time	Location Category	Location Description	Latitude	Longitude	Instrument	Analyte	Concentration	Units	Comments
1/3/2014	9:28 AM	Community	Western endpoint of Cottonwood Drive, cul de sac	46.891617	-97.219329	MultiRAE	LEL	<1	%	No odor; Residence; Wind out of the south
1/3/2014	9:29 AM	Community	Western endpoint of Cottonwood Drive, cul de sac	46.891721	-97.219448	Gastec 121L	Benzene	<0.1	ppm	No odor; Residence; Wind out of the south
1/3/2014	9:39 AM	Community	FRT12 FARM ROAD WEST OF SITE	46.891721	-97.219448	MultiRAE	LEL	<1	%	No odor; Residence; Wind out of the south
1/3/2014	9:40 AM	Community	FRT12 farm road west of site	46.891721	-97.219448	MultiRAE	VOC	<0.1	ppm	No odor; Residence; Wind out of the south
1/3/2014	9:41 AM	Community	FRT 12 farm road west of site	46.891721	-97.219448	Gastec 121L	Benzene	<0.1	ppm	No odor; Residence; Wind out of the south
1/3/2014	9:45 AM	Work Area	Derailment Site	46.90218	-97.234523	MultiRAE	CO	<1	ppm	
1/3/2014	9:46 AM	Work Area	Derailment Site	46.90218	-97.234523	MultiRAE	H2S	<1	ppm	
1/3/2014	9:46 AM	Work Area	Derailment Site	46.90218	-97.234523	MultiRAE	VOC	<0.1	ppm	
1/3/2014	9:46 AM	Work Area	Derailment Site	46.90218	-97.234523	MultiRAE	O2	20.9	%	
1/3/2014	9:47 AM	Community	FRT13 farm road intersection	46.891721	-97.219448	MultiRAE	VOC	<0.1	ppm	No odor; Residence; Wind out of the south
1/3/2014	9:47 AM	Work Area	Derailment Site	46.90218	-97.234523	MultiRAE	LEL	<1	%	
1/3/2014	9:48 AM	Community	FRT13 farm road intersection	46.891721	-97.219448	Gastec 121L	Benzene	<0.1	ppm	No odor; Residence; Wind out of the south
1/3/2014	9:57 AM	Work Area	Wrecking area	46.902218	-97.234858	MultiRAE	VOC	<0.1	ppm	Exhaust fumes present; Slight Odor;

Date	Time	Location Category	Location Description	Latitude	Longitude	Instrument	Analyte	Concentration	Units	Comments
1/3/2014	10:23 AM	Community	Good Samaritan Society Retirement Home	46.905295	-97.212175	MultiRAE	VOC	<0.1	ppm	No odor; Residence; Wind out of the south
1/3/2014	10:23 AM	Work Area	Derailment Site	46.902063	-97.234061	MultiRAE	CO	<1	ppm	
1/3/2014	10:24 AM	Work Area	Derailment Site	46.902063	-97.234061	MultiRAE	H2S	<1	ppm	
1/3/2014	10:24 AM	Work Area	Derailment Site	46.902063	-97.234061	MultiRAE	VOC	<0.1	ppm	
1/3/2014	10:25 AM	Community	Good Samaritan Society Retirement Home	46.905371	-97.212234	Gastec 121L	Benzene	<0.1	ppm	No odor; Residence; Wind out of the south
1/3/2014	10:25 AM	Work Area	Derailment Site	46.902063	-97.234061	MultiRAE	O2	20.9	%	
1/3/2014	10:25 AM	Work Area	Derailment Site	46.902063	-97.234061	MultiRAE	LEL	<1	%	
1/3/2014	10:26 AM	Community	Good Samaritan Society Retirement Home	46.905383	-97.212243	MultiRAE	LEL	<1	%	No odor; Residence; Wind out of the south
1/3/2014	10:32 AM	Community	1st Ave N & 5th St N	46.905382	-97.212243	MultiRAE	VOC	<0.1	ppm	No odor; Residence; Business; Wind out of the south
1/3/2014	10:32 AM	Community	1st Ave N & 5th St N	46.905127	-97.221092	Gastec 121L	Benzene	<0.1	ppm	No odor; Residence; Business; Wind out of the south
1/3/2014	10:33 AM	Work Area	Wrecking area	46.902388	-97.234579	MultiRAE	VOC	<0.1	ppm	Exhaust fumes odor; Exhaust fumes present; Slight Odor;
1/3/2014	10:33 AM	Community	1st Ave N & 5th St N	46.905126	-97.221091	MultiRAE	LEL	<1	%	No odor; Residence; Business; Wind out of the south
1/3/2014	10:38 AM	Community	1st Ave N & 3rd St N	46.905126	-97.221091	MultiRAE	VOC	<0.1	ppm	No odor; Residence; Wind out of the south
1/3/2014	10:38 AM	Community	1st Ave N & 3rd St N	46.90399	-97.220988	MultiRAE	LEL	<1	%	No odor; Wind out of the south

Date	Time	Location Category	Location Description	Latitude	Longitude	Instrument	Analyte	Concentration	Units	Comments
1/3/2014	10:39 AM	Community	1st Ave N & 3rd St N	46.90399	-97.220988	Gastec 121L	Benzene	<0.1	ppm	No odor; Residence; Wind out of the south
1/3/2014	10:44 AM	Community	1st Ave N & 2nd St N	46.90399	-97.220988	MultiRAE	VOC	<0.1	ppm	No odor; Residence; Business; Wind out of the south
1/3/2014	10:44 AM	Community	1st Ave N & 2nd St N	46.903023	-97.221033	MultiRAE	H2S	<1	ppm	No odor; Residence; Business; Wind out of the south
1/3/2014	10:45 AM	Community	1st Ave N & 2nd St N	46.903023	-97.221035	MultiRAE	LEL	<1	%	No odor; Residence; Business; Wind out of the south
1/3/2014	10:45 AM	Community	1st Ave N & 2nd St N	46.903023	-97.221035	Gastec 121L	Benzene	<0.1	ppm	No odor; Residence; Business; Wind out of the south
1/3/2014	10:50 AM	Work Area	Wrecking area	46.90232	-97.234264	MultiRAE	VOC	<0.1	ppm	Exhaust fumes present;
1/3/2014	10:52 AM	Community	3rd St N & 4th Ave N	46.903023	-97.221035	MultiRAE	VOC	<0.1	ppm	No odor; Residence; Wind out of the south
1/3/2014	10:52 AM	Community	3rd St N & 4th Ave N	46.903933	-97.216017	MultiRAE	LEL	<1	%	No odor; Residence; Wind out of the south
1/3/2014	10:53 AM	Community	3rd St N & 4th Ave N	46.903937	-97.216012	Gastec 121L	Benzene	<0.1	ppm	No odor; Residence; Wind out of the south
1/3/2014	11:05 AM	Community	Western endpoint of 1st St S, cul de sac	46.901784	-97.219548	MultiRAE	VOC	<0.1	ppm	No odor; Residence; Business; Wind out of the south
1/3/2014	11:05 AM	Community	Western endpoint of 1st St N, cul de sac	46.901768	-97.219612	MultiRAE	LEL	<1	%	No odor; Residence; Business; Wind out of the south
1/3/2014	11:06 AM	Community	Western endpoint of 1st St N, cul de sac	46.90177	-97.219615	Gastec 121L	Benzene	<0.1	ppm	No odor; Residence; Wind out of the south
1/3/2014	11:24 AM	Community	Western endpoint of 1st St S, cul de sac	46.90177	-97.219615	MultiRAE	VOC	<0.1	ppm	No odor; Residence; Wind out of the south
1/3/2014	11:24 AM	Work Area	Wrecking area	46.902219	-97.234626	MultiRAE	VOC	<0.1	ppm	Exhaust fumes present;
1/3/2014	11:25 AM	Work Area	Wrecking area	46.902219	-97.234626	MultiRAE	H2S	<1	ppm	Exhaust fumes present;

Date	Time	Location Category	Location Description	Latitude	Longitude	Instrument	Analyte	Concentration	Units	Comments
1/3/2014	11:25 AM	Work Area	Wrecking area	46.90219	-97.234645	MultiRAE	CO	<1	ppm	Exhaust fumes present;
1/3/2014	11:26 AM	Community	Western endpoint of 1st St S, cul de sac	46.90177	-97.219615	MultiRAE	LEL	<1	%	No odor; Residence; Wind out of the south
1/3/2014	11:27 AM	Community	Western endpoint of 1st St S, cul de sac	46.900232	-97.220306	Gastec 121L	Benzene	<0.1	ppm	No odor; Residence; Wind out of the south
1/3/2014	11:33 AM	Community	Western endpoint of 4th St S, cul de sac	46.900233	-97.220303	MultiRAE	VOC	<0.1	ppm	No odor; Residence; Wind out of the south
1/3/2014	11:33 AM	Community	Western endpoint of 4th St S, cul de sac	46.896781	-97.219275	MultiRAE	LEL	<1	%	No odor; Residence; Wind out of the south
1/3/2014	11:34 AM	Community	Western endpoint of 4th St S, cul de sac	46.896781	-97.219275	Gastec 121L	Benzene	<0.1	ppm	No odor; Residence; Wind out of the south
1/3/2014	11:41 AM	Community	1st St S & 6th Ave S	46.896781	-97.219275	MultiRAE	VOC	<0.1	ppm	No odor; Business; Wind out of the south
1/3/2014	11:41 AM	Community	1st St S & 6th Ave S	46.899843	-97.213394	MultiRAE	LEL	<1	%	No odor; Residence; Wind out of the south
1/3/2014	11:42 AM	Community	1st St S & 6th Ave S	46.899843	-97.213394	Gastec 121L	Benzene	<0.1	ppm	No odor; Business; Wind out of the south
1/3/2014	11:46 AM	Community	6th Ave S & 4th St S	46.899843	-97.213394	MultiRAE	VOC	<0.1	ppm	No odor; Residence; Wind out of the south
1/3/2014	11:46 AM	Community	6th Ave S & 4th St S	46.896211	-97.213574	MultiRAE	LEL	<1	%	No odor; Residence; Wind out of the south
1/3/2014	11:47 AM	Community	6th Ave S & 4th St S	46.896211	-97.213574	Gastec 121L	Benzene	<0.1	ppm	No odor; Residence; Wind out of the south
1/3/2014	11:53 AM	Community	Western endpoint of Cottonwood Drive, cul de sac	46.896211	-97.213574	MultiRAE	VOC	<0.1	ppm	No odor; Residence; Wind out of the south

Date	Time	Location Category	Location Description	Latitude	Longitude	Instrument	Analyte	Concentration	Units	Comments
1/3/2014	11:54 AM	Community	Western endpoint of Cottonwood Drive, cul de sac	46.891714	-97.219523	MultiRAE	LEL	<1	%	No odor; Residence; Wind out of the south
1/3/2014	11:54 AM	Community	Western endpoint of Cottonwood Drive, cul de sac	46.891716	-97.219525	Gastec 121L	Benzene	<0.1	ppm	No odor; Residence; Wind out of the south
1/3/2014	12:01 PM	Work Area	Derailment Site	46.902434	-97.234213	MultiRAE	CO	<1	ppm	
1/3/2014	12:01 PM	Work Area	Derailment Site	46.902434	-97.234213	MultiRAE	H2S	<1	ppm	
1/3/2014	12:02 PM	Work Area	Derailment Site	46.902422	-97.234226	MultiRAE	O2	20.9	%	
1/3/2014	12:03 PM	Work Area	Derailment Site	46.902422	-97.234226	MultiRAE	LEL	<1	%	
1/3/2014	12:04 PM	Work Area	Derailment Site	46.902403	-97.234265	MultiRAE	VOC	<0.1	ppm	
1/3/2014	12:19 PM	Work Area	Derailment Site	46.901756	-97.233871	MultiRAE	CO	<1	ppm	
1/3/2014	12:20 PM	Work Area	Derailment Site	46.901805	-97.233856	MultiRAE	H2S	<1	ppm	
1/3/2014	12:20 PM	Work Area	Derailment Site	46.901805	-97.233856	MultiRAE	VOC	<0.1	ppm	
1/3/2014	12:20 PM	Work Area	Derailment Site	46.901805	-97.233856	MultiRAE	O2	20.9	%	
1/3/2014	12:21 PM	Work Area	Derailment Site	46.901805	-97.233922	MultiRAE	LEL	<1	%	
1/3/2014	12:54 PM	Work Area	Tank car staging area	46.902023	-97.234294	MultiRAE	VOC	<0.1	ppm	No odor; Wind out of the south
1/3/2014	12:56 PM	Work Area	Tank car staging area	46.902065	-97.23439	MultiRAE	LEL	<1	%	No odor; Wind out of the south
1/3/2014	1:43 PM	Work Area	Tank car staging area	46.902276	-97.234418	MultiRAE	VOC	<0.1	ppm	No odor; Wind out of the south

Date	Time	Location Category	Location Description	Latitude	Longitude	Instrument	Analyte	Concentration	Units	Comments
1/3/2014	1:45 PM	Work Area	Tank car staging area	46.902278	-97.23507	MultiRAE	VOC	<0.1	ppm	Slight Odor; Wind out of the south, NTSB inspecting cars
1/3/2014	1:47 PM	Work Area	Tank car staging area	46.902276	-97.235077	MultiRAE	LEL	<1	%	Slight Odor; Wind out of the south, NTSB inspecting cars
1/3/2014	2:02 PM	Work Area - Tank	Tank 3	46.902276	-97.235077	MultiRAE	VOC	34.4	ppm	Slight Odor; MR stuck inside man way of tank are number 3. Per request of BNSF. readings dropped once device was removed from tank car.
1/3/2014	2:05 PM	Work Area - Tank	Tank 3	46.902276	-97.235077	MultiRAE	LEL	<1	%	Slight Odor; MR stuck inside man way of tank are number 3.
1/3/2014	2:41 PM	Work Area	Tank staging area	46.902305	-97.234585	MultiRAE	VOC	<0.1	ppm	No odor; Wind out of the south
1/3/2014	2:43 PM	Work Area	Tank staging area	46.902281	-97.23456	MultiRAE	LEL	<1	%	No odor; Wind out of the south
1/3/2014	3:00 PM	Work Area	staging area	46.902263	-97.234477	MultiRAE	VOC	<0.1	ppm	Slight Odor; sleet. winds from ssw. site shutting down at 1600 due to weather.
1/3/2014	3:04 PM	Work Area	Tank 7	46.902281	-97.23456	MultiRAE	VOC	<0.1	ppm	No odor; Workers inspecting tank

Appendix G

Lab Results

Ms. Lourdes Mahoney
CTEH
5120 North Shore Drive
North Little Rock, AR 72118

January 06, 2014

DOH ELAP# 11626 Account# 13913 Login# L308346
AIHA # 100324

Dear Ms. Mahoney:

Enclosed are the analytical results for the samples received by our laboratory on January 03, 2014. All test results meet the quality control requirements of AIHA and NELAC unless otherwise stated in this report. All samples on the chain of custody were received in good condition unless otherwise noted.

Results in this report are based on the sampling data provided by the client and refer only to the samples as they were received at the laboratory. Unless otherwise requested, all samples will be discarded 14 days from the date of this report, with the exception of IOMs, which will be cleaned and disposed of after seven calendar days.

Current Scopes of Accreditation can be viewed at www.galsonlabs.com in the accreditations section under the "about Galson" tab.

Please contact Pamela Weaver at (888) 432-5227, if you would like any additional information regarding this report.

Thank you for using Galson Laboratories.

Sincerely,

Galson Laboratories

Mary G. Unangst
Laboratory Director

Enclosure(s)

GALSON LABORATORIES

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East Syracuse, NY 13057
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FAX: (315) 437-0571
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LABORATORY ANALYSIS REPORT

Client : Center for Toxicology & Env. Health LLC
Site : NS
Project No. : 105820

Date Sampled : 31-DEC-13
Date Received : 03-JAN-14
Date Analyzed : 03-JAN-14
Report ID : 813749

Account No.: 13913
Login No. : L308346

Client ID : CASND123113MC001 **Lab ID : L308346-1**
Date Sampled : 12/31/13 **Date Analyzed : 01/03/14**

Parameter	MDL ppbv	LOQ ppbv	Result ppbv	Qualifier	Dilution Factor
Propylene	2	5.0	ND	U	1
Freon-12	2	5.0	ND	U	1
Chloromethane	2	5.0	ND	U	1
Freon-114	2	5.0	ND	U	1
Vinyl Chloride	2	5.0	ND	U	1
1,3-Butadiene	2	5.0	ND	U	1
Bromomethane	2	5.0	ND	U	1
Chloroethane	2	5.0	ND	U	1
Vinyl Bromide	2	5.0	ND	U	1
Freon-11	2	5.0	ND	U	1
Isopropyl Alcohol	25	25	ND	U	1
Acetone	25	25	ND	U	1
1,1-Dichloroethene	2	5.0	ND	U	1
Methylene Chloride	2	5.0	ND	U	1
Freon-113	2	5.0	ND	U	1
Allyl Chloride	2	5.0	ND	U	1
Carbon Disulfide	2	10	ND	U	1
Trans-1,2-Dichloroethene	2	5.0	ND	U	1
Methyl Tert-Butyl Ether	2	5.0	ND	U	1
1,1-Dichloroethane	2	5.0	ND	U	1
Vinyl Acetate	2	5.0	ND	U	1
Methyl Ethyl Ketone	2	5.0	ND	U	1
cis-1,2-Dichloroethylene	2	5.0	ND	U	1
Hexane	2	5.0	ND	U	1
Ethyl Acetate	2	5.0	ND	U	1

COMMENTS: Please see attached lab footnote report for any applicable footnotes.

Analytical Method : mod. OSHA PV2120/mod. EPA
Collection Media : Mini Can

Submitted by: BHB
Approved by : nkp
Date : 06-JAN-14 NYS DOH # : 11626
QC by : Tony D'Amico

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Client ID : CASND123113MC001 **Lab ID : L308346-1**
Date Sampled : 12/31/13 **Date Analyzed : 01/03/14**

Parameter	MDL ppbv	LOQ ppbv	Result ppbv	Qualifier	Dilution Factor
Chloroform	2	5.0	ND	U	1
Tetrahydrofuran	2	5.0	ND	U	1
1,2-Dichloroethane	2	5.0	ND	U	1
1,1,1-Trichloroethane	2	5.0	ND	U	1
Cyclohexane	2	5.0	ND	U	1
Carbon Tetrachloride	2	5.0	ND	U	1
Benzene	2	5.0	ND	U	1
1,4-Dioxane	2	20	ND	U	1
2,2,4-Trimethylpentane	2	5.0	ND	U	1
Heptane	2	5.0	ND	U	1
1,2-Dichloropropane	2	5.0	ND	U	1
Trichloroethylene	2	5.0	ND	U	1
Bromodichloromethane	2	5.0	ND	U	1
cis-1,3-Dichloropropene	2	5.0	ND	U	1
trans-1,3-Dichloropropene	2	5.0	ND	U	1
1,1,2-Trichloroethane	2	5.0	ND	U	1
Toluene	2	5.0	ND	U	1
Dibromochloromethane	2	5.0	ND	U	1
Methyl Isobutyl Ketone	2	20	ND	U	1
Methyl Butyl Ketone	2	20	ND	U	1
1,2-Dibromoethane	2	5.0	ND	U	1
Tetrachloroethylene	2	5.0	ND	U	1
Chlorobenzene	2	5.0	ND	U	1
Ethylbenzene	2	5.0	ND	U	1
Bromoform	2	5.0	ND	U	1

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Login No. : L308346

Client ID : CASND123113MC001 **Lab ID : L308346-1**
Date Sampled : 12/31/13 **Date Analyzed : 01/03/14**

Parameter	MDL ppbv	LOQ ppbv	Result ppbv	Qualifier	Dilution Factor
m & p-xylene	3	10	ND	U	1
Styrene	2	5.0	ND	U	1
o-Xylene	2	5.0	ND	U	1
1,1,2,2-Tetrachloroethane	2	5.0	ND	U	1
4-Ethyltoluene	2	5.0	ND	U	1
1,3,5-Trimethylbenzene	2	5.0	ND	U	1
1,2,4-Trimethylbenzene	2	5.0	ND	U	1
1,3-Dichlorobenzene	2	5.0	ND	U	1
Benzyl Chloride	2	5.0	ND	U	1
1,4-Dichlorobenzene	2	5.0	ND	U	1
1,2-Dichlorobenzene	2	5.0	ND	U	1

COMMENTS: Please see attached lab footnote report for any applicable footnotes.

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Date Received : 03-JAN-14
Date Analyzed : 03-JAN-14
Report ID : 813749

Account No.: 13913
Login No. : L308346

Client ID : CASND123113MC002 **Lab ID : L308346-2**
Date Sampled : 12/31/13 **Date Analyzed : 01/03/14**

Parameter	MDL ppbv	LOQ ppbv	Result ppbv	Qualifier	Dilution Factor
Propylene	2	5.0	ND	U	1
Freon-12	2	5.0	ND	U	1
Chloromethane	2	5.0	ND	U	1
Freon-114	2	5.0	ND	U	1
Vinyl Chloride	2	5.0	ND	U	1
1,3-Butadiene	2	5.0	ND	U	1
Bromomethane	2	5.0	ND	U	1
Chloroethane	2	5.0	ND	U	1
Vinyl Bromide	2	5.0	ND	U	1
Freon-11	2	5.0	ND	U	1
Isopropyl Alcohol	25	25	ND	U	1
Acetone	25	25	ND	U	1
1,1-Dichloroethene	2	5.0	ND	U	1
Methylene Chloride	2	5.0	ND	U	1
Freon-113	2	5.0	ND	U	1
Allyl Chloride	2	5.0	ND	U	1
Carbon Disulfide	2	10	ND	U	1
Trans-1,2-Dichloroethene	2	5.0	ND	U	1
Methyl Tert-Butyl Ether	2	5.0	ND	U	1
1,1-Dichloroethane	2	5.0	ND	U	1
Vinyl Acetate	2	5.0	ND	U	1
Methyl Ethyl Ketone	2	5.0	ND	U	1
cis-1,2-Dichloroethylene	2	5.0	ND	U	1
Hexane	2	5.0	ND	U	1
Ethyl Acetate	2	5.0	ND	U	1

COMMENTS: Please see attached lab footnote report for any applicable footnotes.

Analytical Method : mod. OSHA PV2120/mod. EPA
Collection Media : Mini Can

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Account No.: 13913
Login No. : L308346

Client ID : CASND123113MC002 **Lab ID : L308346-2**
Date Sampled : 12/31/13 **Date Analyzed : 01/03/14**

Parameter	MDL ppbv	LOQ ppbv	Result ppbv	Qualifier	Dilution Factor
Chloroform	2	5.0	ND	U	1
Tetrahydrofuran	2	5.0	ND	U	1
1,2-Dichloroethane	2	5.0	ND	U	1
1,1,1-Trichloroethane	2	5.0	ND	U	1
Cyclohexane	2	5.0	ND	U	1
Carbon Tetrachloride	2	5.0	ND	U	1
Benzene	2	5.0	ND	U	1
1,4-Dioxane	2	20	ND	U	1
2,2,4-Trimethylpentane	2	5.0	ND	U	1
Heptane	2	5.0	ND	U	1
1,2-Dichloropropane	2	5.0	ND	U	1
Trichloroethylene	2	5.0	ND	U	1
Bromodichloromethane	2	5.0	ND	U	1
cis-1,3-Dichloropropene	2	5.0	ND	U	1
trans-1,3-Dichloropropene	2	5.0	ND	U	1
1,1,2-Trichloroethane	2	5.0	ND	U	1
Toluene	2	5.0	ND	U	1
Dibromochloromethane	2	5.0	ND	U	1
Methyl Isobutyl Ketone	2	20	ND	U	1
Methyl Butyl Ketone	2	20	ND	U	1
1,2-Dibromoethane	2	5.0	ND	U	1
Tetrachloroethylene	2	5.0	ND	U	1
Chlorobenzene	2	5.0	ND	U	1
Ethylbenzene	2	5.0	ND	U	1
Bromoform	2	5.0	ND	U	1

COMMENTS: Please see attached lab footnote report for any applicable footnotes.

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Collection Media : Mini Can

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Client ID : CASND123113MC002 **Lab ID : L308346-2**
Date Sampled : 12/31/13 **Date Analyzed : 01/03/14**

Parameter	MDL ppbv	LOQ ppbv	Result ppbv	Qualifier	Dilution Factor
m & p-xylene	3	10	ND	U	1
Styrene	2	5.0	ND	U	1
o-Xylene	2	5.0	ND	U	1
1,1,2,2-Tetrachloroethane	2	5.0	ND	U	1
4-Ethyltoluene	2	5.0	ND	U	1
1,3,5-Trimethylbenzene	2	5.0	ND	U	1
1,2,4-Trimethylbenzene	2	5.0	ND	U	1
1,3-Dichlorobenzene	2	5.0	ND	U	1
Benzyl Chloride	2	5.0	ND	U	1
1,4-Dichlorobenzene	2	5.0	ND	U	1
1,2-Dichlorobenzene	2	5.0	ND	U	1

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Date Analyzed : 03-JAN-14
Report ID : 813749

Account No.: 13913
Login No. : L308346

Client ID : CASND123113MC003 **Lab ID : L308346-3**
Date Sampled : 12/31/13 **Date Analyzed : 01/03/14**

Parameter	MDL ppbv	LOQ ppbv	Result ppbv	Qualifier	Dilution Factor
Propylene	2	5.0	ND	U	1
Freon-12	2	5.0	ND	U	1
Chloromethane	2	5.0	ND	U	1
Freon-114	2	5.0	ND	U	1
Vinyl Chloride	2	5.0	ND	U	1
1,3-Butadiene	2	5.0	ND	U	1
Bromomethane	2	5.0	ND	U	1
Chloroethane	2	5.0	ND	U	1
Vinyl Bromide	2	5.0	ND	U	1
Freon-11	2	5.0	ND	U	1
Isopropyl Alcohol	25	25	ND	U	1
Acetone	25	25	ND	U	1
1,1-Dichloroethene	2	5.0	ND	U	1
Methylene Chloride	2	5.0	ND	U	1
Freon-113	2	5.0	ND	U	1
Allyl Chloride	2	5.0	ND	U	1
Carbon Disulfide	2	10	ND	U	1
Trans-1,2-Dichloroethene	2	5.0	ND	U	1
Methyl Tert-Butyl Ether	2	5.0	ND	U	1
1,1-Dichloroethane	2	5.0	ND	U	1
Vinyl Acetate	2	5.0	ND	U	1
Methyl Ethyl Ketone	2	5.0	ND	U	1
cis-1,2-Dichloroethylene	2	5.0	ND	U	1
Hexane	2	5.0	ND	U	1
Ethyl Acetate	2	5.0	ND	U	1

COMMENTS: Please see attached lab footnote report for any applicable footnotes.

Analytical Method : mod. OSHA PV2120/mod. EPA
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Login No. : L308346

Client ID : CASND123113MC003 **Lab ID : L308346-3**
Date Sampled : 12/31/13 **Date Analyzed : 01/03/14**

Parameter	MDL ppbv	LOQ ppbv	Result ppbv	Qualifier	Dilution Factor
Chloroform	2	5.0	ND	U	1
Tetrahydrofuran	2	5.0	ND	U	1
1,2-Dichloroethane	2	5.0	ND	U	1
1,1,1-Trichloroethane	2	5.0	ND	U	1
Cyclohexane	2	5.0	ND	U	1
Carbon Tetrachloride	2	5.0	ND	U	1
Benzene	2	5.0	ND	U	1
1,4-Dioxane	2	20	ND	U	1
2,2,4-Trimethylpentane	2	5.0	ND	U	1
Heptane	2	5.0	ND	U	1
1,2-Dichloropropane	2	5.0	ND	U	1
Trichloroethylene	2	5.0	ND	U	1
Bromodichloromethane	2	5.0	ND	U	1
cis-1,3-Dichloropropene	2	5.0	ND	U	1
trans-1,3-Dichloropropene	2	5.0	ND	U	1
1,1,2-Trichloroethane	2	5.0	ND	U	1
Toluene	2	5.0	ND	U	1
Dibromochloromethane	2	5.0	ND	U	1
Methyl Isobutyl Ketone	2	20	ND	U	1
Methyl Butyl Ketone	2	20	ND	U	1
1,2-Dibromoethane	2	5.0	ND	U	1
Tetrachloroethylene	2	5.0	ND	U	1
Chlorobenzene	2	5.0	ND	U	1
Ethylbenzene	2	5.0	ND	U	1
Bromoform	2	5.0	ND	U	1

COMMENTS: Please see attached lab footnote report for any applicable footnotes.

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Account No.: 13913
Login No. : L308346

Client ID : CASND123113MC003 **Lab ID : L308346-3**
Date Sampled : 12/31/13 **Date Analyzed : 01/03/14**

Parameter	MDL ppbv	LOQ ppbv	Result ppbv	Qualifier	Dilution Factor
m & p-xylene	3	10	ND	U	1
Styrene	2	5.0	ND	U	1
o-Xylene	2	5.0	ND	U	1
1,1,2,2-Tetrachloroethane	2	5.0	ND	U	1
4-Ethyltoluene	2	5.0	ND	U	1
1,3,5-Trimethylbenzene	2	5.0	ND	U	1
1,2,4-Trimethylbenzene	2	5.0	ND	U	1
1,3-Dichlorobenzene	2	5.0	ND	U	1
Benzyl Chloride	2	5.0	ND	U	1
1,4-Dichlorobenzene	2	5.0	ND	U	1
1,2-Dichlorobenzene	2	5.0	ND	U	1

COMMENTS: Please see attached lab footnote report for any applicable footnotes.

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Account No.: 13913
Login No. : L308346

Client ID : CASND123113MC004 **Lab ID : L308346-4**
Date Sampled : 12/31/13 **Date Analyzed : 01/03/14**

Parameter	MDL ppbv	LOQ ppbv	Result ppbv	Qualifier	Dilution Factor
Propylene	2	5.0	ND	U	1
Freon-12	2	5.0	ND	U	1
Chloromethane	2	5.0	ND	U	1
Freon-114	2	5.0	ND	U	1
Vinyl Chloride	2	5.0	ND	U	1
1,3-Butadiene	2	5.0	ND	U	1
Bromomethane	2	5.0	ND	U	1
Chloroethane	2	5.0	ND	U	1
Vinyl Bromide	2	5.0	ND	U	1
Freon-11	2	5.0	ND	U	1
Isopropyl Alcohol	25	25	ND	U	1
Acetone	25	25	ND	U	1
1,1-Dichloroethene	2	5.0	ND	U	1
Methylene Chloride	2	5.0	ND	U	1
Freon-113	2	5.0	ND	U	1
Allyl Chloride	2	5.0	ND	U	1
Carbon Disulfide	2	10	ND	U	1
Trans-1,2-Dichloroethene	2	5.0	ND	U	1
Methyl Tert-Butyl Ether	2	5.0	ND	U	1
1,1-Dichloroethane	2	5.0	ND	U	1
Vinyl Acetate	2	5.0	ND	U	1
Methyl Ethyl Ketone	2	5.0	ND	U	1
cis-1,2-Dichloroethylene	2	5.0	ND	U	1
Hexane	2	5.0	ND	U	1
Ethyl Acetate	2	5.0	ND	U	1

COMMENTS: Please see attached lab footnote report for any applicable footnotes.

Analytical Method : mod. OSHA PV2120/mod. EPA
Collection Media : Mini Can

Submitted by: BHB
Approved by : nkp
Date : 06-JAN-14 NYS DOH # : 11626
QC by : Tony D'Amico

< -Less Than
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L -Liters
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LABORATORY ANALYSIS REPORT

Client : Center for Toxicology & Env. Health LLC
Site : NS
Project No. : 105820

Date Sampled : 31-DEC-13
Date Received : 03-JAN-14
Date Analyzed : 03-JAN-14
Report ID : 813749

Account No.: 13913
Login No. : L308346

Client ID : CASND123113MC004 **Lab ID : L308346-4**
Date Sampled : 12/31/13 **Date Analyzed : 01/03/14**

Parameter	MDL ppbv	LOQ ppbv	Result ppbv	Qualifier	Dilution Factor
Chloroform	2	5.0	ND	U	1
Tetrahydrofuran	2	5.0	ND	U	1
1,2-Dichloroethane	2	5.0	ND	U	1
1,1,1-Trichloroethane	2	5.0	ND	U	1
Cyclohexane	2	5.0	ND	U	1
Carbon Tetrachloride	2	5.0	ND	U	1
Benzene	2	5.0	ND	U	1
1,4-Dioxane	2	20	ND	U	1
2,2,4-Trimethylpentane	2	5.0	ND	U	1
Heptane	2	5.0	ND	U	1
1,2-Dichloropropane	2	5.0	ND	U	1
Trichloroethylene	2	5.0	ND	U	1
Bromodichloromethane	2	5.0	ND	U	1
cis-1,3-Dichloropropene	2	5.0	ND	U	1
trans-1,3-Dichloropropene	2	5.0	ND	U	1
1,1,2-Trichloroethane	2	5.0	ND	U	1
Toluene	2	5.0	ND	U	1
Dibromochloromethane	2	5.0	ND	U	1
Methyl Isobutyl Ketone	2	20	ND	U	1
Methyl Butyl Ketone	2	20	ND	U	1
1,2-Dibromoethane	2	5.0	ND	U	1
Tetrachloroethylene	2	5.0	ND	U	1
Chlorobenzene	2	5.0	ND	U	1
Ethylbenzene	2	5.0	ND	U	1
Bromoform	2	5.0	ND	U	1

COMMENTS: Please see attached lab footnote report for any applicable footnotes.

Analytical Method : mod. OSHA PV2120/mod. EPA
Collection Media : Mini Can

Submitted by: BHB
Approved by : nkp
Date : 06-JAN-14 NYS DOH # : 11626
QC by : Tony D'Amico

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Project No. : 105820

Date Sampled : 31-DEC-13
Date Received : 03-JAN-14
Date Analyzed : 03-JAN-14
Report ID : 813749

Account No.: 13913
Login No. : L308346

Client ID : CASND123113MC004 **Lab ID : L308346-4**
Date Sampled : 12/31/13 **Date Analyzed : 01/03/14**

Parameter	MDL ppbv	LOQ ppbv	Result ppbv	Qualifier	Dilution Factor
m & p-xylene	3	10	ND	U	1
Styrene	2	5.0	ND	U	1
o-Xylene	2	5.0	ND	U	1
1,1,2,2-Tetrachloroethane	2	5.0	ND	U	1
4-Ethyltoluene	2	5.0	ND	U	1
1,3,5-Trimethylbenzene	2	5.0	ND	U	1
1,2,4-Trimethylbenzene	2	5.0	ND	U	1
1,3-Dichlorobenzene	2	5.0	ND	U	1
Benzyl Chloride	2	5.0	ND	U	1
1,4-Dichlorobenzene	2	5.0	ND	U	1
1,2-Dichlorobenzene	2	5.0	ND	U	1

COMMENTS: Please see attached lab footnote report for any applicable footnotes.

Analytical Method : mod. OSHA PV2120/mod. EPA
Collection Media : Mini Can

Submitted by: BHB
Approved by : nkp
Date : 06-JAN-14 NYS DOH # : 11626
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Date Sampled : 31-DEC-13
Date Received : 03-JAN-14
Date Analyzed : 03-JAN-14
Report ID : 813749

Account No.: 13913
Login No. : L308346

Client ID : CASND123113MC005 **Lab ID : L308346-5**
Date Sampled : 12/31/13 **Date Analyzed : 01/03/14**

Parameter	MDL ppbv	LOQ ppbv	Result ppbv	Qualifier	Dilution Factor
Propylene	2	5.0	ND	U	1
Freon-12	2	5.0	ND	U	1
Chloromethane	2	5.0	ND	U	1
Freon-114	2	5.0	ND	U	1
Vinyl Chloride	2	5.0	ND	U	1
1,3-Butadiene	2	5.0	ND	U	1
Bromomethane	2	5.0	ND	U	1
Chloroethane	2	5.0	ND	U	1
Vinyl Bromide	2	5.0	ND	U	1
Freon-11	2	5.0	ND	U	1
Isopropyl Alcohol	25	25	ND	U	1
Acetone	25	25	ND	U	1
1,1-Dichloroethene	2	5.0	ND	U	1
Methylene Chloride	2	5.0	ND	U	1
Freon-113	2	5.0	ND	U	1
Allyl Chloride	2	5.0	ND	U	1
Carbon Disulfide	2	10	ND	U	1
Trans-1,2-Dichloroethene	2	5.0	ND	U	1
Methyl Tert-Butyl Ether	2	5.0	ND	U	1
1,1-Dichloroethane	2	5.0	ND	U	1
Vinyl Acetate	2	5.0	ND	U	1
Methyl Ethyl Ketone	2	5.0	ND	U	1
cis-1,2-Dichloroethylene	2	5.0	ND	U	1
Hexane	2	5.0	ND	U	1
Ethyl Acetate	2	5.0	ND	U	1

COMMENTS: Please see attached lab footnote report for any applicable footnotes.

Analytical Method : mod. OSHA PV2120/mod. EPA
Collection Media : Mini Can

Submitted by: BHB
Approved by : nkp
Date : 06-JAN-14 NYS DOH # : 11626
QC by : Tony D'Amico

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Date Sampled : 31-DEC-13
Date Received : 03-JAN-14
Date Analyzed : 03-JAN-14
Report ID : 813749

Account No.: 13913
Login No. : L308346

Client ID : CASND123113MC005 **Lab ID : L308346-5**
Date Sampled : 12/31/13 **Date Analyzed : 01/03/14**

Parameter	MDL ppbv	LOQ ppbv	Result ppbv	Qualifier	Dilution Factor
Chloroform	2	5.0	ND	U	1
Tetrahydrofuran	2	5.0	ND	U	1
1,2-Dichloroethane	2	5.0	ND	U	1
1,1,1-Trichloroethane	2	5.0	ND	U	1
Cyclohexane	2	5.0	ND	U	1
Carbon Tetrachloride	2	5.0	ND	U	1
Benzene	2	5.0	ND	U	1
1,4-Dioxane	2	20	ND	U	1
2,2,4-Trimethylpentane	2	5.0	ND	U	1
Heptane	2	5.0	ND	U	1
1,2-Dichloropropane	2	5.0	ND	U	1
Trichloroethylene	2	5.0	ND	U	1
Bromodichloromethane	2	5.0	ND	U	1
cis-1,3-Dichloropropene	2	5.0	ND	U	1
trans-1,3-Dichloropropene	2	5.0	ND	U	1
1,1,2-Trichloroethane	2	5.0	ND	U	1
Toluene	2	5.0	ND	U	1
Dibromochloromethane	2	5.0	ND	U	1
Methyl Isobutyl Ketone	2	20	ND	U	1
Methyl Butyl Ketone	2	20	ND	U	1
1,2-Dibromoethane	2	5.0	ND	U	1
Tetrachloroethylene	2	5.0	ND	U	1
Chlorobenzene	2	5.0	ND	U	1
Ethylbenzene	2	5.0	ND	U	1
Bromoform	2	5.0	ND	U	1

COMMENTS: Please see attached lab footnote report for any applicable footnotes.

Analytical Method : mod. OSHA PV2120/mod. EPA
Collection Media : Mini Can

Submitted by: BHB
Approved by : nkp
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Date Sampled : 31-DEC-13
Date Received : 03-JAN-14
Date Analyzed : 03-JAN-14
Report ID : 813749

Account No.: 13913
Login No. : L308346

Client ID : CASND123113MC005 **Lab ID : L308346-5**
Date Sampled : 12/31/13 **Date Analyzed : 01/03/14**

Parameter	MDL ppbv	LOQ ppbv	Result ppbv	Qualifier	Dilution Factor
m & p-xylene	3	10	ND	U	1
Styrene	2	5.0	ND	U	1
o-Xylene	2	5.0	ND	U	1
1,1,2,2-Tetrachloroethane	2	5.0	ND	U	1
4-Ethyltoluene	2	5.0	ND	U	1
1,3,5-Trimethylbenzene	2	5.0	ND	U	1
1,2,4-Trimethylbenzene	2	5.0	ND	U	1
1,3-Dichlorobenzene	2	5.0	ND	U	1
Benzyl Chloride	2	5.0	ND	U	1
1,4-Dichlorobenzene	2	5.0	ND	U	1
1,2-Dichlorobenzene	2	5.0	ND	U	1

COMMENTS: Please see attached lab footnote report for any applicable footnotes.

Analytical Method : mod. OSHA PV2120/mod. EPA
Collection Media : Mini Can

Submitted by: BHB
Approved by : nkp
Date : 06-JAN-14 NYS DOH # : 11626
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Date Sampled : 31-DEC-13
Date Received : 03-JAN-14
Date Analyzed : 03-JAN-14
Report ID : 813749

Account No.: 13913
Login No. : L308346

Client ID : CASND123113MC006 **Lab ID : L308346-6**
Date Sampled : 12/31/13 **Date Analyzed : 01/03/14**

Parameter	MDL ppbv	LOQ ppbv	Result ppbv	Qualifier	Dilution Factor
Propylene	2	5.0	ND	U	1
Freon-12	2	5.0	ND	U	1
Chloromethane	2	5.0	ND	U	1
Freon-114	2	5.0	ND	U	1
Vinyl Chloride	2	5.0	ND	U	1
1,3-Butadiene	2	5.0	ND	U	1
Bromomethane	2	5.0	ND	U	1
Chloroethane	2	5.0	ND	U	1
Vinyl Bromide	2	5.0	ND	U	1
Freon-11	2	5.0	ND	U	1
Isopropyl Alcohol	25	25	ND	U	1
Acetone	25	25	ND	U	1
1,1-Dichloroethene	2	5.0	ND	U	1
Methylene Chloride	2	5.0	ND	U	1
Freon-113	2	5.0	ND	U	1
Allyl Chloride	2	5.0	ND	U	1
Carbon Disulfide	2	10	2.2	J	1
Trans-1,2-Dichloroethene	2	5.0	ND	U	1
Methyl Tert-Butyl Ether	2	5.0	ND	U	1
1,1-Dichloroethane	2	5.0	ND	U	1
Vinyl Acetate	2	5.0	ND	U	1
Methyl Ethyl Ketone	2	5.0	ND	U	1
cis-1,2-Dichloroethylene	2	5.0	ND	U	1
Hexane	2	5.0	ND	U	1
Ethyl Acetate	2	5.0	ND	U	1

COMMENTS: Please see attached lab footnote report for any applicable footnotes.

Analytical Method : mod. OSHA PV2120/mod. EPA
Collection Media : Mini Can

Submitted by: BHB
Approved by : nkp
Date : 06-JAN-14 NYS DOH # : 11626
QC by : Tony D'Amico

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Date Sampled : 31-DEC-13
Date Received : 03-JAN-14
Date Analyzed : 03-JAN-14
Report ID : 813749

Account No.: 13913
Login No. : L308346

Client ID : CASND123113MC006 **Lab ID : L308346-6**
Date Sampled : 12/31/13 **Date Analyzed : 01/03/14**

Parameter	MDL ppbv	LOQ ppbv	Result ppbv	Qualifier	Dilution Factor
Chloroform	2	5.0	ND	U	1
Tetrahydrofuran	2	5.0	ND	U	1
1,2-Dichloroethane	2	5.0	ND	U	1
1,1,1-Trichloroethane	2	5.0	ND	U	1
Cyclohexane	2	5.0	ND	U	1
Carbon Tetrachloride	2	5.0	ND	U	1
Benzene	2	5.0	ND	U	1
1,4-Dioxane	2	20	ND	U	1
2,2,4-Trimethylpentane	2	5.0	ND	U	1
Heptane	2	5.0	ND	U	1
1,2-Dichloropropane	2	5.0	ND	U	1
Trichloroethylene	2	5.0	ND	U	1
Bromodichloromethane	2	5.0	ND	U	1
cis-1,3-Dichloropropene	2	5.0	ND	U	1
trans-1,3-Dichloropropene	2	5.0	ND	U	1
1,1,2-Trichloroethane	2	5.0	ND	U	1
Toluene	2	5.0	ND	U	1
Dibromochloromethane	2	5.0	ND	U	1
Methyl Isobutyl Ketone	2	20	ND	U	1
Methyl Butyl Ketone	2	20	ND	U	1
1,2-Dibromoethane	2	5.0	ND	U	1
Tetrachloroethylene	2	5.0	ND	U	1
Chlorobenzene	2	5.0	ND	U	1
Ethylbenzene	2	5.0	ND	U	1
Bromoform	2	5.0	ND	U	1

COMMENTS: Please see attached lab footnote report for any applicable footnotes.

Analytical Method : mod. OSHA PV2120/mod. EPA
Collection Media : Mini Can

Submitted by: BHB
Approved by : nkp
Date : 06-JAN-14 NYS DOH # : 11626
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Date Analyzed : 03-JAN-14
Report ID : 813749

Account No.: 13913
Login No. : L308346

Client ID : CASND123113MC006 **Lab ID : L308346-6**
Date Sampled : 12/31/13 **Date Analyzed : 01/03/14**

Parameter	MDL ppbv	LOQ ppbv	Result ppbv	Qualifier	Dilution Factor
m & p-xylene	3	10	ND	U	1
Styrene	2	5.0	ND	U	1
o-Xylene	2	5.0	ND	U	1
1,1,2,2-Tetrachloroethane	2	5.0	ND	U	1
4-Ethyltoluene	2	5.0	ND	U	1
1,3,5-Trimethylbenzene	2	5.0	ND	U	1
1,2,4-Trimethylbenzene	2	5.0	ND	U	1
1,3-Dichlorobenzene	2	5.0	ND	U	1
Benzyl Chloride	2	5.0	ND	U	1
1,4-Dichlorobenzene	2	5.0	ND	U	1
1,2-Dichlorobenzene	2	5.0	ND	U	1

COMMENTS: Please see attached lab footnote report for any applicable footnotes.

Analytical Method : mod. OSHA PV2120/mod. EPA
Collection Media : Mini Can

Submitted by: BHB
Approved by : nkp
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Date Sampled : 31-DEC-13
Date Received : 03-JAN-14
Date Analyzed : 03-JAN-14
Report ID : 813751

Account No.: 13913
Login No. : L308346

Client ID : CASND123113MC001 **Lab ID : L308346-1**

Tentatively Identified Compounds	CAS Number	Retention Time	Estimated Concentration ppbv	mg/m3	Qual
No Volatiles Found			0	0	

Analytical Method : mod. OSHA PV2120/mod. EPA
Collection Media : Mini Can

Submitted by: BHB
Approved by : nkp
Date : 06-JAN-14 NYS DOH # : 11626
QC by: Tony D'Amico

< -Less Than mg -Milligrams m3 -Cubic Meters kg -Kilograms
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Field sampling was not performed by Galson. Galson presents results based on sampling data provided by clients.

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Date Received : 03-JAN-14
Date Analyzed : 03-JAN-14
Report ID : 813751

Account No.: 13913
Login No. : L308346

Client ID : CASND123113MC002 **Lab ID : L308346-2**

Tentatively Identified Compounds	CAS Number	Retention Time	Estimated Concentration ppbv	mg/m3	Qual
No Volatiles Found			0	0	

Analytical Method : mod. OSHA PV2120/mod. EPA
Collection Media : Mini Can

Submitted by: BHB
Approved by : nkp
Date : 06-JAN-14 NYS DOH # : 11626
QC by: Tony D'Amico

< -Less Than mg -Milligrams m3 -Cubic Meters kg -Kilograms
> -Greater Than ug -Micrograms l -Liters LOQ -Limit of Quantitation
NA -Not Applicable ND -Not Detected NS -Not Specified ppbv-Parts per Billion Volume

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Date Analyzed : 03-JAN-14
Report ID : 813751

Account No.: 13913
Login No. : L308346

Client ID : CASND123113MC003 **Lab ID : L308346-3**

Tentatively Identified Compounds	CAS Number	Retention Time	Estimated Concentration ppbv	mg/m3	Qual
No Volatiles Found			0	0	

Analytical Method : mod. OSHA PV2120/mod. EPA
Collection Media : Mini Can

Submitted by: BHB
Approved by : nkp
Date : 06-JAN-14 NYS DOH # : 11626
QC by: Tony D'Amico

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Date Analyzed : 03-JAN-14
Report ID : 813751

Account No.: 13913
Login No. : L308346

Client ID : CASND123113MC004 **Lab ID : L308346-4**

Tentatively Identified Compounds	CAS Number	Retention Time	Estimated Concentration ppbv	mg/m3	Qual
No Volatiles Found			0	0	

Analytical Method : mod. OSHA PV2120/mod. EPA
Collection Media : Mini Can

Submitted by: BHB
Approved by : nkp
Date : 06-JAN-14 NYS DOH # : 11626
QC by: Tony D'Amico

< -Less Than mg -Milligrams m3 -Cubic Meters kg -Kilograms
> -Greater Than ug -Micrograms l -Liters LOQ -Limit of Quantitation
NA -Not Applicable ND -Not Detected NS -Not Specified ppbv-Parts per Billion Volume

Field sampling was not performed by Galson. Galson presents results based on sampling data provided by clients.

LABORATORY ANALYSIS REPORT

6601 Kirkville Road
East Syracuse, NY 13057
(315) 432-5227
FAX: (315) 437-0571
www.galsonlabs.com

Client : Center for Toxicology & Env. Health LLC
Site : NS
Project No. : 105820

Date Sampled : 31-DEC-13
Date Received : 03-JAN-14
Date Analyzed : 03-JAN-14
Report ID : 813751

Account No.: 13913
Login No. : L308346

Client ID : CASND123113MC005 **Lab ID : L308346-5**

Tentatively Identified Compounds	CAS Number	Retention Time	Estimated Concentration ppbv	mg/m3	Qual
No Volatiles Found			0	0	

Analytical Method : mod. OSHA PV2120/mod. EPA
Collection Media : Mini Can

Submitted by: BHB
Approved by : nkp
Date : 06-JAN-14 NYS DOH # : 11626
QC by: Tony D'Amico

< -Less Than mg -Milligrams m3 -Cubic Meters kg -Kilograms
> -Greater Than ug -Micrograms l -Liters LOQ -Limit of Quantitation
NA -Not Applicable ND -Not Detected NS -Not Specified ppbv-Parts per Billion Volume

Field sampling was not performed by Galson. Galson presents results based on sampling data provided by clients.

LABORATORY ANALYSIS REPORT

6601 Kirkville Road
East Syracuse, NY 13057
(315) 432-5227
FAX: (315) 437-0571
www.galsonlabs.com

Client : Center for Toxicology & Env. Health LLC
Site : NS
Project No. : 105820

Date Sampled : 31-DEC-13
Date Received : 03-JAN-14
Date Analyzed : 03-JAN-14
Report ID : 813751

Account No.: 13913
Login No. : L308346

Client ID : CASND123113MC006 **Lab ID : L308346-6**

Tentatively Identified Compounds	CAS Number	Retention Time	Estimated Concentration ppbv	mg/m3	Qual
No Volatiles Found			0	0	

Analytical Method : mod. OSHA PV2120/mod. EPA
Collection Media : Mini Can

Submitted by: BHB
Approved by : nkp
Date : 06-JAN-14 NYS DOH # : 11626
QC by: Tony D'Amico

< -Less Than mg -Milligrams m3 -Cubic Meters kg -Kilograms
> -Greater Than ug -Micrograms l -Liters LOQ -Limit of Quantitation
NA -Not Applicable ND -Not Detected NS -Not Specified ppbv-Parts per Billion Volume

Field sampling was not performed by Galson. Galson presents results based on sampling data provided by clients.

GALSON LABORATORIES

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FAX: (315) 437-0571
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LABORATORY FOOTNOTE REPORT

Client Name : Center for Toxicology & Env. Health LLC
Site :
Project No. : 105820

Date Sampled : 31-DEC-13 Account No.: 13913
Date Received: 03-JAN-14 Login No. : L308346
Date Analyzed: 03-JAN-14

Unless otherwise noted below, all quality control results associated with the samples were within established control limits or did not impact reported results.

Unrounded results are carried through the calculations that yield the final result and the final result is rounded to the number of significant figures appropriate to the accuracy of the analytical method. Please note that results appearing in the columns preceeding the final result column may have been rounded in order to fit the report format and therefore, if carried through the calculations, may not yield an identical final result to the one reported.

The stated LOQs for each analyte represent the demonstrated LOQ concentrations prior to correction for desorption efficiency (if applicable).

Unless otherwise noted below, reported results have not been blank corrected for any field blank or method blank.

L308346 (Report ID: 813749):
SOPs: in-vocs(26)
U = undetected, J = estimated

L308346-2 (Report ID: 813749):
The sample canister was received at (or near) ambient pressure, indicating that the sampling event may have ended prematurely. Reported sample results may not be representative of the intended sampling duration.

L308346-3 (Report ID: 813749):
The sample canister was received at (or near) ambient pressure, indicating that the sampling event may have ended prematurely. Reported sample results may not be representative of the intended sampling duration.

L308346-4 (Report ID: 813749):
The sample canister was received at (or near) ambient pressure, indicating that the sampling event may have ended prematurely. Reported sample results may not be representative of the intended sampling duration.

L308346-5 (Report ID: 813749):
The sample canister was received at (or near) ambient pressure, indicating that the sampling event may have ended prematurely. Reported sample results may not be representative of the intended sampling duration.

L308346 (Report ID: 813751):
Tentatively Identified Compounds (TICS) are estimated values. TICS are calculated using an average response factor of 1 for all compounds.
SOPs: in-vocs(26)

< -Less Than	mg -Milligrams	m3 -Cubic Meters	kg -Kilograms
> -Greater Than	ug -Micrograms	l -Liters	NS -Not Specified
NA -Not Applicable	ND -Not Detected	ppm -Parts per Million	

GALSON LABORATORIES

GC/MS QA-QC Check Report

Tune File : C:\msdchem\1\DATA\J-2014\01-2014\J010314\J0103402.D
Tune Time : 01/03/14 09:46
Daily Calibration File : C:\msdchem\1\DATA\J-2014\01-2014\J010314\J01
Internal Standard Areas: 428377 1906572 316450

Sample	Client ID	File	Surr%	Acquired on	Internal Standard Responses		
WG272566-5	Continuing Verifier	J0103402	110	01/03/14 09:46	428377	1906572	316450
WG272566-2	Lab Control Spike	J0103404	101	01/03/14 11:09	401028	1880201	299101
WG272566-3	LCS Duplicate	J0103405	105	01/03/14 12:09	470261	2039398	321951
WG272566-4	DLS	J0103407	98	01/03/14 13:32	371608	1733796	284400
WG272566-1	Method Blank	J0103408	94	01/03/14 14:13	347173	1580964	265958
L308346-1	CASND123113MC001	J0103410	99	01/03/14 16:47	342350	1559843	277908
L308346-2	CASND123113MC002	J0103411	98	01/03/14 17:29	347195	1627185	286546
L308346-3	CASND123113MC003	J0103412	98	01/03/14 18:10	356294	1653745	291112
L308346-4	CASND123113MC004	J0103413	93	01/03/14 18:52	351335	1659270	287894
L308346-5	CASND123113MC005	J0103414	98	01/03/14 19:34	360832	1665632	300887
L308346-6	CASND123113MC006	J0103415	97	01/03/14 20:16	351651	1630513	288237
WG272566-6	Continuing Verifier	J0103419	99	01/03/14 23:03	328146	1569385	282930

* = Value outside limits Surrogate Limits = 80 - 120 Internal Standard Limits = +/- 40%

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6601 Kirkville Rd. E. Syracuse, NY 13057

ASTD 50ppb STANDARD RECOVERY REPORT

Client : Center for Toxicology & Env. Health LLC
Account No: 13913
Login No. : L308346

Lab Sample ID		WC272566-5			WC272566-6					
Type		CCV			CCV					
Spike Lot #		IH404842			IH404842					
Instrument		MS J			MS J					
Analysis Date		Jan 03, 2014 09:46			Jan 03, 2014 23:03					
	Limits (%)	True Value (ppbv)	Found (ppbv)	Recovery (%)	True Value (ppbv)	Found (ppbv)	Recovery (%)	True Value 0	Found 0	Recovery (%)
1,1,1-Trichloroethane	70.0 to 130.	50.0	51.7	103.	50.0	51.4	103.			
1,1,2,2-Tetrachloroethane	70.0 to 130.	50.0	50.5	101.	50.0	50.9	102.			
1,1,2-Trichloroethane	70.0 to 130.	50.0	50.8	102.	50.0	50.3	101.			
1,1-Dichloroethane	70.0 to 130.	50.0	49.0	98.1	50.0	52.7	105.			
1,1-Dichloroethene	70.0 to 130.	50.0	50.2	100.	50.0	52.2	104.			
1,2,4-Trimethylbenzene	70.0 to 130.	50.0	51.3	103.	50.0	50.8	102.			
1,2-Dibromoethane	70.0 to 130.	50.0	50.9	102.	50.0	47.1	94.1			
1,2-Dichlorobenzene	70.0 to 130.	50.0	54.1	108.	50.0	49.9	99.7			
1,2-Dichloroethane	70.0 to 130.	50.0	46.2	92.4	50.0	52.5	105.			
1,2-Dichloropropane	70.0 to 130.	50.0	49.2	98.4	50.0	50.8	102.			
1,3,5-Trimethylbenzene	70.0 to 130.	50.0	50.4	101.	50.0	49.7	99.4			
1,3-Butadiene	70.0 to 130.	50.0	44.3	88.5	50.0	54.9	110.			
1,3-Dichlorobenzene	70.0 to 130.	50.0	54.5	109.	50.0	50.7	101.			
1,4-Dichlorobenzene	70.0 to 130.	50.0	55.0	110.	50.0	49.7	99.5			
1,4-Dioxane	70.0 to 130.	50.0	51.3	103.	50.0	54.8	110.			
2,2,4-Trimethylpentane	70.0 to 130.	50.0	50.1	100.	50.0	52.2	104.			
4-Ethyltoluene	70.0 to 130.	50.0	51.5	103.	50.0	50.3	101.			
Acetone	70.0 to 130.	50.0	43.0	86.1	50.0	50.2	100.			
Allyl Chloride	70.0 to 130.	50.0	50.4	101.	50.0	55.7	111.			
Benzene	70.0 to 130.	50.0	50.3	101.	50.0	50.4	101.			
Benzyl Chloride	70.0 to 130.	50.0	53.0	106.	50.0	52.2	104.			
Bromodichloromethane	70.0 to 130.	50.0	48.2	96.4	50.0	50.8	102.			
Bromoform	70.0 to 130.	50.0	53.0	106.	50.0	48.7	97.3			
Bromomethane	70.0 to 130.	50.0	48.4	96.8	50.0	51.9	104.			
Carbon Disulfide	70.0 to 130.	50.0	45.2	90.4	50.0	49.9	99.8			
Carbon Tetrachloride	70.0 to 130.	50.0	53.0	106.	50.0	51.9	104.			
Chlorobenzene	70.0 to 130.	50.0	51.3	103.	50.0	47.9	95.9			
Chloroethane	70.0 to 130.	50.0	51.2	102.	50.0	53.4	107.			
Chloroform	70.0 to 130.	50.0	46.8	93.5	50.0	51.7	103.			
Chloromethane	70.0 to 130.	50.0	45.6	91.1	50.0	52.6	105.			
cis-1,2-Dichloroethylene	70.0 to 130.	50.0	48.7	97.4	50.0	52.8	106.			
cis-1,3-Dichloropropene	70.0 to 130.	50.0	49.8	99.6	50.0	51.1	102.			
Cyclohexane	70.0 to 130.	50.0	52.8	106.	50.0	52.7	105.			
Dibromochloromethane	70.0 to 130.	50.0	50.5	101.	50.0	46.9	93.8			
Ethyl Acetate	70.0 to 130.	50.0	43.4	86.9	50.0	54.3	109.			
Ethylbenzene	70.0 to 130.	50.0	51.0	102.	50.0	47.6	95.2			
Freon-11	70.0 to 130.	50.0	48.6	97.2	50.0	54.8	110.			
Freon-113	70.0 to 130.	50.0	51.8	104.	50.0	55.4	111.			

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ASTD 50ppb STANDARD RECOVERY REPORT

Client : Center for Toxicology & Env. Health LLC
Account No: 13913
Login No. : L308346

Freon-114	70.0 to 130.	50.0	46.7	93.5	50.0	53.9	108.	
Freon-12	70.0 to 130.	50.0	46.4	92.7	50.0	53.3	107.	
Heptane	70.0 to 130.	50.0	48.4	96.9	50.0	53.1	106.	
Hexane	70.0 to 130.	50.0	49.9	99.9	50.0	53.2	106.	
Isopropyl Alcohol	70.0 to 130.	50.0	43.3	86.6	50.0	49.2	98.3	
m & p-xylene	70.0 to 130.	100.	103.	103.	100.	93.8	93.8	
Methyl Butyl Ketone	70.0 to 130.	50.0	46.1	92.2	50.0	49.2	98.5	
Methyl Ethyl Ketone	70.0 to 130.	50.0	43.2	86.4	50.0	53.1	106.	
Methyl Isobutyl Ketone	70.0 to 130.	50.0	45.6	91.1	50.0	49.2	98.4	
Methyl Tert-Butyl Ether	70.0 to 130.	50.0	46.2	92.3	50.0	51.1	102.	
Methylene Chloride	70.0 to 130.	50.0	49.9	99.9	50.0	53.6	107.	
o-Xylene	70.0 to 130.	50.0	51.2	102.	50.0	50.1	100.	
Propylene	70.0 to 130.	50.0	49.0	98.0	50.0	57.9	116.	
Styrene	70.0 to 130.	50.0	51.8	104.	50.0	47.4	94.9	
Tetrachloroethylene	70.0 to 130.	50.0	49.3	98.6	50.0	44.9	89.7	
Tetrahydrofuran	70.0 to 130.	50.0	44.7	89.3	50.0	52.4	105.	
Toluene	70.0 to 130.	50.0	50.2	100.	50.0	46.5	93.0	
Trans-1,2-Dichloroethene	70.0 to 130.	50.0	50.6	101.	50.0	55.5	111.	
trans-1,3-Dichloropropene	70.0 to 130.	50.0	51.4	103.	50.0	52.1	104.	
Trichloroethylene	70.0 to 130.	50.0	52.2	104.	50.0	52.9	106.	
Vinyl Acetate	70.0 to 130.	50.0	44.5	88.9	50.0	52.7	105.	
Vinyl Bromide	70.0 to 130.	50.0	49.2	98.4	50.0	50.7	101.	
Vinyl Chloride	70.0 to 130.	50.0	46.2	92.5	50.0	51.5	103.	

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ASTD 5ppb STANDARD RECOVERY REPORT

Client : Center for Toxicology & Env. Health LLC
Account No: 13913
Login No. : L308346

Lab Sample ID		WG272566-4								
Type		DLS								
Spike Lot #		IH404882								
Instrument		MS J								
Analysis Date		Jan 03, 2014 13:32								
	Limits (%)	True Value (ppbv)	Found (ppbv)	Recovery (%)	True Value 0	Found 0	Recovery (%)	True Value 0	Found 0	Recovery (%)
1,1,1-Trichloroethane	60.0 to 140.	5.00	4.71	94.2						
1,1,2,2-Tetrachloroethane	60.0 to 140.	5.00	4.75	95.0						
1,1,2-Trichloroethane	60.0 to 140.	5.00	4.28	85.6						
1,1-Dichloroethane	60.0 to 140.	5.00	4.73	94.6						
1,1-Dichloroethene	60.0 to 140.	5.00	5.30	106.						
1,2,4-Trimethylbenzene	60.0 to 140.	5.00	4.71	94.2						
1,2-Dibromoethane	60.0 to 140.	5.00	4.28	85.6						
1,2-Dichlorobenzene	60.0 to 140.	5.00	4.37	87.4						
1,2-Dichloroethane	60.0 to 140.	5.00	4.42	88.4						
1,2-Dichloropropane	60.0 to 140.	5.00	4.48	89.6						
1,3,5-Trimethylbenzene	60.0 to 140.	5.00	4.66	93.2						
1,3-Butadiene	60.0 to 140.	5.00	4.99	99.8						
1,3-Dichlorobenzene	60.0 to 140.	5.00	4.52	90.4						
1,4-Dichlorobenzene	60.0 to 140.	5.00	4.45	89.0						
1,4-Dioxane	60.0 to 140.	5.00	3.52	70.4						
2,2,4-Trimethylpentane	60.0 to 140.	5.00	4.92	98.4						
4-Ethyltoluene	60.0 to 140.	5.00	4.50	90.0						
Acetone	60.0 to 140.	5.00	4.28	85.6						
Allyl Chloride	60.0 to 140.	5.00	4.46	89.2						
Benzene	60.0 to 140.	5.00	4.68	93.6						
Benzyl Chloride	60.0 to 140.	5.00	4.13	82.6						
Bromodichloromethane	60.0 to 140.	5.00	4.36	87.2						
Bromoform	60.0 to 140.	5.00	4.08	81.6						
Bromomethane	60.0 to 140.	5.00	4.60	92.0						
Carbon Disulfide	60.0 to 140.	5.00	5.11	102.						
Carbon Tetrachloride	60.0 to 140.	5.00	4.61	92.2						
Chlorobenzene	60.0 to 140.	5.00	4.64	92.8						
Chloroethane	60.0 to 140.	5.00	4.67	93.4						
Chloroform	60.0 to 140.	5.00	4.68	93.6						
Chloromethane	60.0 to 140.	5.00	4.82	96.4						
cis-1,2-Dichloroethylene	60.0 to 140.	5.00	4.65	93.0						
cis-1,3-Dichloropropene	60.0 to 140.	5.00	4.31	86.2						
Cyclohexane	60.0 to 140.	5.00	5.05	101.						
Dibromochloromethane	60.0 to 140.	5.00	4.16	83.2						
Ethyl Acetate	60.0 to 140.	5.00	4.07	81.4						
Ethylbenzene	60.0 to 140.	5.00	4.51	90.2						
Freon-11	60.0 to 140.	5.00	4.80	96.0						
Freon-113	60.0 to 140.	5.00	5.08	102.						

Galson Laboratories
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ASTD 5ppb STANDARD RECOVERY REPORT

Client : Center for Toxicology & Env. Health LLC
Account No: 13913
Login No. : L308346

Freon-114	60.0 to 140.	5.00	4.95	99.0
Freon-12	60.0 to 140.	5.00	4.81	96.2
Heptane	60.0 to 140.	5.00	4.84	96.8
Hexane	60.0 to 140.	5.00	4.93	98.6
Isopropyl Alcohol	60.0 to 140.	5.00	4.10	82.0
m & p-xylene	60.0 to 140.	10.0	9.47	94.7
Methyl Butyl Ketone	60.0 to 140.	5.00	3.98	79.6
Methyl Ethyl Ketone	60.0 to 140.	5.00	4.06	81.2
Methyl Isobutyl Ketone	60.0 to 140.	5.00	4.12	82.4
Methyl Tert-Butyl Ether	60.0 to 140.	5.00	4.25	85.0
Methylene Chloride	60.0 to 140.	5.00	5.30	106.
o-Xylene	60.0 to 140.	5.00	4.75	95.0
Propylene	60.0 to 140.	5.00	5.37	107.
Styrene	60.0 to 140.	5.00	4.27	85.4
Tetrachloroethylene	60.0 to 140.	5.00	4.58	91.6
Tetrahydrofuran	60.0 to 140.	5.00	3.99	79.8
Toluene	60.0 to 140.	5.00	4.44	88.8
Trans-1,2-Dichloroethene	60.0 to 140.	5.00	5.03	101.
trans-1,3-Dichloropropene	60.0 to 140.	5.00	4.16	83.2
Trichloroethylene	60.0 to 140.	5.00	5.44	109.
Vinyl Acetate	60.0 to 140.	5.00	4.15	83.0
Vinyl Bromide	60.0 to 140.	5.00	4.88	97.6
Vinyl Chloride	60.0 to 140.	5.00	4.84	96.8

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LCS/LCS DUPLICATE REPORT

Client : Center for Toxicology & Env. Health LLC
Account No: 13913
Login No. : L308346

Lab Sample ID Type Spike Lot # Instrument Analysis Date	Limits (%)	WC272566-2 LCS IH402842 MS J Jan 03, 2014 11:09 True Value (ppbv)	Found (ppbv)	Recovery (%)	WC272566-3 LCSD IH402842 MS J Jan 03, 2014 12:09 True Value (ppbv)	Found (ppbv)	Recovery (%)	RPD	RPD Limits
1,1,1-Trichloroethane	70.0 to 130.	50.0	39.4	78.7	50.0	40.8	81.5	-3.44	-25.0 to 25.0
1,1,2,2-Tetrachloroethane	70.0 to 130.	50.0	39.7	79.4	50.0	41.0	82.0	-3.17	-25.0 to 25.0
1,1,2-Trichloroethane	70.0 to 130.	50.0	40.8	81.5	50.0	42.1	84.1	-3.14	-25.0 to 25.0
1,1-Dichloroethane	70.0 to 130.	50.0	42.8	85.6	50.0	39.5	79.0	8.04	-25.0 to 25.0
1,1-Dichloroethene	70.0 to 130.	50.0	45.5	91.0	50.0	41.9	83.7	8.38	-25.0 to 25.0
1,2,4-Trimethylbenzene	70.0 to 130.	50.0	44.3	88.7	50.0	47.3	94.6	-6.44	-25.0 to 25.0
1,2-Dibromoethane	70.0 to 130.	50.0	43.0	86.0	50.0	44.2	88.3	-2.66	-25.0 to 25.0
1,2-Dichlorobenzene	70.0 to 130.	50.0	39.1	78.1	50.0	42.8	85.5	-9.00	-25.0 to 25.0
1,2-Dichloroethane	70.0 to 130.	50.0	40.1	80.2	50.0	39.1	78.2	2.60	-25.0 to 25.0
1,2-Dichloropropane	70.0 to 130.	50.0	39.6	79.2	50.0	40.7	81.4	-2.76	-25.0 to 25.0
1,3,5-Trimethylbenzene	70.0 to 130.	50.0	44.2	88.3	50.0	47.1	94.1	-6.36	-25.0 to 25.0
1,3-Butadiene	70.0 to 130.	50.0	40.1	80.2	50.0	35.6	71.3	11.8	-25.0 to 25.0
1,3-Dichlorobenzene	70.0 to 130.	50.0	42.7	85.4	50.0	45.3	90.7	-6.02	-25.0 to 25.0
1,4-Dichlorobenzene	70.0 to 130.	50.0	42.3	84.6	50.0	46.0	92.1	-8.49	-25.0 to 25.0
1,4-Dioxane	70.0 to 130.	50.0	42.0	84.1	50.0	43.6	87.3	-3.71	-25.0 to 25.0
2,2,4-Trimethylpentane	70.0 to 130.	50.0	42.2	84.4	50.0	42.8	85.7	-1.43	-25.0 to 25.0
4-Ethyltoluene	70.0 to 130.	50.0	46.6	93.2	50.0	49.8	99.6	-6.56	-25.0 to 25.0
Acetone	70.0 to 130.	50.0	45.4	90.7	50.0	42.1	84.3	7.38	-25.0 to 25.0
Allyl Chloride	70.0 to 130.	50.0	43.9	87.9	50.0	40.4	80.8	8.44	-25.0 to 25.0
Benzene	70.0 to 130.	50.0	40.9	81.8	50.0	43.3	86.5	-5.63	-25.0 to 25.0
Benzyl Chloride	70.0 to 130.	50.0	50.0	99.9	50.0	52.4	105.	-4.73	-25.0 to 25.0
Bromodichloromethane	70.0 to 130.	50.0	41.4	82.8	50.0	42.4	84.9	-2.51	-25.0 to 25.0
Bromoform	70.0 to 130.	50.0	46.6	93.2	50.0	48.2	96.4	-3.29	-25.0 to 25.0
Bromomethane	70.0 to 130.	50.0	39.7	79.4	50.0	36.5	73.0	8.45	-25.0 to 25.0
Carbon Disulfide	70.0 to 130.	50.0	50.5	101.	50.0	43.9	87.8	14.0	-25.0 to 25.0
Carbon Tetrachloride	70.0 to 130.	50.0	42.8	85.6	50.0	43.4	86.7	-1.32	-25.0 to 25.0
Chlorobenzene	70.0 to 130.	50.0	43.6	87.2	50.0	45.1	90.1	-3.29	-25.0 to 25.0
Chloroethane	70.0 to 130.	43.5	40.4	92.8	43.5	37.1	85.2	8.50	-25.0 to 25.0
Chloroform	70.0 to 130.	50.0	40.0	79.9	50.0	38.6	77.1	3.52	-25.0 to 25.0
Chloromethane	70.0 to 130.	50.0	45.4	90.8	50.0	41.7	83.3	8.59	-25.0 to 25.0
cis-1,2-Dichloroethylene	70.0 to 130.	50.0	37.7	75.5	50.0	35.6	71.2	5.84	-25.0 to 25.0
cis-1,3-Dichloropropene	70.0 to 130.	50.0	42.5	85.1	50.0	42.9	85.9	-0.913	-25.0 to 25.0
Cyclohexane	70.0 to 130.	50.0	43.2	86.3	50.0	43.0	86.1	0.302	-25.0 to 25.0
Dibromochloromethane	70.0 to 130.	50.0	44.5	89.0	50.0	46.0	92.0	-3.38	-25.0 to 25.0
Ethyl Acetate	70.0 to 130.	50.0	44.0	88.1	50.0	41.7	83.3	5.56	-25.0 to 25.0
Ethylbenzene	70.0 to 130.	50.0	42.5	85.0	50.0	45.9	91.7	-7.58	-25.0 to 25.0
Freon-11	70.0 to 130.	50.0	44.3	88.6	50.0	40.3	80.6	9.48	-25.0 to 25.0
Freon-113	70.0 to 130.	50.0	45.8	91.5	50.0	41.6	83.2	9.50	-25.0 to 25.0

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LCS/LCS DUPLICATE REPORT

Client : Center for Toxicology & Env. Health LLC
Account No: 13913
Login No. : L308346

Freon-114	70.0 to 130.	50.0	38.8	77.5	50.0	35.7	71.4	8.25	-25.0 to 25.0
Freon-12	70.0 to 130.	50.0	41.9	83.8	50.0	38.5	76.9	8.56	-25.0 to 25.0
Heptane	70.0 to 130.	50.0	41.2	82.4	50.0	42.1	84.1	-2.11	-25.0 to 25.0
Hexane	70.0 to 130.	50.0	43.1	86.1	50.0	40.1	80.2	7.05	-25.0 to 25.0
Isopropyl Alcohol	70.0 to 130.	50.0	49.0	98.0	50.0	43.3	86.7	12.3	-25.0 to 25.0
m & p-xylene	70.0 to 130.	100.	88.9	88.9	100.	95.1	95.1	-6.73	-25.0 to 25.0
Methyl Butyl Ketone	70.0 to 130.	50.0	51.2	102.	50.0	49.2	98.4	3.90	-25.0 to 25.0
Methyl Ethyl Ketone	70.0 to 130.	50.0	45.2	90.4	50.0	43.1	86.3	4.66	-25.0 to 25.0
Methyl Isobutyl Ketone	70.0 to 130.	50.0	45.3	90.5	50.0	43.6	87.1	3.83	-25.0 to 25.0
Methyl Tert-Butyl Ether	70.0 to 130.	50.0	43.2	86.5	50.0	40.9	81.8	5.51	-25.0 to 25.0
Methylene Chloride	70.0 to 130.	50.0	44.1	88.2	50.0	39.7	79.4	10.5	-25.0 to 25.0
o-Xylene	70.0 to 130.	50.0	43.4	86.8	50.0	46.7	93.4	-7.37	-25.0 to 25.0
Propylene	70.0 to 130.	50.0	46.7	93.5	50.0	42.7	85.4	8.99	-25.0 to 25.0
Styrene	70.0 to 130.	59.0	53.0	89.8	59.0	56.1	95.1	-5.74	-25.0 to 25.0
Tetrachloroethylene	70.0 to 130.	50.0	42.7	85.5	50.0	44.2	88.4	-3.34	-25.0 to 25.0
Tetrahydrofuran	70.0 to 130.	50.0	43.1	86.2	50.0	42.2	84.3	2.23	-25.0 to 25.0
Toluene	70.0 to 130.	50.0	43.7	87.3	50.0	45.6	91.2	-4.39	-25.0 to 25.0
Trans-1,2-Dichloroethene	70.0 to 130.	50.0	50.6	101.	50.0	46.3	92.5	9.00	-25.0 to 25.0
trans-1,3-Dichloropropene	70.0 to 130.	50.0	44.6	89.1	50.0	46.0	92.0	-3.18	-25.0 to 25.0
Trichloroethylene	70.0 to 130.	50.0	40.4	80.8	50.0	40.7	81.4	-0.764	-25.0 to 25.0
Vinyl Acetate	70.0 to 130.	50.0	44.3	88.6	50.0	43.2	86.4	2.51	-25.0 to 25.0
Vinyl Bromide	70.0 to 130.	50.0	44.1	88.3	50.0	40.9	81.8	7.55	-25.0 to 25.0
Vinyl Chloride	70.0 to 130.	50.0	42.6	85.2	50.0	38.9	77.8	9.10	-25.0 to 25.0

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METHOD BLANK REPORT

Client: Center for Toxicology & Env. Health LLC
Account No: 13913
Login No.: L308346

Lab Sample ID			WG272566-1							
Type			BLANK							
Instrument			MS J							
Analysis Date			01/03/14							
Analysis Time			14:13							
	MDL (ppbv)	LOQ (ppbv)	Found (ppbv)	Qual						
1,1,1-Trichloroethane	2	5.0	ND	U						
1,1,2,2-Tetrachloroethane	2	5.0	ND	U						
1,1,2-Trichloroethane	2	5.0	ND	U						
1,1-Dichloroethane	2	5.0	ND	U						
1,1-Dichloroethene	2	5.0	ND	U						
1,2,4-Trimethylbenzene	2	5.0	ND	U						
1,2-Dibromoethane	2	5.0	ND	U						
1,2-Dichlorobenzene	2	5.0	ND	U						
1,2-Dichloroethane	2	5.0	ND	U						
1,2-Dichloropropane	2	5.0	ND	U						
1,3,5-Trimethylbenzene	2	5.0	ND	U						
1,3-Butadiene	2	5.0	ND	U						
1,3-Dichlorobenzene	2	5.0	ND	U						
1,4-Dichlorobenzene	2	5.0	ND	U						
1,4-Dioxane	2	20.	ND	U						
2,2,4-Trimethylpentane	2	5.0	ND	U						
4-Ethyltoluene	2	5.0	ND	U						
Acetone	25	25.	ND	U						
Allyl Chloride	2	5.0	ND	U						
Benzene	2	5.0	ND	U						
Benzyl Chloride	2	5.0	ND	U						
Bromodichloromethane	2	5.0	ND	U						
Bromoform	2	5.0	ND	U						
Bromomethane	2	5.0	ND	U						
Carbon Disulfide	2	10.	ND	U						
Carbon Tetrachloride	2	5.0	ND	U						
Chlorobenzene	2	5.0	ND	U						
Chloroethane	2	5.0	ND	U						
Chloroform	2	5.0	ND	U						
Chloromethane	2	5.0	ND	U						
cis-1,2-Dichloroethylene	2	5.0	ND	U						
cis-1,3-Dichloropropene	2	5.0	ND	U						
Cyclohexane	2	5.0	ND	U						
Dibromochloromethane	2	5.0	ND	U						
Ethyl Acetate	2	5.0	ND	U						
Ethylbenzene	2	5.0	ND	U						
Freon-11	2	5.0	ND	U						
Freon-113	2	5.0	ND	U						

Printed: 01/06/14 14:00 lcbmbrpt_epa.ldxl Report Reference # 813749

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METHOD BLANK REPORT

Client Center for Toxicology & Env. Health LLC
Account No:13913
Login No. L308346

Freon-114	2	5.0	ND	U							
Freon-12	2	5.0	ND	U							
Heptane	2	5.0	ND	U							
Hexane	2	5.0	ND	U							
Isopropyl Alcohol	25	25.	ND	U							
m & p-xylene	3	10.	ND	U							
Methyl Butyl Ketone	2	20.	ND	U							
Methyl Ethyl Ketone	2	5.0	ND	U							
Methyl Isobutyl Ketone	2	20.	ND	U							
Methyl Tert-Butyl Ether	2	5.0	ND	U							
Methylene Chloride	2	5.0	ND	U							
o-Xylene	2	5.0	ND	U							
Propylene	2	5.0	ND	U							
Styrene	2	5.0	ND	U							
Tetrachloroethylene	2	5.0	ND	U							
Tetrahydrofuran	2	5.0	ND	U							
Toluene	2	5.0	ND	U							
Trans-1,2-Dichloroethene	2	5.0	ND	U							
trans-1,3-Dichloropropene	2	5.0	ND	U							
Trichloroethylene	2	5.0	ND	U							
Vinyl Acetate	2	5.0	ND	U							
Vinyl Bromide	2	5.0	ND	U							
Vinyl Chloride	2	5.0	ND	U							

Printed: 01/06/14 14:00 lcbmbrpt_epa.idxl Report Reference # 813749

5120 North Shore Drive
North Little Rock, AR 72118
Phone: (501) 801-8500
Fax: (501) 801-8501
Website: www.cteh.com

Center for Toxicology and Environmental Health L.L.C.

SAMPLE CHAIN OF CUSTODY AND ANALYSIS REQUEST FORM

	Send Report To:	Send Invoice To:
Name	Lourdes,Mahoney	Cheryl Alford
Company	CTEH	CTEH
Address	5120 North Shore Drive North Little Rock, AR 72118	5120 North Shore Drive North Little Rock, AR 72118
Phone	[redacted]	[redacted]
Fax		
e-mail		

CTEH Project #: 105820

Turnaround Requested:
Same Day __Next Day (24 hour) X Normal
__Other (Specify) _____

Complete Data Packet Requested ☑Yes ☐No

Page 36 of 36 Report Reference:1 Generated:06-JAN-14 16:55

Lab Contact Information:
Galson Laboratories
6601 Kirkville Road
E. Syracuse, NY 13057

Client Sample Identification	Other Sample Identification	Sample Size	Units (Check one) X L or __cm²	Sample Date	Sample Time (for non-air samples)	Initials	EPA TO-15 + TICs								Matrix (A = air, B = bulk, S = soil, SW = wipe, T = tape, W = water)
ASND CAND123113MC001	WC179/WR468	1	L	12/31/13	24hr	ARM	X								A
CAND123113MC002	WC109/WR645	1	L	12/31/13	24hr		X								A
CAND123113MC003	WA793/WR624	1	L	12/31/13	24hr		X								A
CAND123113MC004	WC144/WR659	1	L	12/31/13	24hr		X								A
CAND123113MC005	WA653/WR445	1	L	12/31/13	24hr		X								A
CAND123113MC006	WC102/WR446	1	L	12/31/13	24hr		X								A
						[redacted]									
						01-02-14									

per client OK

RELINQUISHED BY	DATE/TIME	RECEIVED BY	DATE/TIME
[redacted]	01-02-14/1420	FedEX 1420	01-02-14/1420
		[redacted]	1/3/14 955

Rec'd intact & all accounted for? Yes or No (6)
Rec'd w/custody seals intact? Yes or No NA (6)
Rec'd in light sensitive packaging? Yes or No NA (6)
Rec'd with ice pack? Yes or No (6)
Rec'd temperature compliant? Yes or No (6)

Ms. Lourdes Mahoney
CTEH
5120 North Shore Drive
North Little Rock, AR 72118

January 07, 2014

DOH ELAP# 11626 Account# 13913 Login# L308382
AIHA # 100324

Dear Ms. Mahoney:

Enclosed are the analytical results for the samples received by our laboratory on January 04, 2014. All test results meet the quality control requirements of AIHA and NELAC unless otherwise stated in this report. All samples on the chain of custody were received in good condition unless otherwise noted.

Results in this report are based on the sampling data provided by the client and refer only to the samples as they were received at the laboratory. Unless otherwise requested, all samples will be discarded 14 days from the date of this report, with the exception of IOMs, which will be cleaned and disposed of after seven calendar days.

Current Scopes of Accreditation can be viewed at www.galsonlabs.com in the accreditations section under the "about Galson" tab.

Please contact Pamela Weaver at (888) 432-5227, if you would like any additional information regarding this report.

Thank you for using Galson Laboratories.

Sincerely,

Galson Laboratories

Mary G. Unangst
Laboratory Director

Enclosure(s)

GALSON LABORATORIES

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East Syracuse, NY 13057
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FAX: (315) 437-0571
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LABORATORY ANALYSIS REPORT

Client : Center for Toxicology & Env. Health LLC
Site : NS
Project No. : 105820

Date Sampled : 01-JAN-14
Date Received : 04-JAN-14
Date Analyzed : 06-JAN-14 - 07-JAN-14
Report ID : 813813

Account No.: 13913
Login No. : L308382

Client ID : CASND010114MC007 **Lab ID : L308382-1**
Date Sampled : 01/01/14 **Date Analyzed : 01/06/14**

Parameter	MDL ppbv	LOQ ppbv	Result ppbv	Qualifier	Dilution Factor
Propylene	2	5.0	ND	U	1
Freon-12	2	5.0	ND	U	1
Chloromethane	2	5.0	ND	U	1
Freon-114	2	5.0	ND	U	1
Vinyl Chloride	2	5.0	ND	U	1
1,3-Butadiene	2	5.0	ND	U	1
Bromomethane	2	5.0	ND	U	1
Chloroethane	2	5.0	ND	U	1
Vinyl Bromide	2	5.0	ND	U	1
Freon-11	2	5.0	ND	U	1
Isopropyl Alcohol	25	25	ND	U	1
Acetone	25	25	ND	U	1
1,1-Dichloroethene	2	5.0	ND	U	1
Methylene Chloride	2	5.0	ND	U	1
Freon-113	2	5.0	ND	U	1
Allyl Chloride	2	5.0	ND	U	1
Carbon Disulfide	2	10	ND	U	1
Trans-1,2-Dichloroethene	2	5.0	ND	U	1
Methyl Tert-Butyl Ether	2	5.0	ND	U	1
1,1-Dichloroethane	2	5.0	ND	U	1
Vinyl Acetate	2	5.0	ND	U	1
Methyl Ethyl Ketone	2	5.0	ND	U	1
cis-1,2-Dichloroethylene	2	5.0	ND	U	1
Hexane	2	5.0	ND	U	1
Ethyl Acetate	2	5.0	ND	U	1

COMMENTS: Please see attached lab footnote report for any applicable footnotes.

Analytical Method : mod. OSHA PV2120/mod. EPA
Collection Media : Mini Can

Submitted by: BHB
Approved by : nkp
Date : 07-JAN-14 NYS DOH # : 11626
QC by : Tom Burgess

< -Less Than
> -Greater Than
NA -Not Applicable
NS -Not Specified
MG -Milligrams
UG -Micrograms
ND -Not Detected
KG -Kilograms
M3 -Cubic Meters
L -Liters
ppbv-Parts per Billion Volume
LOQ -Limit of Quantitation

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LABORATORY ANALYSIS REPORT

Client : Center for Toxicology & Env. Health LLC
Site : NS
Project No. : 105820

Date Sampled : 01-JAN-14
Date Received : 04-JAN-14
Date Analyzed : 06-JAN-14 - 07-JAN-14
Report ID : 813813

Account No.: 13913
Login No. : L308382

Client ID : CASND010114MC007 **Lab ID : L308382-1**
Date Sampled : 01/01/14 **Date Analyzed : 01/06/14**

Parameter	MDL ppbv	LOQ ppbv	Result ppbv	Qualifier	Dilution Factor
Chloroform	2	5.0	ND	U	1
Tetrahydrofuran	2	5.0	ND	U	1
1,2-Dichloroethane	2	5.0	ND	U	1
1,1,1-Trichloroethane	2	5.0	ND	U	1
Cyclohexane	2	5.0	ND	U	1
Carbon Tetrachloride	2	5.0	ND	U	1
Benzene	2	5.0	ND	U	1
1,4-Dioxane	2	20	ND	U	1
2,2,4-Trimethylpentane	2	5.0	ND	U	1
Heptane	2	5.0	ND	U	1
1,2-Dichloropropane	2	5.0	ND	U	1
Trichloroethylene	2	5.0	ND	U	1
Bromodichloromethane	2	5.0	ND	U	1
cis-1,3-Dichloropropene	2	5.0	ND	U	1
trans-1,3-Dichloropropene	2	5.0	ND	U	1
1,1,2-Trichloroethane	2	5.0	ND	U	1
Toluene	2	5.0	ND	U	1
Dibromochloromethane	2	5.0	ND	U	1
Methyl Isobutyl Ketone	2	20	ND	U	1
Methyl Butyl Ketone	2	20	ND	U	1
1,2-Dibromoethane	2	5.0	ND	U	1
Tetrachloroethylene	2	5.0	ND	U	1
Chlorobenzene	2	5.0	ND	U	1
Ethylbenzene	2	5.0	ND	U	1
Bromoform	2	5.0	ND	U	1

COMMENTS: Please see attached lab footnote report for any applicable footnotes.

Analytical Method : mod. OSHA PV2120/mod. EPA
Collection Media : Mini Can

Submitted by: BHB
Approved by : nkp
Date : 07-JAN-14 NYS DOH # : 11626
QC by : Tom Burgess

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LABORATORY ANALYSIS REPORT

Client : Center for Toxicology & Env. Health LLC
Site : NS
Project No. : 105820

Date Sampled : 01-JAN-14
Date Received : 04-JAN-14
Date Analyzed : 06-JAN-14 - 07-JAN-14
Report ID : 813813

Account No.: 13913
Login No. : L308382

Client ID : CASND010114MC007 **Lab ID : L308382-1**
Date Sampled : 01/01/14 **Date Analyzed : 01/06/14**

Parameter	MDL ppbv	LOQ ppbv	Result ppbv	Qualifier	Dilution Factor
m & p-xylene	3	10	ND	U	1
Styrene	2	5.0	ND	U	1
o-Xylene	2	5.0	ND	U	1
1,1,2,2-Tetrachloroethane	2	5.0	ND	U	1
4-Ethyltoluene	2	5.0	ND	U	1
1,3,5-Trimethylbenzene	2	5.0	ND	U	1
1,2,4-Trimethylbenzene	2	5.0	ND	U	1
1,3-Dichlorobenzene	2	5.0	ND	U	1
Benzyl Chloride	2	5.0	ND	U	1
1,4-Dichlorobenzene	2	5.0	ND	U	1
1,2-Dichlorobenzene	2	5.0	ND	U	1

COMMENTS: Please see attached lab footnote report for any applicable footnotes.

Analytical Method : mod. OSHA PV2120/mod. EPA
Collection Media : Mini Can

Submitted by: BHB
Approved by : nkp
Date : 07-JAN-14 NYS DOH # : 11626
QC by : Tom Burgess

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LABORATORY ANALYSIS REPORT

Client : Center for Toxicology & Env. Health LLC
Site : NS
Project No. : 105820

Date Sampled : 01-JAN-14
Date Received : 04-JAN-14
Date Analyzed : 06-JAN-14 - 07-JAN-14
Report ID : 813813

Account No.: 13913
Login No. : L308382

Client ID : CASND010114MC008 **Lab ID : L308382-2**
Date Sampled : 01/01/14 **Date Analyzed : 01/06/14**

Parameter	MDL ppbv	LOQ ppbv	Result ppbv	Qualifier	Dilution Factor
Propylene	2	5.0	ND	U	1
Freon-12	2	5.0	ND	U	1
Chloromethane	2	5.0	ND	U	1
Freon-114	2	5.0	ND	U	1
Vinyl Chloride	2	5.0	ND	U	1
1,3-Butadiene	2	5.0	ND	U	1
Bromomethane	2	5.0	ND	U	1
Chloroethane	2	5.0	ND	U	1
Vinyl Bromide	2	5.0	ND	U	1
Freon-11	2	5.0	ND	U	1
Isopropyl Alcohol	25	25	ND	U	1
Acetone	25	25	ND	U	1
1,1-Dichloroethene	2	5.0	ND	U	1
Methylene Chloride	2	5.0	ND	U	1
Freon-113	2	5.0	ND	U	1
Allyl Chloride	2	5.0	ND	U	1
Carbon Disulfide	2	10	ND	U	1
Trans-1,2-Dichloroethene	2	5.0	ND	U	1
Methyl Tert-Butyl Ether	2	5.0	ND	U	1
1,1-Dichloroethane	2	5.0	ND	U	1
Vinyl Acetate	2	5.0	ND	U	1
Methyl Ethyl Ketone	2	5.0	ND	U	1
cis-1,2-Dichloroethylene	2	5.0	ND	U	1
Hexane	2	5.0	ND	U	1
Ethyl Acetate	2	5.0	ND	U	1

COMMENTS: Please see attached lab footnote report for any applicable footnotes.

Analytical Method : mod. OSHA PV2120/mod. EPA
Collection Media : Mini Can

Submitted by: BHB
Approved by : nkp
Date : 07-JAN-14 NYS DOH # : 11626
QC by : Tom Burgess

< -Less Than
> -Greater Than
NA -Not Applicable
NS -Not Specified
MG -Milligrams
UG -Micrograms
ND -Not Detected
KG -Kilograms
M3 -Cubic Meters
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ppbv-Parts per Billion Volume
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LABORATORY ANALYSIS REPORT

Client : Center for Toxicology & Env. Health LLC
Site : NS
Project No. : 105820

Date Sampled : 01-JAN-14
Date Received : 04-JAN-14
Date Analyzed : 06-JAN-14 - 07-JAN-14
Report ID : 813813

Account No.: 13913
Login No. : L308382

Client ID : CASND010114MC008 **Lab ID : L308382-2**
Date Sampled : 01/01/14 **Date Analyzed : 01/06/14**

Parameter	MDL ppbv	LOQ ppbv	Result ppbv	Qualifier	Dilution Factor
Chloroform	2	5.0	ND	U	1
Tetrahydrofuran	2	5.0	ND	U	1
1,2-Dichloroethane	2	5.0	ND	U	1
1,1,1-Trichloroethane	2	5.0	ND	U	1
Cyclohexane	2	5.0	ND	U	1
Carbon Tetrachloride	2	5.0	ND	U	1
Benzene	2	5.0	ND	U	1
1,4-Dioxane	2	20	ND	U	1
2,2,4-Trimethylpentane	2	5.0	ND	U	1
Heptane	2	5.0	ND	U	1
1,2-Dichloropropane	2	5.0	ND	U	1
Trichloroethylene	2	5.0	ND	U	1
Bromodichloromethane	2	5.0	ND	U	1
cis-1,3-Dichloropropene	2	5.0	ND	U	1
trans-1,3-Dichloropropene	2	5.0	ND	U	1
1,1,2-Trichloroethane	2	5.0	ND	U	1
Toluene	2	5.0	ND	U	1
Dibromochloromethane	2	5.0	ND	U	1
Methyl Isobutyl Ketone	2	20	ND	U	1
Methyl Butyl Ketone	2	20	ND	U	1
1,2-Dibromoethane	2	5.0	ND	U	1
Tetrachloroethylene	2	5.0	ND	U	1
Chlorobenzene	2	5.0	ND	U	1
Ethylbenzene	2	5.0	ND	U	1
Bromoform	2	5.0	ND	U	1

COMMENTS: Please see attached lab footnote report for any applicable footnotes.

Analytical Method : mod. OSHA PV2120/mod. EPA
Collection Media : Mini Can

Submitted by: BHB
Approved by : nkp
Date : 07-JAN-14 NYS DOH # : 11626
QC by : Tom Burgess

< -Less Than	MG -Milligrams	M3 -Cubic Meters
> -Greater Than	UG -Micrograms	L -Liters
NA -Not Applicable	ND -Not Detected	ppbv-Parts per Billion Volume
NS -Not Specified	KG -Kilograms	LOQ -Limit of Quantitation

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LABORATORY ANALYSIS REPORT

Client : Center for Toxicology & Env. Health LLC
Site : NS
Project No. : 105820

Date Sampled : 01-JAN-14
Date Received : 04-JAN-14
Date Analyzed : 06-JAN-14 - 07-JAN-14
Report ID : 813813

Account No.: 13913
Login No. : L308382

Client ID : CASND010114MC008 **Lab ID : L308382-2**
Date Sampled : 01/01/14 **Date Analyzed : 01/06/14**

Parameter	MDL ppbv	LOQ ppbv	Result ppbv	Qualifier	Dilution Factor
m & p-xylene	3	10	ND	U	1
Styrene	2	5.0	ND	U	1
o-Xylene	2	5.0	ND	U	1
1,1,2,2-Tetrachloroethane	2	5.0	ND	U	1
4-Ethyltoluene	2	5.0	ND	U	1
1,3,5-Trimethylbenzene	2	5.0	ND	U	1
1,2,4-Trimethylbenzene	2	5.0	ND	U	1
1,3-Dichlorobenzene	2	5.0	ND	U	1
Benzyl Chloride	2	5.0	ND	U	1
1,4-Dichlorobenzene	2	5.0	ND	U	1
1,2-Dichlorobenzene	2	5.0	ND	U	1

COMMENTS: Please see attached lab footnote report for any applicable footnotes.

Analytical Method : mod. OSHA PV2120/mod. EPA
Collection Media : Mini Can

Submitted by: BHB
Approved by : nkp
Date : 07-JAN-14 NYS DOH # : 11626
QC by : Tom Burgess

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Date Sampled : 01-JAN-14
Date Received : 04-JAN-14
Date Analyzed : 06-JAN-14 - 07-JAN-14
Report ID : 813813

Account No.: 13913
Login No. : L308382

Client ID : CASND010114MC009 **Lab ID : L308382-3**
Date Sampled : 01/01/14 **Date Analyzed : 01/06/14**

Parameter	MDL ppbv	LOQ ppbv	Result ppbv	Qualifier	Dilution Factor
Propylene	2	5.0	ND	U	1
Freon-12	2	5.0	ND	U	1
Chloromethane	2	5.0	ND	U	1
Freon-114	2	5.0	ND	U	1
Vinyl Chloride	2	5.0	ND	U	1
1,3-Butadiene	2	5.0	ND	U	1
Bromomethane	2	5.0	ND	U	1
Chloroethane	2	5.0	ND	U	1
Vinyl Bromide	2	5.0	ND	U	1
Freon-11	2	5.0	ND	U	1
Isopropyl Alcohol	25	25	ND	U	1
Acetone	25	25	ND	U	1
1,1-Dichloroethene	2	5.0	ND	U	1
Methylene Chloride	2	5.0	ND	U	1
Freon-113	2	5.0	ND	U	1
Allyl Chloride	2	5.0	ND	U	1
Carbon Disulfide	2	10	ND	U	1
Trans-1,2-Dichloroethene	2	5.0	ND	U	1
Methyl Tert-Butyl Ether	2	5.0	ND	U	1
1,1-Dichloroethane	2	5.0	ND	U	1
Vinyl Acetate	2	5.0	ND	U	1
Methyl Ethyl Ketone	2	5.0	ND	U	1
cis-1,2-Dichloroethylene	2	5.0	ND	U	1
Hexane	2	5.0	ND	U	1
Ethyl Acetate	2	5.0	ND	U	1

COMMENTS: Please see attached lab footnote report for any applicable footnotes.

Analytical Method : mod. OSHA PV2120/mod. EPA
Collection Media : Mini Can

Submitted by: BHB
Approved by : nkp
Date : 07-JAN-14 NYS DOH # : 11626
QC by : Tom Burgess

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Date Received : 04-JAN-14
Date Analyzed : 06-JAN-14 - 07-JAN-14
Report ID : 813813

Account No.: 13913
Login No. : L308382

Client ID : CASND010114MC009 **Lab ID : L308382-3**
Date Sampled : 01/01/14 **Date Analyzed : 01/06/14**

Parameter	MDL ppbv	LOQ ppbv	Result ppbv	Qualifier	Dilution Factor
Chloroform	2	5.0	ND	U	1
Tetrahydrofuran	2	5.0	ND	U	1
1,2-Dichloroethane	2	5.0	ND	U	1
1,1,1-Trichloroethane	2	5.0	ND	U	1
Cyclohexane	2	5.0	ND	U	1
Carbon Tetrachloride	2	5.0	ND	U	1
Benzene	2	5.0	ND	U	1
1,4-Dioxane	2	20	ND	U	1
2,2,4-Trimethylpentane	2	5.0	ND	U	1
Heptane	2	5.0	ND	U	1
1,2-Dichloropropane	2	5.0	ND	U	1
Trichloroethylene	2	5.0	ND	U	1
Bromodichloromethane	2	5.0	ND	U	1
cis-1,3-Dichloropropene	2	5.0	ND	U	1
trans-1,3-Dichloropropene	2	5.0	ND	U	1
1,1,2-Trichloroethane	2	5.0	ND	U	1
Toluene	2	5.0	ND	U	1
Dibromochloromethane	2	5.0	ND	U	1
Methyl Isobutyl Ketone	2	20	ND	U	1
Methyl Butyl Ketone	2	20	ND	U	1
1,2-Dibromoethane	2	5.0	ND	U	1
Tetrachloroethylene	2	5.0	ND	U	1
Chlorobenzene	2	5.0	ND	U	1
Ethylbenzene	2	5.0	ND	U	1
Bromoform	2	5.0	ND	U	1

COMMENTS: Please see attached lab footnote report for any applicable footnotes.

Analytical Method : mod. OSHA PV2120/mod. EPA
Collection Media : Mini Can

Submitted by: BHB
Approved by : nkp
Date : 07-JAN-14 NYS DOH # : 11626
QC by : Tom Burgess

< -Less Than	MG -Milligrams	M3 -Cubic Meters
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Date Sampled : 01-JAN-14
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Date Analyzed : 06-JAN-14 - 07-JAN-14
Report ID : 813813

Account No.: 13913
Login No. : L308382

Client ID : CASND010114MC009 **Lab ID : L308382-3**
Date Sampled : 01/01/14 **Date Analyzed : 01/06/14**

Parameter	MDL ppbv	LOQ ppbv	Result ppbv	Qualifier	Dilution Factor
m & p-xylene	3	10	ND	U	1
Styrene	2	5.0	ND	U	1
o-Xylene	2	5.0	ND	U	1
1,1,2,2-Tetrachloroethane	2	5.0	ND	U	1
4-Ethyltoluene	2	5.0	ND	U	1
1,3,5-Trimethylbenzene	2	5.0	ND	U	1
1,2,4-Trimethylbenzene	2	5.0	ND	U	1
1,3-Dichlorobenzene	2	5.0	ND	U	1
Benzyl Chloride	2	5.0	ND	U	1
1,4-Dichlorobenzene	2	5.0	ND	U	1
1,2-Dichlorobenzene	2	5.0	ND	U	1

COMMENTS: Please see attached lab footnote report for any applicable footnotes.

Analytical Method : mod. OSHA PV2120/mod. EPA
Collection Media : Mini Can

Submitted by: BHB
Approved by : nkp
Date : 07-JAN-14 NYS DOH # : 11626
QC by : Tom Burgess

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Date Sampled : 01-JAN-14
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Date Analyzed : 06-JAN-14 - 07-JAN-14
Report ID : 813813

Account No.: 13913
Login No. : L308382

Client ID : CASND010114MC010 **Lab ID : L308382-4**
Date Sampled : 01/01/14 **Date Analyzed : 01/06/14**

Parameter	MDL ppbv	LOQ ppbv	Result ppbv	Qualifier	Dilution Factor
Propylene	2	5.0	ND	U	1
Freon-12	2	5.0	ND	U	1
Chloromethane	2	5.0	ND	U	1
Freon-114	2	5.0	ND	U	1
Vinyl Chloride	2	5.0	ND	U	1
1,3-Butadiene	2	5.0	ND	U	1
Bromomethane	2	5.0	ND	U	1
Chloroethane	2	5.0	ND	U	1
Vinyl Bromide	2	5.0	ND	U	1
Freon-11	2	5.0	ND	U	1
Isopropyl Alcohol	25	25	ND	U	1
Acetone	25	25	ND	U	1
1,1-Dichloroethene	2	5.0	ND	U	1
Methylene Chloride	2	5.0	ND	U	1
Freon-113	2	5.0	ND	U	1
Allyl Chloride	2	5.0	ND	U	1
Carbon Disulfide	2	10	ND	U	1
Trans-1,2-Dichloroethene	2	5.0	ND	U	1
Methyl Tert-Butyl Ether	2	5.0	ND	U	1
1,1-Dichloroethane	2	5.0	ND	U	1
Vinyl Acetate	2	5.0	ND	U	1
Methyl Ethyl Ketone	2	5.0	ND	U	1
cis-1,2-Dichloroethylene	2	5.0	ND	U	1
Hexane	2	5.0	ND	U	1
Ethyl Acetate	2	5.0	ND	U	1

COMMENTS: Please see attached lab footnote report for any applicable footnotes.

Analytical Method : mod. OSHA PV2120/mod. EPA
Collection Media : Mini Can

Submitted by: BHB
Approved by : nkp
Date : 07-JAN-14 NYS DOH # : 11626
QC by : Tom Burgess

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Date Sampled : 01-JAN-14
Date Received : 04-JAN-14
Date Analyzed : 06-JAN-14 - 07-JAN-14
Report ID : 813813

Account No.: 13913
Login No. : L308382

Client ID : CASND010114MC010 **Lab ID : L308382-4**
Date Sampled : 01/01/14 **Date Analyzed : 01/06/14**

Parameter	MDL ppbv	LOQ ppbv	Result ppbv	Qualifier	Dilution Factor
Chloroform	2	5.0	ND	U	1
Tetrahydrofuran	2	5.0	ND	U	1
1,2-Dichloroethane	2	5.0	ND	U	1
1,1,1-Trichloroethane	2	5.0	ND	U	1
Cyclohexane	2	5.0	ND	U	1
Carbon Tetrachloride	2	5.0	ND	U	1
Benzene	2	5.0	ND	U	1
1,4-Dioxane	2	20	ND	U	1
2,2,4-Trimethylpentane	2	5.0	ND	U	1
Heptane	2	5.0	ND	U	1
1,2-Dichloropropane	2	5.0	ND	U	1
Trichloroethylene	2	5.0	ND	U	1
Bromodichloromethane	2	5.0	ND	U	1
cis-1,3-Dichloropropene	2	5.0	ND	U	1
trans-1,3-Dichloropropene	2	5.0	ND	U	1
1,1,2-Trichloroethane	2	5.0	ND	U	1
Toluene	2	5.0	ND	U	1
Dibromochloromethane	2	5.0	ND	U	1
Methyl Isobutyl Ketone	2	20	ND	U	1
Methyl Butyl Ketone	2	20	ND	U	1
1,2-Dibromoethane	2	5.0	ND	U	1
Tetrachloroethylene	2	5.0	ND	U	1
Chlorobenzene	2	5.0	ND	U	1
Ethylbenzene	2	5.0	ND	U	1
Bromoform	2	5.0	ND	U	1

COMMENTS: Please see attached lab footnote report for any applicable footnotes.

Analytical Method : mod. OSHA PV2120/mod. EPA
Collection Media : Mini Can

Submitted by: BHB
Approved by : nkp
Date : 07-JAN-14 NYS DOH # : 11626
QC by : Tom Burgess

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Date Sampled : 01-JAN-14
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Date Analyzed : 06-JAN-14 - 07-JAN-14
Report ID : 813813

Account No.: 13913
Login No. : L308382

Client ID : CASND010114MC010 **Lab ID : L308382-4**
Date Sampled : 01/01/14 **Date Analyzed : 01/06/14**

Parameter	MDL ppbv	LOQ ppbv	Result ppbv	Qualifier	Dilution Factor
m & p-xylene	3	10	ND	U	1
Styrene	2	5.0	ND	U	1
o-Xylene	2	5.0	ND	U	1
1,1,2,2-Tetrachloroethane	2	5.0	ND	U	1
4-Ethyltoluene	2	5.0	ND	U	1
1,3,5-Trimethylbenzene	2	5.0	ND	U	1
1,2,4-Trimethylbenzene	2	5.0	ND	U	1
1,3-Dichlorobenzene	2	5.0	ND	U	1
Benzyl Chloride	2	5.0	ND	U	1
1,4-Dichlorobenzene	2	5.0	ND	U	1
1,2-Dichlorobenzene	2	5.0	ND	U	1

COMMENTS: Please see attached lab footnote report for any applicable footnotes.

Analytical Method : mod. OSHA PV2120/mod. EPA
Collection Media : Mini Can

Submitted by: BHB
Approved by : nkp
Date : 07-JAN-14 NYS DOH # : 11626
QC by : Tom Burgess

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Date Received : 04-JAN-14
Date Analyzed : 06-JAN-14 - 07-JAN-14
Report ID : 813813

Account No.: 13913
Login No. : L308382

Client ID : CASND010114MC011 **Lab ID : L308382-5**
Date Sampled : 01/01/14 **Date Analyzed : 01/07/14**

Parameter	MDL ppbv	LOQ ppbv	Result ppbv	Qualifier	Dilution Factor
Propylene	2	5.0	3.3	J	1
Freon-12	2	5.0	ND	U	1
Chloromethane	2	5.0	ND	U	1
Freon-114	2	5.0	ND	U	1
Vinyl Chloride	2	5.0	ND	U	1
1,3-Butadiene	2	5.0	ND	U	1
Bromomethane	2	5.0	ND	U	1
Chloroethane	2	5.0	ND	U	1
Vinyl Bromide	2	5.0	ND	U	1
Freon-11	2	5.0	ND	U	1
Isopropyl Alcohol	25	25	ND	U	1
Acetone	25	25	ND	U	1
1,1-Dichloroethene	2	5.0	ND	U	1
Methylene Chloride	2	5.0	ND	U	1
Freon-113	2	5.0	ND	U	1
Allyl Chloride	2	5.0	ND	U	1
Carbon Disulfide	2	10	ND	U	1
Trans-1,2-Dichloroethene	2	5.0	ND	U	1
Methyl Tert-Butyl Ether	2	5.0	ND	U	1
1,1-Dichloroethane	2	5.0	ND	U	1
Vinyl Acetate	2	5.0	ND	U	1
Methyl Ethyl Ketone	2	5.0	ND	U	1
cis-1,2-Dichloroethylene	2	5.0	ND	U	1
Hexane	2	5.0	ND	U	1
Ethyl Acetate	2	5.0	ND	U	1

COMMENTS: Please see attached lab footnote report for any applicable footnotes.

Analytical Method : mod. OSHA PV2120/mod. EPA
Collection Media : Mini Can

Submitted by: BHB
Approved by : nkp
Date : 07-JAN-14 NYS DOH # : 11626
QC by : Tom Burgess

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Date Sampled : 01-JAN-14
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Date Analyzed : 06-JAN-14 - 07-JAN-14
Report ID : 813813

Account No.: 13913
Login No. : L308382

Client ID : CASND010114MC011 **Lab ID : L308382-5**
Date Sampled : 01/01/14 **Date Analyzed : 01/07/14**

Parameter	MDL ppbv	LOQ ppbv	Result ppbv	Qualifier	Dilution Factor
Chloroform	2	5.0	ND	U	1
Tetrahydrofuran	2	5.0	ND	U	1
1,2-Dichloroethane	2	5.0	ND	U	1
1,1,1-Trichloroethane	2	5.0	ND	U	1
Cyclohexane	2	5.0	ND	U	1
Carbon Tetrachloride	2	5.0	ND	U	1
Benzene	2	5.0	ND	U	1
1,4-Dioxane	2	20	ND	U	1
2,2,4-Trimethylpentane	2	5.0	ND	U	1
Heptane	2	5.0	ND	U	1
1,2-Dichloropropane	2	5.0	ND	U	1
Trichloroethylene	2	5.0	ND	U	1
Bromodichloromethane	2	5.0	ND	U	1
cis-1,3-Dichloropropene	2	5.0	ND	U	1
trans-1,3-Dichloropropene	2	5.0	ND	U	1
1,1,2-Trichloroethane	2	5.0	ND	U	1
Toluene	2	5.0	ND	U	1
Dibromochloromethane	2	5.0	ND	U	1
Methyl Isobutyl Ketone	2	20	ND	U	1
Methyl Butyl Ketone	2	20	ND	U	1
1,2-Dibromoethane	2	5.0	ND	U	1
Tetrachloroethylene	2	5.0	ND	U	1
Chlorobenzene	2	5.0	ND	U	1
Ethylbenzene	2	5.0	ND	U	1
Bromoform	2	5.0	ND	U	1

COMMENTS: Please see attached lab footnote report for any applicable footnotes.

Analytical Method : mod. OSHA PV2120/mod. EPA
Collection Media : Mini Can

Submitted by: BHB
Approved by : nkp
Date : 07-JAN-14 NYS DOH # : 11626
QC by : Tom Burgess

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Date Analyzed : 06-JAN-14 - 07-JAN-14
Report ID : 813813

Account No.: 13913
Login No. : L308382

Client ID : CASND010114MC011 **Lab ID : L308382-5**
Date Sampled : 01/01/14 **Date Analyzed : 01/07/14**

Parameter	MDL ppbv	LOQ ppbv	Result ppbv	Qualifier	Dilution Factor
m & p-xylene	3	10	ND	U	1
Styrene	2	5.0	ND	U	1
o-Xylene	2	5.0	ND	U	1
1,1,2,2-Tetrachloroethane	2	5.0	ND	U	1
4-Ethyltoluene	2	5.0	ND	U	1
1,3,5-Trimethylbenzene	2	5.0	ND	U	1
1,2,4-Trimethylbenzene	2	5.0	ND	U	1
1,3-Dichlorobenzene	2	5.0	ND	U	1
Benzyl Chloride	2	5.0	ND	U	1
1,4-Dichlorobenzene	2	5.0	ND	U	1
1,2-Dichlorobenzene	2	5.0	ND	U	1

COMMENTS: Please see attached lab footnote report for any applicable footnotes.

Analytical Method : mod. OSHA PV2120/mod. EPA
Collection Media : Mini Can

Submitted by: BHB
Approved by : nkp
Date : 07-JAN-14 NYS DOH # : 11626
QC by : Tom Burgess

< -Less Than
> -Greater Than
NA -Not Applicable
NS -Not Specified
MG -Milligrams
UG -Micrograms
ND -Not Detected
KG -Kilograms
M3 -Cubic Meters
L -Liters
ppbv-Parts per Billion Volume
LOQ -Limit of Quantitation

LABORATORY ANALYSIS REPORT

6601 Kirkville Road
East Syracuse, NY 13057
(315) 432-5227
FAX: (315) 437-0571
www.galsonlabs.com

Client : Center for Toxicology & Env. Health LLC
Site : NS
Project No. : 105820

Date Sampled : 01-JAN-14
Date Received : 04-JAN-14
Date Analyzed : 06-JAN-14 - 07-JAN-14
Report ID : 813814

Account No.: 13913
Login No. : L308382

Client ID : CASND010114MC007 **Lab ID : L308382-1**

Tentatively Identified Compounds	CAS Number	Retention Time	Estimated Concentration ppbv	mg/m3	Qual
No Volatiles Found			0	0	

Analytical Method : mod. OSHA PV2120/mod. EPA
Collection Media : Mini Can

Submitted by: BHB
Approved by : nkp
Date : 07-JAN-14 NYS DOH # : 11626
QC by: Tom Burgess

< -Less Than mg -Milligrams m3 -Cubic Meters kg -Kilograms
> -Greater Than ug -Micrograms l -Liters LOQ -Limit of Quantitation
NA -Not Applicable ND -Not Detected NS -Not Specified ppbv-Parts per Billion Volume

Field sampling was not performed by Galson. Galson presents results based on sampling data provided by clients.

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LABORATORY ANALYSIS REPORT

Client : Center for Toxicology & Env. Health LLC
Site : NS
Project No. : 105820

Date Sampled : 01-JAN-14
Date Received : 04-JAN-14
Date Analyzed : 06-JAN-14 - 07-JAN-14
Report ID : 813814

Account No.: 13913
Login No. : L308382

Client ID : CASND010114MC008 **Lab ID : L308382-2**

Tentatively Identified Compounds	CAS Number	Retention Time	Estimated Concentration ppbv	mg/m3	Qual
No Volatiles Found			0	0	

Analytical Method : mod. OSHA PV2120/mod. EPA
Collection Media : Mini Can

Submitted by: BHB
Approved by : nkp
Date : 07-JAN-14 NYS DOH # : 11626
QC by: Tom Burgess

< -Less Than mg -Milligrams m3 -Cubic Meters kg -Kilograms
> -Greater Than ug -Micrograms l -Liters LOQ -Limit of Quantitation
NA -Not Applicable ND -Not Detected NS -Not Specified ppbv-Parts per Billion Volume

Field sampling was not performed by Galson. Galson presents results based on sampling data provided by clients.

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East Syracuse, NY 13057
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LABORATORY ANALYSIS REPORT

Client : Center for Toxicology & Env. Health LLC
Site : NS
Project No. : 105820

Date Sampled : 01-JAN-14
Date Received : 04-JAN-14
Date Analyzed : 06-JAN-14 - 07-JAN-14
Report ID : 813814

Account No.: 13913
Login No. : L308382

Client ID : CASND010114MC009 **Lab ID : L308382-3**

Tentatively Identified Compounds	CAS Number	Retention Time	Estimated Concentration ppbv	mg/m3	Qual
No Volatiles Found			0	0	

Analytical Method : mod. OSHA PV2120/mod. EPA
Collection Media : Mini Can

Submitted by: BHB
Approved by : nkp
Date : 07-JAN-14 NYS DOH # : 11626
QC by: Tom Burgess

< -Less Than mg -Milligrams m3 -Cubic Meters kg -Kilograms
> -Greater Than ug -Micrograms l -Liters LOQ -Limit of Quantitation
NA -Not Applicable ND -Not Detected NS -Not Specified ppbv-Parts per Billion Volume

Field sampling was not performed by Galson. Galson presents results based on sampling data provided by clients.

LABORATORY ANALYSIS REPORT

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East Syracuse, NY 13057
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FAX: (315) 437-0571
www.galsonlabs.com

Client : Center for Toxicology & Env. Health LLC
Site : NS
Project No. : 105820

Date Sampled : 01-JAN-14
Date Received : 04-JAN-14
Date Analyzed : 06-JAN-14 - 07-JAN-14
Report ID : 813814

Account No.: 13913
Login No. : L308382

Client ID : CASND010114MC010 **Lab ID : L308382-4**

Tentatively Identified Compounds	CAS Number	Retention Time	Estimated Concentration ppbv	mg/m3	Qual
No Volatiles Found			0	0	

Analytical Method : mod. OSHA PV2120/mod. EPA
Collection Media : Mini Can

Submitted by: BHB
Approved by : nkp
Date : 07-JAN-14 NYS DOH # : 11626
QC by: Tom Burgess

< -Less Than mg -Milligrams m3 -Cubic Meters kg -Kilograms
> -Greater Than ug -Micrograms l -Liters LOQ -Limit of Quantitation
NA -Not Applicable ND -Not Detected NS -Not Specified ppbv-Parts per Billion Volume

Field sampling was not performed by Galson. Galson presents results based on sampling data provided by clients.

LABORATORY ANALYSIS REPORT

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FAX: (315) 437-0571
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Client : Center for Toxicology & Env. Health LLC
Site : NS
Project No. : 105820

Date Sampled : 01-JAN-14
Date Received : 04-JAN-14
Date Analyzed : 06-JAN-14 - 07-JAN-14
Report ID : 813814

Account No.: 13913
Login No. : L308382

Client ID : CASND010114MC011 **Lab ID : L308382-5**

Tentatively Identified Compounds	CAS Number	Retention Time	Estimated Concentration ppbv	mg/m3	Qual
No Volatiles Found			0	0	

Analytical Method : mod. OSHA PV2120/mod. EPA
Collection Media : Mini Can

Submitted by: BHB
Approved by : nkp
Date : 07-JAN-14 NYS DOH # : 11626
QC by: Tom Burgess

< -Less Than mg -Milligrams m3 -Cubic Meters kg -Kilograms
> -Greater Than ug -Micrograms l -Liters LOQ -Limit of Quantitation
NA -Not Applicable ND -Not Detected NS -Not Specified ppbv-Parts per Billion Volume

Field sampling was not performed by Galson. Galson presents results based on sampling data provided by clients.

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LABORATORY FOOTNOTE REPORT

Client Name : Center for Toxicology & Env. Health LLC
Site :
Project No. : 105820

Date Sampled : 01-JAN-14 Account No.: 13913
Date Received: 04-JAN-14 Login No. : L308382
Date Analyzed: 06-JAN-14 - 07-JAN-14

Unless otherwise noted below, all quality control results associated with the samples were within established control limits or did not impact reported results.

Unrounded results are carried through the calculations that yield the final result and the final result is rounded to the number of significant figures appropriate to the accuracy of the analytical method. Please note that results appearing in the columns preceeding the final result column may have been rounded in order to fit the report format and therefore, if carried through the calculations, may not yield an identical final result to the one reported.

The stated LOQs for each analyte represent the demonstrated LOQ concentrations prior to correction for desorption efficiency (if applicable).

Unless otherwise noted below, reported results have not been blank corrected for any field blank or method blank.

L308382 (Report ID: 813813):
SOPs: in-vocs(26)

L308382-1 (Report ID: 813813):
The sample canister was received at or near ambient pressure indicating the sampling event may have ended prematurely. Sample results may not be representative of the intended sampling duration.

L308382-2 (Report ID: 813813):
The sample canister was received at or near ambient pressure indicating the sampling event may have ended prematurely. Sample results may not be representative of the intended sampling duration.

L308382-3 (Report ID: 813813):
The sample canister was received at or near ambient pressure indicating the sampling event may have ended prematurely. Sample results may not be representative of the intended sampling duration.

L308382-4 (Report ID: 813813):
The sample canister was received at or near ambient pressure indicating the sampling event may have ended prematurely. Sample results may not be representative of the intended sampling duration.

L308382-5 (Report ID: 813813):
The sample canister was received at or near ambient pressure indicating the sampling event may have ended prematurely. Sample results may not be representative of the intended sampling duration.

L308382 (Report ID: 813814):
Tentatively Identified Compounds (TICS) are estimated values. TICS are calculated using an average response factor of 1 for all compounds.
SOPs: in-vocs(26)

< -Less Than	mg -Milligrams	m3 -Cubic Meters	kg -Kilograms
> -Greater Than	ug -Micrograms	l -Liters	NS -Not Specified
NA -Not Applicable	ND -Not Detected	ppm -Parts per Million	

GALSON LABORATORIES

GC/MS QA-QC Check Report

Tune File : C:\msdchem\1\DATA\J-2014\01-2014\J010614\J0106402.D
Tune Time : 01/06/14 09:41
Daily Calibration File : C:\msdchem\1\DATA\J-2014\01-2014\J010614\J01
Internal Standard Areas: 387237 1836928 319416

Sample	Client ID	File	Surr%	Acquired on	Internal Standard Responses		
WG272630-5	Continuing Verifier	J0106402	105	01/06/14 09:41	387237	1836928	319416
WG272630-2	Lab Control Spike	J0106403	104	01/06/14 10:23	437171	1983629	349052
WG272630-3	LCS Duplicate	J0106404	104	01/06/14 11:05	429445	2047339	346685
WG272630-4	DLS	J0106406	100	01/06/14 12:27	390257	1823768	312944
WG272630-1	Method Blank	J0106407	92	01/06/14 13:09	361918	1715483	288893
WG272630-6	Continuing Verifier	J0106410	100	01/06/14 16:09	326750	1553928	280731
WG272630-7	Continuing Verifier	J0106417	99	01/06/14 21:00	344698	1585673	305702
L308382-1	CASND010114MC007	J0106418	90	01/06/14 21:41	350828	1587702	283052
L308382-2	CASND010114MC008	J0106419	95	01/06/14 22:22	314675	1475484	276604
L308382-3	CASND010114MC009	J0106420	90	01/06/14 23:04	332684	1523139	273379
L308382-4	CASND010114MC010	J0106421	92	01/06/14 23:46	305842	1443019	263249
L308382-5	CASND010114MC011	J0106422	93	01/07/14 00:28	325570	1567265	287730
WG272630-8	Continuing Verifier	J0106423	96	01/07/14 01:10	300562	1462652	280732

* = Value outside limits Surrogate Limits = 80 - 120 Internal Standard Limits = +/- 40%

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ASTD 50ppb STANDARD RECOVERY REPORT

Client : Center for Toxicology & Env. Health LLC
Account No: 13913
Login No. : L308382

Lab Sample ID		WC272630-5			WC272630-6			WC272630-7		
Type		CCV			CCV			CCV		
Spike Lot #		IH404842			IH404842			IH404842		
Instrument		MS J			MS J			MS J		
Analysis Date		Jan 06, 2014 09:41			Jan 06, 2014 16:09			Jan 06, 2014 21:00		
	Limits (%)	True Value (ppbv)	Found (ppbv)	Recovery (%)	True Value (ppbv)	Found (ppbv)	Recovery (%)	True Value (ppbv)	Found (ppbv)	Recovery (%)
1,1,1-Trichloroethane	70.0 to 130.	50.0	49.3	98.5	50.0	54.1	108.	50.0	49.9	99.8
1,1,2,2-Tetrachloroethane	70.0 to 130.	50.0	50.0	99.9	50.0	52.0	104.	50.0	46.5	92.9
1,1,2-Trichloroethane	70.0 to 130.	50.0	49.5	99.0	50.0	53.6	107.	50.0	49.4	98.9
1,1-Dichloroethane	70.0 to 130.	50.0	49.1	98.1	50.0	55.1	110.	50.0	49.5	98.9
1,1-Dichloroethene	70.0 to 130.	50.0	50.9	102.	50.0	54.4	109.	50.0	49.1	98.2
1,2,4-Trimethylbenzene	70.0 to 130.	50.0	49.8	99.6	50.0	51.0	102.	50.0	43.3	86.5
1,2-Dibromoethane	70.0 to 130.	50.0	47.4	94.8	50.0	49.1	98.2	50.0	42.5	84.9
1,2-Dichlorobenzene	70.0 to 130.	50.0	50.1	100.	50.0	50.0	99.9	50.0	42.6	85.3
1,2-Dichloroethane	70.0 to 130.	50.0	49.1	98.2	50.0	53.9	108.	50.0	48.3	96.6
1,2-Dichloropropane	70.0 to 130.	50.0	49.0	97.9	50.0	53.0	106.	50.0	49.3	98.6
1,3,5-Trimethylbenzene	70.0 to 130.	50.0	48.7	97.4	50.0	50.3	101.	50.0	42.7	85.4
1,3-Butadiene	70.0 to 130.	50.0	50.0	100.	50.0	55.2	110.	50.0	51.1	102.
1,3-Dichlorobenzene	70.0 to 130.	50.0	51.1	102.	50.0	51.6	103.	50.0	44.3	88.6
1,4-Dichlorobenzene	70.0 to 130.	50.0	50.3	101.	50.0	51.3	103.	50.0	43.7	87.3
1,4-Dioxane	70.0 to 130.	50.0	55.3	111.	50.0	56.5	113.	50.0	48.1	96.3
2,2,4-Trimethylpentane	70.0 to 130.	50.0	49.7	99.5	50.0	54.6	109.	50.0	50.5	101.
4-Ethyltoluene	70.0 to 130.	50.0	49.5	99.0	50.0	51.2	102.	50.0	44.0	88.0
Acetone	70.0 to 130.	50.0	50.6	101.	50.0	54.6	109.	50.0	47.7	95.4
Allyl Chloride	70.0 to 130.	50.0	51.9	104.	50.0	58.1	116.	50.0	51.9	104.
Benzene	70.0 to 130.	50.0	48.6	97.2	50.0	52.9	106.	50.0	49.1	98.2
Benzyl Chloride	70.0 to 130.	50.0	51.7	103.	50.0	52.4	105.	50.0	43.9	87.8
Bromodichloromethane	70.0 to 130.	50.0	49.4	98.8	50.0	53.7	107.	50.0	50.3	101.
Bromoform	70.0 to 130.	50.0	48.3	96.6	50.0	50.6	101.	50.0	43.3	86.5
Bromomethane	70.0 to 130.	50.0	48.8	97.7	50.0	53.1	106.	50.0	48.2	96.3
Carbon Disulfide	70.0 to 130.	50.0	47.5	95.0	50.0	51.2	102.	50.0	47.5	94.9
Carbon Tetrachloride	70.0 to 130.	50.0	48.9	97.8	50.0	54.2	108.	50.0	49.5	99.1
Chlorobenzene	70.0 to 130.	50.0	47.7	95.4	50.0	49.7	99.5	50.0	43.5	86.9
Chloroethane	70.0 to 130.	50.0	50.9	102.	50.0	56.0	112.	50.0	50.1	100.
Chloroform	70.0 to 130.	50.0	48.4	96.8	50.0	53.8	108.	50.0	48.5	96.9
Chloromethane	70.0 to 130.	50.0	48.1	96.1	50.0	52.9	106.	50.0	47.6	95.3
cis-1,2-Dichloroethylene	70.0 to 130.	50.0	49.0	98.0	50.0	54.8	110.	50.0	48.6	97.3
cis-1,3-Dichloropropene	70.0 to 130.	50.0	48.9	97.8	50.0	53.4	107.	50.0	49.3	98.7
Cyclohexane	70.0 to 130.	50.0	49.3	98.5	50.0	55.5	111.	50.0	50.7	101.
Dibromochloromethane	70.0 to 130.	50.0	46.6	93.1	50.0	48.3	96.7	50.0	41.6	83.3
Ethyl Acetate	70.0 to 130.	50.0	51.2	102.	50.0	54.6	109.	50.0	47.9	95.8
Ethylbenzene	70.0 to 130.	50.0	48.5	97.0	50.0	49.7	99.5	50.0	44.1	88.2
Freon-11	70.0 to 130.	50.0	50.0	100.	50.0	55.7	111.	50.0	50.1	100.
Freon-113	70.0 to 130.	50.0	51.0	102.	50.0	56.9	114.	50.0	51.3	103.

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ASTD 50ppb STANDARD RECOVERY REPORT

Client : Center for Toxicology & Env. Health LLC
Account No: 13913
Login No. : L308382

Freon-114	70.0 to 130.	50.0	49.3	98.6	50.0	53.7	107.	50.0	49.5	98.9
Freon-12	70.0 to 130.	50.0	49.5	98.9	50.0	53.0	106.	50.0	49.1	98.3
Heptane	70.0 to 130.	50.0	49.9	99.9	50.0	55.1	110.	50.0	51.8	104.
Hexane	70.0 to 130.	50.0	49.6	99.2	50.0	56.0	112.	50.0	49.7	99.4
Isopropyl Alcohol	70.0 to 130.	50.0	51.4	103.	50.0	55.4	111.	50.0	46.4	92.9
m & p-xylene	70.0 to 130.	100.	99.1	99.1	100.	98.4	98.4	100.	86.5	86.5
Methyl Butyl Ketone	70.0 to 130.	50.0	48.5	96.9	50.0	50.1	100.	50.0	42.4	84.8
Methyl Ethyl Ketone	70.0 to 130.	50.0	50.7	101.	50.0	54.2	108.	50.0	47.3	94.6
Methyl Isobutyl Ketone	70.0 to 130.	50.0	48.1	96.1	50.0	49.8	99.6	50.0	41.7	83.3
Methyl Tert-Butyl Ether	70.0 to 130.	50.0	50.1	100.	50.0	53.3	107.	50.0	46.8	93.6
Methylene Chloride	70.0 to 130.	50.0	49.9	99.8	50.0	54.9	110.	50.0	49.9	99.9
o-Xylene	70.0 to 130.	50.0	49.4	98.8	50.0	51.8	104.	50.0	46.3	92.5
Propylene	70.0 to 130.	50.0	52.7	105.	50.0	58.1	116.	50.0	52.8	106.
Styrene	70.0 to 130.	50.0	48.2	96.4	50.0	49.3	98.5	50.0	42.9	85.9
Tetrachloroethylene	70.0 to 130.	50.0	45.7	91.4	50.0	46.9	93.8	50.0	40.0	80.0
Tetrahydrofuran	70.0 to 130.	50.0	49.9	99.9	50.0	54.0	108.	50.0	48.1	96.2
Toluene	70.0 to 130.	50.0	47.4	94.8	50.0	49.1	98.1	50.0	42.9	85.7
Trans-1,2-Dichloroethene	70.0 to 130.	50.0	50.5	101.	50.0	56.6	113.	50.0	50.6	101.
trans-1,3-Dichloropropene	70.0 to 130.	50.0	50.5	101.	50.0	54.0	108.	50.0	49.9	99.8
Trichloroethylene	70.0 to 130.	50.0	49.3	98.6	50.0	54.7	109.	50.0	50.8	102.
Vinyl Acetate	70.0 to 130.	50.0	49.7	99.4	50.0	53.6	107.	50.0	47.5	95.1
Vinyl Bromide	70.0 to 130.	50.0	49.3	98.6	50.0	52.9	106.	50.0	46.3	92.7
Vinyl Chloride	70.0 to 130.	50.0	48.0	95.9	50.0	52.6	105.	50.0	47.8	95.6

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ASTD 50ppb STANDARD RECOVERY REPORT

Client : Center for Toxicology & Env. Health LLC
Account No: I3913
Login No. : L308382

Lab Sample ID		WC272630-8								
Type		CCV								
Spike Lot #		IH404842								
Instrument		MS J								
Analysis Date		Jan 07, 2014 01:10								
	Limits (%)	True Value (ppbv)	Found (ppbv)	Recovery (%)	True Value 0	Found 0	Recovery (%)	True Value 0	Found 0	Recovery (%)
1,1,1-Trichloroethane	70.0 to 130.	50.0	52.9	106.						
1,1,2,2-Tetrachloroethane	70.0 to 130.	50.0	49.0	98.0						
1,1,2-Trichloroethane	70.0 to 130.	50.0	50.1	100.						
1,1-Dichloroethane	70.0 to 130.	50.0	54.6	109.						
1,1-Dichloroethene	70.0 to 130.	50.0	53.0	106.						
1,2,4-Trimethylbenzene	70.0 to 130.	50.0	47.3	94.6						
1,2-Dibromoethane	70.0 to 130.	50.0	44.1	88.3						
1,2-Dichlorobenzene	70.0 to 130.	50.0	46.5	93.0						
1,2-Dichloroethane	70.0 to 130.	50.0	54.2	108.						
1,2-Dichloropropane	70.0 to 130.	50.0	50.9	102.						
1,3,5-Trimethylbenzene	70.0 to 130.	50.0	45.8	91.6						
1,3-Butadiene	70.0 to 130.	50.0	57.2	114.						
1,3-Dichlorobenzene	70.0 to 130.	50.0	47.2	94.5						
1,4-Dichlorobenzene	70.0 to 130.	50.0	46.3	92.6						
1,4-Dioxane	70.0 to 130.	50.0	53.1	106.						
2,2,4-Trimethylpentane	70.0 to 130.	50.0	53.0	106.						
4-Ethyltoluene	70.0 to 130.	50.0	47.0	93.9						
Acetone	70.0 to 130.	50.0	55.7	111.						
Allyl Chloride	70.0 to 130.	50.0	57.8	116.						
Benzene	70.0 to 130.	50.0	51.1	102.						
Benzyl Chloride	70.0 to 130.	50.0	49.6	99.2						
Bromodichloromethane	70.0 to 130.	50.0	51.2	102.						
Bromoform	70.0 to 130.	50.0	44.9	89.9						
Bromomethane	70.0 to 130.	50.0	53.9	108.						
Carbon Disulfide	70.0 to 130.	50.0	50.8	102.						
Carbon Tetrachloride	70.0 to 130.	50.0	52.1	104.						
Chlorobenzene	70.0 to 130.	50.0	44.9	89.7						
Chloroethane	70.0 to 130.	50.0	56.3	113.						
Chloroform	70.0 to 130.	50.0	53.7	107.						
Chloromethane	70.0 to 130.	50.0	53.1	106.						
cis-1,2-Dichloroethylene	70.0 to 130.	50.0	54.3	109.						
cis-1,3-Dichloropropene	70.0 to 130.	50.0	51.2	102.						
Cyclohexane	70.0 to 130.	50.0	53.0	106.						
Dibromochloromethane	70.0 to 130.	50.0	43.0	86.0						
Ethyl Acetate	70.0 to 130.	50.0	56.3	113.						
Ethylbenzene	70.0 to 130.	50.0	45.1	90.2						
Freon-11	70.0 to 130.	50.0	56.2	112.						
Freon-113	70.0 to 130.	50.0	55.3	111.						

Galson Laboratories
6601 Kirkville Rd. E. Syracuse, NY 13057

ASTD 50ppb STANDARD RECOVERY REPORT

Client : Center for Toxicology & Env. Health LLC
Account No: 13913
Login No. : L308382

Freon-114	70.0 to 130.	50.0	55.3	111.
Freon-12	70.0 to 130.	50.0	52.8	106.
Heptane	70.0 to 130.	50.0	54.3	109.
Hexane	70.0 to 130.	50.0	54.9	110.
Isopropyl Alcohol	70.0 to 130.	50.0	55.5	111.
m & p-xylene	70.0 to 130.	100.	89.5	89.5
Methyl Butyl Ketone	70.0 to 130.	50.0	48.3	96.7
Methyl Ethyl Ketone	70.0 to 130.	50.0	55.0	110.
Methyl Isobutyl Ketone	70.0 to 130.	50.0	46.9	93.9
Methyl Tert-Butyl Ether	70.0 to 130.	50.0	51.8	104.
Methylene Chloride	70.0 to 130.	50.0	54.1	108.
o-Xylene	70.0 to 130.	50.0	47.8	95.6
Propylene	70.0 to 130.	50.0	57.3	115.
Styrene	70.0 to 130.	50.0	44.4	88.8
Tetrachloroethylene	70.0 to 130.	50.0	41.7	83.4
Tetrahydrofuran	70.0 to 130.	50.0	54.2	108.
Toluene	70.0 to 130.	50.0	44.2	88.4
Trans-1,2-Dichloroethene	70.0 to 130.	50.0	55.5	111.
trans-1,3-Dichloropropene	70.0 to 130.	50.0	51.8	104.
Trichloroethylene	70.0 to 130.	50.0	53.1	106.
Vinyl Acetate	70.0 to 130.	50.0	53.0	106.
Vinyl Bromide	70.0 to 130.	50.0	52.3	105.
Vinyl Chloride	70.0 to 130.	50.0	53.1	106.

Galson Laboratories
6601 Kirkville Rd. E. Syracuse, NY 13057

ASTD 5ppb STANDARD RECOVERY REPORT

Client : Center for Toxicology & Env. Health LLC
Account No: 13913
Login No. : L308382

Lab Sample ID		WG272630-4								
Type		DLS								
Spike Lot #		IH404882								
Instrument		MS I								
Analysis Date		Jan 06, 2014 12:27								
	Limits (%)	True Value (ppbv)	Found (ppbv)	Recovery (%)	True Value 0	Found 0	Recovery (%)	True Value 0	Found 0	Recovery (%)
1,1,1-Trichloroethane	60.0 to 140.	5.00	4.42	88.4						
1,1,2,2-Tetrachloroethane	60.0 to 140.	5.00	3.99	79.8						
1,1,2-Trichloroethane	60.0 to 140.	5.00	3.90	78.0						
1,1-Dichloroethane	60.0 to 140.	5.00	4.33	86.6						
1,1-Dichloroethene	60.0 to 140.	5.00	4.31	86.2						
1,2,4-Trimethylbenzene	60.0 to 140.	5.00	3.18	63.6						
1,2-Dibromoethane	60.0 to 140.	5.00	3.68	73.6						
1,2-Dichlorobenzene	60.0 to 140.	5.00	3.10	62.0						
1,2-Dichloroethane	60.0 to 140.	5.00	4.08	81.6						
1,2-Dichloropropane	60.0 to 140.	5.00	4.05	81.0						
1,3,5-Trimethylbenzene	60.0 to 140.	5.00	3.21	64.2						
1,3-Butadiene	60.0 to 140.	5.00	4.60	92.0						
1,3-Dichlorobenzene	60.0 to 140.	5.00	3.16	63.2						
1,4-Dichlorobenzene	60.0 to 140.	5.00	3.09	61.8						
1,4-Dioxane	60.0 to 140.	5.00	3.76	75.2						
2,2,4-Trimethylpentane	60.0 to 140.	5.00	4.21	84.2						
4-Ethyltoluene	60.0 to 140.	5.00	3.13	62.6						
Acetone	60.0 to 140.	5.00	4.71	94.2						
Allyl Chloride	60.0 to 140.	5.00	4.61	92.2						
Benzene	60.0 to 140.	5.00	4.15	83.0						
Benzyl Chloride	60.0 to 140.	5.00	3.16	63.2						
Bromodichloromethane	60.0 to 140.	5.00	4.03	80.6						
Bromoform	60.0 to 140.	5.00	3.40	68.0						
Bromomethane	60.0 to 140.	5.00	4.41	88.2						
Carbon Disulfide	60.0 to 140.	5.00	5.28	106.						
Carbon Tetrachloride	60.0 to 140.	5.00	4.42	88.4						
Chlorobenzene	60.0 to 140.	5.00	3.74	74.8						
Chloroethane	60.0 to 140.	5.00	4.59	91.8						
Chloroform	60.0 to 140.	5.00	4.17	83.4						
Chloromethane	60.0 to 140.	5.00	4.42	88.4						
cis-1,2-Dichloroethylene	60.0 to 140.	5.00	4.27	85.4						
cis-1,3-Dichloropropene	60.0 to 140.	5.00	3.92	78.4						
Cyclohexane	60.0 to 140.	5.00	4.64	92.8						
Dibromochloromethane	60.0 to 140.	5.00	3.43	68.6						
Ethyl Acetate	60.0 to 140.	5.00	4.09	81.8						
Ethylbenzene	60.0 to 140.	5.00	3.58	71.6						
Freon-11	60.0 to 140.	5.00	4.49	89.8						
Freon-113	60.0 to 140.	5.00	4.79	95.8						

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ASTD 5ppb STANDARD RECOVERY REPORT

Client : Center for Toxicology & Env. Health LLC
Account No: 13913
Login No. : L308382

Freon-114	60.0 to 140.	5.00	4.48	89.6
Freon-12	60.0 to 140.	5.00	4.50	90.0
Heptane	60.0 to 140.	5.00	4.12	82.4
Hexane	60.0 to 140.	5.00	4.77	95.4
Isopropyl Alcohol	60.0 to 140.	5.00	4.35	87.0
m & p-xylene	60.0 to 140.	10.0	6.87	68.7
Methyl Butyl Ketone	60.0 to 140.	5.00	3.76	75.2
Methyl Ethyl Ketone	60.0 to 140.	5.00	4.01	80.2
Methyl Isobutyl Ketone	60.0 to 140.	5.00	3.61	72.2
Methyl Tert-Butyl Ether	60.0 to 140.	5.00	3.94	78.8
Methylene Chloride	60.0 to 140.	5.00	5.09	102.
o-Xylene	60.0 to 140.	5.00	3.67	73.4
Propylene	60.0 to 140.	5.00	4.73	94.6
Styrene	60.0 to 140.	5.00	3.14	62.8
Tetrachloroethylene	60.0 to 140.	5.00	3.62	72.4
Tetrahydrofuran	60.0 to 140.	5.00	3.84	76.8
Toluene	60.0 to 140.	5.00	3.78	75.6
Trans-1,2-Dichloroethene	60.0 to 140.	5.00	4.59	91.8
trans-1,3-Dichloropropene	60.0 to 140.	5.00	3.83	76.6
Trichloroethylene	60.0 to 140.	5.00	4.33	86.6
Vinyl Acetate	60.0 to 140.	5.00	4.12	82.4
Vinyl Bromide	60.0 to 140.	5.00	4.40	88.0
Vinyl Chloride	60.0 to 140.	5.00	4.20	84.0

Galson Laboratories
6601 Kirkville Rd. E. Syracuse, NY 13057

LCS/LCS DUPLICATE REPORT

Client : Center for Toxicology & Env. Health LLC
Account No: 13913
Login No. : L308382

Lab Sample ID		WG272630-2			WG272630-3				
Type		LCS			LCSD				
Spike Lot #		IH405582			IH405582				
Instrument		MS J			MS J				
Analysis Date		Jan 06, 2014 10:23			Jan 06, 2014 11:05				
	Limits (%)	True Value (ppbv)	Found (ppbv)	Recovery (%)	True Value (ppbv)	Found (ppbv)	Recovery (%)	RPD	RPD Limits
1,1,1-Trichloroethane	70.0 to 130.	50.0	39.5	79.1	50.0	39.7	79:5	-0.530	-25.0 to 25.0
1,1,2,2-Tetrachloroethane	70.0 to 130.	50.0	36.1	72.2	50.0	39.4	78.8	-8.74	-25.0 to 25.0
1,1,2-Trichloroethane	70.0 to 130.	50.0	41.8	83.7	50.0	42.3	84.6	-1.05	-25.0 to 25.0
1,1-Dichloroethane	70.0 to 130.	50.0	39.8	79.5	50.0	42.0	84.0	-5.46	-25.0 to 25.0
1,1-Dichloroethene	70.0 to 130.	50.0	42.8	85.6	50.0	43.3	86.6	-1.21	-25.0 to 25.0
1,2,4-Trimethylbenzene	70.0 to 130.	50.0	40.9	81.7	50.0	44.9	89.8	-9.47	-25.0 to 25.0
1,2-Dibromoethane	70.0 to 130.	50.0	39.0	77.9	50.0	41.6	83.1	-6.46	-25.0 to 25.0
1,2-Dichlorobenzene	70.0 to 130.	50.0	36.9	73.8	50.0	40.8	81.6	-10.1	-25.0 to 25.0
1,2-Dichloroethane	70.0 to 130.	50.0	39.4	78.7	50.0	42.0	83.9	-6.39	-25.0 to 25.0
1,2-Dichloropropane	70.0 to 130.	50.0	40.6	81.3	50.0	41.0	82.0	-0.882	-25.0 to 25.0
1,3,5-Trimethylbenzene	70.0 to 130.	50.0	40.0	80.0	50.0	44.0	87.9	-9.36	-25.0 to 25.0
1,3-Butadiene	70.0 to 130.	50.0	41.6	83.2	50.0	42.1	84.2	-1.22	-25.0 to 25.0
1,3-Dichlorobenzene	70.0 to 130.	50.0	39.4	78.9	50.0	43.2	86.3	-8.98	-25.0 to 25.0
1,4-Dichlorobenzene	70.0 to 130.	50.0	40.2	80.4	50.0	43.2	86.3	-7.13	-25.0 to 25.0
1,4-Dioxane	70.0 to 130.	50.0	41.7	83.4	50.0	47.2	94.4	-12.4	-25.0 to 25.0
2,2,4-Trimethylpentane	70.0 to 130.	50.0	42.4	84.9	50.0	43.1	86.2	-1.57	-25.0 to 25.0
4-Ethyltoluene	70.0 to 130.	50.0	42.8	85.7	50.0	46.2	92.4	-7.57	-25.0 to 25.0
Acetone	70.0 to 130.	50.0	44.8	89.6	50.0	47.7	95.4	-6.29	-25.0 to 25.0
Allyl Chloride	70.0 to 130.	50.0	41.1	82.2	50.0	42.7	85.3	-3.70	-25.0 to 25.0
Benzene	70.0 to 130.	50.0	41.1	82.2	50.0	41.9	83.8	-1.86	-25.0 to 25.0
Benzyl Chloride	70.0 to 130.	50.0	45.6	91.1	50.0	51.0	102.	-11.3	-25.0 to 25.0
Bromodichloromethane	70.0 to 130.	50.0	42.3	84.6	50.0	42.1	84.2	0.498	-25.0 to 25.0
Bromoform	70.0 to 130.	50.0	41.8	83.6	50.0	44.7	89.4	-6.66	-25.0 to 25.0
Bromomethane	70.0 to 130.	50.0	39.0	77.9	50.0	40.7	81.4	-4.32	-25.0 to 25.0
Carbon Disulfide	70.0 to 130.	50.0	43.8	87.5	50.0	45.1	90.2	-2.95	-25.0 to 25.0
Carbon Tetrachloride	70.0 to 130.	50.0	41.3	82.7	50.0	41.4	82.8	-0.121	-25.0 to 25.0
Chlorobenzene	70.0 to 130.	50.0	39.7	79.4	50.0	42.0	84.1	-5.75	-25.0 to 25.0
Chloroethane	70.0 to 130.	43.5	38.1	87.6	43.5	38.8	89.2	-1.82	-25.0 to 25.0
Chloroform	70.0 to 130.	50.0	38.8	77.6	50.0	41.3	82.5	-6.20	-25.0 to 25.0
Chloromethane	70.0 to 130.	50.0	46.6	93.1	50.0	47.3	94.6	-1.62	-25.0 to 25.0
cis-1,2-Dichloroethylene	70.0 to 130.	50.0	35.4	70.8	50.0	37.6	75.2	-6.06	-25.0 to 25.0
cis-1,3-Dichloropropene	70.0 to 130.	50.0	42.9	85.8	50.0	43.4	86.8	-1.23	-25.0 to 25.0
Cyclohexane	70.0 to 130.	50.0	41.2	82.3	50.0	41.1	82.2	0.146	-25.0 to 25.0
Dibromochloromethane	70.0 to 130.	50.0	39.6	79.3	50.0	42.4	84.8	-6.73	-25.0 to 25.0
Ethyl Acetate	70.0 to 130.	50.0	43.2	86.5	50.0	47.2	94.4	-8.76	-25.0 to 25.0
Ethylbenzene	70.0 to 130.	50.0	39.9	79.9	50.0	42.1	84.2	-5.34	-25.0 to 25.0
Freon-11	70.0 to 130.	50.0	43.6	87.1	50.0	44.3	88.6	-1.68	-25.0 to 25.0
Freon-113	70.0 to 130.	50.0	41.4	82.7	50.0	42.6	85.1	-2.86	-25.0 to 25.0

Galson Laboratories
6601 Kirkville Rd. E. Syracuse, NY 13057

LCS/LCS DUPLICATE REPORT

Client : Center for Toxicology & Env. Health LLC
Account No: 13913
Login No. : L308382

Freon-114	70.0 to 130.	50.0	40.3	80.5	50.0	41.4	82.8	-2.79	-25.0 to 25.0
Freon-12	70.0 to 130.	50.0	43.1	86.1	50.0	43.9	87.7	-1.79	-25.0 to 25.0
Heptane	70.0 to 130.	50.0	41.8	83.6	50.0	42.0	84.1	-0.620	-25.0 to 25.0
Hexane	70.0 to 130.	50.0	39.4	78.8	50.0	41.2	82.4	-4.42	-25.0 to 25.0
Isopropyl Alcohol	70.0 to 130.	50.0	45.9	91.7	50.0	50.3	101.	-9.24	-25.0 to 25.0
m & p-xylene	70.0 to 130.	100.	77.9	77.9	100.	87.5	87.5	-11.6	-25.0 to 25.0
Methyl Butyl Ketone	70.0 to 130.	50.0	44.7	89.4	50.0	49.4	98.8	-10.0	-25.0 to 25.0
Methyl Ethyl Ketone	70.0 to 130.	50.0	44.0	87.9	50.0	48.2	96.3	-9.14	-25.0 to 25.0
Methyl Isobutyl Ketone	70.0 to 130.	50.0	39.6	79.2	50.0	44.1	88.2	-10.8	-25.0 to 25.0
Methyl Tert-Butyl Ether	70.0 to 130.	50.0	40.5	80.9	50.0	44.1	88.2	-8.59	-25.0 to 25.0
Methylene Chloride	70.0 to 130.	50.0	39.5	79.1	50.0	41.3	82.5	-4.26	-25.0 to 25.0
o-Xylene	70.0 to 130.	50.0	40.5	81.0	50.0	43.2	86.3	-6.36	-25.0 to 25.0
Propylene	70.0 to 130.	50.0	48.5	97.0	50.0	49.7	99.3	-2.30	-25.0 to 25.0
Styrene	70.0 to 130.	59.0	48.3	81.9	59.0	51.7	87.7	-6.78	-25.0 to 25.0
Tetrachloroethylene	70.0 to 130.	50.0	38.4	76.8	50.0	40.4	80.9	-5.23	-25.0 to 25.0
Tetrahydrofuran	70.0 to 130.	50.0	42.3	84.5	50.0	45.8	91.6	-8.04	-25.0 to 25.0
Toluene	70.0 to 130.	50.0	40.5	81.1	50.0	42.6	85.2	-5.03	-25.0 to 25.0
Trans-1,2-Dichloroethene	70.0 to 130.	50.0	45.9	91.8	50.0	47.4	94.8	-3.15	-25.0 to 25.0
trans-1,3-Dichloropropene	70.0 to 130.	50.0	45.5	91.0	50.0	46.4	92.8	-1.96	-25.0 to 25.0
Trichloroethylene	70.0 to 130.	50.0	40.8	81.6	50.0	41.1	82.2	-0.733	-25.0 to 25.0
Vinyl Acetate	70.0 to 130.	50.0	42.8	85.5	50.0	45.5	91.0	-6.17	-25.0 to 25.0
Vinyl Bromide	70.0 to 130.	50.0	43.2	86.5	50.0	45.1	90.2	-4.26	-25.0 to 25.0
Vinyl Chloride	70.0 to 130.	50.0	43.0	85.9	50.0	43.9	87.7	-2.03	-25.0 to 25.0

Galson Laboratories
6601 Kirkville Rd. E. Syracuse, NY 13057

METHOD BLANK REPORT

Client :Center for Toxicology & Env. Health LLC
Account No:13913
Login No. :L308382

Lab Sample ID			WC272630-1							
Type			BLANK							
Instrument			MS J							
Analysis Date			01/06/14							
Analysis Time			13:09							
	MDL (ppbv)	LOQ (ppbv)	Found (ppbv)	Qual						
1,1,1-Trichloroethane	2	5.0	ND	U						
1,1,2,2-Tetrachloroethane	2	5.0	ND	U						
1,1,2-Trichloroethane	2	5.0	ND	U						
1,1-Dichloroethane	2	5.0	ND	U						
1,1-Dichloroethene	2	5.0	ND	U						
1,2,4-Trimethylbenzene	2	5.0	ND	U						
1,2-Dibromoethane	2	5.0	ND	U						
1,2-Dichlorobenzene	2	5.0	ND	U						
1,2-Dichloroethane	2	5.0	ND	U						
1,2-Dichloropropane	2	5.0	ND	U						
1,3,5-Trimethylbenzene	2	5.0	ND	U						
1,3-Butadiene	2	5.0	ND	U						
1,3-Dichlorobenzene	2	5.0	ND	U						
1,4-Dichlorobenzene	2	5.0	ND	U						
1,4-Dioxane	2	20.	ND	U						
2,2,4-Trimethylpentane	2	5.0	ND	U						
4-Ethyltoluene	2	5.0	ND	U						
Acetone	25	25.	ND	U						
Allyl Chloride	2	5.0	ND	U						
Benzene	2	5.0	ND	U						
Benzyl Chloride	2	5.0	ND	U						
Bromodichloromethane	2	5.0	ND	U						
Bromoform	2	5.0	ND	U						
Bromomethane	2	5.0	ND	U						
Carbon Disulfide	2	10.	ND	U						
Carbon Tetrachloride	2	5.0	ND	U						
Chlorobenzene	2	5.0	ND	U						
Chloroethane	2	5.0	ND	U						
Chloroform	2	5.0	ND	U						
Chloromethane	2	5.0	ND	U						
cis-1,2-Dichloroethylene	2	5.0	ND	U						
cis-1,3-Dichloropropene	2	5.0	ND	U						
Cyclohexane	2	5.0	ND	U						
Dibromochloromethane	2	5.0	ND	U						
Ethyl Acetate	2	5.0	ND	U						
Ethylbenzene	2	5.0	ND	U						
Freon-11	2	5.0	ND	U						
Freon-113	2	5.0	ND	U						

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Galson Laboratories
6601 Kirkville Rd. E Syracuse, NY 13057

METHOD BLANK REPORT

Client :Center for Toxicology & Env. Health LLC
Account No:13913
Login No. :L308382

Freon-114	2	5.0	ND	U							
Freon-12	2	5.0	ND	U							
Heptane	2	5.0	ND	U							
Hexane	2	5.0	ND	U							
Isopropyl Alcohol	25	25.	ND	U							
m & p-xylene	3	10.	ND	U							
Methyl Butyl Ketone	2	20.	ND	U							
Methyl Ethyl Ketone	2	5.0	ND	U							
Methyl Isobutyl Ketone	2	20.	ND	U							
Methyl Tert-Butyl Ether	2	5.0	ND	U							
Methylene Chloride	2	5.0	ND	U							
o-Xylene	2	5.0	ND	U							
Propylene	2	5.0	ND	U							
Styrene	2	5.0	ND	U							
Tetrachloroethylene	2	5.0	ND	U							
Tetrahydrofuran	2	5.0	ND	U							
Toluene	2	5.0	ND	U							
Trans-1,2-Dichloroethene	2	5.0	ND	U							
trans-1,3-Dichloropropene	2	5.0	ND	U							
Trichloroethylene	2	5.0	ND	U							
Vinyl Acetate	2	5.0	ND	U							
Vinyl Bromide	2	5.0	ND	U							
Vinyl Chloride	2	5.0	ND	U							

Printed: 01/07/14 15:41 tcbmbrpt_epa.idxl Report Reference # 813814

5120 North Shore Drive
North Little Rock, AR 72118
Phone: (501) 801-8500
Fax: (501) 801-8501
Website: www.cteh.com

Center for Toxicology and Environmental Health L.L.C.

SAMPLE CHAIN OF CUSTODY AND ANALYSIS REQUEST FORM

	Send Report To:	Send Invoice To:
Name	Lourdes Mahoney	Cheryl Alford
Company	CTEH	CTEH
Address	5120 North Shore Drive North Little Rock, AR 72118	5120 North Shore Drive North Little Rock, AR 72118
Phone	[redacted]	[redacted]
Fax		
e-mail		

CTEH Project #: 105820 [redacted]

Turnaround Requested:
___ Same Day ___Next Day (24 hour) ★Normal
___ Other (Specify) _____
Complete Data Packet Requested ★Yes ☐No

Lab Contact Information:
Galson Laboratories
6601 Kirkville Road
E. Syracuse, NY 13057

Client Sample Identification	Other Sample Identification	Sample Size	Units (Check one) X L or ___cm²	Sample Date	Sample Time (for non-air samples)	Initials	EPA TO-15 + TICs	[redacted]	Matrix
	WR570/WA568								
CASND010114MC007	~~WR483/WA408~~	1	L	1/1/14	24 hr	ARM	X		A
CASND010114MC008	WR650/WA352	1	L	1/1/14			X		A
CASND010114MC009	WR483/WA345	1	L	1/1/14			X		A
CASND010114MC010	WR507/WA408	1	L	1/1/14			X		A
CASND010114MC011	RR216/WC138	1	L	1/1/14			X		A

Matrix: A = air, B = bulk, S = soil, SW = wipe, T = tape, W = water

RELINQUISHED BY	DATE/TIME	RECEIVED BY	DATE/TIME
[redacted]	01.03.14/1607	FedEx	01.03.14/1607
		Dorothy Dermott [redacted]	1/4/14 10:46

COMMENTS
Rec'd intact & all accounted for? Yes or No
Rec'd w/custody seals intact? Yes or No NA
Rec'd in light sensitive packaging? Yes or No
Rec'd with ice pack? Yes or No
Rec'd temperature compliant? Yes or No

Ms. Lourdes Mahoney
CTEH
5120 North Shore Drive
North Little Rock, AR 72118

January 07, 2014

DOH ELAP# 11626 Account# 13913 Login# L308381
AIHA # 100324

Dear Ms. Mahoney:

Enclosed are the analytical results for the samples received by our laboratory on January 04, 2014. All test results meet the quality control requirements of AIHA and NELAC unless otherwise stated in this report. All samples on the chain of custody were received in good condition unless otherwise noted.

Results in this report are based on the sampling data provided by the client and refer only to the samples as they were received at the laboratory. Unless otherwise requested, all samples will be discarded 14 days from the date of this report, with the exception of IOMs, which will be cleaned and disposed of after seven calendar days.

Current Scopes of Accreditation can be viewed at www.galsonlabs.com in the accreditations section under the "about Galson" tab.

Please contact Pamela Weaver at (888) 432-5227, if you would like any additional information regarding this report.

Thank you for using Galson Laboratories.

Sincerely,

Galson Laboratories

[redacted]

Mary G. Unangst
Laboratory Director

Enclosure(s)

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FAX: (315) 437-0571
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LABORATORY ANALYSIS REPORT

Client : Center for Toxicology & Env. Health LLC
Site : NS
Project No. : 105820

Date Sampled : 02-JAN-14
Date Received : 04-JAN-14
Date Analyzed : 06-JAN-14
Report ID : 813809

Account No.: 13913
Login No. : L308381

Client ID : CASND010214MC012 **Lab ID : L308381-1**
Date Sampled : 01/02/14 **Date Analyzed : 01/06/14**

Parameter	MDL ppbv	LOQ ppbv	Result ppbv	Qualifier	Dilution Factor
Propylene	2	5.0	ND	U	1
Freon-12	2	5.0	ND	U	1
Chloromethane	2	5.0	ND	U	1
Freon-114	2	5.0	ND	U	1
Vinyl Chloride	2	5.0	ND	U	1
1,3-Butadiene	2	5.0	ND	U	1
Bromomethane	2	5.0	ND	U	1
Chloroethane	2	5.0	ND	U	1
Vinyl Bromide	2	5.0	ND	U	1
Freon-11	2	5.0	ND	U	1
Isopropyl Alcohol	25	25	ND	U	1
Acetone	25	25	ND	U	1
1,1-Dichloroethene	2	5.0	ND	U	1
Methylene Chloride	2	5.0	ND	U	1
Freon-113	2	5.0	ND	U	1
Allyl Chloride	2	5.0	ND	U	1
Carbon Disulfide	2	10	ND	U	1
Trans-1,2-Dichloroethene	2	5.0	ND	U	1
Methyl Tert-Butyl Ether	2	5.0	ND	U	1
1,1-Dichloroethane	2	5.0	ND	U	1
Vinyl Acetate	2	5.0	ND	U	1
Methyl Ethyl Ketone	2	5.0	ND	U	1
cis-1,2-Dichloroethylene	2	5.0	ND	U	1
Hexane	2	5.0	ND	U	1
Ethyl Acetate	2	5.0	ND	U	1

COMMENTS: Please see attached lab footnote report for any applicable footnotes.

Analytical Method : mod. OSHA PV2120/mod. EPA
Collection Media : Mini Can

Submitted by: BHB
Approved by : nkp
Date : 07-JAN-14 NYS DOH # : 11626
QC by : Tony D'Amico

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LOQ -Limit of Quantitation

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Report ID : 813809

Account No.: 13913
Login No. : L308381

Client ID : CASND010214MC012 **Lab ID : L308381-1**
Date Sampled : 01/02/14 **Date Analyzed : 01/06/14**

Parameter	MDL ppbv	LOQ ppbv	Result ppbv	Qualifier	Dilution Factor
Chloroform	2	5.0	ND	U	1
Tetrahydrofuran	2	5.0	ND	U	1
1,2-Dichloroethane	2	5.0	ND	U	1
1,1,1-Trichloroethane	2	5.0	ND	U	1
Cyclohexane	2	5.0	ND	U	1
Carbon Tetrachloride	2	5.0	ND	U	1
Benzene	2	5.0	ND	U	1
1,4-Dioxane	2	20	ND	U	1
2,2,4-Trimethylpentane	2	5.0	ND	U	1
Heptane	2	5.0	ND	U	1
1,2-Dichloropropane	2	5.0	ND	U	1
Trichloroethylene	2	5.0	ND	U	1
Bromodichloromethane	2	5.0	ND	U	1
cis-1,3-Dichloropropene	2	5.0	ND	U	1
trans-1,3-Dichloropropene	2	5.0	ND	U	1
1,1,2-Trichloroethane	2	5.0	ND	U	1
Toluene	2	5.0	ND	U	1
Dibromochloromethane	2	5.0	ND	U	1
Methyl Isobutyl Ketone	2	20	ND	U	1
Methyl Butyl Ketone	2	20	ND	U	1
1,2-Dibromoethane	2	5.0	ND	U	1
Tetrachloroethylene	2	5.0	ND	U	1
Chlorobenzene	2	5.0	ND	U	1
Ethylbenzene	2	5.0	ND	U	1
Bromoform	2	5.0	ND	U	1

COMMENTS: Please see attached lab footnote report for any applicable footnotes.

Analytical Method : mod. OSHA PV2120/mod. EPA
Collection Media : Mini Can

Submitted by: BHB
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Account No.: 13913
Login No. : L308381

Client ID : CASND010214MC012 **Lab ID : L308381-1**
Date Sampled : 01/02/14 **Date Analyzed : 01/06/14**

Parameter	MDL ppbv	LOQ ppbv	Result ppbv	Qualifier	Dilution Factor
m & p-xylene	3	10	ND	U	1
Styrene	2	5.0	ND	U	1
o-Xylene	2	5.0	ND	U	1
1,1,2,2-Tetrachloroethane	2	5.0	ND	U	1
4-Ethyltoluene	2	5.0	ND	U	1
1,3,5-Trimethylbenzene	2	5.0	ND	U	1
1,2,4-Trimethylbenzene	2	5.0	ND	U	1
1,3-Dichlorobenzene	2	5.0	ND	U	1
Benzyl Chloride	2	5.0	ND	U	1
1,4-Dichlorobenzene	2	5.0	ND	U	1
1,2-Dichlorobenzene	2	5.0	ND	U	1

COMMENTS: Please see attached lab footnote report for any applicable footnotes.

Analytical Method : mod. OSHA PV2120/mod. EPA
Collection Media : Mini Can

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Date Sampled : 02-JAN-14
Date Received : 04-JAN-14
Date Analyzed : 06-JAN-14
Report ID : 813809

Account No.: 13913
Login No. : L308381

Client ID : CASND010214MC013 **Lab ID : L308381-2**
Date Sampled : 01/02/14 **Date Analyzed : 01/06/14**

Parameter	MDL ppbv	LOQ ppbv	Result ppbv	Qualifier	Dilution Factor
Propylene	2	5.0	ND	U	1
Freon-12	2	5.0	ND	U	1
Chloromethane	2	5.0	ND	U	1
Freon-114	2	5.0	ND	U	1
Vinyl Chloride	2	5.0	ND	U	1
1,3-Butadiene	2	5.0	ND	U	1
Bromomethane	2	5.0	ND	U	1
Chloroethane	2	5.0	ND	U	1
Vinyl Bromide	2	5.0	ND	U	1
Freon-11	2	5.0	ND	U	1
Isopropyl Alcohol	25	25	ND	U	1
Acetone	25	25	ND	U	1
1,1-Dichloroethene	2	5.0	ND	U	1
Methylene Chloride	2	5.0	ND	U	1
Freon-113	2	5.0	ND	U	1
Allyl Chloride	2	5.0	ND	U	1
Carbon Disulfide	2	10	ND	U	1
Trans-1,2-Dichloroethene	2	5.0	ND	U	1
Methyl Tert-Butyl Ether	2	5.0	ND	U	1
1,1-Dichloroethane	2	5.0	ND	U	1
Vinyl Acetate	2	5.0	ND	U	1
Methyl Ethyl Ketone	2	5.0	ND	U	1
cis-1,2-Dichloroethylene	2	5.0	ND	U	1
Hexane	2	5.0	ND	U	1
Ethyl Acetate	2	5.0	ND	U	1

COMMENTS: Please see attached lab footnote report for any applicable footnotes.

Analytical Method : mod. OSHA PV2120/mod. EPA
Collection Media : Mini Can

Submitted by: BHB
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Report ID : 813809

Account No.: 13913
Login No. : L308381

Client ID : CASND010214MC013 **Lab ID : L308381-2**
Date Sampled : 01/02/14 **Date Analyzed : 01/06/14**

Parameter	MDL ppbv	LOQ ppbv	Result ppbv	Qualifier	Dilution Factor
Chloroform	2	5.0	ND	U	1
Tetrahydrofuran	2	5.0	ND	U	1
1,2-Dichloroethane	2	5.0	ND	U	1
1,1,1-Trichloroethane	2	5.0	ND	U	1
Cyclohexane	2	5.0	ND	U	1
Carbon Tetrachloride	2	5.0	ND	U	1
Benzene	2	5.0	ND	U	1
1,4-Dioxane	2	20	ND	U	1
2,2,4-Trimethylpentane	2	5.0	ND	U	1
Heptane	2	5.0	ND	U	1
1,2-Dichloropropane	2	5.0	ND	U	1
Trichloroethylene	2	5.0	ND	U	1
Bromodichloromethane	2	5.0	ND	U	1
cis-1,3-Dichloropropene	2	5.0	ND	U	1
trans-1,3-Dichloropropene	2	5.0	ND	U	1
1,1,2-Trichloroethane	2	5.0	ND	U	1
Toluene	2	5.0	ND	U	1
Dibromochloromethane	2	5.0	ND	U	1
Methyl Isobutyl Ketone	2	20	ND	U	1
Methyl Butyl Ketone	2	20	ND	U	1
1,2-Dibromoethane	2	5.0	ND	U	1
Tetrachloroethylene	2	5.0	ND	U	1
Chlorobenzene	2	5.0	ND	U	1
Ethylbenzene	2	5.0	ND	U	1
Bromoform	2	5.0	ND	U	1

COMMENTS: Please see attached lab footnote report for any applicable footnotes.

Analytical Method : mod. OSHA PV2120/mod. EPA
Collection Media : Mini Can

Submitted by: BHB
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Report ID : 813809

Account No.: 13913
Login No. : L308381

Client ID : CASND010214MC013 **Lab ID : L308381-2**
Date Sampled : 01/02/14 **Date Analyzed : 01/06/14**

Parameter	MDL ppbv	LOQ ppbv	Result ppbv	Qualifier	Dilution Factor
m & p-xylene	3	10	ND	U	1
Styrene	2	5.0	ND	U	1
o-Xylene	2	5.0	ND	U	1
1,1,2,2-Tetrachloroethane	2	5.0	ND	U	1
4-Ethyltoluene	2	5.0	ND	U	1
1,3,5-Trimethylbenzene	2	5.0	ND	U	1
1,2,4-Trimethylbenzene	2	5.0	ND	U	1
1,3-Dichlorobenzene	2	5.0	ND	U	1
Benzyl Chloride	2	5.0	ND	U	1
1,4-Dichlorobenzene	2	5.0	ND	U	1
1,2-Dichlorobenzene	2	5.0	ND	U	1

COMMENTS: Please see attached lab footnote report for any applicable footnotes.

Analytical Method : mod. OSHA PV2120/mod. EPA
Collection Media : Mini Can

Submitted by: BHB
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Date Sampled : 02-JAN-14
Date Received : 04-JAN-14
Date Analyzed : 06-JAN-14
Report ID : 813809

Account No.: 13913
Login No. : L308381

Client ID : CASND010214MC014 **Lab ID : L308381-3**
Date Sampled : 01/02/14 **Date Analyzed : 01/06/14**

Parameter	MDL ppbv	LOQ ppbv	Result ppbv	Qualifier	Dilution Factor
Propylene	2	5.0	ND	U	1
Freon-12	2	5.0	ND	U	1
Chloromethane	2	5.0	ND	U	1
Freon-114	2	5.0	ND	U	1
Vinyl Chloride	2	5.0	ND	U	1
1,3-Butadiene	2	5.0	ND	U	1
Bromomethane	2	5.0	ND	U	1
Chloroethane	2	5.0	ND	U	1
Vinyl Bromide	2	5.0	ND	U	1
Freon-11	2	5.0	ND	U	1
Isopropyl Alcohol	25	25	ND	U	1
Acetone	25	25	ND	U	1
1,1-Dichloroethene	2	5.0	ND	U	1
Methylene Chloride	2	5.0	ND	U	1
Freon-113	2	5.0	ND	U	1
Allyl Chloride	2	5.0	ND	U	1
Carbon Disulfide	2	10	ND	U	1
Trans-1,2-Dichloroethene	2	5.0	ND	U	1
Methyl Tert-Butyl Ether	2	5.0	ND	U	1
1,1-Dichloroethane	2	5.0	ND	U	1
Vinyl Acetate	2	5.0	ND	U	1
Methyl Ethyl Ketone	2	5.0	ND	U	1
cis-1,2-Dichloroethylene	2	5.0	ND	U	1
Hexane	2	5.0	ND	U	1
Ethyl Acetate	2	5.0	ND	U	1

COMMENTS: Please see attached lab footnote report for any applicable footnotes.

Analytical Method : mod. OSHA PV2120/mod. EPA
Collection Media : Mini Can

Submitted by: BHB
Approved by : nkp
Date : 07-JAN-14 NYS DOH # : 11626
QC by : Tony D'Amico

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Report ID : 813809

Account No.: 13913
Login No. : L308381

Client ID : CASND010214MC014 **Lab ID : L308381-3**
Date Sampled : 01/02/14 **Date Analyzed : 01/06/14**

Parameter	MDL ppbv	LOQ ppbv	Result ppbv	Qualifier	Dilution Factor
Chloroform	2	5.0	ND	U	1
Tetrahydrofuran	2	5.0	ND	U	1
1,2-Dichloroethane	2	5.0	ND	U	1
1,1,1-Trichloroethane	2	5.0	ND	U	1
Cyclohexane	2	5.0	ND	U	1
Carbon Tetrachloride	2	5.0	ND	U	1
Benzene	2	5.0	ND	U	1
1,4-Dioxane	2	20	ND	U	1
2,2,4-Trimethylpentane	2	5.0	ND	U	1
Heptane	2	5.0	ND	U	1
1,2-Dichloropropane	2	5.0	ND	U	1
Trichloroethylene	2	5.0	ND	U	1
Bromodichloromethane	2	5.0	ND	U	1
cis-1,3-Dichloropropene	2	5.0	ND	U	1
trans-1,3-Dichloropropene	2	5.0	ND	U	1
1,1,2-Trichloroethane	2	5.0	ND	U	1
Toluene	2	5.0	ND	U	1
Dibromochloromethane	2	5.0	ND	U	1
Methyl Isobutyl Ketone	2	20	ND	U	1
Methyl Butyl Ketone	2	20	ND	U	1
1,2-Dibromoethane	2	5.0	ND	U	1
Tetrachloroethylene	2	5.0	ND	U	1
Chlorobenzene	2	5.0	ND	U	1
Ethylbenzene	2	5.0	ND	U	1
Bromoform	2	5.0	ND	U	1

COMMENTS: Please see attached lab footnote report for any applicable footnotes.

Analytical Method : mod. OSHA PV2120/mod. EPA
Collection Media : Mini Can

Submitted by: BHB
Approved by : nkp
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Account No.: 13913
Login No. : L308381

Client ID : CASND010214MC014 **Lab ID : L308381-3**
Date Sampled : 01/02/14 **Date Analyzed : 01/06/14**

Parameter	MDL ppbv	LOQ ppbv	Result ppbv	Qualifier	Dilution Factor
m & p-xylene	3	10	ND	U	1
Styrene	2	5.0	ND	U	1
o-Xylene	2	5.0	ND	U	1
1,1,2,2-Tetrachloroethane	2	5.0	ND	U	1
4-Ethyltoluene	2	5.0	ND	U	1
1,3,5-Trimethylbenzene	2	5.0	ND	U	1
1,2,4-Trimethylbenzene	2	5.0	ND	U	1
1,3-Dichlorobenzene	2	5.0	ND	U	1
Benzyl Chloride	2	5.0	ND	U	1
1,4-Dichlorobenzene	2	5.0	ND	U	1
1,2-Dichlorobenzene	2	5.0	ND	U	1

COMMENTS: Please see attached lab footnote report for any applicable footnotes.

Analytical Method : mod. OSHA PV2120/mod. EPA
Collection Media : Mini Can

Submitted by: BHB
Approved by : nkp
Date : 07-JAN-14 NYS DOH # : 11626
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Date Analyzed : 06-JAN-14
Report ID : 813809

Account No.: 13913
Login No. : L308381

Client ID : CASND010214MC015 **Lab ID : L308381-4**
Date Sampled : 01/02/14 **Date Analyzed : 01/06/14**

Parameter	MDL ppbv	LOQ ppbv	Result ppbv	Qualifier	Dilution Factor
Propylene	2	5.0	ND	U	1
Freon-12	2	5.0	ND	U	1
Chloromethane	2	5.0	ND	U	1
Freon-114	2	5.0	ND	U	1
Vinyl Chloride	2	5.0	ND	U	1
1,3-Butadiene	2	5.0	ND	U	1
Bromomethane	2	5.0	ND	U	1
Chloroethane	2	5.0	ND	U	1
Vinyl Bromide	2	5.0	ND	U	1
Freon-11	2	5.0	ND	U	1
Isopropyl Alcohol	25	25	ND	U	1
Acetone	25	25	ND	U	1
1,1-Dichloroethene	2	5.0	ND	U	1
Methylene Chloride	2	5.0	ND	U	1
Freon-113	2	5.0	ND	U	1
Allyl Chloride	2	5.0	ND	U	1
Carbon Disulfide	2	10	ND	U	1
Trans-1,2-Dichloroethene	2	5.0	ND	U	1
Methyl Tert-Butyl Ether	2	5.0	ND	U	1
1,1-Dichloroethane	2	5.0	ND	U	1
Vinyl Acetate	2	5.0	ND	U	1
Methyl Ethyl Ketone	2	5.0	ND	U	1
cis-1,2-Dichloroethylene	2	5.0	ND	U	1
Hexane	2	5.0	ND	U	1
Ethyl Acetate	2	5.0	ND	U	1

COMMENTS: Please see attached lab footnote report for any applicable footnotes.

Analytical Method : mod. OSHA PV2120/mod. EPA
Collection Media : Mini Can

Submitted by: BHB
Approved by : nkp
Date : 07-JAN-14 NYS DOH # : 11626
QC by : Tony D'Amico

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LABORATORY ANALYSIS REPORT

Client : Center for Toxicology & Env. Health LLC
Site : NS
Project No. : 105820

Date Sampled : 02-JAN-14
Date Received : 04-JAN-14
Date Analyzed : 06-JAN-14
Report ID : 813809

Account No.: 13913
Login No. : L308381

Client ID : CASND010214MC015 **Lab ID : L308381-4**
Date Sampled : 01/02/14 **Date Analyzed : 01/06/14**

Parameter	MDL ppbv	LOQ ppbv	Result ppbv	Qualifier	Dilution Factor
Chloroform	2	5.0	ND	U	1
Tetrahydrofuran	2	5.0	ND	U	1
1,2-Dichloroethane	2	5.0	ND	U	1
1,1,1-Trichloroethane	2	5.0	ND	U	1
Cyclohexane	2	5.0	ND	U	1
Carbon Tetrachloride	2	5.0	ND	U	1
Benzene	2	5.0	ND	U	1
1,4-Dioxane	2	20	ND	U	1
2,2,4-Trimethylpentane	2	5.0	ND	U	1
Heptane	2	5.0	ND	U	1
1,2-Dichloropropane	2	5.0	ND	U	1
Trichloroethylene	2	5.0	ND	U	1
Bromodichloromethane	2	5.0	ND	U	1
cis-1,3-Dichloropropene	2	5.0	ND	U	1
trans-1,3-Dichloropropene	2	5.0	ND	U	1
1,1,2-Trichloroethane	2	5.0	ND	U	1
Toluene	2	5.0	ND	U	1
Dibromochloromethane	2	5.0	ND	U	1
Methyl Isobutyl Ketone	2	20	ND	U	1
Methyl Butyl Ketone	2	20	ND	U	1
1,2-Dibromoethane	2	5.0	ND	U	1
Tetrachloroethylene	2	5.0	ND	U	1
Chlorobenzene	2	5.0	ND	U	1
Ethylbenzene	2	5.0	ND	U	1
Bromoform	2	5.0	ND	U	1

COMMENTS: Please see attached lab footnote report for any applicable footnotes.

Analytical Method : mod. OSHA PV2120/mod. EPA
Collection Media : Mini Can

Submitted by: BHB
Approved by : nkp
Date : 07-JAN-14 NYS DOH # : 11626
QC by : Tony D'Amico

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Client : Center for Toxicology & Env. Health LLC
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Project No. : 105820

Date Sampled : 02-JAN-14
Date Received : 04-JAN-14
Date Analyzed : 06-JAN-14
Report ID : 813809

Account No.: 13913
Login No. : L308381

Client ID : CASND010214MC015 **Lab ID : L308381-4**
Date Sampled : 01/02/14 **Date Analyzed : 01/06/14**

Parameter	MDL ppbv	LOQ ppbv	Result ppbv	Qualifier	Dilution Factor
m & p-xylene	3	10	ND	U	1
Styrene	2	5.0	ND	U	1
o-Xylene	2	5.0	ND	U	1
1,1,2,2-Tetrachloroethane	2	5.0	ND	U	1
4-Ethyltoluene	2	5.0	ND	U	1
1,3,5-Trimethylbenzene	2	5.0	ND	U	1
1,2,4-Trimethylbenzene	2	5.0	ND	U	1
1,3-Dichlorobenzene	2	5.0	ND	U	1
Benzyl Chloride	2	5.0	ND	U	1
1,4-Dichlorobenzene	2	5.0	ND	U	1
1,2-Dichlorobenzene	2	5.0	ND	U	1

COMMENTS: Please see attached lab footnote report for any applicable footnotes.

Analytical Method : mod. OSHA PV2120/mod. EPA
Collection Media : Mini Can

Submitted by: BHB
Approved by : nkp
Date : 07-JAN-14 NYS DOH # : 11626
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LABORATORY ANALYSIS REPORT

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Project No. : 105820

Date Sampled : 02-JAN-14
Date Received : 04-JAN-14
Date Analyzed : 06-JAN-14
Report ID : 813809

Account No.: 13913
Login No. : L308381

Client ID : CASND010214MC016 **Lab ID : L308381-5**
Date Sampled : 01/02/14 **Date Analyzed : 01/06/14**

Parameter	MDL ppbv	LOQ ppbv	Result ppbv	Qualifier	Dilution Factor
Propylene	2	5.0	ND	U	1
Freon-12	2	5.0	ND	U	1
Chloromethane	2	5.0	ND	U	1
Freon-114	2	5.0	ND	U	1
Vinyl Chloride	2	5.0	ND	U	1
1,3-Butadiene	2	5.0	ND	U	1
Bromomethane	2	5.0	ND	U	1
Chloroethane	2	5.0	ND	U	1
Vinyl Bromide	2	5.0	ND	U	1
Freon-11	2	5.0	ND	U	1
Isopropyl Alcohol	25	25	ND	U	1
Acetone	25	25	ND	U	1
1,1-Dichloroethene	2	5.0	ND	U	1
Methylene Chloride	2	5.0	ND	U	1
Freon-113	2	5.0	ND	U	1
Allyl Chloride	2	5.0	ND	U	1
Carbon Disulfide	2	10	ND	U	1
Trans-1,2-Dichloroethene	2	5.0	ND	U	1
Methyl Tert-Butyl Ether	2	5.0	ND	U	1
1,1-Dichloroethane	2	5.0	ND	U	1
Vinyl Acetate	2	5.0	ND	U	1
Methyl Ethyl Ketone	2	5.0	ND	U	1
cis-1,2-Dichloroethylene	2	5.0	ND	U	1
Hexane	2	5.0	ND	U	1
Ethyl Acetate	2	5.0	ND	U	1

COMMENTS: Please see attached lab footnote report for any applicable footnotes.

Analytical Method : mod. OSHA PV2120/mod. EPA
Collection Media : Mini Can

Submitted by: BHB
Approved by : nkp
Date : 07-JAN-14 NYS DOH # : 11626
QC by : Tony D'Amico

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Date Sampled : 02-JAN-14
Date Received : 04-JAN-14
Date Analyzed : 06-JAN-14
Report ID : 813809

Account No.: 13913
Login No. : L308381

Client ID : CASND010214MC016 **Lab ID : L308381-5**
Date Sampled : 01/02/14 **Date Analyzed : 01/06/14**

Parameter	MDL ppbv	LOQ ppbv	Result ppbv	Qualifier	Dilution Factor
Chloroform	2	5.0	ND	U	1
Tetrahydrofuran	2	5.0	ND	U	1
1,2-Dichloroethane	2	5.0	ND	U	1
1,1,1-Trichloroethane	2	5.0	ND	U	1
Cyclohexane	2	5.0	ND	U	1
Carbon Tetrachloride	2	5.0	ND	U	1
Benzene	2	5.0	ND	U	1
1,4-Dioxane	2	20	ND	U	1
2,2,4-Trimethylpentane	2	5.0	ND	U	1
Heptane	2	5.0	ND	U	1
1,2-Dichloropropane	2	5.0	ND	U	1
Trichloroethylene	2	5.0	ND	U	1
Bromodichloromethane	2	5.0	ND	U	1
cis-1,3-Dichloropropene	2	5.0	ND	U	1
trans-1,3-Dichloropropene	2	5.0	ND	U	1
1,1,2-Trichloroethane	2	5.0	ND	U	1
Toluene	2	5.0	ND	U	1
Dibromochloromethane	2	5.0	ND	U	1
Methyl Isobutyl Ketone	2	20	ND	U	1
Methyl Butyl Ketone	2	20	ND	U	1
1,2-Dibromoethane	2	5.0	ND	U	1
Tetrachloroethylene	2	5.0	ND	U	1
Chlorobenzene	2	5.0	ND	U	1
Ethylbenzene	2	5.0	ND	U	1
Bromoform	2	5.0	ND	U	1

COMMENTS: Please see attached lab footnote report for any applicable footnotes.

Analytical Method : mod. OSHA PV2120/mod. EPA
Collection Media : Mini Can

Submitted by: BHB
Approved by : nkp
Date : 07-JAN-14 NYS DOH # : 11626
QC by : Tony D'Amico

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Date Sampled : 02-JAN-14
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Date Analyzed : 06-JAN-14
Report ID : 813809

Account No.: 13913
Login No. : L308381

Client ID : CASND010214MC016 **Lab ID : L308381-5**
Date Sampled : 01/02/14 **Date Analyzed : 01/06/14**

Parameter	MDL ppbv	LOQ ppbv	Result ppbv	Qualifier	Dilution Factor
m & p-xylene	3	10	ND	U	1
Styrene	2	5.0	ND	U	1
o-Xylene	2	5.0	ND	U	1
1,1,2,2-Tetrachloroethane	2	5.0	ND	U	1
4-Ethyltoluene	2	5.0	ND	U	1
1,3,5-Trimethylbenzene	2	5.0	ND	U	1
1,2,4-Trimethylbenzene	2	5.0	ND	U	1
1,3-Dichlorobenzene	2	5.0	ND	U	1
Benzyl Chloride	2	5.0	ND	U	1
1,4-Dichlorobenzene	2	5.0	ND	U	1
1,2-Dichlorobenzene	2	5.0	ND	U	1

COMMENTS: Please see attached lab footnote report for any applicable footnotes.

Analytical Method : mod. OSHA PV2120/mod. EPA
Collection Media : Mini Can

Submitted by: BHB
Approved by : nkp
Date : 07-JAN-14 NYS DOH # : 11626
QC by : Tony D'Amico

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Date Sampled : 02-JAN-14
Date Received : 04-JAN-14
Date Analyzed : 06-JAN-14
Report ID : 813809

Account No.: 13913
Login No. : L308381

Client ID : CASND010214MC017 **Lab ID : L308381-6**
Date Sampled : 01/02/14 **Date Analyzed : 01/06/14**

Parameter	MDL ppbv	LOQ ppbv	Result ppbv	Qualifier	Dilution Factor
Propylene	2	5.0	ND	U	1
Freon-12	2	5.0	ND	U	1
Chloromethane	2	5.0	ND	U	1
Freon-114	2	5.0	ND	U	1
Vinyl Chloride	2	5.0	ND	U	1
1,3-Butadiene	2	5.0	ND	U	1
Bromomethane	2	5.0	ND	U	1
Chloroethane	2	5.0	ND	U	1
Vinyl Bromide	2	5.0	ND	U	1
Freon-11	2	5.0	ND	U	1
Isopropyl Alcohol	25	25	ND	U	1
Acetone	25	25	ND	U	1
1,1-Dichloroethene	2	5.0	ND	U	1
Methylene Chloride	2	5.0	ND	U	1
Freon-113	2	5.0	ND	U	1
Allyl Chloride	2	5.0	ND	U	1
Carbon Disulfide	2	10	ND	U	1
Trans-1,2-Dichloroethene	2	5.0	ND	U	1
Methyl Tert-Butyl Ether	2	5.0	ND	U	1
1,1-Dichloroethane	2	5.0	ND	U	1
Vinyl Acetate	2	5.0	ND	U	1
Methyl Ethyl Ketone	2	5.0	ND	U	1
cis-1,2-Dichloroethylene	2	5.0	ND	U	1
Hexane	2	5.0	ND	U	1
Ethyl Acetate	2	5.0	ND	U	1

COMMENTS: Please see attached lab footnote report for any applicable footnotes.

Analytical Method : mod. OSHA PV2120/mod. EPA
Collection Media : Mini Can

Submitted by: BHB
Approved by : nkp
Date : 07-JAN-14 NYS DOH # : 11626
QC by : Tony D'Amico

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Date Sampled : 02-JAN-14
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Date Analyzed : 06-JAN-14
Report ID : 813809

Account No.: 13913
Login No. : L308381

Client ID : CASND010214MC017 **Lab ID : L308381-6**
Date Sampled : 01/02/14 **Date Analyzed : 01/06/14**

Parameter	MDL ppbv	LOQ ppbv	Result ppbv	Qualifier	Dilution Factor
Chloroform	2	5.0	ND	U	1
Tetrahydrofuran	2	5.0	ND	U	1
1,2-Dichloroethane	2	5.0	ND	U	1
1,1,1-Trichloroethane	2	5.0	ND	U	1
Cyclohexane	2	5.0	ND	U	1
Carbon Tetrachloride	2	5.0	ND	U	1
Benzene	2	5.0	ND	U	1
1,4-Dioxane	2	20	ND	U	1
2,2,4-Trimethylpentane	2	5.0	ND	U	1
Heptane	2	5.0	ND	U	1
1,2-Dichloropropane	2	5.0	ND	U	1
Trichloroethylene	2	5.0	ND	U	1
Bromodichloromethane	2	5.0	ND	U	1
cis-1,3-Dichloropropene	2	5.0	ND	U	1
trans-1,3-Dichloropropene	2	5.0	ND	U	1
1,1,2-Trichloroethane	2	5.0	ND	U	1
Toluene	2	5.0	ND	U	1
Dibromochloromethane	2	5.0	ND	U	1
Methyl Isobutyl Ketone	2	20	ND	U	1
Methyl Butyl Ketone	2	20	ND	U	1
1,2-Dibromoethane	2	5.0	ND	U	1
Tetrachloroethylene	2	5.0	ND	U	1
Chlorobenzene	2	5.0	ND	U	1
Ethylbenzene	2	5.0	ND	U	1
Bromoform	2	5.0	ND	U	1

COMMENTS: Please see attached lab footnote report for any applicable footnotes.

Analytical Method : mod. OSHA PV2120/mod. EPA
Collection Media : Mini Can

Submitted by: BHB
Approved by : nkp
Date : 07-JAN-14 NYS DOH # : 11626
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Account No.: 13913
Login No. : L308381

Client ID : CASND010214MC017 **Lab ID : L308381-6**
Date Sampled : 01/02/14 **Date Analyzed : 01/06/14**

Parameter	MDL ppbv	LOQ ppbv	Result ppbv	Qualifier	Dilution Factor
m & p-xylene	3	10	ND	U	1
Styrene	2	5.0	ND	U	1
o-Xylene	2	5.0	ND	U	1
1,1,2,2-Tetrachloroethane	2	5.0	ND	U	1
4-Ethyltoluene	2	5.0	ND	U	1
1,3,5-Trimethylbenzene	2	5.0	ND	U	1
1,2,4-Trimethylbenzene	2	5.0	ND	U	1
1,3-Dichlorobenzene	2	5.0	ND	U	1
Benzyl Chloride	2	5.0	ND	U	1
1,4-Dichlorobenzene	2	5.0	ND	U	1
1,2-Dichlorobenzene	2	5.0	ND	U	1

COMMENTS: Please see attached lab footnote report for any applicable footnotes.

Analytical Method : mod. OSHA PV2120/mod. EPA
Collection Media : Mini Can

Submitted by: BHB
Approved by : nkp
Date : 07-JAN-14 NYS DOH # : 11626
QC by : Tony D'Amico

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Date Sampled : 02-JAN-14
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Date Analyzed : 06-JAN-14
Report ID : 813810

Account No.: 13913
Login No. : L308381

Client ID : CASND010214MC012 **Lab ID : L308381-1**

Tentatively Identified Compounds	CAS Number	Retention Time	Estimated Concentration ppbv	mg/m3	Qual
No Volatiles Found			0	0	

Analytical Method : mod. OSHA PV2120/mod. EPA
Collection Media : Mini Can

Submitted by: BHB
Approved by : nkp
Date : 07-JAN-14 NYS DOH # : 11626
QC by: Tony D'Amico

< -Less Than mg -Milligrams m3 -Cubic Meters kg -Kilograms
> -Greater Than ug -Micrograms l -Liters LOQ -Limit of Quantitation
NA -Not Applicable ND -Not Detected NS -Not Specified ppbv-Parts per Billion Volume

Field sampling was not performed by Galson. Galson presents results based on sampling data provided by clients.

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Client : Center for Toxicology & Env. Health LLC
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Project No. : 105820

Date Sampled : 02-JAN-14
Date Received : 04-JAN-14
Date Analyzed : 06-JAN-14
Report ID : 813810

Account No.: 13913
Login No. : L308381

Client ID : CASND010214MC013 **Lab ID : L308381-2**

Tentatively Identified Compounds	CAS Number	Retention Time	Estimated Concentration ppbv	mg/m3	Qual
No Volatiles Found			0	0	

Analytical Method : mod. OSHA PV2120/mod. EPA
Collection Media : Mini Can

Submitted by: BHB
Approved by : nkp
Date : 07-JAN-14 NYS DOH # : 11626
QC by: Tony D'Amico

< -Less Than mg -Milligrams m3 -Cubic Meters kg -Kilograms
> -Greater Than ug -Micrograms l -Liters LOQ -Limit of Quantitation
NA -Not Applicable ND -Not Detected NS -Not Specified ppbv-Parts per Billion Volume

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Project No. : 105820

Date Sampled : 02-JAN-14
Date Received : 04-JAN-14
Date Analyzed : 06-JAN-14
Report ID : 813810

Account No.: 13913
Login No. : L308381

Client ID : CASND010214MC014 **Lab ID : L308381-3**

Tentatively Identified Compounds	CAS Number	Retention Time	Estimated Concentration ppbv	mg/m3	Qual
No Volatiles Found			0	0	

Analytical Method : mod. OSHA PV2120/mod. EPA
Collection Media : Mini Can

Submitted by: BHB
Approved by : nkp
Date : 07-JAN-14 NYS DOH # : 11626
QC by: Tony D'Amico

< -Less Than mg -Milligrams m3 -Cubic Meters kg -Kilograms
> -Greater Than ug -Micrograms l -Liters LOQ -Limit of Quantitation
NA -Not Applicable ND -Not Detected NS -Not Specified ppbv-Parts per Billion Volume

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LABORATORY ANALYSIS REPORT

Client : Center for Toxicology & Env. Health LLC
Site : NS
Project No. : 105820

Date Sampled : 02-JAN-14
Date Received : 04-JAN-14
Date Analyzed : 06-JAN-14
Report ID : 813810

Account No.: 13913
Login No. : L308381

Client ID : CASND010214MC015 **Lab ID : L308381-4**

Tentatively Identified Compounds	CAS Number	Retention Time	Estimated Concentration ppbv	mg/m3	Qual
No Volatiles Found			0	0	

Analytical Method : mod. OSHA PV2120/mod. EPA
Collection Media : Mini Can

Submitted by: BHB
Approved by : nkp
Date : 07-JAN-14 NYS DOH # : 11626
QC by: Tony D'Amico

< -Less Than mg -Milligrams m3 -Cubic Meters kg -Kilograms
> -Greater Than ug -Micrograms l -Liters LOQ -Limit of Quantitation
NA -Not Applicable ND -Not Detected NS -Not Specified ppbv-Parts per Billion Volume

Field sampling was not performed by Galson. Galson presents results based on sampling data provided by clients.

LABORATORY ANALYSIS REPORT

6601 Kirkville Road
East Syracuse, NY 13057
(315) 432-5227
FAX: (315) 437-0571
www.galsonlabs.com

Client : Center for Toxicology & Env. Health LLC
Site : NS
Project No. : 105820

Date Sampled : 02-JAN-14
Date Received : 04-JAN-14
Date Analyzed : 06-JAN-14
Report ID : 813810

Account No.: 13913
Login No. : L308381

Client ID : CASND010214MC016 **Lab ID : L308381-5**

Tentatively Identified Compounds	CAS Number	Retention Time	Estimated Concentration ppbv	mg/m3	Qual
No Volatiles Found			0	0	

Analytical Method : mod. OSHA PV2120/mod. EPA
Collection Media : Mini Can

Submitted by: BHB
Approved by : nkp
Date : 07-JAN-14 NYS DOH # : 11626
QC by: Tony D'Amico

< -Less Than mg -Milligrams m3 -Cubic Meters kg -Kilograms
> -Greater Than ug -Micrograms l -Liters LOQ -Limit of Quantitation
NA -Not Applicable ND -Not Detected NS -Not Specified ppbv-Parts per Billion Volume

Field sampling was not performed by Galson. Galson presents results based on sampling data provided by clients.

LABORATORY ANALYSIS REPORT

6601 Kirkville Road
East Syracuse, NY 13057
(315) 432-5227
FAX: (315) 437-0571
www.galsonlabs.com

Client : Center for Toxicology & Env. Health LLC
Site : NS
Project No. : 105820

Date Sampled : 02-JAN-14
Date Received : 04-JAN-14
Date Analyzed : 06-JAN-14
Report ID : 813810

Account No.: 13913
Login No. : L308381

Client ID : CASND010214MC017 **Lab ID : L308381-6**

Tentatively Identified Compounds	CAS Number	Retention Time	Estimated Concentration ppbv	mg/m3	Qual
No Volatiles Found			0	0	

Analytical Method : mod. OSHA PV2120/mod. EPA
Collection Media : Mini Can

Submitted by: BHB
Approved by : nkp
Date : 07-JAN-14 NYS DOH # : 11626
QC by: Tony D'Amico

< -Less Than mg -Milligrams m3 -Cubic Meters kg -Kilograms
> -Greater Than ug -Micrograms l -Liters LOQ -Limit of Quantitation
NA -Not Applicable ND -Not Detected NS -Not Specified ppbv-Parts per Billion Volume

Field sampling was not performed by Galson. Galson presents results based on sampling data provided by clients.

GALSON LABORATORIES

6601 Kirkville Road
East Syracuse, NY 13057
(315) 432-5227
FAX: (315) 437-0571
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LABORATORY FOOTNOTE REPORT

Client Name : Center for Toxicology & Env. Health LLC
Site :
Project No. : 105820

Date Sampled : 02-JAN-14 Account No.: 13913
Date Received: 04-JAN-14 Login No. : L308381
Date Analyzed: 06-JAN-14

Unless otherwise noted below, all quality control results associated with the samples were within established control limits or did not impact reported results.

Unrounded results are carried through the calculations that yield the final result and the final result is rounded to the number of significant figures appropriate to the accuracy of the analytical method. Please note that results appearing in the columns preceeding the final result column may have been rounded in order to fit the report format and therefore, if carried through the calculations, may not yield an identical final result to the one reported.

The stated LOQs for each analyte represent the demonstrated LOQ concentrations prior to correction for desorption efficiency (if applicable).

Unless otherwise noted below, reported results have not been blank corrected for any field blank or method blank.

L308381 (Report ID: 813809):
SOPs: in-vocs(26)
U = undetected, J = estimated

L308381-3 (Report ID: 813809):
The sample canister was received at (or near) ambient pressure, indicating that the sampling event may have ended prematurely. Reported sample results may not be representative of the intended sampling duration.

L308381-4 (Report ID: 813809):
The sample canister was received at (or near) ambient pressure, indicating that the sampling event may have ended prematurely. Reported sample results may not be representative of the intended sampling duration.

L308381-5 (Report ID: 813809):
The sample canister was received at (or near) ambient pressure, indicating that the sampling event may have ended prematurely. Reported sample results may not be representative of the intended sampling duration.

L308381 (Report ID: 813810):
Tentatively Identified Compounds (TICS) are estimated values. TICS are calculated using an average response factor of 1 for all compounds.
SOPs: in-vocs(26)
J = estimated

< -Less Than	mg -Milligrams	m3 -Cubic Meters	kg -Kilograms
> -Greater Than	ug -Micrograms	l -Liters	NS -Not Specified
NA -Not Applicable	ND -Not Detected	ppm -Parts per Million	

GALSON LABORATORIES

GC/MS QA-QC Check Report

Tune File : C:\msdchem\1\DATA\J-2014\01-2014\J010614\J0106402.D
Tune Time : 01/06/14 09:41
Daily Calibration File : C:\msdchem\1\DATA\J-2014\01-2014\J010614\J01
Internal Standard Areas: 387237 1836928 319416

Sample	Client ID	File	Surr%	Acquired on	Internal Standard Responses		
WG272630-5	Continuing Verifier	J0106402	105	01/06/14 09:41	387237	1836928	319416
WG272630-2	Lab Control Spike	J0106403	104	01/06/14 10:23	437171	1983629	349052
WG272630-3	LCS Duplicate	J0106404	104	01/06/14 11:05	429445	2047339	346685
WG272630-4	DLS	J0106406	100	01/06/14 12:27	390257	1823768	312944
WG272630-1	Method Blank	J0106407	92	01/06/14 13:09	361918	1715483	288893
WG272630-6	Continuing Verifier	J0106410	100	01/06/14 16:09	326750	1553928	280731
L308381-1	CASND010214MC012	J0106411	94	01/06/14 16:51	358874	1685288	289812
L308381-2	CASND010214MC013	J0106412	96	01/06/14 17:32	350262	1576553	285783
L308381-3	CASND010214MC014	J0106413	95	01/06/14 18:13	334371	1559099	285827
L308381-4	CASND010214MC015	J0106414	94	01/06/14 18:55	331976	1569060	281567
L308381-5	CASND010214MC016	J0106415	93	01/06/14 19:37	341459	1560411	283043
L308381-6	CASND010214MC017	J0106416	95	01/06/14 20:18	328585	1530848	277264
WG272630-7	Continuing Verifier	J0106417	99	01/06/14 21:00	344698	1585673	305702

* = Value outside limits Surrogate Limits = 80 - 120 Internal Standard Limits = +/- 40%

page 1 of 1

Galson Laboratories
6601 Kirkville Rd. E. Syracuse, NY 13057

ASTD 50ppb STANDARD RECOVERY REPORT

Client : Center for Toxicology & Env. Health LLC
Account No: 13913
Login No. : L308381

Lab Sample ID		WC272630-5			WC272630-6			WC272630-7		
Type		CCV			CCV			CCV		
Spike Lot #		IH404842			IH404842			IH404842		
Instrument		MS J			MS J			MS J		
Analysis Date		Jan 06, 2014 09:41			Jan 06, 2014 16:09			Jan 06, 2014 21:00		
	Limits (%)	True Value (ppbv)	Found (ppbv)	Recovery (%)	True Value (ppbv)	Found (ppbv)	Recovery (%)	True Value (ppbv)	Found (ppbv)	Recovery (%)
1,1,1-Trichloroethane	70.0 to 130.	50.0	49.3	98.5	50.0	54.1	108.	50.0	49.9	99.8
1,1,2,2-Tetrachloroethane	70.0 to 130.	50.0	50.0	99.9	50.0	52.0	104.	50.0	46.5	92.9
1,1,2-Trichloroethane	70.0 to 130.	50.0	49.5	99.0	50.0	53.6	107.	50.0	49.4	98.9
1,1-Dichloroethane	70.0 to 130.	50.0	49.1	98.1	50.0	55.1	110.	50.0	49.5	98.9
1,1-Dichloroethene	70.0 to 130.	50.0	50.9	102.	50.0	54.4	109.	50.0	49.1	98.2
1,2,4-Trimethylbenzene	70.0 to 130.	50.0	49.8	99.6	50.0	51.0	102.	50.0	43.3	86.5
1,2-Dibromoethane	70.0 to 130.	50.0	47.4	94.8	50.0	49.1	98.2	50.0	42.5	84.9
1,2-Dichlorobenzene	70.0 to 130.	50.0	50.1	100.	50.0	50.0	99.9	50.0	42.6	85.3
1,2-Dichloroethane	70.0 to 130.	50.0	49.1	98.2	50.0	53.9	108.	50.0	48.3	96.6
1,2-Dichloropropane	70.0 to 130.	50.0	49.0	97.9	50.0	53.0	106.	50.0	49.3	98.6
1,3,5-Trimethylbenzene	70.0 to 130.	50.0	48.7	97.4	50.0	50.3	101.	50.0	42.7	85.4
1,3-Butadiene	70.0 to 130.	50.0	50.0	100.	50.0	55.2	110.	50.0	51.1	102.
1,3-Dichlorobenzene	70.0 to 130.	50.0	51.1	102.	50.0	51.6	103.	50.0	44.3	88.6
1,4-Dichlorobenzene	70.0 to 130.	50.0	50.3	101.	50.0	51.3	103.	50.0	43.7	87.3
1,4-Dioxane	70.0 to 130.	50.0	55.3	111.	50.0	56.5	113.	50.0	48.1	96.3
2,2,4-Trimethylpentane	70.0 to 130.	50.0	49.7	99.5	50.0	54.6	109.	50.0	50.5	101.
4-Ethyltoluene	70.0 to 130.	50.0	49.5	99.0	50.0	51.2	102.	50.0	44.0	88.0
Acetone	70.0 to 130.	50.0	50.6	101.	50.0	54.6	109.	50.0	47.7	95.4
Allyl Chloride	70.0 to 130.	50.0	51.9	104.	50.0	58.1	116.	50.0	51.9	104.
Benzene	70.0 to 130.	50.0	48.6	97.2	50.0	52.9	106.	50.0	49.1	98.2
Benzyl Chloride	70.0 to 130.	50.0	51.7	103.	50.0	52.4	105.	50.0	43.9	87.8
Bromodichloromethane	70.0 to 130.	50.0	49.4	98.8	50.0	53.7	107.	50.0	50.3	101.
Bromoform	70.0 to 130.	50.0	48.3	96.6	50.0	50.6	101.	50.0	43.3	86.5
Bromomethane	70.0 to 130.	50.0	48.8	97.7	50.0	53.1	106.	50.0	48.2	96.3
Carbon Disulfide	70.0 to 130.	50.0	47.5	95.0	50.0	51.2	102.	50.0	47.5	94.9
Carbon Tetrachloride	70.0 to 130.	50.0	48.9	97.8	50.0	54.2	108.	50.0	49.5	99.1
Chlorobenzene	70.0 to 130.	50.0	47.7	95.4	50.0	49.7	99.5	50.0	43.5	86.9
Chloroethane	70.0 to 130.	50.0	50.9	102.	50.0	56.0	112.	50.0	50.1	100.
Chloroform	70.0 to 130.	50.0	48.4	96.8	50.0	53.8	108.	50.0	48.5	96.9
Chloromethane	70.0 to 130.	50.0	48.1	96.1	50.0	52.9	106.	50.0	47.6	95.3
cis-1,2-Dichloroethylene	70.0 to 130.	50.0	49.0	98.0	50.0	54.8	110.	50.0	48.6	97.3
cis-1,3-Dichloropropene	70.0 to 130.	50.0	48.9	97.8	50.0	53.4	107.	50.0	49.3	98.7
Cyclohexane	70.0 to 130.	50.0	49.3	98.5	50.0	55.5	111.	50.0	50.7	101.
Dibromochloromethane	70.0 to 130.	50.0	46.6	93.1	50.0	48.3	96.7	50.0	41.6	83.3
Ethyl Acetate	70.0 to 130.	50.0	51.2	102.	50.0	54.6	109.	50.0	47.9	95.8
Ethylbenzene	70.0 to 130.	50.0	48.5	97.0	50.0	49.7	99.5	50.0	44.1	88.2
Freon-11	70.0 to 130.	50.0	50.0	100.	50.0	55.7	111.	50.0	50.1	100.
Freon-113	70.0 to 130.	50.0	51.0	102.	50.0	56.9	114.	50.0	51.3	103.

Galson Laboratories
6601 Kirkville Rd. E Syracuse, NY 13057

ASTD 50ppb STANDARD RECOVERY REPORT

Client : Center for Toxicology & Env. Health LLC
Account No: 13913
Login No. : L308381

Freon-114	70.0 to 130.	50.0	49.3	98.6	50.0	53.7	107.	50.0	49.5	98.9
Freon-12	70.0 to 130.	50.0	49.5	98.9	50.0	53.0	106.	50.0	49.1	98.3
Heptane	70.0 to 130.	50.0	49.9	99.9	50.0	55.1	110.	50.0	51.8	104.
Hexane	70.0 to 130.	50.0	49.6	99.2	50.0	56.0	112.	50.0	49.7	99.4
Isopropyl Alcohol	70.0 to 130.	50.0	51.4	103.	50.0	55.4	111.	50.0	46.4	92.9
m & p-xylene	70.0 to 130.	100.	99.1	99.1	100.	98.4	98.4	100.	86.5	86.5
Methyl Butyl Ketone	70.0 to 130.	50.0	48.5	96.9	50.0	50.1	100.	50.0	42.4	84.8
Methyl Ethyl Ketone	70.0 to 130.	50.0	50.7	101.	50.0	54.2	108.	50.0	47.3	94.6
Methyl Isobutyl Ketone	70.0 to 130.	50.0	48.1	96.1	50.0	49.8	99.6	50.0	41.7	83.3
Methyl Tert-Butyl Ether	70.0 to 130.	50.0	50.1	100.	50.0	53.3	107.	50.0	46.8	93.6
Methylene Chloride	70.0 to 130.	50.0	49.9	99.8	50.0	54.9	110.	50.0	49.9	99.9
o-Xylene	70.0 to 130.	50.0	49.4	98.8	50.0	51.8	104.	50.0	46.3	92.5
Propylene	70.0 to 130.	50.0	52.7	105.	50.0	58.1	116.	50.0	52.8	106.
Styrene	70.0 to 130.	50.0	48.2	96.4	50.0	49.3	98.5	50.0	42.9	85.9
Tetrachloroethylene	70.0 to 130.	50.0	45.7	91.4	50.0	46.9	93.8	50.0	40.0	80.0
Tetrahydrofuran	70.0 to 130.	50.0	49.9	99.9	50.0	54.0	108.	50.0	48.1	96.2
Toluene	70.0 to 130.	50.0	47.4	94.8	50.0	49.1	98.1	50.0	42.9	85.7
Trans-1,2-Dichloroethene	70.0 to 130.	50.0	50.5	101.	50.0	56.6	113.	50.0	50.6	101.
trans-1,3-Dichloropropene	70.0 to 130.	50.0	50.5	101.	50.0	54.0	108.	50.0	49.9	99.8
Trichloroethylene	70.0 to 130.	50.0	49.3	98.6	50.0	54.7	109.	50.0	50.8	102.
Vinyl Acetate	70.0 to 130.	50.0	49.7	99.4	50.0	53.6	107.	50.0	47.5	95.1
Vinyl Bromide	70.0 to 130.	50.0	49.3	98.6	50.0	52.9	106.	50.0	46.3	92.7
Vinyl Chloride	70.0 to 130.	50.0	48.0	95.9	50.0	52.6	105.	50.0	47.8	95.6

Galson Laboratories
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ASTD 5ppb STANDARD RECOVERY REPORT

Client : Center for Toxicology & Env. Health LLC
Account No: 13913
Login No. : L308381

Lab Sample ID		WG272630-4								
Type		DLS								
Spike Lot #		IH404882								
Instrument		MS J								
Analysis Date		Jan 06, 2014 12:27								
	Limits (%)	True Value (ppbv)	Found (ppbv)	Recovery (%)	True Value 0	Found 0	Recovery (%)	True Value 0	Found 0	Recovery (%)
1,1,1-Trichloroethane	60.0 to 140.	5.00	4.42	88.4						
1,1,2,2-Tetrachloroethane	60.0 to 140.	5.00	3.99	79.8						
1,1,2-Trichloroethane	60.0 to 140.	5.00	3.90	78.0						
1,1-Dichloroethane	60.0 to 140.	5.00	4.33	86.6						
1,1-Dichloroethene	60.0 to 140.	5.00	4.31	86.2						
1,2,4-Trimethylbenzene	60.0 to 140.	5.00	3.18	63.6						
1,2-Dibromoethane	60.0 to 140.	5.00	3.68	73.6						
1,2-Dichlorobenzene	60.0 to 140.	5.00	3.10	62.0						
1,2-Dichloroethane	60.0 to 140.	5.00	4.08	81.6						
1,2-Dichloropropane	60.0 to 140.	5.00	4.05	81.0						
1,3,5-Trimethylbenzene	60.0 to 140.	5.00	3.21	64.2						
1,3-Butadiene	60.0 to 140.	5.00	4.60	92.0						
1,3-Dichlorobenzene	60.0 to 140.	5.00	3.16	63.2						
1,4-Dichlorobenzene	60.0 to 140.	5.00	3.09	61.8						
1,4-Dioxane	60.0 to 140.	5.00	3.76	75.2						
2,2,4-Trimethylpentane	60.0 to 140.	5.00	4.21	84.2						
4-Ethyltoluene	60.0 to 140.	5.00	3.13	62.6						
Acetone	60.0 to 140.	5.00	4.71	94.2						
Allyl Chloride	60.0 to 140.	5.00	4.61	92.2						
Benzene	60.0 to 140.	5.00	4.15	83.0						
Benzyl Chloride	60.0 to 140.	5.00	3.16	63.2						
Bromodichloromethane	60.0 to 140.	5.00	4.03	80.6						
Bromoform	60.0 to 140.	5.00	3.40	68.0						
Bromomethane	60.0 to 140.	5.00	4.41	88.2						
Carbon Disulfide	60.0 to 140.	5.00	5.28	106.						
Carbon Tetrachloride	60.0 to 140.	5.00	4.42	88.4						
Chlorobenzene	60.0 to 140.	5.00	3.74	74.8						
Chloroethane	60.0 to 140.	5.00	4.59	91.8						
Chloroform	60.0 to 140.	5.00	4.17	83.4						
Chloromethane	60.0 to 140.	5.00	4.42	88.4						
cis-1,2-Dichloroethylene	60.0 to 140.	5.00	4.27	85.4						
cis-1,3-Dichloropropene	60.0 to 140.	5.00	3.92	78.4						
Cyclohexane	60.0 to 140.	5.00	4.64	92.8						
Dibromochloromethane	60.0 to 140.	5.00	3.43	68.6						
Ethyl Acetate	60.0 to 140.	5.00	4.09	81.8						
Ethylbenzene	60.0 to 140.	5.00	3.58	71.6						
Freon-11	60.0 to 140.	5.00	4.49	89.8						
Freon-113	60.0 to 140.	5.00	4.79	95.8						

Galson Laboratories
6601 Kirkville Rd. E. Syracuse, NY 13057

ASTD 5ppb STANDARD RECOVERY REPORT

Client : Center for Toxicology & Env. Health LLC
Account No: 13913
Login No. : L308381

Freon-114	60.0 to 140.	5.00	4.48	89.6
Freon-12	60.0 to 140.	5.00	4.50	90.0
Heptane	60.0 to 140.	5.00	4.12	82.4
Hexane	60.0 to 140.	5.00	4.77	95.4
Isopropyl Alcohol	60.0 to 140.	5.00	4.35	87.0
m & p-xylene	60.0 to 140.	10.0	6.87	68.7
Methyl Butyl Ketone	60.0 to 140.	5.00	3.76	75.2
Methyl Ethyl Ketone	60.0 to 140.	5.00	4.01	80.2
Methyl Isobutyl Ketone	60.0 to 140.	5.00	3.61	72.2
Methyl Tert-Butyl Ether	60.0 to 140.	5.00	3.94	78.8
Methylene Chloride	60.0 to 140.	5.00	5.09	102.
o-Xylene	60.0 to 140.	5.00	3.67	73.4
Propylene	60.0 to 140.	5.00	4.73	94.6
Styrene	60.0 to 140.	5.00	3.14	62.8
Tetrachloroethylene	60.0 to 140.	5.00	3.62	72.4
Tetrahydrofuran	60.0 to 140.	5.00	3.84	76.8
Toluene	60.0 to 140.	5.00	3.78	75.6
Trans-1,2-Dichloroethene	60.0 to 140.	5.00	4.59	91.8
trans-1,3-Dichloropropene	60.0 to 140.	5.00	3.83	76.6
Trichloroethylene	60.0 to 140.	5.00	4.33	86.6
Vinyl Acetate	60.0 to 140.	5.00	4.12	82.4
Vinyl Bromide	60.0 to 140.	5.00	4.40	88.0
Vinyl Chloride	60.0 to 140.	5.00	4.20	84.0

Galson Laboratories
6601 Kirkville Rd. E. Syracuse, NY 13057

LCS/LCS DUPLICATE REPORT

Client : Center for Toxicology & Env. Health LLC
Account No: I3913
Login No. : L308381

Lab Sample ID		WG272630-2			WG272630-3				
Type		LCS			LCSD				
Spike Lot #		IH405582			IH405582				
Instrument		MS J			MS J				
Analysis Date		Jan 06, 2014 10:23			Jan 06, 2014 11:05				
	Limits (%)	True Value (ppbv)	Found (ppbv)	Recovery (%)	True Value (ppbv)	Found (ppbv)	Recovery (%)	RPD	RPD Limits
1,1,1-Trichloroethane	70.0 to 130.	50.0	39.5	79.1	50.0	39.7	79.5	-0.530	-25.0 to 25.0
1,1,2,2-Tetrachloroethane	70.0 to 130.	50.0	36.1	72.2	50.0	39.4	78.8	-8.74	-25.0 to 25.0
1,1,2-Trichloroethane	70.0 to 130.	50.0	41.8	83.7	50.0	42.3	84.6	-1.05	-25.0 to 25.0
1,1-Dichloroethane	70.0 to 130.	50.0	39.8	79.5	50.0	42.0	84.0	-5.46	-25.0 to 25.0
1,1-Dichloroethene	70.0 to 130.	50.0	42.8	85.6	50.0	43.3	86.6	-1.21	-25.0 to 25.0
1,2,4-Trimethylbenzene	70.0 to 130.	50.0	40.9	81.7	50.0	44.9	89.8	-9.47	-25.0 to 25.0
1,2-Dibromoethane	70.0 to 130.	50.0	39.0	77.9	50.0	41.6	83.1	-6.46	-25.0 to 25.0
1,2-Dichlorobenzene	70.0 to 130.	50.0	36.9	73.8	50.0	40.8	81.6	-10.1	-25.0 to 25.0
1,2-Dichloroethane	70.0 to 130.	50.0	39.4	78.7	50.0	42.0	83.9	-6.39	-25.0 to 25.0
1,2-Dichloropropane	70.0 to 130.	50.0	40.6	81.3	50.0	41.0	82.0	-0.882	-25.0 to 25.0
1,3,5-Trimethylbenzene	70.0 to 130.	50.0	40.0	80.0	50.0	44.0	87.9	-9.36	-25.0 to 25.0
1,3-Butadiene	70.0 to 130.	50.0	41.6	83.2	50.0	42.1	84.2	-1.22	-25.0 to 25.0
1,3-Dichlorobenzene	70.0 to 130.	50.0	39.4	78.9	50.0	43.2	86.3	-8.98	-25.0 to 25.0
1,4-Dichlorobenzene	70.0 to 130.	50.0	40.2	80.4	50.0	43.2	86.3	-7.13	-25.0 to 25.0
1,4-Dioxane	70.0 to 130.	50.0	41.7	83.4	50.0	47.2	94.4	-12.4	-25.0 to 25.0
2,2,4-Trimethylpentane	70.0 to 130.	50.0	42.4	84.9	50.0	43.1	86.2	-1.57	-25.0 to 25.0
4-Ethyltoluene	70.0 to 130.	50.0	42.8	85.7	50.0	46.2	92.4	-7.57	-25.0 to 25.0
Acetone	70.0 to 130.	50.0	44.8	89.6	50.0	47.7	95.4	-6.29	-25.0 to 25.0
Allyl Chloride	70.0 to 130.	50.0	41.1	82.2	50.0	42.7	85.3	-3.70	-25.0 to 25.0
Benzene	70.0 to 130.	50.0	41.1	82.2	50.0	41.9	83.8	-1.86	-25.0 to 25.0
Benzyl Chloride	70.0 to 130.	50.0	45.6	91.1	50.0	51.0	102.	-11.3	-25.0 to 25.0
Bromodichloromethane	70.0 to 130.	50.0	42.3	84.6	50.0	42.1	84.2	0.498	-25.0 to 25.0
Bromoform	70.0 to 130.	50.0	41.8	83.6	50.0	44.7	89.4	-6.66	-25.0 to 25.0
Bromomethane	70.0 to 130.	50.0	39.0	77.9	50.0	40.7	81.4	-4.32	-25.0 to 25.0
Carbon Disulfide	70.0 to 130.	50.0	43.8	87.5	50.0	45.1	90.2	-2.95	-25.0 to 25.0
Carbon Tetrachloride	70.0 to 130.	50.0	41.3	82.7	50.0	41.4	82.8	-0.121	-25.0 to 25.0
Chlorobenzene	70.0 to 130.	50.0	39.7	79.4	50.0	42.0	84.1	-5.75	-25.0 to 25.0
Chloroethane	70.0 to 130.	43.5	38.1	87.6	43.5	38.8	89.2	-1.82	-25.0 to 25.0
Chloroform	70.0 to 130.	50.0	38.8	77.6	50.0	41.3	82.5	-6.20	-25.0 to 25.0
Chloromethane	70.0 to 130.	50.0	46.6	93.1	50.0	47.3	94.6	-1.62	-25.0 to 25.0
cis-1,2-Dichloroethylene	70.0 to 130.	50.0	35.4	70.8	50.0	37.6	75.2	-6.06	-25.0 to 25.0
cis-1,3-Dichloropropene	70.0 to 130.	50.0	42.9	85.8	50.0	43.4	86.8	-1.23	-25.0 to 25.0
Cyclohexane	70.0 to 130.	50.0	41.2	82.3	50.0	41.1	82.2	0.146	-25.0 to 25.0
Dibromochloromethane	70.0 to 130.	50.0	39.6	79.3	50.0	42.4	84.8	-6.73	-25.0 to 25.0
Ethyl Acetate	70.0 to 130.	50.0	43.2	86.5	50.0	47.2	94.4	-8.76	-25.0 to 25.0
Ethylbenzene	70.0 to 130.	50.0	39.9	79.9	50.0	42.1	84.2	-5.34	-25.0 to 25.0
Freon-11	70.0 to 130.	50.0	43.6	87.1	50.0	44.3	88.6	-1.68	-25.0 to 25.0
Freon-113	70.0 to 130.	50.0	41.4	82.7	50.0	42.6	85.1	-2.86	-25.0 to 25.0

Galson Laboratories
6601 Kirkville Rd. E. Syracuse, NY 13057

LCS/LCS DUPLICATE REPORT

Client : Center for Toxicology & Env. Health LLC
Account No: 13913
Login No. : L308381

Freon-114	70.0 to 130.	50.0	40.3	80.5	50.0	41.4	82.8	-2.79	-25.0 to 25.0
Freon-12	70.0 to 130.	50.0	43.1	86.1	50.0	43.9	87.7	-1.79	-25.0 to 25.0
Heptane	70.0 to 130.	50.0	41.8	83.6	50.0	42.0	84.1	-0.620	-25.0 to 25.0
Hexane	70.0 to 130.	50.0	39.4	78.8	50.0	41.2	82.4	-4.42	-25.0 to 25.0
Isopropyl Alcohol	70.0 to 130.	50.0	45.9	91.7	50.0	50.3	101.	-9.24	-25.0 to 25.0
m & p-xylene	70.0 to 130.	100.	77.9	77.9	100.	87.5	87.5	-11.6	-25.0 to 25.0
Methyl Butyl Ketone	70.0 to 130.	50.0	44.7	89.4	50.0	49.4	98.8	-10.0	-25.0 to 25.0
Methyl Ethyl Ketone	70.0 to 130.	50.0	44.0	87.9	50.0	48.2	96.3	-9.14	-25.0 to 25.0
Methyl Isobutyl Ketone	70.0 to 130.	50.0	39.6	79.2	50.0	44.1	88.2	-10.8	-25.0 to 25.0
Methyl Tert-Butyl Ether	70.0 to 130.	50.0	40.5	80.9	50.0	44.1	88.2	-8.59	-25.0 to 25.0
Methylene Chloride	70.0 to 130.	50.0	39.5	79.1	50.0	41.3	82.5	-4.26	-25.0 to 25.0
o-Xylene	70.0 to 130.	50.0	40.5	81.0	50.0	43.2	86.3	-6.36	-25.0 to 25.0
Propylene	70.0 to 130.	50.0	48.5	97.0	50.0	49.7	99.3	-2.30	-25.0 to 25.0
Styrene	70.0 to 130.	59.0	48.3	81.9	59.0	51.7	87.7	-6.78	-25.0 to 25.0
Tetrachloroethylene	70.0 to 130.	50.0	38.4	76.8	50.0	40.4	80.9	-5.23	-25.0 to 25.0
Tetrahydrofuran	70.0 to 130.	50.0	42.3	84.5	50.0	45.8	91.6	-8.04	-25.0 to 25.0
Toluene	70.0 to 130.	50.0	40.5	81.1	50.0	42.6	85.2	-5.03	-25.0 to 25.0
Trans-1,2-Dichloroethene	70.0 to 130.	50.0	45.9	91.8	50.0	47.4	94.8	-3.15	-25.0 to 25.0
trans-1,3-Dichloropropene	70.0 to 130.	50.0	45.5	91.0	50.0	46.4	92.8	-1.96	-25.0 to 25.0
Trichloroethylene	70.0 to 130.	50.0	40.8	81.6	50.0	41.1	82.2	-0.733	-25.0 to 25.0
Vinyl Acetate	70.0 to 130.	50.0	42.8	85.5	50.0	45.5	91.0	-6.17	-25.0 to 25.0
Vinyl Bromide	70.0 to 130.	50.0	43.2	86.5	50.0	45.1	90.2	-4.26	-25.0 to 25.0
Vinyl Chloride	70.0 to 130.	50.0	43.0	85.9	50.0	43.9	87.7	-2.03	-25.0 to 25.0

Galson Laboratories
6601 Kirkville Rd. E Syracuse, NY 13057

METHOD BLANK REPORT

Client :Center for Toxicology & Env. Health LLC
Account No:13913
Login No. :L308381

Lab Sample ID			WG272630-1							
Type			BLANK							
Instrument			MS J							
Analysis Date			01/06/14							
Analysis Time			13:09							
	MDL (ppbv)	LOQ (ppbv)	Found (ppbv)	Qual						
1,1,1-Trichloroethane	2	5.0	ND	U						
1,1,2,2-Tetrachloroethane	2	5.0	ND	U						
1,1,2-Trichloroethane	2	5.0	ND	U						
1,1-Dichloroethane	2	5.0	ND	U						
1,1-Dichloroethene	2	5.0	ND	U						
1,2,4-Trimethylbenzene	2	5.0	ND	U						
1,2-Dibromoethane	2	5.0	ND	U						
1,2-Dichlorobenzene	2	5.0	ND	U						
1,2-Dichloroethane	2	5.0	ND	U						
1,2-Dichloropropane	2	5.0	ND	U						
1,3,5-Trimethylbenzene	2	5.0	ND	U						
1,3-Butadiene	2	5.0	ND	U						
1,3-Dichlorobenzene	2	5.0	ND	U						
1,4-Dichlorobenzene	2	5.0	ND	U						
1,4-Dioxane	2	20.	ND	U						
2,2,4-Trimethylpentane	2	5.0	ND	U						
4-Ethyltoluene	2	5.0	ND	U						
Acetone	25	25.	ND	U						
Allyl Chloride	2	5.0	ND	U						
Benzene	2	5.0	ND	U						
Benzyl Chloride	2	5.0	ND	U						
Bromodichloromethane	2	5.0	ND	U						
Bromoform	2	5.0	ND	U						
Bromomethane	2	5.0	ND	U						
Carbon Disulfide	2	10.	ND	U						
Carbon Tetrachloride	2	5.0	ND	U						
Chlorobenzene	2	5.0	ND	U						
Chloroethane	2	5.0	ND	U						
Chloroform	2	5.0	ND	U						
Chloromethane	2	5.0	ND	U						
cis-1,2-Dichloroethylene	2	5.0	ND	U						
cis-1,3-Dichloropropene	2	5.0	ND	U						
Cyclohexane	2	5.0	ND	U						
Dibromochloromethane	2	5.0	ND	U						
Ethyl Acetate	2	5.0	ND	U						
Ethylbenzene	2	5.0	ND	U						
Freon-11	2	5.0	ND	U						
Freon-113	2	5.0	ND	U						

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METHOD BLANK REPORT

Client :Center for Toxicology & Env. Health LLC
Account No:13913
Login No. :L308381

Freon-114	2	5.0	ND	U							
Freon-12	2	5.0	ND	U							
Heptane	2	5.0	ND	U							
Hexane	2	5.0	ND	U							
Isopropyl Alcohol	25	25.	ND	U							
m & p-xylene	3	10.	ND	U							
Methyl Butyl Ketone	2	20.	ND	U							
Methyl Ethyl Ketone	2	5.0	ND	U							
Methyl Isobutyl Ketone	2	20.	ND	U							
Methyl Tert-Butyl Ether	2	5.0	ND	U							
Methylene Chloride	2	5.0	ND	U							
o-Xylene	2	5.0	ND	U							
Propylene	2	5.0	ND	U							
Styrene	2	5.0	ND	U							
Tetrachloroethylene	2	5.0	ND	U							
Tetrahydrofuran	2	5.0	ND	U							
Toluene	2	5.0	ND	U							
Trans-1,2-Dichloroethene	2	5.0	ND	U							
trans-1,3-Dichloropropene	2	5.0	ND	U							
Trichloroethylene	2	5.0	ND	U							
Vinyl Acetate	2	5.0	ND	U							
Vinyl Bromide	2	5.0	ND	U							
Vinyl Chloride	2	5.0	ND	U							

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* Rec'd WA241/WR447 not on coc

118

5120 North Shore Drive
North Little Rock, AR 72118
Phone: (501) 801-8500
Fax: (501) 801-8501
Website: www.cteh.com

Center for Toxicology and Environmental Health L.L.C.
SAMPLE CHAIN OF CUSTODY AND ANALYSIS REQUEST FORM

	Send Report To:	Send Invoice To:
Name	Lourdes Mahoney	Cheryl Alford
Company	CTEH	CTEH
Address	5120 North Shore Drive North Little Rock, AR 72118	5120 North Shore Drive North Little Rock, AR 72118
Phone	[redacted]	[redacted]
Fax		
e-mail		

CTEH Project #: 105820

Turnaround Requested:
___ Same Day ___Next Day (24 hour) ★Normal
___ Other (Specify) _____
Complete Data Packet Requested ★Yes ☐No

Lab Contact Information:
Galson Laboratories
6601 Kirkville Road
E. Syracuse, NY 13057

Client Sample Identification	Other Sample Identification	Sample Size	Units (Check one) X L or ___cm²	Sample Date	Sample Time (for non-air samples)	Initials	EPA TO-15 + TICs	Matrix (A = air, B = bulk, S = soil, SW = wipe, T = tape, W = water)
CASND010214MC012	WC097/RR153	1	L	1/2/14	24hr	ARM	X	A
CASND010214MC013	WC187/RR209	1	L	1/2/14			X	A
CASND010214MC014	WC115/WR728	1	L	1/2/14			X	A
CASND010214MC015 *	WA540/WR588	1	L	1/2/14			X	A
CASND010214MC016	WC062/WR669	1	L	1/2/14			X	A
CASND010214MC017 *	WC192/WR414	1	L	1/2/14			X	A

[redacted] 01.03.14

Rec'd intact & all accounted for? Yes or No
Rec'd w/custody seals intact? Yes or No NA
Rec'd in light sensitive packaging? Yes or No
Rec'd with ice pack? Yes or No
Rec'd temperature compliant? Yes or No

RELINQUISHED BY	DATE/TIME	RECEIVED BY	DATE/TIME	COMMENTS
[redacted]	01.03.14/1608	FedEx	01.03.14/1608	*Began sleeting, coolers had two cms in & thin layer of ice
		Dorothy Dermott [redacted]	1/4/14 1005	