



REMEDIAL ACTION IMPLEMENTATION REPORT

**FORMER ROBINSON'S CLEANERS
1036 4TH STREET
BELOIT, WI 53511
BRRTS# 02-54-515602**

October 31, 2019

Prepared By:

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A handwritten signature in blue ink, appearing to read "Brian Kappen".

Brian Kappen, PG
Project Manager

Andrew D. Horwath, PE
Senior Engineer

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CERTIFICATIONS

I, Andrew Horwath, hereby certify that I am a registered professional engineer in the State of Wisconsin, registered in accordance with the requirements of ch. A-E 4, Wis. Adm. Code; that this document has been prepared in accordance with the Rules of Professional Conduct in ch. A-E 8, Wis. Adm. Code; and that, to the best of my knowledge, all information contained in this document is correct and the document was prepared in compliance with all applicable requirements in chs. NR 700 to 726, Wis. Adm. Code.

Senior Engineer, P.E. No. E-43831-6

Signature, title and P.E. number

P.E. stamp

I, Brian Kappen, hereby certify that I am a hydrogeologist as that term is defined in s. NR 712.03 (1), Wis. Adm. Code, am registered in accordance with the requirements of ch. GHSS 2, Wis. Adm. Code, or licensed in accordance with the requirements of ch. GHSS 3, Wis. Adm. Code, and that, to the best of my knowledge, all of the information contained in this document is correct and the document was prepared in compliance with all applicable requirements in chs. NR 700 to 726, Wis. Adm. Code.



Signature and title

Project Manager

10/31/2019

Date

1.0 INTRODUCTION

EnviroForensics LLC (EnviroForensics) has prepared this Remedial Action Implementation Report (Report) on behalf of RayChris, Inc. formerly d/b/a Robinson's Cleaners (Robinson's) located at 1036 North 4th Street, Beloit, Wisconsin (Site). This report has been prepared in accordance with Wisconsin Administrative Code (WAC) Chapter NR 724 and other associated State of Wisconsin Chapter NR 700 series rules. This Report follows submittal of the *Remedial Action Design Report*, dated September 27, 2017.

The Site encompasses approximately 0.7 acres and contains two slab-on-grade buildings. The main building on the north portion of the property occupies 4,551 square feet and is the location of the former dry cleaner. The second is an outbuilding located on the southern portion of the property occupying 1,500 square feet. The general layout of the Site, including Site features, and the surrounding area, is depicted on **Figure 1**. The Site consists of asphalt parking areas and the two buildings, as well as maintained grass areas and a gravel driveway that extends west to 5th Street.

Several contaminants present in the soil, groundwater, and soil vapor beneath the Site exceed Wisconsin Department of Natural Resources (WDNR) health-based standards and screening levels. The site investigation data indicate that the source of contamination is from undocumented, and likely incidental releases of tetrachloroethene (PCE) which occurred over time in the vicinity of the dry cleaning machine and the back receiving bay door. PCE releases from the sanitary sewer lateral have not been specifically identified; however, sanitary sewer laterals are notoriously leaky and the sewer extends east-west under the length of the Site building through an area of elevated PCE impacts in soil. The PCE migrated vertically through soil beneath the Site building, causing subsurface soil, groundwater and soil gas impacts. A PCE groundwater plume extends off-site approximately 500 feet downgradient to the south.

2.0 SOIL VAPOR EXTRACTION REMEDIATION SYSTEM

Soil vapor extraction (SVE) has been designed and implemented to address contamination in the vadose zone resulting from the PCE release. The primary objective of SVE is to remove contaminant mass from unsaturated soil. SVE may provide the additional benefit of vapor intrusion mitigation at the Site building during operation. The SVE system may also treat shallow groundwater around the Site building as volatilization occurs at the water table.

2.1 Design

The SVE system is designed to extract soil vapor from the vadose zone and consists of five (5) extraction wells, below grade conveyance piping, and SVE mechanical components. The extraction wells were positioned around the perimeter of the building to limit disruption to current business operations inside the Site building while still achieving full vacuum coverage in the contaminated area under the building.

The results of an SVE pilot test performed in 2012 (and detailed in the *Remedial Action Design Report*) indicated an achievable radius of influence (ROI) of 55 feet at a vacuum of 12.5 inches of mercury (inHg). However, water intake was estimated to be approximately 0.5 gallons per minute (GPM). Therefore, the full-scale system is designed with a lower vacuum to minimize groundwater upwelling. The SVE system design parameters are as follows:

- Extraction rate of 375 standard cubic feet per minute (SCFM), or 75 SCFM per extraction well;
- Operating vacuum of 8 inHg; and
- ROI of 35 feet at each extraction well.

2.2 System Construction

The SVE system was constructed between November 2017 and August 2019, and consisted of the following activities:

- Extraction well installation;
- Wellhead and conveyance piping installation;
- Mechanical system connections and programming; and
- Water discharge piping installation.

2.2.1 *Extraction Well Installation*

Five (5) extraction wells were installed on November 27, 2017 using hollow-stem auger drilling methods. The extraction wells are constructed of 4-inch diameter schedule 40 PVC with 0.020-slotted screen from 3 to 6 feet below grade surface (bgs). A filter pack consisting of coarse sand was installed from 3 to 6 feet bgs. Hydrated bentonite chips were installed from 2.5 to 3 feet bgs, and 1.5 feet of bentonite-cement grout was installed above the bentonite chips. The wellheads are protected at the surface with 18-inch diameter flush-mount vaults set in a concrete pad. A typical extraction well construction diagram is shown on **Figure 2**.

2.2.2 *Wellhead and Conveyance Piping Installation*

Conveyance piping was installed to connect the extraction wells to the SVE equipment trailer staged on the west side of the Site building. The conveyance piping installation work was completed from November 30 through December 5, 2017. The conveyance lines consist of 4-inch diameter PVC pipe set in trenches approximately 42 inches below grade. The trenches were backfilled with compacted fill, followed by asphalt or topsoil at the surface to match the surrounding material. The extraction well and conveyance piping layout is depicted on **Figure 3**. Photographs taken during installation are provided in **Appendix A**.

The SVE system is designed to allow various operational configurations. As shown on **Figure 3**, individual conveyance lines extend to each extraction well. Butterfly valves installed at the system manifold allow for each extraction well to be individually disconnected from service. This design allows targeting of specific areas as the remediation progresses to maximize efficiency.

2.2.3 *Waste Management*

Approximately 84.45 tons of soil was excavated during extraction well installation and trenching activities and placed in 20-yard roll-off containers. EnviroForensics collected four (4) composite soil samples from the containers for analysis of total volatile organic compounds (VOCs) according to SW-846 Test Method 8260. The laboratory report associated with the samples is presented in **Appendix B**. The analytical results indicated that all soil could be managed as non-hazardous waste for disposal. Waste manifests and disposal tickets are included as **Appendix C**.

2.2.4 Water Discharge Line Permitting and Installation

During the system design process, EnviroForensics contacted the City of Beloit Wastewater Utility to inquire about discharging SVE system condensate to the sanitary sewer. The City replied with an application form and discharge limits for VOCs and other compounds. Previous groundwater monitoring results indicated that the concentrations of VOCs in the condensate would be well below the limits set by the City. Therefore, discharge to the sanitary sewer was incorporated into the system design.

However, during construction of the conveyance piping, a representative of the wastewater utility visited the Site and stated that discharge to the sanitary sewer would not be allowed regardless of the contaminant concentrations. As a contingency, a 2-inch diameter PVC discharge line was installed in the trench extending from the equipment trailer to SVE-2 for potential future use. Instead of a direct discharge, EnviroForensics installed two (2) 300-gallon tanks to increase water storage capacity. Observations during preliminary testing conducted in October 2018 indicated that the volume of water produced by the system would fill the tanks relatively quickly.

Therefore, EnviroForensics decided to pursue a permit for discharge to surface water. On December 12, 2018, EnviroForensics submitted a Notice of Intent to discharge contaminated groundwater from remedial action operations to the WDNR Bureau of Water Quality. Specifically, approval to discharge SVE system condensate to the storm sewer, and ultimately the Rock River, was requested. Coverage under Wisconsin Pollutant Discharge Elimination System General Permit No. WI-0046566-07-0 was granted in a letter dated January 7, 2019. A copy of the letter is presented in **Appendix D**.

The condensate discharge line consists of a 3-inch diameter buried PVC pipe from the storage tanks located on the north side of the SVE system trailer to a storm sewer catchment on the west edge of 4th Street. The depth of the piping ranges from approximately one foot below grade at the system to three feet below grade at the outlet in the storm sewer catchment. The discharge line was installed by Pertzborn Plumbing and Fire Protection under a permit from the City of Beloit. The path of the discharge piping is shown on **Figure 3**. Discharge monitoring and reporting procedures are discussed in the Operation, Maintenance, and Monitoring Plan (**Appendix E**).

2.3 Mechanical System Components

The SVE mechanical equipment and controls were installed during spring 2018. The equipment is positioned on the west side of the Site building in a trailer-mounted enclosure. A chain-link fence was installed around the trailer for added security. The system includes the following equipment:

- Roots URAI 59 positive displacement blower;
- 20 HP 3-phase motor;
- 110-gallon air-water separator (AWS) tank with float switch assembly;
- Inlet filter;
- Vacuum relief valve;
- Exhaust silencer;
- 1.5 horsepower progressive cavity transfer pump;
- In-line digital turbine flow meter;
- Secondary water containment tanks (600-gallon total capacity) with high level switch;
- Alarm notification system.

Recovered vapors and condensate first go through the AWS tank. After the water and vapor have been separated, the SVE exhaust is discharged to the atmosphere. Water is pumped to storage tanks located outside of the trailer, then draining into the discharge line that leads to the storm sewer. A process and instrumentation diagram is presented on **Figure 4**.

2.4 Operation and Maintenance (O&M)

System startup and balancing occurred during the first two (2) weeks of September 2019. Initially, the SVE system will be operated for a period of one (1) year. After the first year of operation, the need for continued operation will be evaluated based on the rate and efficiency of chlorinated volatile organic compound (CVOC) mass removal.

Routine and periodic O&M of the SVE system will be required. O&M activities will include the following:

- Address system shutdowns or operational issues;

- Record operational parameters and vapor concentrations to evaluate efficiency:
 - Effluent CVOC vapor concentration by sample collection in vacuum canisters;
 - Total system run time;
 - System vacuum;
 - Vacuum applied to each extraction well;
 - Vacuum at monitoring points;
 - Exhaust flow rate;
 - Exhaust temperature; and
 - Condensate discharge volume.
- Inspect, maintain, and/or repair the following components as needed and recommended by the manufacturers:
 - Blower belts and pulleys;
 - Blower motor bearings and oil level;
 - Blower inlet filter;
 - Dilution air filter;
 - System enclosure exhaust fan and heater;
 - AWS float switches;
 - Sediment strainer;
 - Turbine flow meter.

An Operation, Maintenance, and Monitoring Plan is provided as **Appendix E**.

2.5 Performance Monitoring

The effectiveness of the SVE system is evaluated periodically by monitoring the subsurface vacuum influence and air emissions of target CVOCs. These activities are summarized below.

Samples of the SVE system air emissions are collected from a port in the exhaust stack and analyzed for select CVOCs to track mass removal; and to determine operational changes to optimize system performance. Performance monitoring is conducted in accordance with the following emissions testing schedule required under WAC Chapter 419.07:

- Once each day for the first three (3) days of system operation;
- Weekly for the next three (3) weeks; and
- Monthly thereafter.

A commissioning phase was completed to confirm that system emissions are below permitting thresholds. The results of the initial samples collected during the first three (3) days of system operation demonstrate that system emissions are below the following permitting thresholds that apply to SVE systems (WAC Chapters NR 406 and 407, respectively):

- Total VOC limit of 5.7 pounds per hour (lb/hr).
- PCE limits of 9.11 lb/hr and 301 pounds per year (lb/yr).

The laboratory reports associated with system commissioning are included in **Appendix F**.

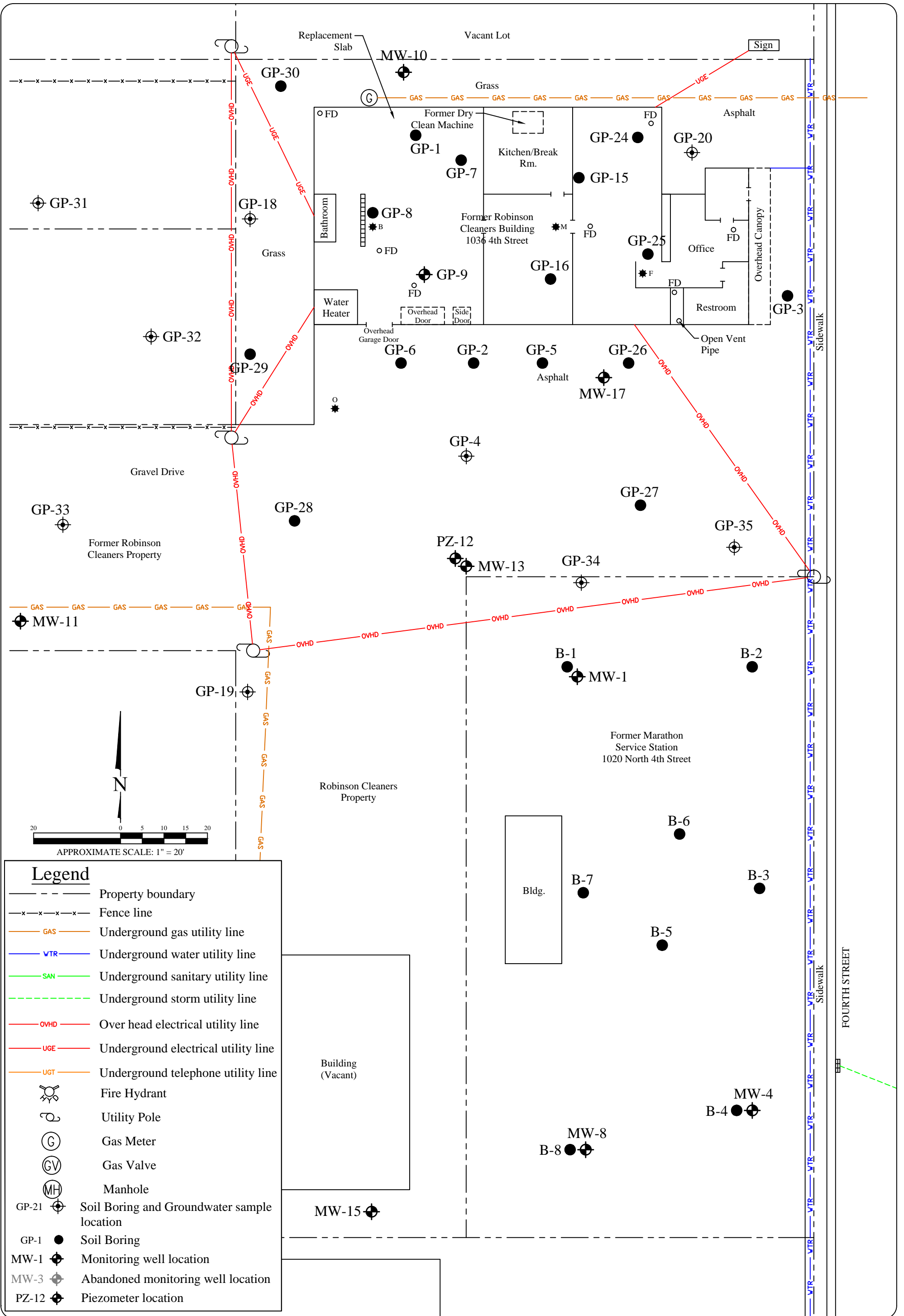
Outdoor air samples were also collected during system startup to confirm that emissions do not affect air quality at adjacent properties or to tenants of the on-Site buildings. The ambient air standards are established in WAC Chapter NR 445. The samples were collected at the west Site boundary (i.e., toward the nearest residential properties), and south of the system in an area where building tenants park vehicles and store supplies. The air samples were collected in 6-liter vacuum canisters over a 24-hour period during the first full day of system operation. The compounds of concern were not detected in the outdoor air samples. The laboratory report is included in **Appendix F**.

Remediation performance, including calculations of mass removal rates and cumulative mass removed, will be reported on Remediation Site Operation, Maintenance, Monitoring & Optimization Reports (Form 4400-194). The reports will be prepared and submitted to WDNR semi-annually as required.

3.0 SUMMARY

The implemented remedial actions are designed to address VOC impacts in unconsolidated soil. Mass removal via SVE is in progress, and the system will be adjusted and operated to maximize efficiency. In addition, the SVE system has interrupted vapor transport mechanisms and has likely improved mitigation of the vapor exposure pathway in the Site building.

FIGURES



No.	Date	Revision	Approved

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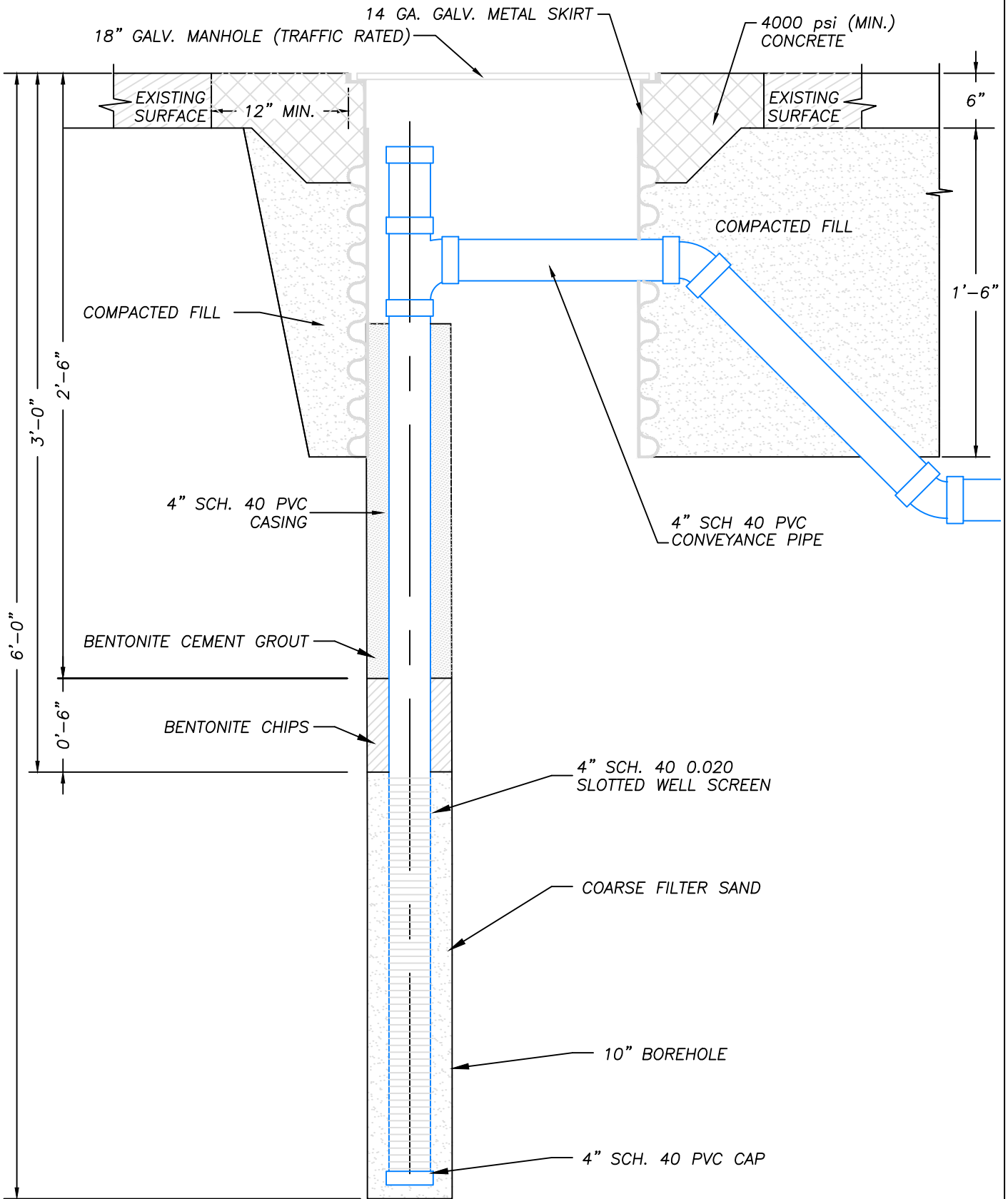
825 North Capitol Avenue • Indianapolis, IN 46204
 EnviroForensics.com

Date: 6/20/16
 Designed: EB
 Drawn: EB
 Checked: BK
 DWG file: 6154-0766

SITE LAYOUT

Robinson's Cleaners: Beloit
 1036 4th Street
 Beloit, Wisconsin

Figure
1
Project
6154



No.	Date	Revision	Approved

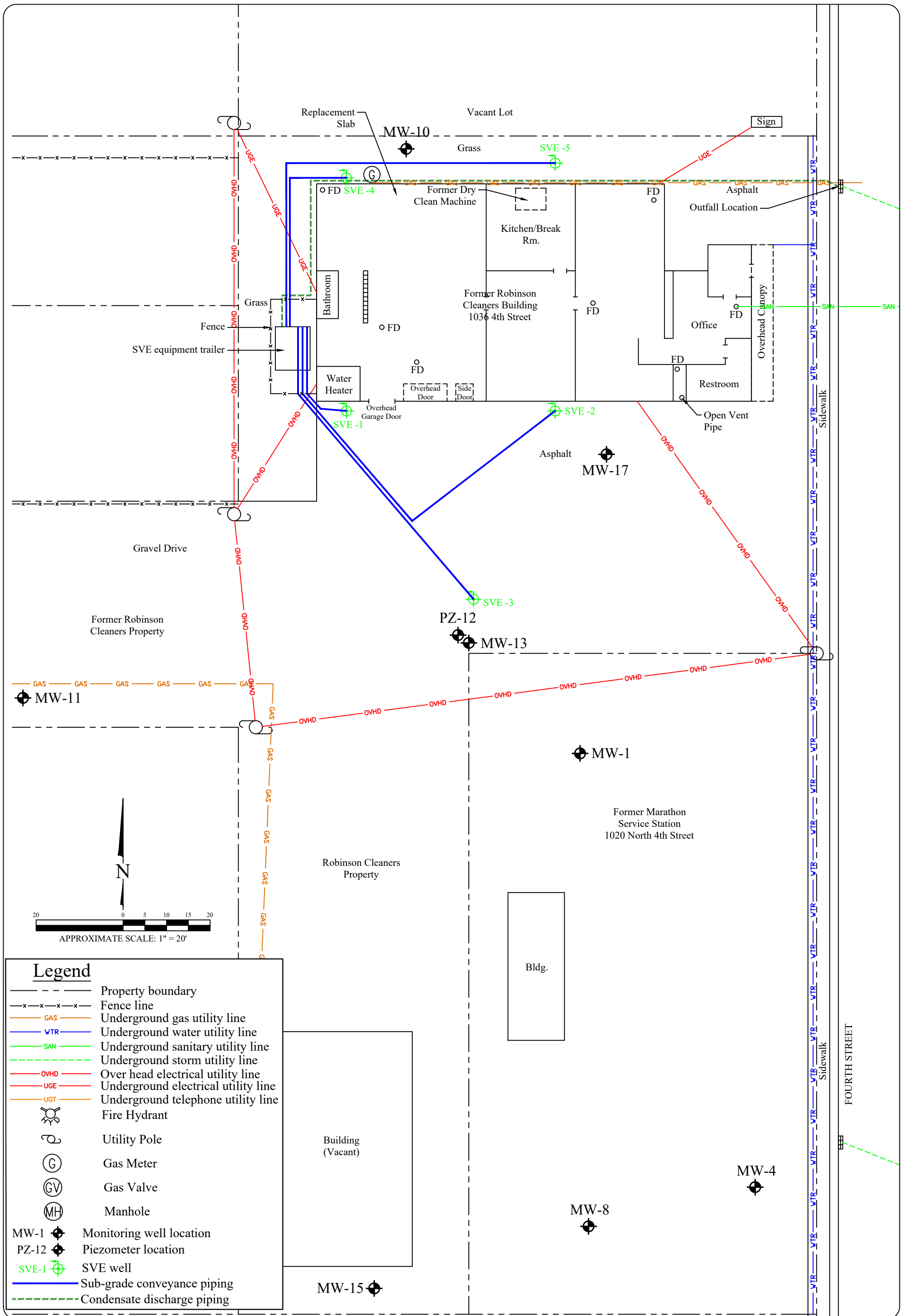


Date:	7/7/17
Designed:	EB
Drawn:	EB
Checked:	BK
DWG file:	6154-0877

TYPICAL EXTRACTION WELL CONSTRUCTION DIAGRAM

Former Robinson's Cleaners
 1036 4th Street
 Beloit, Wisconsin

Figure	2
Project	6154



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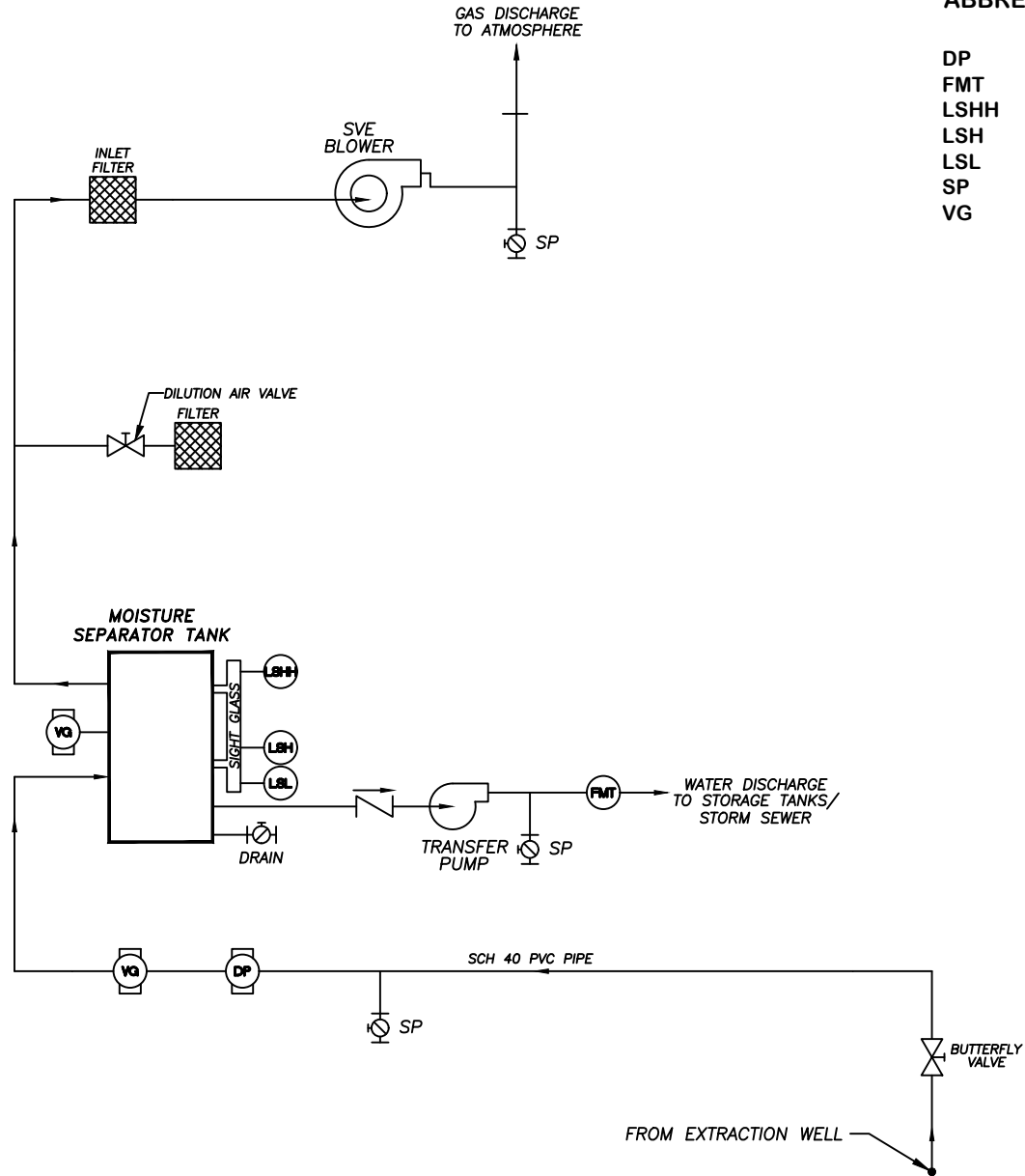
SOIL VAPOR EXTRACTION SYSTEM LAYOUT

Robinson's Cleaners: Beloit
 1036 4th Street
 Beloit, Wisconsin

Figure	3
Project	6154

ABBREVIATIONS

DP	DIFFERENTIAL PRESSURE GAUGE
FMT	FLOW METER TOTALIZER
LSHH	LIQUID HIGH-HIGH SWITCH
LSH	LIQUID HIGH SWITCH
LSL	LIQUID LOW SWITCH
SP	SAMPLE PORT
VG	VACUUM GAUGE



No.	Date	Revision	Approved



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DWG file:	6154-0783

SVE SYSTEM PROCESS AND INSTRUMENTATION DIAGRAM

Robinson's Cleaners: Beloit
 1036 4th Street
 Beloit, Wisconsin

Figure	4
Project	
6154	

APPENDIX A

SVE System Installation Photographs



Beginning trench excavation on south side of building, facing northwest.



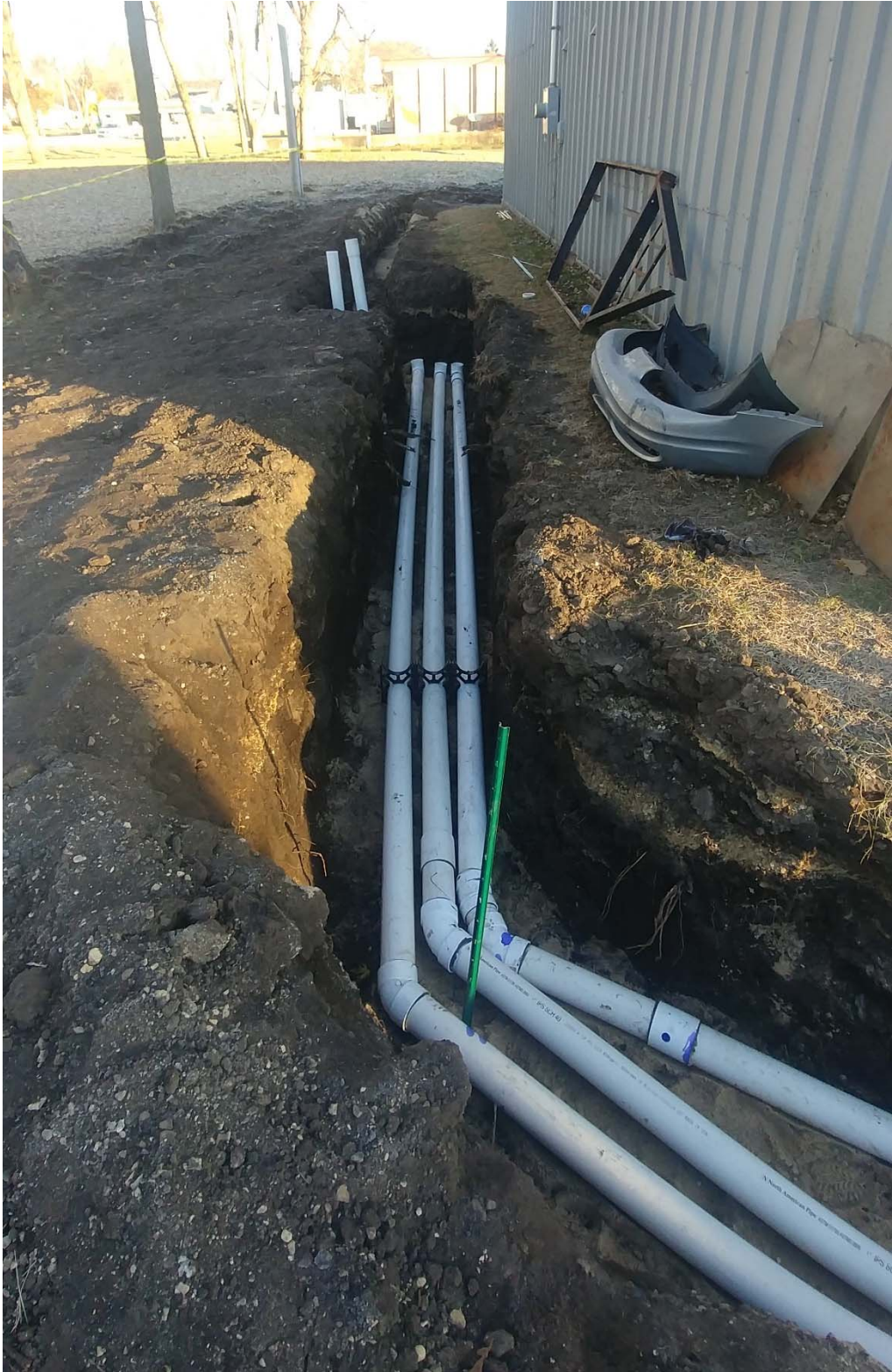
Trenches on south side of building, facing northwest.



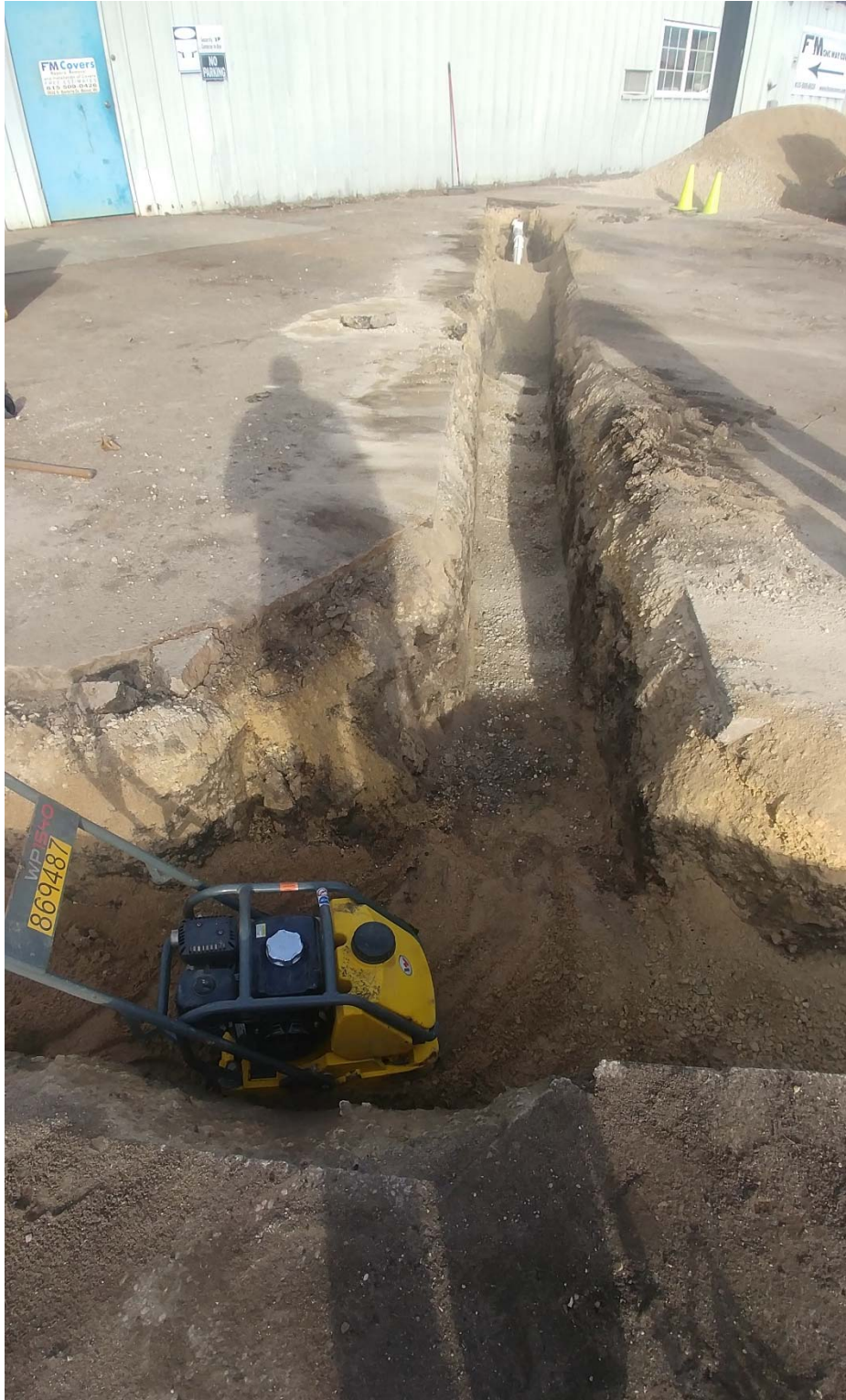
Trench to SVE-4 and SVE-5 during backfilling, facing east.



SVE-3 and trench toward equipment trailer, facing northwest.



Conveyance lines near southwest corner of building, facing north.



Backfilling and compacting trenches with SVE-2 visible in background, facing northeast.



Conveyance line terminations and gravel pad for equipment trailer, facing south.



Typical extraction well vault in concrete pad.



Trench from SVE-3 with asphalt patch, facing northwest.



SVE equipment trailer in final position, facing east.



Conveyance piping connections to SVE equipment trailer (in progress), facing south.



Installation complete, including security fence and storage tanks, facing south.



Installation of water discharge piping, facing south from northwest corner of building.



Installation of water discharge piping, facing east from northwest corner of building.

APPENDIX B

Waste Sample Laboratory Report

Synergy Environmental Lab, INC.

1990 Prospect Ct., Appleton, WI 54914 *P 920-830-2455 * F 920-733-0631

KYLE HEIMSTEAD
ENVIROFORENSICS
825 N. CAPITOL AVENUE
INDIANAPOLIS, IN 46204

Report Date 30-Nov-17

Project Name FMR ROBINSON'S CLEANERS
Project # 6154 PO#2017-1702

Invoice # E33967

Lab Code 5033967A
Sample ID 6154-IDM-1
Sample Matrix Soil
Sample Date 11/28/2017

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
General										
General										
Solids Percent	90.9	%			1	5021		11/29/2017	NJC	1
Organic										
VOC's										
Benzene	< 0.03	mg/kg	0.03	0.096	1	8260B		11/30/2017	CJR	1
Bromobenzene	< 0.025	mg/kg	0.025	0.081	1	8260B		11/30/2017	CJR	1
Bromodichloromethane	< 0.074	mg/kg	0.074	0.24	1	8260B		11/30/2017	CJR	1
Bromoform	< 0.029	mg/kg	0.029	0.092	1	8260B		11/30/2017	CJR	1
tert-Butylbenzene	< 0.026	mg/kg	0.026	0.084	1	8260B		11/30/2017	CJR	1
sec-Butylbenzene	< 0.033	mg/kg	0.033	0.1	1	8260B		11/30/2017	CJR	1
n-Butylbenzene	< 0.04	mg/kg	0.04	0.13	1	8260B		11/30/2017	CJR	1
Carbon Tetrachloride	< 0.016	mg/kg	0.016	0.053	1	8260B		11/30/2017	CJR	1
Chlorobenzene	< 0.013	mg/kg	0.013	0.04	1	8260B		11/30/2017	CJR	1
Chloroethane	< 0.091	mg/kg	0.091	0.29	1	8260B		11/30/2017	CJR	1
Chloroform	< 0.035	mg/kg	0.035	0.11	1	8260B		11/30/2017	CJR	1
Chloromethane	< 0.076	mg/kg	0.076	0.24	1	8260B		11/30/2017	CJR	1
2-Chlorotoluene	< 0.015	mg/kg	0.015	0.047	1	8260B		11/30/2017	CJR	1
4-Chlorotoluene	< 0.018	mg/kg	0.018	0.057	1	8260B		11/30/2017	CJR	1
1,2-Dibromo-3-chloropropane	< 0.058	mg/kg	0.058	0.18	1	8260B		11/30/2017	CJR	1
Dibromochloromethane	< 0.025	mg/kg	0.025	0.079	1	8260B		11/30/2017	CJR	1
1,4-Dichlorobenzene	< 0.037	mg/kg	0.037	0.12	1	8260B		11/30/2017	CJR	1
1,3-Dichlorobenzene	< 0.037	mg/kg	0.037	0.12	1	8260B		11/30/2017	CJR	1
1,2-Dichlorobenzene	< 0.028	mg/kg	0.028	0.088	1	8260B		11/30/2017	CJR	1
Dichlorodifluoromethane	< 0.048	mg/kg	0.048	0.15	1	8260B		11/30/2017	CJR	1
1,2-Dichloroethane	< 0.038	mg/kg	0.038	0.12	1	8260B		11/30/2017	CJR	1
1,1-Dichloroethane	< 0.034	mg/kg	0.034	0.11	1	8260B		11/30/2017	CJR	1
1,1-Dichloroethene	< 0.022	mg/kg	0.022	0.069	1	8260B		11/30/2017	CJR	1
cis-1,2-Dichloroethene	< 0.032	mg/kg	0.032	0.1	1	8260B		11/30/2017	CJR	1
trans-1,2-Dichloroethene	< 0.028	mg/kg	0.028	0.09	1	8260B		11/30/2017	CJR	1

Project Name FMR ROBINSON'S CLEANERS
Project # 6154 PO#2017-1702

Invoice # E33967

Lab Code 5033967A
Sample ID 6154-IDM-1
Sample Matrix Soil
Sample Date 11/28/2017

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
1,2-Dichloropropane	< 0.035	mg/kg	0.035	0.11	1	8260B	11/30/2017	11/30/2017	CJR	1
1,3-Dichloropropane	< 0.025	mg/kg	0.025	0.079	1	8260B	11/30/2017	11/30/2017	CJR	1
trans-1,3-Dichloropropene	< 0.022	mg/kg	0.022	0.068	1	8260B	11/30/2017	11/30/2017	CJR	1
cis-1,3-Dichloropropene	< 0.039	mg/kg	0.039	0.12	1	8260B	11/30/2017	11/30/2017	CJR	1
Di-isopropyl ether	< 0.01	mg/kg	0.01	0.032	1	8260B	11/30/2017	11/30/2017	CJR	1
EDB (1,2-Dibromoethane)	< 0.023	mg/kg	0.023	0.072	1	8260B	11/30/2017	11/30/2017	CJR	1
Ethylbenzene	< 0.035	mg/kg	0.035	0.11	1	8260B	11/30/2017	11/30/2017	CJR	1
Hexachlorobutadiene	< 0.085	mg/kg	0.085	0.27	1	8260B	11/30/2017	11/30/2017	CJR	1
Isopropylbenzene	< 0.034	mg/kg	0.034	0.11	1	8260B	11/30/2017	11/30/2017	CJR	1
p-Isopropyltoluene	< 0.029	mg/kg	0.029	0.093	1	8260B	11/30/2017	11/30/2017	CJR	1
Methylene chloride	< 0.15	mg/kg	0.15	0.46	1	8260B	11/30/2017	11/30/2017	CJR	1
Methyl tert-butyl ether (MTBE)	< 0.05	mg/kg	0.05	0.16	1	8260B	11/30/2017	11/30/2017	CJR	1
Naphthalene	< 0.094	mg/kg	0.094	0.3	1	8260B	11/30/2017	11/30/2017	CJR	1
n-Propylbenzene	< 0.033	mg/kg	0.033	0.1	1	8260B	11/30/2017	11/30/2017	CJR	1
1,1,2,2-Tetrachloroethane	< 0.028	mg/kg	0.028	0.88	1	8260B	11/30/2017	11/30/2017	CJR	1
1,1,1,2-Tetrachloroethane	< 0.028	mg/kg	0.028	0.09	1	8260B	11/30/2017	11/30/2017	CJR	1
Tetrachloroethene	2.08	mg/kg	0.032	0.1	1	8260B	11/30/2017	11/30/2017	CJR	1
Toluene	< 0.032	mg/kg	0.032	0.1	1	8260B	11/30/2017	11/30/2017	CJR	1
1,2,4-Trichlorobenzene	< 0.064	mg/kg	0.064	0.2	1	8260B	11/30/2017	11/30/2017	CJR	1
1,2,3-Trichlorobenzene	< 0.066	mg/kg	0.066	0.21	1	8260B	11/30/2017	11/30/2017	CJR	1
1,1,1-Trichloroethane	< 0.03	mg/kg	0.03	0.96	1	8260B	11/30/2017	11/30/2017	CJR	1
1,1,2-Trichloroethane	< 0.033	mg/kg	0.033	0.11	1	8260B	11/30/2017	11/30/2017	CJR	1
Trichloroethene (TCE)	< 0.041	mg/kg	0.041	0.13	1	8260B	11/30/2017	11/30/2017	CJR	1
Trichlorofluoromethane	< 0.041	mg/kg	0.041	0.13	1	8260B	11/30/2017	11/30/2017	CJR	1
1,2,4-Trimethylbenzene	< 0.025	mg/kg	0.025	0.08	1	8260B	11/30/2017	11/30/2017	CJR	1
1,3,5-Trimethylbenzene	< 0.032	mg/kg	0.032	0.1	1	8260B	11/30/2017	11/30/2017	CJR	1
Vinyl Chloride	< 0.019	mg/kg	0.019	0.062	1	8260B	11/30/2017	11/30/2017	CJR	1
m&p-Xylene	< 0.072	mg/kg	0.072	0.23	1	8260B	11/30/2017	11/30/2017	CJR	1
o-Xylene	< 0.044	mg/kg	0.044	0.14	1	8260B	11/30/2017	11/30/2017	CJR	1
SUR - Toluene-d8	100	Rec %			1	8260B	11/30/2017	11/30/2017	CJR	1
SUR - 1,2-Dichloroethane-d4	99	Rec %			1	8260B	11/30/2017	11/30/2017	CJR	1
SUR - 4-Bromofluorobenzene	116	Rec %			1	8260B	11/30/2017	11/30/2017	CJR	1
SUR - Dibromofluoromethane	100	Rec %			1	8260B	11/30/2017	11/30/2017	CJR	1

Project Name FMR ROBINSON'S CLEANERS
 Project # 6154 PO#2017-1702

Invoice # E33967

Lab Code 5033967B
 Sample ID 6154-IDM-2
 Sample Matrix Soil
 Sample Date 11/28/2017

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
General										
General										
Solids Percent	86.2	%			1	5021		11/29/2017	NJC	1
Organic										
VOC's										
Benzene	< 0.03	mg/kg	0.03	0.096	1	8260B		11/30/2017	CJR	1
Bromobenzene	< 0.025	mg/kg	0.025	0.081	1	8260B		11/30/2017	CJR	1
Bromodichloromethane	< 0.074	mg/kg	0.074	0.24	1	8260B		11/30/2017	CJR	1
Bromoform	< 0.029	mg/kg	0.029	0.092	1	8260B		11/30/2017	CJR	1
tert-Butylbenzene	< 0.026	mg/kg	0.026	0.084	1	8260B		11/30/2017	CJR	1
sec-Butylbenzene	< 0.033	mg/kg	0.033	0.1	1	8260B		11/30/2017	CJR	1
n-Butylbenzene	< 0.04	mg/kg	0.04	0.13	1	8260B		11/30/2017	CJR	1
Carbon Tetrachloride	< 0.016	mg/kg	0.016	0.053	1	8260B		11/30/2017	CJR	1
Chlorobenzene	< 0.013	mg/kg	0.013	0.04	1	8260B		11/30/2017	CJR	1
Chloroethane	< 0.091	mg/kg	0.091	0.29	1	8260B		11/30/2017	CJR	1
Chloroform	< 0.035	mg/kg	0.035	0.11	1	8260B		11/30/2017	CJR	1
Chloromethane	< 0.076	mg/kg	0.076	0.24	1	8260B		11/30/2017	CJR	1
2-Chlorotoluene	< 0.015	mg/kg	0.015	0.047	1	8260B		11/30/2017	CJR	1
4-Chlorotoluene	< 0.018	mg/kg	0.018	0.057	1	8260B		11/30/2017	CJR	1
1,2-Dibromo-3-chloropropane	< 0.058	mg/kg	0.058	0.18	1	8260B		11/30/2017	CJR	1
Dibromochloromethane	< 0.025	mg/kg	0.025	0.079	1	8260B		11/30/2017	CJR	1
1,4-Dichlorobenzene	< 0.037	mg/kg	0.037	0.12	1	8260B		11/30/2017	CJR	1
1,3-Dichlorobenzene	< 0.037	mg/kg	0.037	0.12	1	8260B		11/30/2017	CJR	1
1,2-Dichlorobenzene	< 0.028	mg/kg	0.028	0.088	1	8260B		11/30/2017	CJR	1
Dichlorodifluoromethane	< 0.048	mg/kg	0.048	0.15	1	8260B		11/30/2017	CJR	1
1,2-Dichloroethane	< 0.038	mg/kg	0.038	0.12	1	8260B		11/30/2017	CJR	1
1,1-Dichloroethane	< 0.034	mg/kg	0.034	0.11	1	8260B		11/30/2017	CJR	1
1,1-Dichloroethene	< 0.022	mg/kg	0.022	0.069	1	8260B		11/30/2017	CJR	1
cis-1,2-Dichloroethene	< 0.032	mg/kg	0.032	0.1	1	8260B		11/30/2017	CJR	1
trans-1,2-Dichloroethene	< 0.028	mg/kg	0.028	0.09	1	8260B		11/30/2017	CJR	1
1,2-Dichloropropane	< 0.035	mg/kg	0.035	0.11	1	8260B		11/30/2017	CJR	1
1,3-Dichloropropane	< 0.025	mg/kg	0.025	0.079	1	8260B		11/30/2017	CJR	1
trans-1,3-Dichloropropene	< 0.022	mg/kg	0.022	0.068	1	8260B		11/30/2017	CJR	1
cis-1,3-Dichloropropene	< 0.039	mg/kg	0.039	0.12	1	8260B		11/30/2017	CJR	1
Di-isopropyl ether	< 0.01	mg/kg	0.01	0.032	1	8260B		11/30/2017	CJR	1
EDB (1,2-Dibromoethane)	< 0.023	mg/kg	0.023	0.072	1	8260B		11/30/2017	CJR	1
Ethylbenzene	< 0.035	mg/kg	0.035	0.11	1	8260B		11/30/2017	CJR	1
Hexachlorobutadiene	< 0.085	mg/kg	0.085	0.27	1	8260B		11/30/2017	CJR	1
Isopropylbenzene	< 0.034	mg/kg	0.034	0.11	1	8260B		11/30/2017	CJR	1
p-Isopropyltoluene	< 0.029	mg/kg	0.029	0.093	1	8260B		11/30/2017	CJR	1
Methylene chloride	< 0.15	mg/kg	0.15	0.46	1	8260B		11/30/2017	CJR	1
Methyl tert-butyl ether (MTBE)	< 0.05	mg/kg	0.05	0.16	1	8260B		11/30/2017	CJR	1
Naphthalene	< 0.094	mg/kg	0.094	0.3	1	8260B		11/30/2017	CJR	1
n-Propylbenzene	< 0.033	mg/kg	0.033	0.1	1	8260B		11/30/2017	CJR	1
1,1,2,2-Tetrachloroethane	< 0.028	mg/kg	0.028	0.88	1	8260B		11/30/2017	CJR	1
1,1,1,2-Tetrachloroethane	< 0.028	mg/kg	0.028	0.09	1	8260B		11/30/2017	CJR	1
Tetrachloroethene	1.54	mg/kg	0.032	0.1	1	8260B		11/30/2017	CJR	1
Toluene	< 0.032	mg/kg	0.032	0.1	1	8260B		11/30/2017	CJR	1
1,2,4-Trichlorobenzene	< 0.064	mg/kg	0.064	0.2	1	8260B		11/30/2017	CJR	1
1,2,3-Trichlorobenzene	< 0.066	mg/kg	0.066	0.21	1	8260B		11/30/2017	CJR	1
1,1,1-Trichloroethane	< 0.03	mg/kg	0.03	0.96	1	8260B		11/30/2017	CJR	1

Project Name FMR ROBINSON'S CLEANERS
Project # 6154 PO#2017-1702

Invoice # E33967

Lab Code 5033967B
Sample ID 6154-IDM-2
Sample Matrix Soil
Sample Date 11/28/2017

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
1,1,2-Trichloroethane	< 0.033	mg/kg	0.033	0.11	1	8260B		11/30/2017	CJR	1
Trichloroethene (TCE)	< 0.041	mg/kg	0.041	0.13	1	8260B		11/30/2017	CJR	1
Trichlorofluoromethane	< 0.041	mg/kg	0.041	0.13	1	8260B		11/30/2017	CJR	1
1,2,4-Trimethylbenzene	< 0.025	mg/kg	0.025	0.08	1	8260B		11/30/2017	CJR	1
1,3,5-Trimethylbenzene	< 0.032	mg/kg	0.032	0.1	1	8260B		11/30/2017	CJR	1
Vinyl Chloride	< 0.019	mg/kg	0.019	0.062	1	8260B		11/30/2017	CJR	1
m&p-Xylene	< 0.072	mg/kg	0.072	0.23	1	8260B		11/30/2017	CJR	1
o-Xylene	< 0.044	mg/kg	0.044	0.14	1	8260B		11/30/2017	CJR	1
SUR - Dibromofluoromethane	98	Rec %			1	8260B		11/30/2017	CJR	1
SUR - 1,2-Dichloroethane-d4	98	Rec %			1	8260B		11/30/2017	CJR	1
SUR - 4-Bromofluorobenzene	119	Rec %			1	8260B		11/30/2017	CJR	1
SUR - Toluene-d8	103	Rec %			1	8260B		11/30/2017	CJR	1

Project Name FMR ROBINSON'S CLEANERS
Project # 6154 PO#2017-1702

Invoice # E33967

Lab Code 5033967C
Sample ID 6154-IDM-3
Sample Matrix Soil
Sample Date 11/28/2017

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
General										
General										
Solids Percent	85.0	%			1	5021		11/29/2017	NJC	1
Organic										
VOC's										
Benzene	< 0.03	mg/kg	0.03	0.096	1	8260B		11/30/2017	CJR	1
Bromobenzene	< 0.025	mg/kg	0.025	0.081	1	8260B		11/30/2017	CJR	1
Bromodichloromethane	< 0.074	mg/kg	0.074	0.24	1	8260B		11/30/2017	CJR	1
Bromoform	< 0.029	mg/kg	0.029	0.092	1	8260B		11/30/2017	CJR	1
tert-Butylbenzene	< 0.026	mg/kg	0.026	0.084	1	8260B		11/30/2017	CJR	1
sec-Butylbenzene	< 0.033	mg/kg	0.033	0.1	1	8260B		11/30/2017	CJR	1
n-Butylbenzene	< 0.04	mg/kg	0.04	0.13	1	8260B		11/30/2017	CJR	1
Carbon Tetrachloride	< 0.016	mg/kg	0.016	0.053	1	8260B		11/30/2017	CJR	1
Chlorobenzene	< 0.013	mg/kg	0.013	0.04	1	8260B		11/30/2017	CJR	1
Chloroethane	< 0.091	mg/kg	0.091	0.29	1	8260B		11/30/2017	CJR	1
Chloroform	< 0.035	mg/kg	0.035	0.11	1	8260B		11/30/2017	CJR	1
Chloromethane	< 0.076	mg/kg	0.076	0.24	1	8260B		11/30/2017	CJR	1
2-Chlorotoluene	< 0.015	mg/kg	0.015	0.047	1	8260B		11/30/2017	CJR	1
4-Chlorotoluene	< 0.018	mg/kg	0.018	0.057	1	8260B		11/30/2017	CJR	1
1,2-Dibromo-3-chloropropane	< 0.058	mg/kg	0.058	0.18	1	8260B		11/30/2017	CJR	1
Dibromochloromethane	< 0.025	mg/kg	0.025	0.079	1	8260B		11/30/2017	CJR	1
1,4-Dichlorobenzene	< 0.037	mg/kg	0.037	0.12	1	8260B		11/30/2017	CJR	1
1,3-Dichlorobenzene	< 0.037	mg/kg	0.037	0.12	1	8260B		11/30/2017	CJR	1
1,2-Dichlorobenzene	< 0.028	mg/kg	0.028	0.088	1	8260B		11/30/2017	CJR	1
Dichlorodifluoromethane	< 0.048	mg/kg	0.048	0.15	1	8260B		11/30/2017	CJR	1
1,2-Dichloroethane	< 0.038	mg/kg	0.038	0.12	1	8260B		11/30/2017	CJR	1
1,1-Dichloroethane	< 0.034	mg/kg	0.034	0.11	1	8260B		11/30/2017	CJR	1
1,1-Dichloroethene	< 0.022	mg/kg	0.022	0.069	1	8260B		11/30/2017	CJR	1
cis-1,2-Dichloroethene	< 0.032	mg/kg	0.032	0.1	1	8260B		11/30/2017	CJR	1
trans-1,2-Dichloroethene	< 0.028	mg/kg	0.028	0.09	1	8260B		11/30/2017	CJR	1
1,2-Dichloropropane	< 0.035	mg/kg	0.035	0.11	1	8260B		11/30/2017	CJR	1
1,3-Dichloropropane	< 0.025	mg/kg	0.025	0.079	1	8260B		11/30/2017	CJR	1
trans-1,3-Dichloropropene	< 0.022	mg/kg	0.022	0.068	1	8260B		11/30/2017	CJR	1
cis-1,3-Dichloropropene	< 0.039	mg/kg	0.039	0.12	1	8260B		11/30/2017	CJR	1
Di-isopropyl ether	< 0.01	mg/kg	0.01	0.032	1	8260B		11/30/2017	CJR	1
EDB (1,2-Dibromoethane)	< 0.023	mg/kg	0.023	0.072	1	8260B		11/30/2017	CJR	1
Ethylbenzene	< 0.035	mg/kg	0.035	0.11	1	8260B		11/30/2017	CJR	1
Hexachlorobutadiene	< 0.085	mg/kg	0.085	0.27	1	8260B		11/30/2017	CJR	1
Isopropylbenzene	< 0.034	mg/kg	0.034	0.11	1	8260B		11/30/2017	CJR	1
p-Isopropyltoluene	< 0.029	mg/kg	0.029	0.093	1	8260B		11/30/2017	CJR	1
Methylene chloride	< 0.15	mg/kg	0.15	0.46	1	8260B		11/30/2017	CJR	1
Methyl tert-butyl ether (MTBE)	< 0.05	mg/kg	0.05	0.16	1	8260B		11/30/2017	CJR	1
Naphthalene	< 0.094	mg/kg	0.094	0.3	1	8260B		11/30/2017	CJR	1
n-Propylbenzene	< 0.033	mg/kg	0.033	0.1	1	8260B		11/30/2017	CJR	1
1,1,2,2-Tetrachloroethane	< 0.028	mg/kg	0.028	0.88	1	8260B		11/30/2017	CJR	1
1,1,1,2-Tetrachloroethane	< 0.028	mg/kg	0.028	0.09	1	8260B		11/30/2017	CJR	1
Tetrachloroethene	0.162	mg/kg	0.032	0.1	1	8260B		11/30/2017	CJR	1
Toluene	< 0.032	mg/kg	0.032	0.1	1	8260B		11/30/2017	CJR	1
1,2,4-Trichlorobenzene	< 0.064	mg/kg	0.064	0.2	1	8260B		11/30/2017	CJR	1
1,2,3-Trichlorobenzene	< 0.066	mg/kg	0.066	0.21	1	8260B		11/30/2017	CJR	1
1,1,1-Trichloroethane	< 0.03	mg/kg	0.03	0.96	1	8260B		11/30/2017	CJR	1

Project Name FMR ROBINSON'S CLEANERS
Project # 6154 PO#2017-1702

Invoice # E33967

Lab Code 5033967C
Sample ID 6154-IDM-3
Sample Matrix Soil
Sample Date 11/28/2017

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
1,1,2-Trichloroethane	< 0.033	mg/kg	0.033	0.11	1	8260B		11/30/2017	CJR	1
Trichloroethene (TCE)	< 0.041	mg/kg	0.041	0.13	1	8260B		11/30/2017	CJR	1
Trichlorofluoromethane	< 0.041	mg/kg	0.041	0.13	1	8260B		11/30/2017	CJR	1
1,2,4-Trimethylbenzene	< 0.025	mg/kg	0.025	0.08	1	8260B		11/30/2017	CJR	1
1,3,5-Trimethylbenzene	< 0.032	mg/kg	0.032	0.1	1	8260B		11/30/2017	CJR	1
Vinyl Chloride	< 0.019	mg/kg	0.019	0.062	1	8260B		11/30/2017	CJR	1
m&p-Xylene	< 0.072	mg/kg	0.072	0.23	1	8260B		11/30/2017	CJR	1
o-Xylene	< 0.044	mg/kg	0.044	0.14	1	8260B		11/30/2017	CJR	1
SUR - Toluene-d8	103	Rec %			1	8260B		11/30/2017	CJR	1
SUR - 1,2-Dichloroethane-d4	101	Rec %			1	8260B		11/30/2017	CJR	1
SUR - 4-Bromofluorobenzene	118	Rec %			1	8260B		11/30/2017	CJR	1
SUR - Dibromofluoromethane	101	Rec %			1	8260B		11/30/2017	CJR	1

Project Name FMR ROBINSON'S CLEANERS
Project # 6154 PO#2017-1702

Invoice # E33967

Lab Code 5033967D
Sample ID 6154-IDM-4
Sample Matrix Soil
Sample Date 11/28/2017

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
General										
General										
Solids Percent	84.8	%			1	5021		11/29/2017	NJC	1
Organic										
VOC's										
Benzene	< 0.03	mg/kg	0.03	0.096	1	8260B		11/30/2017	CJR	1
Bromobenzene	< 0.025	mg/kg	0.025	0.081	1	8260B		11/30/2017	CJR	1
Bromodichloromethane	< 0.074	mg/kg	0.074	0.24	1	8260B		11/30/2017	CJR	1
Bromoform	< 0.029	mg/kg	0.029	0.092	1	8260B		11/30/2017	CJR	1
tert-Butylbenzene	< 0.026	mg/kg	0.026	0.084	1	8260B		11/30/2017	CJR	1
sec-Butylbenzene	< 0.033	mg/kg	0.033	0.1	1	8260B		11/30/2017	CJR	1
n-Butylbenzene	< 0.04	mg/kg	0.04	0.13	1	8260B		11/30/2017	CJR	1
Carbon Tetrachloride	< 0.016	mg/kg	0.016	0.053	1	8260B		11/30/2017	CJR	1
Chlorobenzene	< 0.013	mg/kg	0.013	0.04	1	8260B		11/30/2017	CJR	1
Chloroethane	< 0.091	mg/kg	0.091	0.29	1	8260B		11/30/2017	CJR	1
Chloroform	< 0.035	mg/kg	0.035	0.11	1	8260B		11/30/2017	CJR	1
Chloromethane	< 0.076	mg/kg	0.076	0.24	1	8260B		11/30/2017	CJR	1
2-Chlorotoluene	< 0.015	mg/kg	0.015	0.047	1	8260B		11/30/2017	CJR	1
4-Chlorotoluene	< 0.018	mg/kg	0.018	0.057	1	8260B		11/30/2017	CJR	1
1,2-Dibromo-3-chloropropane	< 0.058	mg/kg	0.058	0.18	1	8260B		11/30/2017	CJR	1
Dibromochloromethane	< 0.025	mg/kg	0.025	0.079	1	8260B		11/30/2017	CJR	1
1,4-Dichlorobenzene	< 0.037	mg/kg	0.037	0.12	1	8260B		11/30/2017	CJR	1
1,3-Dichlorobenzene	< 0.037	mg/kg	0.037	0.12	1	8260B		11/30/2017	CJR	1
1,2-Dichlorobenzene	< 0.028	mg/kg	0.028	0.088	1	8260B		11/30/2017	CJR	1
Dichlorodifluoromethane	< 0.048	mg/kg	0.048	0.15	1	8260B		11/30/2017	CJR	1
1,2-Dichloroethane	< 0.038	mg/kg	0.038	0.12	1	8260B		11/30/2017	CJR	1
1,1-Dichloroethane	< 0.034	mg/kg	0.034	0.11	1	8260B		11/30/2017	CJR	1
1,1-Dichloroethene	< 0.022	mg/kg	0.022	0.069	1	8260B		11/30/2017	CJR	1
cis-1,2-Dichloroethene	< 0.032	mg/kg	0.032	0.1	1	8260B		11/30/2017	CJR	1
trans-1,2-Dichloroethene	< 0.028	mg/kg	0.028	0.09	1	8260B		11/30/2017	CJR	1
1,2-Dichloropropane	< 0.035	mg/kg	0.035	0.11	1	8260B		11/30/2017	CJR	1
1,3-Dichloropropane	< 0.025	mg/kg	0.025	0.079	1	8260B		11/30/2017	CJR	1
trans-1,3-Dichloropropene	< 0.022	mg/kg	0.022	0.068	1	8260B		11/30/2017	CJR	1
cis-1,3-Dichloropropene	< 0.039	mg/kg	0.039	0.12	1	8260B		11/30/2017	CJR	1
Di-isopropyl ether	< 0.01	mg/kg	0.01	0.032	1	8260B		11/30/2017	CJR	1
EDB (1,2-Dibromoethane)	< 0.023	mg/kg	0.023	0.072	1	8260B		11/30/2017	CJR	1
Ethylbenzene	< 0.035	mg/kg	0.035	0.11	1	8260B		11/30/2017	CJR	1
Hexachlorobutadiene	< 0.085	mg/kg	0.085	0.27	1	8260B		11/30/2017	CJR	1
Isopropylbenzene	< 0.034	mg/kg	0.034	0.11	1	8260B		11/30/2017	CJR	1
p-Isopropyltoluene	< 0.029	mg/kg	0.029	0.093	1	8260B		11/30/2017	CJR	1
Methylene chloride	< 0.15	mg/kg	0.15	0.46	1	8260B		11/30/2017	CJR	1
Methyl tert-butyl ether (MTBE)	< 0.05	mg/kg	0.05	0.16	1	8260B		11/30/2017	CJR	1
Naphthalene	< 0.094	mg/kg	0.094	0.3	1	8260B		11/30/2017	CJR	1
n-Propylbenzene	< 0.033	mg/kg	0.033	0.1	1	8260B		11/30/2017	CJR	1
1,1,2,2-Tetrachloroethane	< 0.028	mg/kg	0.028	0.88	1	8260B		11/30/2017	CJR	1
1,1,1,2-Tetrachloroethane	< 0.028	mg/kg	0.028	0.09	1	8260B		11/30/2017	CJR	1
Tetrachloroethene	0.93	mg/kg	0.032	0.1	1	8260B		11/30/2017	CJR	1
Toluene	< 0.032	mg/kg	0.032	0.1	1	8260B		11/30/2017	CJR	1
1,2,4-Trichlorobenzene	< 0.064	mg/kg	0.064	0.2	1	8260B		11/30/2017	CJR	1
1,2,3-Trichlorobenzene	< 0.066	mg/kg	0.066	0.21	1	8260B		11/30/2017	CJR	1
1,1,1-Trichloroethane	< 0.03	mg/kg	0.03	0.96	1	8260B		11/30/2017	CJR	1

Project Name FMR ROBINSON'S CLEANERS
Project # 6154 PO#2017-1702

Invoice # E33967

Lab Code 5033967D
Sample ID 6154-IDM-4
Sample Matrix Soil
Sample Date 11/28/2017

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
1,1,2-Trichloroethane	< 0.033	mg/kg	0.033	0.11	1	8260B		11/30/2017	CJR	1
Trichloroethene (TCE)	< 0.041	mg/kg	0.041	0.13	1	8260B		11/30/2017	CJR	1
Trichlorofluoromethane	< 0.041	mg/kg	0.041	0.13	1	8260B		11/30/2017	CJR	1
1,2,4-Trimethylbenzene	< 0.025	mg/kg	0.025	0.08	1	8260B		11/30/2017	CJR	1
1,3,5-Trimethylbenzene	< 0.032	mg/kg	0.032	0.1	1	8260B		11/30/2017	CJR	1
Vinyl Chloride	< 0.019	mg/kg	0.019	0.062	1	8260B		11/30/2017	CJR	1
m&p-Xylene	< 0.072	mg/kg	0.072	0.23	1	8260B		11/30/2017	CJR	1
o-Xylene	< 0.044	mg/kg	0.044	0.14	1	8260B		11/30/2017	CJR	1
SUR - Toluene-d8	104	Rec %			1	8260B		11/30/2017	CJR	1
SUR - 1,2-Dichloroethane-d4	102	Rec %			1	8260B		11/30/2017	CJR	1
SUR - 4-Bromofluorobenzene	118	Rec %			1	8260B		11/30/2017	CJR	1
SUR - Dibromofluoromethane	98	Rec %			1	8260B		11/30/2017	CJR	1

"J" Flag: Analyte detected between LOD and LOQ

LOD Limit of Detection

LOQ Limit of Quantitation

Code **Comment**

1 Laboratory QC within limits.

All solid sample results reported on a dry weight basis unless otherwise indicated. All LOD's and LOQ's are adjusted for dilutions but not dry weight. Subcontracted results are denoted by SUB in the analyst field.

Authorized Signature

CHAIN OF CUSTODY RECORD

PO # 2017-1732

Synergy

Chain # **Nº 299**

Page 1 of 1

Environmental Lab, Inc.

1990 Prospect Ct. • Appleton, WI 54914
920-830-2455 • FAX 920-733-0631

Sample Handling Request

Rush Analysis Date Required 11/30
(Rushes accepted only with prior authorization)

____ Normal Turn Around

Lab I.D. # _____

Account No. : _____ Quote No.: _____

Project #: 6154

Sampler: (signature) *[Handwritten Signature]*

Project (Name / Location): Former Robinson's Cleaners, Beloit

Reports To: B. Kappen / K. Heimstead Invoice To: _____

Company EnviroForensics, LLC Company _____

Address 116 W 23390 Stone Ridge Dr Address _____

City State Zip Waukesha, WI 53188 City State Zip _____

Phone (317) 972-7870 Phone _____

FAX _____ FAX _____

Analysis Requested														Other Analysis		
DRO (Mod DRO Sep 95)	GRO (Mod GRO Sep 95)	LEAD	NITRATE/NITRITE	OIL & GREASE	PAH (EPA 8270)	PCB	PVOC (EPA 8021)	PVOC + NAPHTHALENE	SULFATE	TOTAL SUSPENDED SOLIDS	VOC DW (EPA 542.2)	VOC (EPA 8260)	8-RCRA METALS	PID/ FID		

Lab I.D.	Sample I.D.	Collection Date	Time	Comp	Grab	Filtered Y/N	No. of Containers	Sample Type (Matrix)*	Preservation
<u>S033967A</u>	<u>6154-IDM-1</u>	<u>11/28</u>	<u>1515</u>	<u>x</u>		<u>N</u>	<u>2</u>	<u>S</u>	<u>MeOH</u>
<u>B</u>	<u>6154-IDM-2</u>	<u>11/28</u>	<u>1520</u>	<u>x</u>		<u>N</u>	<u>2</u>	<u>S</u>	<u>MeOH</u>
<u>C</u>	<u>6154-IDM-3</u>	<u>11/28</u>	<u>1525</u>	<u>x</u>		<u>N</u>	<u>2</u>	<u>S</u>	<u>MeOH</u>
<u>D</u>	<u>6154-IDM-4</u>	<u>11/28</u>	<u>1530</u>	<u>x</u>		<u>N</u>	<u>2</u>	<u>S</u>	<u>MeOH</u>

Comments/Special Instructions ("Specify groundwater "GW", Drinking Water "DW", Waste Water "WW", Soil "S", Air "A", Oil, Sludge etc.)

Sample Integrity - To be completed by receiving lab.

Method of Shipment: GC

Temp. of Temp. Blank _____ °C On Ice:

Cooler seal intact upon receipt: Yes _____ No

Relinquished By: (sign) <u>[Signature]</u>	Time <u>1600</u>	Date <u>11/28/17</u>	Received By: (sign) _____	Time _____	Date _____
--	------------------	----------------------	---------------------------	------------	------------

Received in Laboratory By: <u>[Signature]</u>	Time: <u>8:00</u>	Date: <u>11/29/17</u>
---	-------------------	-----------------------

APPENDIX C

Waste Disposal Documentation



Deer Track Park Landfill
 N6756 Waldmann Lane
 Watertown, WI, 53094
 Ph: (920) 699-3475

14377294
 Original
 Ticket# 521339

Customer Name WMJNSVLEHLG WM JANESVILLE RO Carrier WM JANESVILLE RO WM - JANESVILLE
 Ticket Date 12/01/2017 Vehicle# 409584 Volume
 Payment Type Credit Account Container
 Manual Ticket# Driver
 Hauling Ticket# Check#
 Route Billing # 0000749
 State Waste Code A-24-06 Gen EPA ID
 Manifest 120117A Grid
 Destination
 PO
 Profile V128333W1 (VOC Impacted Soil (WM012A))
 Generator 136-FORMERROBIN1036 FORMER ROBINSONS CLEANERS

	Time	Scale	Operator	Inbound	Gross	65900 1
In	12/01/2017 13:26:04	Scale	asimon		Tare	34580 1
Out	12/01/2017 13:39:41	Scale	asimon		Net	31020 1
					Tons	15.6

Comments

Product	LD%	Qty	UOM	Rate	Tax	Amount	Origin
1 Spwaste VOC-Tons-S	100	15.66	Tons				

Total Tax
 Total Ticket



NON-HAZARDOUS MANIFEST

NON-HAZARDOUS MANIFEST		1. Generator's US EPA ID No.		Manifest Doc No.		2. Page 1 of 1		120117A		
3. Generator's Mailing Address: EnviroForensics, LLC N16 W23390 Stone Ridge Dr., Suite G Waukesha WI 53188			Generator's Site Address (if different than mailing): Former Robinsons Cleaners 1036 4th Street Beloit WI 53511			A. Manifest Number WMNA 409584		B. State Generator's ID		
4. Generator's Phone (209) 390-9814			5. Transporter 1 Company Name			6. US EPA ID Number		C. State Transporter's ID		
7. Transporter 2 Company Name			8. US EPA ID Number			D. Transporter's Phone		E. State Transporter's ID		
9. Designated Facility Name and Site Address Deer Track Park Landfill N6756 Waldmann Ln. Watertown, WI 53094			10. US EPA ID Number			F. Transporter's Phone		G. State Facility ID		
						H. State Facility Phone 920-699-3475				
11. Description of Waste Materials					12. Containers		13. Total Quantity	14. Unit Wt./Vol.	1. Misc. Comments	
					No.	Type				
a. VOC Impacted Soil (WM012A)					1	20yd	15.66	TON		
					WM Profile # V128333WI					
b.										
WM Profile #										
c.										
WM Profile #										
d.										
WM Profile #										
J. Additional Descriptions for Materials Listed Above					K. Disposal Location					
BILL TO:					Cell		Level			
					Grid					
15. Special Handling Instructions and Additional Information										
Purchase Order # 2017-1750				EMERGENCY CONTACT / PHONE NO.:			Kyle Heimstead (209) 390-9814			
16. GENERATOR'S CERTIFICATE: I hereby certify that the above-described materials are not hazardous wastes as defined by CFR Part 261 or any applicable state law, have been fully and accurately described, classified and packaged and are in proper condition for transportation according to applicable regulations.										
Printed Name Agent of generator					Signature "On behalf of"			Month 12	Day 01	Year 17
17. Transporter 1 Acknowledgement of Receipt of Materials					Signature Kay Brinkmeyer			Month 12	Day 01	Year 17
18. Transporter 2 Acknowledgement of Receipt of Materials					Signature			Month	Day	Year
19. Certificate of Final Treatment/Disposal I certify, on behalf of the above listed treatment facility, that to the best of my knowledge, the above-described waste was managed in compliance with all applicable laws, regulations, permits and licenses on the dates listed above.					20. Facility Owner or Operator: Certification of receipt of non-hazardous materials covered by this manifest.					
Printed Name A. Kozurek					Signature A. Kozurek			Month 12	Day 1	Year 17

GENERATOR

TRANSPORTER

FACILITY



Deer Track Park Landfill
 N6756 Waldmann Lane
 Watertown, WI, 53094
 Ph: (920) 699-3475

14377415
 Original
 Ticket# 521460

Customer Name WMJNSVLEHL0 WM JANESVILLE RO Carrier WM JANESVILLE RO WM - JANESVILLE
 Ticket Date 12/05/2017 Vehicle# 409584 Volume
 Payment Type Credit Account Container
 Manual Ticket# Driver
 Hauling Ticket# Check#
 Route Billing # 0000749
 State Waste Code A-24-06 Gen EPA ID
 Manifest 120517A Grid
 Destination
 PO
 Profile V128233WI (VOC Impacted Soil (WM012A))
 Generator 136-FORMERROBIN1036 FORMER ROBINSONS CLEANERS

	Time	Scale	Operator	Inbound	Gross	52220 lb
In	12/05/2017 13:12:13	Scale	asimon		Tare	33160 lb
Out	12/05/2017 13:22:30	Scale	asimon		Net	19060 lb
					Tons	9.53

Comments

Product	LD%	Qty	UOM	Rate	Tax	Amount	Origin
1 Spwaste VOC-Tons-S	100	9.53	Tons				

Total Tax
 Total Ticket





NON-HAZARDOUS MANIFEST

NON-HAZARDOUS MANIFEST		1. Generator's US EPA ID No.	Manifest Doc No.	2. Page 1 of 1	409584		
3. Generator's Mailing Address: EnviroForensics, LLC N16 W23390 Stone Ridge Dr., Suite G Waukesha WI 53188		Generator's Site Address (if different than mailing): Former Robinsons Cleaners 1036 4th Street Beloit WI 53511		A. Manifest Number WMNA	120517A		
4. Generator's Phone (209) 390-9814				B. State Generator's ID			
5. Transporter 1 Company Name		6. US EPA ID Number		C. State Transporter's ID			
7. Transporter 2 Company Name		8. US EPA ID Number		D. Transporter's Phone			
9. Designated Facility Name and Site Address Deer Track Park Landfill N6756 Waldmann Ln. Watertown, WI 53094		10. US EPA ID Number		E. State Transporter's ID			
				F. Transporter's Phone			
				G. State Facility ID			
				H. State Facility Phone 920-699-3475			
11. Description of Waste Materials		12. Containers		13. Total Quantity	14. Unit Wt./Vol.	I. Misc. Comments	
		No	Type				
a. VOC Impacted Soil (WM012A) WM Profile # V128333WI		1	20yd	9.53	Ton		
b. WM Profile #							
c. WM Profile #							
d. WM Profile #							
J. Additional Descriptions for Materials Listed Above		K. Disposal Location					
BILL TO:		Cell		Level			
		Grid					
15. Special Handling Instructions and Additional Information							
Purchase Order # 2017-1750		EMERGENCY CONTACT / PHONE NO.:		Kyle Heimstead (209) 390-9814			
16. GENERATOR'S CERTIFICATE: I hereby certify that the above-described materials are not hazardous wastes as defined by CFR Part 261 or any applicable state law, have been fully and accurately described, classified and packaged and are in proper condition for transportation according to applicable regulations.							
Printed Name Agent of Generator		Signature "On behalf of"			Month 12	Day 04	Year 17
17. Transporter 1 Acknowledgement of Receipt of Materials		Printed Name Ray Brinkmeyer			Signature Ray Brinkmeyer		
					Month 12	Day 16	Year 17
18. Transporter 2 Acknowledgement of Receipt of Materials		Printed Name			Signature		
					Month	Day	Year
19. Certificate of Final Treatment/Disposal I certify, on behalf of the above listed treatment facility, that to the best of my knowledge, the above-described waste was managed in compliance with all applicable laws, regulations, permits and licenses on the dates listed above.							
20. Facility Owner or Operator: Certification of receipt of non-hazardous materials covered by this manifest							
Printed Name Allie Simon		Signature Allie Simon			Month 12	Day 05	Year 17

GENERATOR

TRANSPORTER

FACILITY



14377443

Deer Track Park Landfill
N6756 Waldmann Lane
Watertown, WI, 53094
Ph: (920) 699-3475

Original
Ticket# 521487

Customer Name	WMJNSVLEHLG WM JANESVILLE RO	Carrier	WM JANESVILLE RO WM - JANESVILLE
Ticket Date	12/06/2017	Vehicle#	410952
Payment Type	Credit Account	Container	Volume
Manual Ticket#		Driver	
Hauling Ticket#		Check#	
Route		Billing #	0000749
State Waste Code		Gen EPA ID	
Manifest	120617A	Grid	
Destination			
PO			
Profile	()		
Generator			

	Time	Scale	Operator	Inbound	Gross	
In	12/06/2017 08:33:58	Scale	asimon		Tare	67380 lb
Out	12/06/2017 08:52:27	Scale	asimon		Net	36340 lb*
			* Manual Weight		Tons	31040 lb
Comments	MAN WT - STAGED IN ERROR					15.52

Product	LDX	Qty	UOM	Rate	Tax	Amount	Origin
1	1000T-MSW TON	100	15.52	Tons	28.00	201.76	\$434.56

Total Tax	\$201.76
Total Ticket	\$636.32



NON-HAZARDOUS MANIFEST

NON-HAZARDOUS MANIFEST		1. Generator's US EPA ID No.	Manifest Doc No.	2. Page 1 of 1	410952		
3. Generator's Mailing Address: EnviroForensics, LLC N16 W23390 Stone Ridge Dr., Suite G Waukesha WI 53188		Generator's Site Address (if different than mailing): Former Robinsons Cleaners 1036 4th Street Beloit WI 53511		A. Manifest Number WMNA	120617A		
4. Generator's Phone (209) 390-9814				B. State Generator's ID			
5. Transporter 1 Company Name		6. US EPA ID Number		C. State Transporter's ID			
				D. Transporter's Phone			
7. Transporter 2 Company Name		8. US EPA ID Number		E. State Transporter's ID			
				F. Transporter's Phone			
9. Designated Facility Name and Site Address Deer Track Park Landfill N6756 Waldmann Ln. Watertown, WI 53094		10. US EPA ID Number		G. State Facility ID			
				H. State Facility Phone 920-699-3475			
11. Description of Waste Materials		12. Containers		13. Total Quantity	14. Unit Wt./Vol.	I. Misc. Comments	
		No.	Type				
a. VOC Impacted Soil (WM012A)		1	20yd	155	TON		
WM Profile # V128333WI							
b.							
WM Profile #							
c.							
WM Profile #							
d.							
WM Profile #							
J. Additional Descriptions for Materials Listed Above		K. Disposal Location					
BILL TO:		Cell		Level			
		Grid					
15. Special Handling Instructions and Additional Information							
Purchase Order # 2017-1750		EMERGENCY CONTACT / PHONE NO.:		Kyle Heimstead (209) 390-9814			
16. GENERATOR'S CERTIFICATE: I hereby certify that the above-described materials are not hazardous wastes as defined by CFR Part 261 or any applicable state law, have been fully and accurately described, classified and packaged and are in proper condition for transportation according to applicable regulations.							
Printed Name Agent of generator		Signature On behalf of			Month 12	Day 01	Year 17
17. Transporter 1 Acknowledgement of Receipt of Materials		Printed Name FRANK B. GOW			Signature Frank B. Gow		
					Month 12	Day 06	Year 17
18. Transporter 2 Acknowledgement of Receipt of Materials		Printed Name			Signature		
					Month	Day	Year
19. Certificate of Final Treatment/Disposal I certify, on behalf of the above listed treatment facility, that to the best of my knowledge, the above-described waste was managed in compliance with all applicable laws, regulations, permits and licenses on the dates listed above.							
20. Facility Owner or Operator: Certification of receipt of non-hazardous materials covered by this manifest.							
Printed Name Allie Simon		Signature Allie Simon			Month 12	Day 10	Year 17

GENERATOR

TRANSPORTER

FACILITY

566-005-8971
941689



Deer Track Park Landfill
 N6756 Waldmann Lane
 Watertown, WI, 53094
 Ph: (920) 699-3475

14377436

Original
 Ticket# 521480

Customer Name	WMJNSVLEHLG WM JANESVILLE RO	Carrier	WM JANESVILLE RO WM - JANESVILLE
Ticket Date	12/06/2017	Vehicle#	415495
Payment Type	Credit Account	Container	Volume
Manual Ticket#		Driver	
Hauling Ticket#		Check#	
Route		Billing #	0000749
State Waste Code	A-24-06	Gen EPA ID	
Manifest	594774	Grid	
Destination			
PO			
Profile	V128333WI (VOC Impacted Soil (WM012A))		
Generator	136-FORMERROBIN1036 FORMER ROBINSONS CLEANERS		

	Time	Scale	Operator	Inbound	Gross	64800 lb*
In	12/06/2017 07:26:41	Scale	asimon		Tare	35860 lb
Out	12/06/2017 07:26:58	Scale	asimon		Net	28940 lb
			* Manual Weight		Tons	14.47

Comments MAN WT - CHOSE WRONG TRUCK

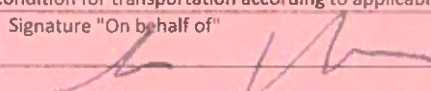
Product	LD%	Qty	UOM	Rate	Tax	Amount	Origin
1 Spwaste VOC-Tons-S	100	14.47	Tons				

HB.

Total Tax
 Total Ticket



NON-HAZARDOUS MANIFEST

NON-HAZARDOUS MANIFEST		1. Generator's US EPA ID No.		Manifest Doc No.		2. Page 1 of		415495						
3. Generator's Mailing Address: ENVIRONMENTAL SERVICES LLC 116 W 2332A Street, Dodgeville, WI 53539 4. Generator's Phone				Generator's Site Address (if different than mailing): 1136 W 11th St. Dodgeville WI 53539				A. Manifest Number		T 594774				
								B. State Generator's ID						
5. Transporter 1 Company Name				6. US EPA ID Number				C. State Transporter's ID		D. Transporter's Phone				
7. Transporter 2 Company Name				8. US EPA ID Number				E. State Transporter's ID		F. Transporter's Phone				
9. Designated Facility Name and Site Address Deer Tract Park Landfill N. 6750 Goldman Rd. Watertown, WI 53094				10. US EPA ID Number				G. State Facility ID		H. State Facility Phone				
GENERATOR	11. Description of Waste Materials				12. Containers		13. Total Quantity	14. Unit Wt./Vol	I. Misc. Comments					
	a. <i>Used Impact Soil (W0012A)</i>				1 No. 20yd		253	Tn	14.47 Ton					
	WM Profile # <i>V0233341</i>													
	b.													
	WM Profile #													
	c.													
WM Profile #														
d.														
WM Profile #														
J. Additional Descriptions for Materials Listed Above				K. Disposal Location										
<i>942709</i>				Cell		Level								
				Grid										
15. Special Handling Instructions and Additional Information														
Purchase Order # <i>2017-1450</i>				EMERGENCY CONTACT / PHONE NO.:										
16. GENERATOR'S CERTIFICATE: I hereby certify that the above-described materials are not hazardous wastes as defined by CFR Part 261 or any applicable state law, have been fully and accurately described, classified and packaged and are in proper condition for transportation according to applicable regulations.														
Printed Name <i>Agelle of Generator</i>				Signature "On behalf of" 				Month	Day	Year				
								<i>12</i>	<i>14</i>	<i>17</i>				
TRANSPORTER	17. Transporter 1 Acknowledgement of Receipt of Materials				Signature <i>Richard Ruzars</i>				Month	Day	Year			
									<i>12</i>	<i>01</i>	<i>17</i>			
	18. Transporter 2 Acknowledgement of Receipt of Materials				Signature <i>Henry W. Bluffs</i>				Month	Day	Year			
								<i>12</i>	<i>06</i>	<i>17</i>				
FACILITY	19. Certificate of Final Treatment/Disposal I certify, on behalf of the above listed treatment facility, that to the best of my knowledge, the above-described waste was managed in compliance with all applicable laws, regulations, permits and licenses on the dates listed above.													
	20. Facility Owner or Operator: Certification of receipt of non-hazardous materials covered by this manifest.													
Printed Name <i>Allie Simon</i>				Signature <i>Allie Simon</i>				Month	Day	Year				
								<i>12</i>	<i>06</i>	<i>17</i>				

White- TREATMENT, STORAGE, DISPOSAL FACILITY COPY

Blue- GENERATOR #2 COPY

Yellow- GENERATOR #1 COPY

Pink- FACILITY USE ONLY

Gold- TRANSPORTER #1 COPY



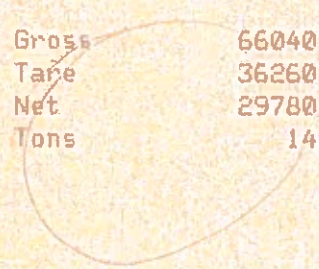
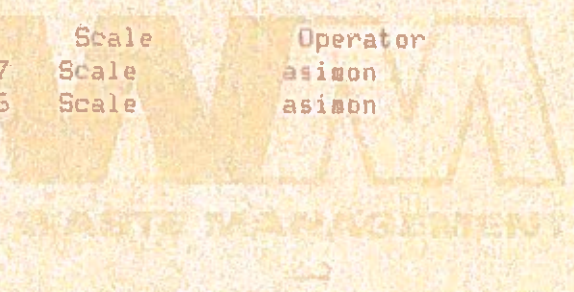
Deer Track Park Landfill
 N6756 Waldmann Lane
 Watertown, WI, 53094
 Ph: (920) 699-3475

14377464
 Original
 Ticket# 521508

Customer Name WMJNSVLEHL@ WM JANESVILLE RO Carrier WM JANESVILLE RO WM - JANESVILLE
 Ticket Date 12/06/2017 Vehicle# 410952 Volume
 Payment Type Credit Account Container
 Manual Ticket# Driver
 Hauling Ticket# Check#
 Route Billing # 0000749
 State Waste Code A-24-06 Gen EPA ID
 Manifest 1206178
 Destination Grid
 PO
 Profile V120333WI (VOC Impacted Soil (WM012A))
 Generator 136-FORMERROBIN1036 FORMER ROBINSONS CLEANERS

	Time	Scale	Operator	Inbound	Gross	
In	12/06/2017 11:08:37	Scale	asimon		66040 lb	
Out	12/06/2017 11:23:56	Scale	asimon		36260 lb	
					Net	29780 lb
					Tons	14.89

Comments



Product	LDX	Qty	UQM	Rate	Tax	Amount	Origin
1 Spwaste VOC-Tons-S	100	14.89	Tons				

Frank B. [Signature]

Total Tax
 Total Ticket

403WM-N





NON-HAZARDOUS MANIFEST

NON-HAZARDOUS MANIFEST		1. Generator's US EPA ID No.		Manifest Doc No.		2. Page 1 of 1		410952			
3. Generator's Mailing Address: EnviroForensics, LLC N16 W23390 Stone Ridge Dr., Suite G Waukesha WI 53188				Generator's Site Address (if different than mailing): Former Robinsons Cleaners 1036 4th Street Beloit WI 53511		A. Manifest Number WMNA 120617B		B. State Generator's ID			
4. Generator's Phone (209) 390-9814				5. Transporter 1 Company Name		6. US EPA ID Number		C. State Transporter's ID			
7. Transporter 2 Company Name				8. US EPA ID Number		D. Transporter's Phone		E. State Transporter's ID			
9. Designated Facility Name and Site Address Deer Track Park Landfill N6756 Waldmann Ln. Watertown, WI 53094				10. US EPA ID Number		F. Transporter's Phone		G. State Facility ID			
						H. State Facility Phone 920-699-3475					
11. Description of Waste Materials					12. Containers		13. Total Quantity	14. Unit Wt./Vol.	1. Misc. Comments		
					No.	Type					
GENERATOR	a. VOC Impacted Soil (WM012A)					1	253rd	14.89	Ton		
	WM Profile # V128333WI										
	b.										
	WM Profile #										
	c.										
WM Profile #											
d.											
WM Profile #											
J. Additional Descriptions for Materials Listed Above					K. Disposal Location						
BILL TO:					Cell			Level			
					Grid						
15. Special Handling Instructions and Additional Information											
Purchase Order # 2017 1750				EMERGENCY CONTACT / PHONE NO.:			Kyle Heimstead (209) 390-9814				
16. GENERATOR'S CERTIFICATE: I hereby certify that the above-described materials are not hazardous wastes as defined by CFR Part 261 or any applicable state law, have been fully and accurately described, classified and packaged and are in proper condition for transportation according to applicable regulations.											
Printed Name Agent of generator					Signature "On Behalf of"			Month	Day	Year	
								12	01	17	
TRANSPORTER	17. Transporter 1 Acknowledgement of Receipt of Materials					Signature			Month	Day	Year
	Printed Name Frank B. Olsen					Signature Frank B. Olsen			12	06	17
	18. Transporter 2 Acknowledgement of Receipt of Materials					Signature			Month	Day	Year
FACILITY	19. Certificate of Final Treatment/Disposal I certify, on behalf of the above listed treatment facility, that to the best of my knowledge, the above-described waste was managed in compliance with all applicable laws, regulations, permits and licenses on the dates listed above.										
	20. Facility Owner or Operator: Certification of receipt of non-hazardous materials covered by this manifest										
Printed Name Allie Simon					Signature Allie Simon			Month	Day	Year	
								12	06	17	



Deer Track Park Landfill
 N6756 Waldmann Lane
 Watertown, WI, 53094
 PH: (920) 699-3475

14377486
 Original
 Ticket# 521528

Customer Name WMJNSVLEHLG WM JANESVILLE RO Carrier WM JANESVILLE RO WM - JANESVILLE
 Ticket Date 12/06/2017 Vehicle# 410952 Volume
 Payment Type Credit Account Container
 Manual Ticket# Driver
 Hauling Ticket# Check#
 Route Billing # 0000749
 State Waste Code A-24-06 Gen EPA ID
 Manifest 594773 Grid
 Destination
 PO
 Profile V128333WI (VOC Impacted Soil (WM012A))
 Generator 136-FORMERROBIN1036 FORMER ROBINSONS CLEANERS

	Time	Scale	Operator	Inbound	Gross	
In	12/06/2017 14:10:37	Scale	asimon		Tare	64280 lb
Out	12/06/2017 14:30:32	Scale	asimon		Net	35520 lb
					Tons	28760 lb
						14.38

Comments

Product	LDX	Qty	UOM	Rate	Tax	Amount	Origin
1 Spwaste VOC-Tons-S	100	14.38	Tons				

Frank B. [Signature]

Total Tax
 Total Ticket

403WM-N





NON-HAZARDOUS MANIFEST

NON-HAZARDOUS MANIFEST		1. Generator's US EPA ID No.	Manifest Doc No.	2. Page 1 of	410952		
3. Generator's Mailing Address: ENVIO SERVICES, LLC 116 622390 State Industrial Site Waukegan, IL 60082		Generator's Site Address (if different than mailing):		A. Manifest Number WMNA	1 594773		
4. Generator's Phone 207 390 9914				B. State Generator's ID			
5. Transporter 1 Company Name		6. US EPA ID Number		C. State Transporter's ID			
				D. Transporter's Phone			
7. Transporter 2 Company Name		8. US EPA ID Number		E. State Transporter's ID			
				F. Transporter's Phone			
9. Designated Facility Name and Site Address 116 622390 State Industrial Site Waukegan, IL 60082		10. US EPA ID Number		G. State Facility ID			
				H. State Facility Phone			
GENERATOR	11. Description of Waste Materials		12. Containers		13. Total Quantity	14. Unit Wt./Vol	I. Misc. Comments
	a. VOC in inactive soil (unmixed)		No.	Type			
	WM Profile # V10000 WT		1	200	200	Ton	14.38 Ton
	b.						
	WM Profile #						
c.							
WM Profile #							
d.							
WM Profile #							
J. Additional Descriptions for Materials Listed Above 942787		K. Disposal Location					
		Cell				Level	
		Grid					
15. Special Handling Instructions and Additional Information							
Purchase Order # 2017-1750				EMERGENCY CONTACT / PHONE NO.:			
16. GENERATOR'S CERTIFICATE: I hereby certify that the above described materials are not hazardous wastes as defined by CFR Part 261 or any applicable state law, have been fully and accurately described, classified and packaged and are in proper condition for transportation according to applicable regulations.							
Printed Name Kyle Under Herden		Signature "On behalf of"			Month	Day	Year
					12	04	17
17. Transporter 1 Acknowledgement of Receipt of Materials							
Printed Name Richard Ramos		Signature			Month	Day	Year
					12	04	17
18. Transporter 2 Acknowledgement of Receipt of Materials							
Printed Name FRANK B. GLEN		Signature			Month	Day	Year
					12	06	17
19. Certificate of Final Treatment/Disposal I certify, on behalf of the above listed treatment facility, that to the best of my knowledge, the above-described waste was managed in compliance with all applicable laws, regulations, permits and licenses on the dates listed above.							
20. Facility Owner or Operator: Certification of receipt of non-hazardous materials covered by this manifest.							
Printed Name Allie Simon		Signature			Month	Day	Year
					12	4	17

White- TREATMENT, STORAGE, DISPOSAL FACILITY COPY
Pink- FACILITY USE ONLY

Blue- GENERATOR #2 COPY
Gold- TRANSPORTER #1 COPY

Yellow- GENERATOR #1 COPY

APPENDIX D

WPDES Permit Coverage Letter



January 7, 2019

Brian Kappen, Project Manager
EnviroForensics LLC
N16 w 23390 Stone Ridge Drive, Suite G
Waukesha, WI 53188

Subject: Determination of Coverage under Contaminated Groundwater from Remedial Action Operations (No. WI-0046566-07)

WPDES Permittee: EnviroForensics, LLC
Facility Name: Robinson's Cleaners, Former
Site Location: 1036 4th Street, Beloit, WI 53511
Facility Identification Number (FIN): 64978

Dear Brian Kappen:

The Wisconsin Department of Natural Resources, hereafter the Department, has rescinded coverage under the letter dated December 20, 2018 and has regranted coverage under this letter dated January 7, 2019. Specifically, the Department has updated the list and limits of sampling parameters listed in Table 3. All other terms and conditions remain in effect. The Department received your request for coverage on December 17, 2018 and has reviewed your application for authorization to discharge wastewater from a soil vapor extraction (SVE) system condensate at the Robinson's Cleaners, Former (WDNR BRRTS #02-54-515602).

EnviroForensics is authorized by this letter for the discharge of wastewater at the above referenced site under the Wisconsin Pollution Distribution Elimination System General Permit No. WI-0046566-06-0 *Contaminated Groundwater from Remedial Action Operations*. Your coverage begins on December 18, 2018 and expires June 30, 2023. You are responsible for compliance with the requirements and conditions contained in the permit. Please download the permit and fact sheet from the Department website at: <http://dnr.wi.gov/topic/wastewater/GeneralPermits.html>.

Discharges under this permit are required to be consistent with a discharge management plan that has been approved by the Department. Your application submitted will be considered as the required discharge management plan. All your contaminated wastewater treatment, discharges, and remedial actions must be done according to the terms and conditions of the permit, specifically sections 1, 3, 4, 7 and 8. Any significant changes will require Department approval.

General Requirements

1. **Effective Term:** Coverage at your facility will become effective under this permit on **December 20, 2018** until permit coverage termination.
2. **Additives:** The discharge of water containing treatment additives or conditioners such as chlorine is prohibited unless their use is approved in writing by the Department.

3. **Reporting:** All required monitoring shall be reported via eDMR (electronic discharge monitoring report) to be consistent with federal e-reporting requirements. The eDMR shall be submit to the department whether or not there is a discharge during any month. The first report for the month of December 2018 is due by January 21, 2019. To receive access to the eDMR forms, you must register for a WAMS ID and request access to the monitoring reports via DNR Switchboard at <http://dnr.wi.gov/topic/Switchboard>
4. **Monitoring Requirements and Limits:** The permittee must report all monitoring data to the Department as required in Section 4 of the permit. These monitoring requirements and all applicable limits are summarized in the table below. If the department previously approved a reduced monitoring requirement or an exemption from some monitoring requirement of this permit, this approval does not carry over into this reissued permit. Sample point designation is listed below in Table 1.

Table 1. Sampling Point Designation

Sampling Point Designation	
Sampling Point Number	Sampling Point Location, Waste Type/Sample Contents and Treatment Description (as applicable)
001	The permittee shall sample the condensate from the soil vapor extraction (SVE) system s prior to discharge to the storm sewer catchment and final discharge to the Rock River via Outfall 001. The samples taken shall be representative of the discharge that consists solely of the SVE system condensate before mixing with any other water.

The permittee shall comply with the following monitoring requirements and limitations in Table 2 and Table 3 below. Monitoring is only required when wastewater being discharged to surface waters.

Table 2. Sampling Point (Outfall) 001 – Surface Water Discharge

Monitoring Requirements and Effluent Limitations					
Parameter	Limit Type	Limit and Units	Sample Frequency	Sample Type	General Permit Notes
Flow Rate		gpd	Daily or Each Discharge	Estimated	See Section 4.2.1.2
pH Field	Daily Min	6.0 su	Weekly or Each Discharge	Grab	See Sections 4.2.1.2 and 4.2.1.3
pH Field	Daily Max	9.0 su	Weekly or Each Discharge	Grab	See Sections 4.2.1.2 and 4.2.1.3
Other Pollutants at Concentration of Concern	See Table 3	See Table 3	Weekly or Each Discharge	TBD	Refer to Sections 4.2.1.1 and 4.2.1.2

Table 3. Effluent Limitations for Surface Water Discharges

Parameter	Limit Type	Limit and Units	Sample Type	General Permit Note
Benzene	Monthly Avg	50 µg/L	Grab	See Section 4.2.1.2
BETX, Total	Monthly Avg	750 µg/L	Grab	See Section 4.2.1.2
PAHs	Monthly Avg	0.1 µg/L	Grab	See Sections 4.2.1.1.3, 4.2.1.2 and Appendix C for calculation
Benzo(a)pyrene	Monthly Avg	0.1 µg/L	Grab	See Section 4.2.1.1.3
Naphthalene	Monthly Avg	70 µg/L	Grab	See Sections 4.2.1.1.5 and 4.2.1.2
Bromoform	Monthly Avg	120 µg/L	Grab	
Carbon Tetrachloride	Monthly Avg	150 µg/L	Grab	
Chloroform	Monthly Avg	120 µg/L	Grab	
Dichlorobromomethane	Monthly Avg	120 µg/L	Grab	
1,2-Dichloroethane	Monthly Avg	180 µg/L	Grab	
1,1-Dichloroethylene	Monthly Avg	50 µg/L	Grab	
Methyl Bromide	Monthly Avg	120 µg/L	Grab	
Methylene Chloride	Monthly Avg	120 µg/L	Grab	
1,1,2,2-Tetrachloroethane	Monthly Avg	50 µg/L	Grab	
Tetrachloroethylene	Monthly Avg	50 µg/L	Grab	
1,1,2-Trichloroethane	Monthly Avg	50 µg/L	Grab	
1,1,1-Trichloroethane	Monthly Avg	50 µg/L	Grab	
Trichloroethylene	Monthly Avg	50 µg/L	Grab	
Vinyl Chloride	Monthly Avg	10 µg/L	Grab	
Oil & Grease (Hexane)	Daily Max	10 mg/L	Grab	See Section 4.2.1.2

Note that chlorine and total suspended solids (TSS) and lead testing requirements have been removed as required testing parameters. There is no chlorine treatments or additives and the discharge is not from an open pit or trench and does not require treatment, therefore these parameters were removed.

The permittee shall record the total daily volume of wastewater discharged under this permit on each day there is a discharge. For all other parameters, in the first 4 weeks of discharge, the permittee shall sample the discharge weekly under Outfall 001. If the discharge continues after the first 4 weeks, the permittee shall sample the discharge monthly. If the discharge continues beyond one year since the start date and the monitoring results have not exceeded any permit discharge limitations the department may approve in writing, a quarterly monitoring frequency. A monthly or quarterly sampling frequency only applies if data indicates substantial compliance with effluent limits. If the sampling frequency is monthly or quarterly and an exceedance occurs, a weekly monitoring frequency must resume until substantial compliance is demonstrated for eight consecutive weeks.

The permittee may request (in writing) removal of select parameters after four weeks (or four discharge events) of monitoring if results are non-detected (less than reporting limits) or less than 1/5 of the effluent limit listed in Table 3. The removal of parameters is subject to Department review and discretion. The permittee shall continue with the required sampling until written approval is issued by the Department.

5. **Discharge Status:** If the project has been completed and/or the remedial action operations have ceased, please complete a **Notice of Termination (Form 3400-221)** available at <http://dnr.wi.gov/topic/wastewater/GeneralPermits.html>. Please email this form to me at Christopher.Dietrich@Wisconsin.gov. Your facility will then be removed from our list of facilities currently covered under this general permit.
6. **Change of Authorized Representative:** If you plan on changing the authorized representative contact for the project or want to assign a new person to be a duly authorized representative to submit specific permit documents on their behalf, please fill out a Delegation of Signature Authority (Form 3400-220) available at <http://dnr.wi.gov/topic/wastewater/GeneralPermits.html>. Please email this form to me at Christopher.Dietrich@Wisconsin.gov.
7. **Project Changes:** If there have been or will be any changes in dewatering operations that result in new or different wastewater discharges to the waters of the state, please contact the Department and reapply for permit coverage. If reapplication is necessary, please complete a notice of intent (NOI) form for the applicable general permit(s) to verify that your discharge is eligible for that general permit. NOI forms are available at <http://dnr.wi.gov/topic/wastewater/GeneralPermits.html>. This document must be mailed to the Department contact in the region of the proposed discharge. This information is also available at the general permit webpage.

Additional information regarding the Department's legal authority in this matter and your rights of appeal are shown below. Please contact me by phone: (414) 263-8713 or by email: Christopher.Dietrich@Wisconsin.gov if you have any questions.

Regards,



Chris Dietrich
Wastewater Specialist
Bureau of Water Quality

Cc: Trevor Moen, General Permit Coordinator, WDNR (via email)
Jeff Ackerman, Remediation and Redevelopment, WDNR (via email)

LEGAL AUTHORITIES and APPEAL RIGHTS

Section 283.35(1), Wis. Stats., authorizes the Department to issue a general permit applicable to a designated area of the state authorizing discharges from specified categories or classes of point sources located within that area. Upon the request of the owner or operator of a point source, the Department shall withdraw the point source from the coverage of a general permit and issue an individual Wisconsin Pollutant Discharge Elimination System (WPDES) permit for that source in accordance with s. 283.35(2), Wis. Stats. Additionally, the Department may withdraw a point source from the coverage of a general permit and issue an individual WPDES permit if that source meets any of the factors listed in s. 283.35(3), Wis. Stats. Issuance of such an individual permit will provide for a public comment period, and potentially a public informational hearing and/or an adjudicatory hearing. In lieu of general permit withdrawal, the Department may refer any violation of a general permit to the Department of Justice for enforcement under s. 283.91, Wis. Stats., pursuant to s. 283.89, Wis. Stats. In order to remain in compliance and avoid any enforcement action, **please read your permit carefully.**

To challenge the reasonableness of or necessity for any term or condition of an issued, reissued, or modified general permit, s. 283.63, Wis. Stats., and ch. NR 203, Wis. Adm. Code, require that you file a verified petition for review with the Secretary of the Department of Natural Resources within 60 days after notice of the permit decision was issued by the Department. For other permit-related decisions, such as the decision to confer general permit coverage to your facility, that are not reviewable pursuant to s. 283.63, Wis. Stats., it may be possible for permittees or other persons to obtain an administrative review pursuant to s. 227.42, Wis. Stats., and s. NR 2.05(5), Wis. Adm. Code, or a judicial review pursuant to s. 227.52, Wis. Stats. If you choose to pursue one of these options, you should know that Wisconsin Statutes and Administrative Code establish time periods within which requests to review Department decisions must be filed.

APPENDIX E

Operation, Maintenance, and Monitoring Plan



**SOIL VAPOR EXTRACTION SYSTEM
OPERATION, MAINTENANCE, AND MONITORING PLAN**

**FORMER ROBINSON'S CLEANERS
1036 4TH STREET
BELOIT, WI 53511
BRRTS# 02-54-515602**

October 31, 2019

Prepared By:

EnviroForensics LLC
N16W23390 Stone Ridge Drive, Suite G
Waukesha, WI 53188
Phone: (262) 290-4001
www.enviroforensics.com

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2.0	SYSTEM DESCRIPTION	2
2.1	Extraction Wells and Conveyance Piping.....	2
2.2	Mechanical Components.....	2
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4.0	REPORTING	7

FIGURES

1	Soil Vapor Extraction System Layout
2	SVE Well Construction Diagram
3	Process and Instrumentation Diagram for Remediation System

APPENDICES

A	SVE System Operation, Maintenance, and Monitoring Log
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1.0 INTRODUCTION

A soil vapor extraction (SVE) system has been installed at the former Robinson's Cleaners facility located at 1036 4th Street in Beloit, Wisconsin (Site). The system is designed to remove tetrachloroethene (PCE) and associated vapors from the vadose zone in the unconsolidated sediment. Proper operation and maintenance of the SVE system is necessary to document remedial progress and to optimize system performance. This Operation, Maintenance, and Monitoring Plan (OM&M Plan) has been prepared in accordance with Wisconsin Administrative Code (WAC) Chapter NR 724.

1.1 Site Information and Contacts

Property Information:

County: Rock

PLSS Location: NW ¼ of NE ¼ of Sec. 35, T1N, R12E

WTM Coords: X=599013, Y=226869

City of Beloit Parcel #: 13510925

Property Owner Information:

Owner Name: David Gleichsner

Address: 958 4th Street, Beloit, WI 53511

Telephone: (608) 365-5333

E-mail Address: bbf@charter.net

Consultant Information:

Company Name: EnviroForensics, LLC

Address: N16W23390 Stone Ridge Drive, Suite G, Waukesha, WI 53188

Contacts: Wayne Fassbender - Senior Project Manager/ Brian Kappen – Project Manager

Telephone: (262) 290-4001

E-mail Address: wfassbender@enviroforensics.com/ bkappen@enviroforensics.com

WDNR Project Manager: Mr. Jeff Ackerman

Address: 3911 Fish Hatchery Road, Fitchburg, WI 53711

Telephone: (608) 275-3323

Email: Jeffrey.Ackerman@Wisconsin.gov

2.0 SYSTEM DESCRIPTION

The SVE system consists of five (5) extraction wells, conveyance piping, and a vacuum blower and associated equipment and controls housed inside a trailer-mounted enclosure positioned on the west side of the Site building. The system layout, extraction well design, and mechanical components are described in this section.

2.1 Extraction Wells and Conveyance Piping

The five (5) extraction wells (designated SVE-1 through SVE-5) are screened in unconsolidated sediment from approximately 3 to 6 feet below ground surface (bgs). The extraction wells are constructed of 4-inch diameter Schedule 40 PVC pipe with 0.020-inch slotted screen. Individual 4-inch PVC conveyance lines equipped with butterfly valves extend from the equipment trailer to each extraction well. The conveyance lines were installed in trenches approximately 42 inches below grade. The extraction well locations and conveyance piping layout are depicted on **Figure 1**. An 18-inch diameter flush-mount, traffic-rated steel vault protects each wellhead and provides access to an expandable plug at the top of the well casing. A diagram of a typical wellhead is depicted on **Figure 2**.

A condensate water discharge line was installed from the equipment trailer to a storm sewer catchment on the west edge of 4th Street. It is constructed of 3-inch diameter PVC piping placed in a trench that ranges in depth from approximately one foot below grade at the system to three feet below grade at the outlet in the storm sewer catchment. The path of the discharge line is depicted on **Figure 2**.

2.2 Mechanical Components

The mechanical system consists of the following components:

- Roots URAI 59 positive displacement blower;
- 20 HP 3-phase motor;
- 110-gallon air-water separator (AWS) tank with float switch assembly;
- Inlet filter;
- Vacuum relief valve;
- Exhaust silencer;
- 1.5 horsepower progressive cavity transfer pump;
- Tuthill TT10P in-line digital turbine flow meter;
- Secondary water containment tanks (600-gallon total capacity) with high level switch;
- Sensaphone cellular alarm notification system.

The components are contained in a trailer-mounted enclosure measuring approximately 10 feet long by 6 feet wide. The blower exhaust stack exits through the side of the enclosure to a height of 10 feet above ground surface. A system process and instrumentation diagram is presented on **Figure 3**. The enclosure is surrounded by a 6-foot tall fence with a padlocked gate on the south end.

3.0 OPERATION AND MAINTENANCE

Operation and maintenance activities are conducted by EnviroForensics personnel to:

- Maximize system efficiency and contaminant mass removal rates;
- Keep the mechanical equipment in good working order; and
- Collect data to track system performance and determine a timeframe for shutdown.

3.1 System Operation

The SVE system is designed to operate continuously. 230 volt 3-phase power is supplied to the system by Alliant Energy. The control cabinet mounted to the outside of the trailer houses the main electrical disconnect, alarm notification lights, and run time meters and Hand-Off-Auto switches for the blower and transfer pump. Overall system vacuum can be controlled by adjusting the dilution air ball valve located next to the blower. Each of the five (5) conveyance lines is equipped with an individual butterfly valve located above ground just outside the trailer. The amount of vacuum applied to each extraction well can be regulated by adjusting the corresponding butterfly valve. This design allows the operators to target specific areas as the remediation progresses to maximize efficiency. Operational changes are made as needed during the maintenance visits described below.

3.2 System Maintenance and Monitoring

Long-term maintenance activities will be performed monthly or as needed in response to system alarms. Maintenance activities will include the following:

- Troubleshooting system shutdowns or operational issues;
- Inspection and replacement of the inlet air and dilution air filters;
- Inspection and lubrication of the blower per manufacturer instructions;
- Changing the drive belt in the event of failure; and
- Cleaning out the AWS sediment strainer.

Samples of the SVE system air emissions are collected from a port in the exhaust stack downstream of the vacuum blower to calculate mass removal rates and cumulative mass removed and to determine operational changes to optimize system performance. The samples are analyzed for select chlorinated volatile organic compounds (CVOCs) by EPA test method TO-15. Performance monitoring is conducted in accordance with the following emissions testing schedule required under WAC Chapter 419.07:

- Once each day for the first 3 days of system operation;
- Weekly for the next 3 weeks; and
- Monthly thereafter.

The first month of more frequent monitoring was completed. The results established that the concentrations of CVOCs in the system emissions was less than regulatory thresholds that would trigger treatment requirements. Monthly monitoring according to the table below.

Parameter	Method	Location
Exhaust CVOC vapor concentration	1-liter vacuum canister sample	Exhaust stack port
System runtime	Meter reading	Control cabinet
System vacuum (max 8 in Hg)	Gauge reading	Next to blower
Conveyance line vacuum	Gauge reading	Individual conveyance lines
Flow rate	Thermo-anemometer	Influent piping port
Exhaust temperature (max 180°F)	Thermo-anemometer	Exhaust stack port
Water discharge volume	Flow meter reading	Water discharge line
Monitoring point vacuum	Hand-held digital manometer	Individual monitoring points

System operation and performance monitoring information is recorded on the log presented in **Appendix A**. SVE wellhead and monitoring point locations are depicted on **Figure 1**. Currently, vacuum monitoring points consist of existing water table monitoring wells MW-10, MW-13, and MW-17. Additional monitoring inside the Site building may be added in the future.

In addition to the parameters listed above, water sampling is required as a condition of Wisconsin Pollutant Discharge Elimination System permit coverage for discharge to the storm sewer. Samples are collected on a monthly basis from a spigot on the discharge line for analysis of the following:

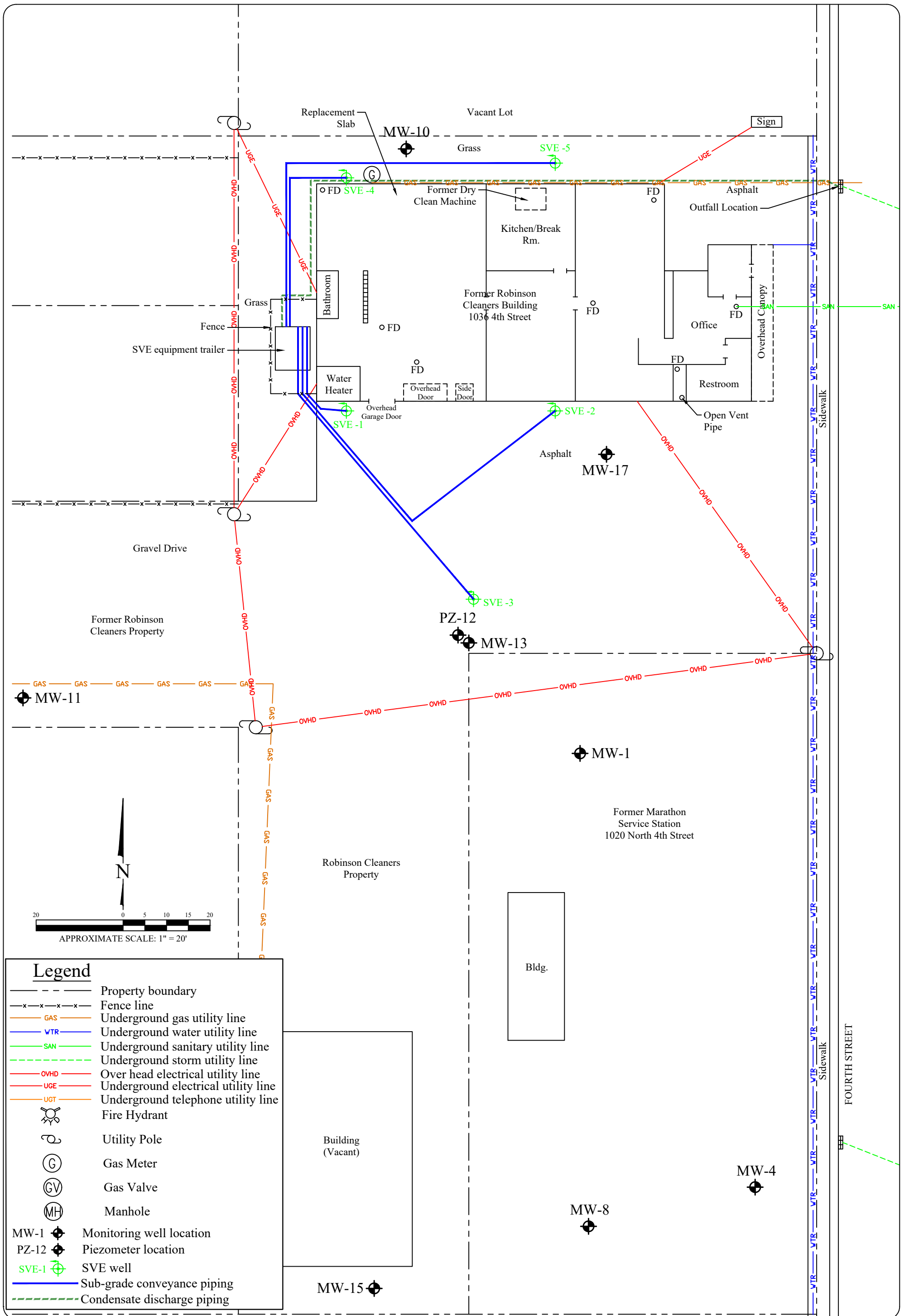
- pH using a hand-held digital meter in the field;
- Volatile organic compounds (VOCs);
- Polycyclic aromatic hydrocarbons (PAHs); and
- Oil and grease.

The coverage letter allows for removal of select parameters from the sampling list provided the concentrations in the first four (4) samples are less than 1/5 of the effluent limits. The project manager will inform system operators of current sampling requirements when changes occur.

4.0 REPORTING

Semi-annual remediation progress reports will be submitted to the Wisconsin Department of Natural Resources (WDNR), as required, using the Remediation Site Operation, Maintenance, Monitoring & Optimization Report (WDNR Form 4400-194). The reports will include information on operational configuration during the reporting period, figures, tables, and graphs showing time versus contaminant removal and cumulative contaminant removal. The reporting periods each year shall be January 1 to June 30 and July 1 to December 31. The deadline for submittal of progress reports is 30 days after the end of each reporting period.

FIGURES



No.	Date	Revision	Approved

ENVIROforensics

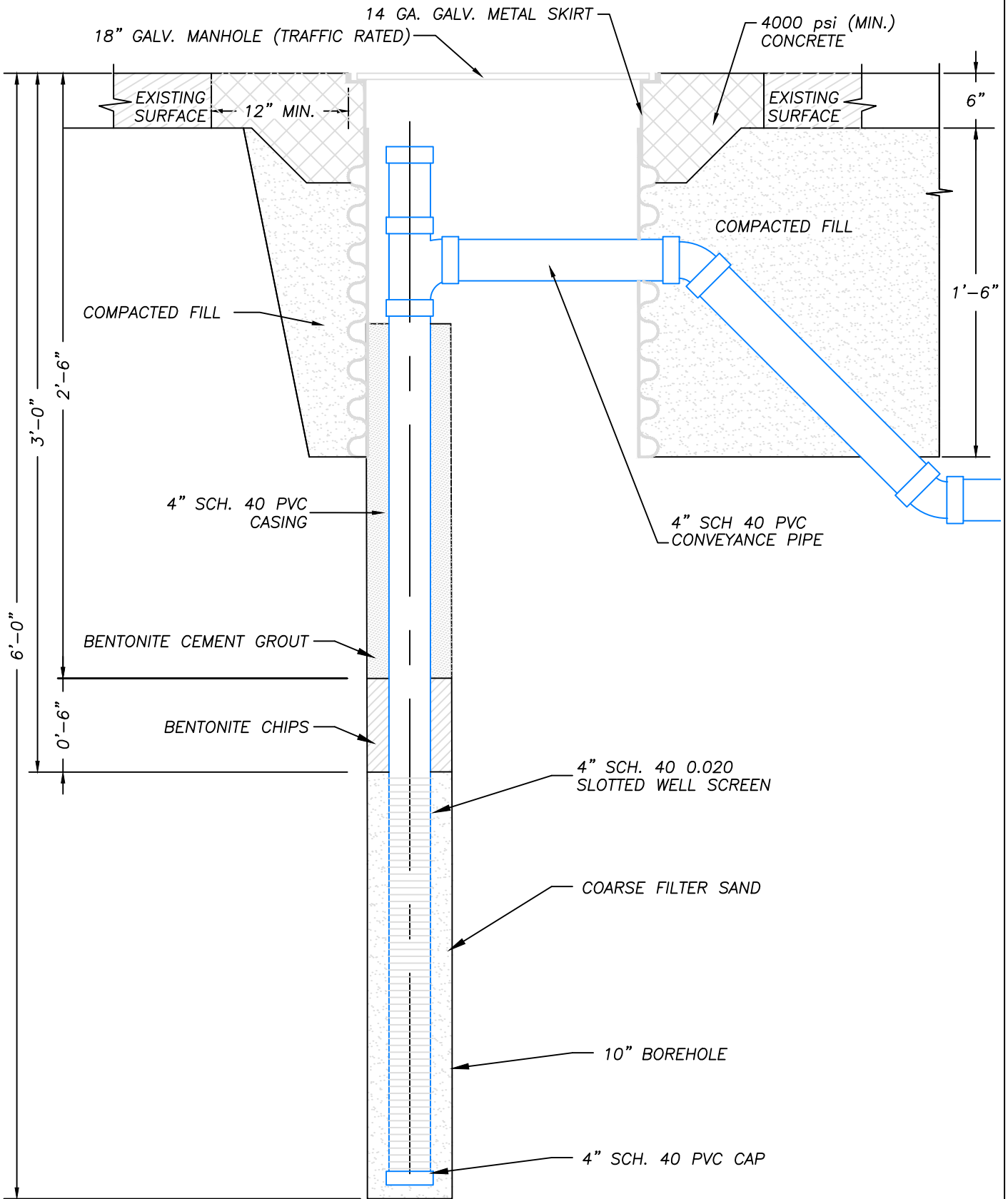
825 North Capitol Avenue • Indianapolis, IN 46204
 EnviroForensics.com

Date:	6/1/18
Designed:	EB
Drawn:	EB
Checked:	BK
DWG file:	6154-1116

SOIL VAPOR EXTRACTION SYSTEM LAYOUT

Robinson's Cleaners: Beloit
 1036 4th Street
 Beloit, Wisconsin

Figure	1
Project	6154



No.	Date	Revision	Approved



Date:	7/7/17
Designed:	EB
Drawn:	EB
Checked:	BK
DWG file:	6154-0877

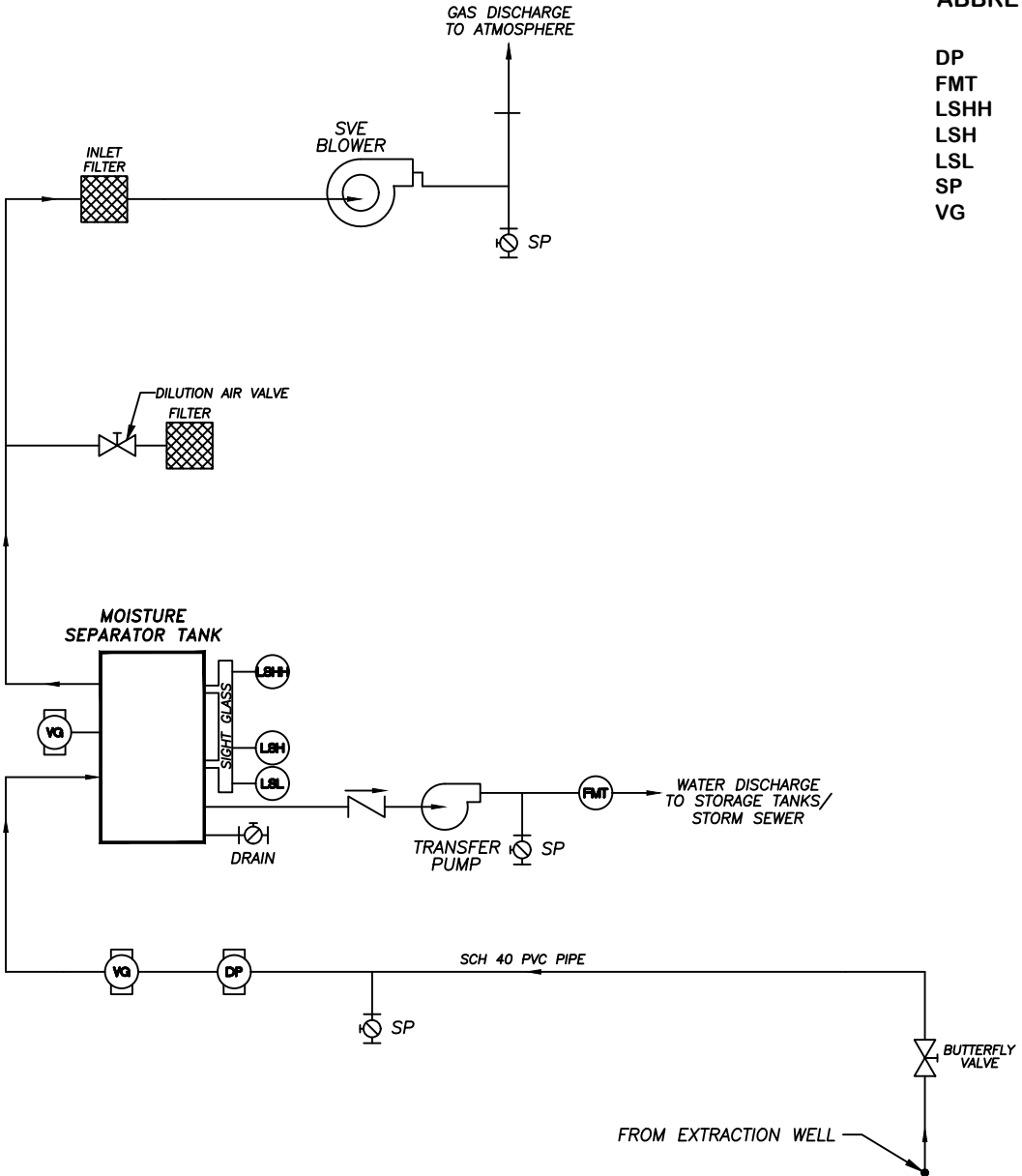
TYPICAL EXTRACTION WELL CONSTRUCTION DIAGRAM

Former Robinson's Cleaners
 1036 4th Street
 Beloit, Wisconsin

Figure	2
Project	6154

ABBREVIATIONS

- DP DIFFERENTIAL PRESSURE GAUGE
- FMT FLOW METER TOTALIZER
- LSHH LIQUID HIGH-HIGH SWITCH
- LSH LIQUID HIGH SWITCH
- LSL LIQUID LOW SWITCH
- SP SAMPLE PORT
- VG VACUUM GAUGE



No.	Date	Revision	Approved

ENVIROforensics
 825 North Capitol Avenue • Indianapolis, IN 46204
 EnviroForensics.com

Date:	6/1/18
Designed:	EB
Drawn:	EB
Checked:	BK
DWG file:	6154-0783

SVE SYSTEM PROCESS AND INSTRUMENTATION DIAGRAM
 Robinson's Cleaners: Beloit
 1036 4th Street
 Beloit, Wisconsin

Figure	3
Project	
6154	

APPENDIX A

SVE System Operation and Maintenance Log

FORMER ROBINSON CLEANERS SVE SYSTEM OM&M LOG

1416 N. 4th Street, Beloit, Wisconsin

Personnel: _____

Date: _____

SVE SYSTEM STATUS AMBIENT TEMP. AND WEATHER:

	Time	System Runtime (Hr)	System Vac (in. Hg)	Influent Flow (fpm)	Influent Air Temp (°F)	Exhaust Temp (°F)
In						

CONVEYANCE LINE

Line	Vacuum (in. Hg)	Differential Pressure (in H ₂ O)		
SVE-1/3				
SVE-4/5				
SVE-2				

MONITORING POINT VACUUM (in. H₂O)

Check if not taken _____

MW-10					
MW-13					
MW-17					

SVE SYSTEM INSPECTION

Motor Grease C-Checked R-Replaced	Blower Gear Oil C-Checked R-Replaced	Inlet Air Filter C-Checked R-Replaced	Dilution Air Filter C-Checked R-Replaced	Trailer Clean and Secure?

SAMPLE COLLECTION

Check if not taken _____

Sample Location	
Canister ID	
Flow Controller ID	
System Runtime	

Pressure (initial)	
Pressure (final)	
Time (initial)	
Time (final)	

SVE SYSTEM STATUS

	Time	System Runtime (Hr)	Intake Vac (in. Hg)	Flow Meter (gallons)
Out				

Notes

Extraction wells open on departure:

APPENDIX F

SVE System Commissioning Laboratory Reports



EnvisionAir
1441 Sadlier Circle West Drive
Indianapolis, IN 46239
Ph: 317-351-0885
Fax: 317-351-0882
www.envision-air.com

Mr. Brian Kappen
Enviroforensics
N16 W. 23390 Stone Ridge Dr
Suite G
Waukesha, WI 53188

September 13, 2019

EnvisionAir Project Number: 2019-543
Client Project Name: 6154 – Robinson's-Beloit

Dear Mr. Kappen,

Please find the attached analytical report for the samples received September 9, 2019. All test methods performed were fully compliant with local, state, and federal EPA methods unless otherwise noted. The project was analyzed as requested on the enclosed chain of custody record. Please review the comments section for additional information about your results or Quality Control data.

Feel free to contact me if you have any questions or comments regarding your analytical report or service.

Thank you for your business. EnvisionAir looks forward to working with you on your next project.

Yours Sincerely,

A handwritten signature in black ink that reads "Stanley A. Hunnicutt".

Stanley A Hunnicutt

Project Manager
EnvisionAir, LLC



EnvisionAir
 1441 Sadlier Circle West Drive
 Indianapolis, IN 46239
 Ph: 317-351-0885
 Fax: 317-351-0882
 www.envision-air.com

Client Name: ENVIROFORENSICS
Project ID: 6154 / ROBISON'S - BELOIT
Client Project Manager: BRIAN KAPPEN
EnvisionAir Project Number: 2019-543

Sample Summary

Canister Pressure / Vacuum

<u>Laboratory Sample Number:</u>	<u>Sample Description:</u>	<u>START</u>	<u>START</u>	<u>End Date</u>	<u>End Time</u>	<u>Date</u>	<u>Time</u>	<u>Initial Field</u>	<u>Final Field</u>	<u>Lab</u>	
		<u>Date</u>	<u>Time</u>								<u>Collected:</u>
19-2438	6154-SVE-EX	A	9/4/19	9:40			9/9/19	11:30	-28	-3	-3



EnvisionAir
 1441 Sadlier Circle West Drive
 Indianapolis, IN 46239
 Ph: 317-351-0885
 Fax: 317-351-0882
 www.envision-air.com

Client Name: ENVIROFORENSICS
Project ID: 6154 / ROBISON'S - BELOIT
Client Project Manager: BRIAN KAPPEN
EnvisionAir Project Number: 2019-543

Analytical Method: TO-15
Analytical Batch: 091019AIR

Client Sample ID: 6154-SVE-EX **Sample Collection START Date/Time:** 9/4/19 9:40
Envision Sample Number: 19-2438 **Sample Collection END Date/Time:**
Sample Matrix: AIR **Sample Received Date/Time:** 9/9/19 11:30

<u>Compounds</u>	<u>Sample Results ug/m³</u>	<u>Reporting Limit ug/m³</u>	<u>Flag</u>
cis-1,2-Dichloroethene	< 198	198	
Tetrachloroethene	2,710	128	1
trans-1,2-Dichloroethene	< 396	396	
Trichloroethene	< 10.7	10.7	
Vinyl Chloride	< 12.8	12.8	
4-bromofluorobenzene (surrogate)	95%		
Analysis Date/Time:	9-11-19/13:01		
Analyst Initials	tjg		

TO-15 Quality Control Data

EnvisionAir Batch Number: 091019AIR

<u>Method Blank (MB):</u>	<u>MB Results (ppbv)</u>	<u>Reporting Limit (ppbv)</u>	<u>Flags</u>
cis-1,2-Dichloroethene	< 5	5	
Tetrachloroethene	< 0.47	0.47	
trans-1,2-Dichloroethene	< 10	10	
Trichloroethene	< 0.2	0.2	
Vinyl Chloride	< 0.5	0.5	
4-bromofluorobenzene (surrogate)	112%		
Analysis Date/Time:	9-10-19/15:57		
Analyst Initials	tjg		

<u>LCS/LCSD</u>	<u>LCS Results (ppbv)</u>	<u>LCSD Results (ppbv)</u>	<u>LCS/D Conc(ppbv)</u>	<u>LCS Rec.</u>	<u>LCSD Rec.</u>	<u>RPD</u>	<u>Flag</u>
Vinyl Chloride	10.7	9.8	10	107%	98%	8.8%	
trans-1,2-Dichloroethene	9.56	8.83	10	96%	88%	7.9%	
cis-1,2-Dichloroethene	9.66	8.85	10	97%	89%	8.8%	
Trichloroethene	9.63	9.5	10	96%	95%	1.4%	
Tetrachloroethene	9.26	9.94	10	93%	99%	7.1%	
4-bromofluorobenzene (surrogate)	112%	110%					
Analysis Date/Time:	9-10-19/14:11	9-10-19/16:33					
Analyst Initials	tjg	tjg					



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Flag Number

1

Comments

Reported value is from a 40x dilution. TJG 9/12/19

CHAIN OF CUSTODY RECORD

EnvisionAir | 1441 Sadler Circle West Drive | Indianapolis, IN 46239 | Phone: (317) 351-0885 | Fax: (317) 351-0882

Client: <u>Enviro Forensics</u>	P.O. Number: <u>2019-0843</u>
Report Address: <u>bKappen@enviroforensics.com</u>	Project Name or Number: <u>Robisons-Beloit 6154</u>
Report To: <u>B. Kappen</u>	Sampled by: <u>B. Kappen</u>
Phone: <u>414-326-4412</u>	QA/QC Required: (circle if applicable) Level III Level IV
Invoice Address: <u>accountspayable@enviroforensics.com</u>	Reporting Units needed: (circle) <u>ug/m³</u> mg/m ³ PPBV PPMV
Desired TAT: (Please Circle One) 1 day 2 days 3 days <u>Std (5 bus. days)</u>	Media type: 1LC = 1 Liter Canister 6LC = 6 Liter Canister TB = Tedlar Bag TD = Thermal Desorption Tube

REQUESTED PARAMETERS

TO-15 Full List

TO-15 Short List (Specify in notes)



Sampling Type:
 Soil-Gas:
 Sub-Slab:
 Indoor-Air:

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Canister Pressure / Vacuum

Air Sample ID	Media Type <small>(see code above)</small>	Coll. Date <small>(Grab/Comp Start)</small>	Coll. Time <small>(Grab/Comp Start)</small>	Coll. Date <small>(Comp. End)</small>	Coll. Time <small>(Comp. End)</small>					Canister Serial #	Flow Controller Serial #	Initial Field (in. Hg)	Final Field (in. Hg)	Lab Received (in. Hg)	EnvisionAir Sample Number
6154-SVE-EX	1LC	9/4/19	940							83731	0009	-28	-3	-3	19-2438

Comments:

Relinquished by:	Date	Time	Received by:	Date	Time
<u>B. Kappen</u>	<u>9/5/19</u>	<u>1630</u>	<u>Fed Ex</u>	<u>9/5/19</u>	<u>1630</u>
			<u>Ann Hunnicutt</u>	<u>9/9/19</u>	<u>1130</u>



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Mr. Brian Kappen
Enviroforensics
N16 W. 23390 Stone Ridge Dr
Suite G
Waukesha, WI 53188

September 26, 2019

EnvisionAir Project Number: 2019-589
Client Project Name: 6154

Dear Mr. Kappen,

Please find the attached analytical report for the samples received September 17, 2019. All test methods performed were fully compliant with local, state, and federal EPA methods unless otherwise noted. The project was analyzed as requested on the enclosed chain of custody record. Please review the comments section for additional information about your results or Quality Control data.

Feel free to contact me if you have any questions or comments regarding your analytical report or service.

Thank you for your business. EnvisionAir looks forward to working with you on your next project.

Yours Sincerely,

A handwritten signature in black ink that reads "Stanley A. Hunnicutt".

Stanley A Hunnicutt

Project Manager
EnvisionAir, LLC



EnvisionAir
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Client Name: ENVIROFORENSICS
Project ID: 6154
Client Project Manager: BRIAN KAPPEN
EnvisionAir Project Number: 2019-589

Sample Summary

Canister Pressure / Vacuum

<u>Laboratory Sample Number:</u>	<u>Sample Description:</u>	<u>Matrix:</u>	<u>START</u>	<u>START</u>	<u>End Date</u>	<u>End Time</u>	<u>Date</u>	<u>Time</u>	<u>Canister Pressure / Vacuum</u>		<u>Lab</u>
			<u>Date</u>	<u>Time</u>					<u>Initial Field</u>	<u>Final Field</u>	
			<u>Collected:</u>	<u>Collected:</u>	<u>Collected:</u>	<u>Collected:</u>	<u>Received:</u>	<u>Received:</u>	<u>(in. Hg)</u>	<u>(in. Hg)</u>	<u>(in. Hg)</u>
19-2622	6154-SVE-OA-1	A	9/11/19	12:50	9/12/19	12:50	9/17/19	16:30	-29	-4	-4
19-2623	6154-SVE-OA-2	A	9/11/19	12:55	9/12/19	12:55	9/17/19	16:30	-30	-5	-5
19-2624	6154-SVE-EX	A	9/12/19	13:25			9/17/19	16:30	-28.5	-3	-3
19-2625	6154-SVE-EX	A	9/13/19	12:10			9/17/19	16:30	-30	-3	-3



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Client Name: ENVIROFORENSICS

Project ID: 6154

Client Project Manager: BRIAN KAPPEN

EnvisionAir Project Number: 2019-589

Analytical Method: TO-15
Analytical Batch: 091919AIR

Client Sample ID: 6154-SVE-OA-1

Sample Collection START Date/Time: 9/11/19 12:50

Sample Collection END Date/Time: 9/12/19 12:50

Envision Sample Number: 19-2622

Sample Received Date/Time: 9/17/19 16:30

Sample Matrix: AIR

<u>Compounds</u>	<u>Sample Results ug/m³</u>	<u>Reporting Limit ug/m³</u>	<u>Flag</u>
cis-1,2-Dichloroethene	< 19.8	19.8	
Tetrachloroethene	< 3.19	3.19	
trans-1,2-Dichloroethene	< 39.6	39.6	
Trichloroethene	< 1.07	1.07	
Vinyl Chloride	< 1.28	1.28	
4-bromofluorobenzene (surrogate)	96%		
Analysis Date/Time:	9-20-19/19:48		
Analyst Initials	tjg		



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Client Name: ENVIROFORENSICS

Project ID: 6154

Client Project Manager: BRIAN KAPPEN

EnvisionAir Project Number: 2019-589

Analytical Method: TO-15
Analytical Batch: 091919AIR

Client Sample ID: 6154-SVE-OA-2

Sample Collection START Date/Time: 9/11/19 12:55

Sample Collection END Date/Time: 9/12/19 12:55

Envision Sample Number: 19-2623

Sample Received Date/Time: 9/17/19 16:30

Sample Matrix: AIR

<u>Compounds</u>	<u>Sample Results ug/m³</u>	<u>Reporting Limit ug/m³</u>	<u>Flag</u>
cis-1,2-Dichloroethene	< 19.8	19.8	
Tetrachloroethene	< 3.19	3.19	
trans-1,2-Dichloroethene	< 39.6	39.6	
Trichloroethene	< 1.07	1.07	
Vinyl Chloride	< 1.28	1.28	
4-bromofluorobenzene (surrogate)	103%		
Analysis Date/Time:	9-20-19/20:58		
Analyst Initials	tjg		



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Client Name: ENVIROFORENSICS

Project ID: 6154

Client Project Manager: BRIAN KAPPEN

EnvisionAir Project Number: 2019-589

Analytical Method: TO-15
Analytical Batch: 092319AIR

Client Sample ID: 6154-SVE-EX

Sample Collection START Date/Time: 9/12/19 13:25

Sample Collection END Date/Time:

Envision Sample Number: 19-2624

Sample Received Date/Time: 9/17/19 16:30

Sample Matrix: AIR

<u>Compounds</u>	<u>Sample Results ug/m³</u>	<u>Reporting Limit ug/m³</u>	<u>Flag</u>
cis-1,2-Dichloroethene	< 198	198	
Tetrachloroethene	1,900	128	1
trans-1,2-Dichloroethene	< 396	396	
Trichloroethene	< 10.7	10.7	
Vinyl Chloride	< 12.8	12.8	
4-bromofluorobenzene (surrogate)	95%		
Analysis Date/Time:	9-24-19/01:22		
Analyst Initials	tjg		



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Client Name: ENVIROFORENSICS

Project ID: 6154

Client Project Manager: BRIAN KAPPEN

EnvisionAir Project Number: 2019-589

Analytical Method: TO-15
Analytical Batch: 092319AIR

Client Sample ID: 6154-SVE-EX

Sample Collection START Date/Time: 9/13/19 12:10

Sample Collection END Date/Time:

Envision Sample Number: 19-2625

Sample Received Date/Time: 9/17/19 16:30

Sample Matrix: AIR

<u>Compounds</u>	<u>Sample Results ug/m³</u>	<u>Reporting Limit ug/m³</u>	<u>Flag</u>
cis-1,2-Dichloroethene	< 198	198	
Tetrachloroethene	1,350	31.9	
trans-1,2-Dichloroethene	< 396	396	
Trichloroethene	< 10.7	10.7	
Vinyl Chloride	< 12.8	12.8	
4-bromofluorobenzene (surrogate)	90%		
Analysis Date/Time:	9-24-19/02:27		
Analyst Initials	tjg		

TO-15 Quality Control Data

EnvisionAir Batch Number: 091919AIR

<u>Method Blank (MB):</u>	<u>MB Results (ppbv)</u>	<u>Reporting Limit (ppbv)</u>	<u>Flags</u>
cis-1,2-Dichloroethene	< 5	5	
Tetrachloroethene	< 0.47	0.47	
trans-1,2-Dichloroethene	< 10	10	
Trichloroethene	< 0.2	0.2	
Vinyl Chloride	< 0.5	0.5	
4-bromofluorobenzene (surrogate)	96%		
Analysis Date/Time:	9-20-19/17:25		
Analyst Initials	tjg		

<u>LCS/LCSD</u>	<u>LCS Results (ppbv)</u>	<u>LCSD Results (ppbv)</u>	<u>LCS/D Conc(ppbv)</u>	<u>LCS Rec.</u>	<u>LCSD Rec.</u>	<u>RPD</u>	<u>Flag</u>
Vinyl Chloride	9.98	9.05	10	100%	91%	9.8%	
trans-1,2-Dichloroethene	8.77	8.28	10	88%	83%	5.7%	
cis-1,2-Dichloroethene	9.53	8.42	10	95%	84%	12.4%	
Trichloroethene	10.6	9.17	10	106%	92%	14.5%	
Tetrachloroethene	9.84	8.91	10	98%	89%	9.9%	
4-bromofluorobenzene (surrogate)	95%	113%					
Analysis Date/Time:	9-20-19/16:17	9-20-19/18:38					
Analyst Initials	tjg	tjg					

TO-15 Quality Control Data

EnvisionAir Batch Number: 092319AIR

<u>Method Blank (MB):</u>	<u>MB Results (ppbv)</u>	<u>Reporting Limit (ppbv)</u>	<u>Flags</u>
cis-1,2-Dichloroethene	< 5	5	
Tetrachloroethene	< 0.47	0.47	
trans-1,2-Dichloroethene	< 10	10	
Trichloroethene	< 0.2	0.2	
Vinyl Chloride	< 0.5	0.5	
4-bromofluorobenzene (surrogate)	99%		
Analysis Date/Time:	9-23-19/22:32		
Analyst Initials	tjg		

<u>LCS/LCSD</u>	<u>LCS Results (ppbv)</u>	<u>LCSD Results (ppbv)</u>	<u>LCS/D Conc(ppbv)</u>	<u>LCS Rec.</u>	<u>LCSD Rec.</u>	<u>RPD</u>	<u>Flag</u>
Vinyl Chloride	8.9	8.85	10	89%	89%	0.6%	
trans-1,2-Dichloroethene	8.83	9.06	10	88%	91%	2.6%	
cis-1,2-Dichloroethene	8.81	9.06	10	88%	91%	2.8%	
Trichloroethene	9.99	10.2	10	100%	102%	2.1%	
Tetrachloroethene	9.2	9.63	10	92%	96%	4.6%	
4-bromofluorobenzene (surrogate)	104%	107%					
Analysis Date/Time:	9-23-19/20:44	9-23-19/21:23					
Analyst Initials	tjg	tjg					



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Flag Number

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Comments

Reported value is from a 40x dilution. TJG 9/26/19

CHAIN OF CUSTODY RECORD

EnvisionAir | 1441 Sadler Circle West Drive | Indianapolis, IN 46239 | Phone: (317) 351-0885 | Fax: (317) 351-0882

Client: <u>EnviroForensics, LLC</u>	P.O. Number: <u>2019-0871</u>
Report Address: <u>bkappen@enviroforensics.com</u>	Project Name or Number: <u>6154</u>
Report To: <u>B. Kappen</u>	Sampled by: <u>BK</u>
Phone: <u>414-326-4412</u>	QA/QC Required: (circle if applicable) Level III Level IV
Invoice Address: <u>accounts payable @enviroforensics.com</u>	Reporting Units needed: (circle) <u>ug/m³</u> mg/m ³ PPBV PPMV
Desired TAT: (Please Circle One) <u>1 day</u> 2 days <u>3 days</u> Std (5 bus. days)	Media type: 1LC = 1 Liter Canister 6LC = 6 Liter Canister TB = Tedlar Bag TD = Thermal Desorption Tube

REQUESTED PARAMETERS

TO-15 Full List
TO-15 Short List (Specify in notes)



Sampling Type:
 Soil-Gas:
 Sub-Slab:
 Indoor-Air:

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Canister Pressure / Vacuum

Air Sample ID	Media Type <small>(see code above)</small>	Coll. Date <small>(Grab/Comp Start)</small>	Coll. Time <small>(Grab/Comp Start)</small>	Coll. Date <small>(Comp. End)</small>	Coll. Time <small>(Comp. End)</small>					Canister Serial #	Flow Controller Serial #	Initial Field (in. Hg)	Final Field (in. Hg)	Lab Received (in. Hg)	EnvisionAir Sample Number
6154-SVE-OA-1	6LC	9/11/19	1250	9/12/19	1250	X				11081 <u>(BK) H3418</u>	07750 <u>07309</u>	-29	-4	-4	19-2622
6154-SVE-OA-2	6LC	9/11/19	1255	9/12/19	1255	X				H3418	07309	-30	-5	-5	19-2623
6154-SVE-EX	1LC	9/12/19	1325			X				83945	0131	-28.5	-3	-3	19-2624
6154-SVE-EX	1LC	9/13/19	1210			X				83730	0121	-30	-3	-3	19-2625

Comments: X

Relinquished by:	Date	Time	Received by:	Date	Time
<u>B. J. Kappen</u>	<u>9/13/19</u>	<u>1815</u>	<u>Fed Ex</u>	<u>9/13/19</u>	<u>1815</u>
			<u>Alan Munnica</u>	<u>9/17/19</u>	<u>1630</u>