## **Technical Memorandum**

EnviroTrac Engineering PE, PC 5 Old Dock Road Yaphank, NY 11980

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Prepared for: ZWorldwide Enterprises, LLC

Project Title: Former Baron Blakeslee Property Site Number C152204

Project No.: 01.991448.00

### **Technical Memorandum**

- Subject:2023 Annual Periodic Review Report and CertificationSub-Slab Depressurization System Date:May 11, 2023
- To: Jared Donaldson; New York State Department of Environmental Conservation
- From: Dale Konas, PE; EnviroTrac Engineering PE, PC
- Copy to: Mr. Peter Zimiles, ZWorldwide Enterprises, LLC



Prepared by:

Dale Konas, PE, License No. 081035, Expiration Date: 08/31/2026





### Enclosure 2 NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION Site Management Periodic Review Report Notice Institutional and Engineering Controls Certification Form



Sit	e No.	C152204	Site Details		Box 1	
Sit	e Name For	rmer Baron Blakeslee \$	Site			
City Co	e Address: 8 y/Town: Bay unty:Suffolk e Acreage: 1		Zip Code: 11706			
Re	porting Perio	d: July 20, 2021 to July July 2021 - May 11, 2023				
					YES	NO
1.	Is the inform	nation above correct?				X
	If NO, inclu	de handwritten above or	on a separate sheet.			
2.		or all of the site property nendment during this Re	been sold, subdivided, merged, o porting Period?	or undergone a		<b>⊥</b> X
3.		een any change of use RR 375-1.11(d))?	at the site during this Reporting P	Period		Ľ
4.		ederal, state, and/or loca property during this Re	al permits (e.g., building, discharg porting Period?	e) been issued		×
			s 2 thru 4, include documentati viously submitted with this cer			
5.	Is the site c	urrently undergoing dev	elopment?			X
					Box 2	
					YES	NO
6.		nt site use consistent wi Residential, Commercial	th the use(s) listed below? , and Industrial		X	
7.	Are all ICs i	n place and functioning	as designed?	X		
		DO NOT COMPLETE TH	QUESTION 6 OR 7 IS NO, sign a IE REST OF THIS FORM. Otherw	vise continue.		
AC	Corrective M		t be submitted along with this fo	rm to address t	nese iss	ues.
		Descy Wall		6/2/23		
Sig	nature of Ow	ner, Remedial Party or De	esignated Representative	Date		

			Box 2	Α
-	w information revealed that assumptions made t regarding offsite contamination are no longer		YES	NO
lf you answ	rered YES to question 8, include documenta entation has been previously submitted wit	ation or evidence		
	umptions in the Qualitative Exposure Assessment ative Exposure Assessment must be certified e		X	
	rered NO to question 9, the Periodic Review alitative Exposure Assessment based on th			
SITE NO. C15220	)4		Bo	x 3
Description of	of Institutional Controls			
Parcel 198-4-4.001	<u>Owner</u> ZWorldwide Enterprises LLC.	Institutional Contro	<u>) </u>	
		Soil Management Monitoring Plan O&M Plan	Plan	
-Environmental eas	sement restricting use of the site to restricted re	Site Management IC/EC Plan Landuse Restrictic esidential, commercial, or indu	n	
purposes	-			
-Site management	t plan detailing institutional and engineering co	ntrols placed on the site		
			Bo	x 4
Description of	of Engineering Controls			
Parcel	Engineering Control			
198-4-4.001	Cover System Vapor Mitigation Air Sparging/Soil Vapor	Extraction		
depressurization sy	on (SVE) system to remediate sub-slab soil cor ystem (SSDS), or similar engineered system, w the migration of vapor into the building from co	ntamination. If necessary, a s vill be installed in addition to t	ne SVE	
documented that re	oproved shut-down of the SVE via letter on 10/ estricted-residential use soil cleanup objectives ting to mitigate potential vapor intrusion from re	have been achieved. The S		

			Box 5
	Periodic Review Report (PRR) Certification Statements		
1.	I certify by checking "YES" below that:		
	<ul> <li>a) the Periodic Review report and all attachments were prepared under t reviewed by, the party making the Engineering Control certification;</li> </ul>	he direction of	, and
	<ul> <li>b) to the best of my knowledge and belief, the work and conclusions des are in accordance with the requirements of the site remedial program, an engineering practices; and the information presented is accurate and compet</li> </ul>	d generally acc	
	engineering practices, and the mornation presented is accurate and compet	YES	NO
		[X]	
2.	For each Engineering control listed in Box 4, I certify by checking "YES" below following statements are true:	that all of the	
	(a) The Engineering Control(s) employed at this site is unchanged since the date that the Control was put in-place, or was last approved by	the Departmer	nt;
	(b) nothing has occurred that would impair the ability of such Control, to the environment;	protect public ł	nealth and
	(c) access to the site will continue to be provided to the Department, to e remedy, including access to evaluate the continued maintenance of this (		
	(d) nothing has occurred that would constitute a violation or failure to cor Site Management Plan for this Control; and	nply with the	
	(e) if a financial assurance mechanism is required by the oversight docu mechanism remains valid and sufficient for its intended purpose establish		
		YES	NO
		X	
	IF THE ANSWER TO QUESTION 2 IS NO, sign and date below DO NOT COMPLETE THE REST OF THIS FORM. Otherwise co		
	A Corrective Measures Work Plan must be submitted along with this form to ad	dress these is	sues.
	Docy Wall 6/2/23		
	Signature of Owner, Remedial Party or Designated Representative	Date	

IC CERTIF	ICATIONS
SITE NO.	C152204

Box 6

### SITE OWNER OR DESIGNATED REPRESENTATIVE SIGNATURE

I certify that all information and statements in Boxes 1,2, and 3 are true. I understand that a false statement made herein is punishable as a Class "A" misdemeanor, pursuant to Section 210.45 of the Penal Law.

Certific	nated Representative Rendering ation)at name	EnviroTrac Ltd., 5 Old Dock Road, print business addre	· · · · · · · · · · · · · · · · · · ·
am certifying as _	Designated Representative Re	endering Certification for the Owner	(Owner or Remedial Party)
or the Site name	d in the Site Details Section	on of this form.	
	Descy Wall		6/2/23
Signature of Own Rendering Certifi	er, Remedial Party, or De cation	signated Representative	Date

### EC CERTIFICATIONS

### Signature

Box 7

I certify that all information in Boxes 4 and 5 are true. I understand that a false statement made herein is punishable as a Class "A" misdemeanor, pursuant to Section 210.45 of the Penal Law.

print name	at EnviroTrac Engineering PEPC, 501d Docural print business address Yaphank, My 11910 Representative Rendering (erh fice han ber he Dumin
am certifying as a for the Designation	Representative Rendering Certification for the Dumen
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	STE OF NEW LODA
	10.081035 5 6/2/23
Signature of , for the Owner or Remedia Rendering Certification	

## Table of Contents

List of Tables	3
List of Figures	4
List of Appendices	4
Section 1: Background	5
Section 2: SSDS	6
2.1 SSDS Status and Operations	7
2.2 SSDS Performance Evaluation	7
2.2.1SSDS Suction Points	8
2.2.2SSDS Monitoring Points	8
Section 3: Certification	9
3.1 SSDS Certification	9
3.2 Signature	9
Section 4: Site Cover Inspection	. 10
4.1 Site Cover	. 10

## List of Tables

Table 2-1Vacuum Monitoring Point Measurements

 Table 2-2
 ADS and Riser Pipe Vacuum and Air Flow Measurements



## List of Figures

Figure 1-1 Site Location

Figure 1-2 Site Plan

## List of Appendices

Appendix A – Photographic Documentation

Appendix B -SSDS Layouts (from Final Engineering Report)

Appendix C -SSDS Operation Data



## Section 1: Background

EnviroTrac Engineering, PE, PC (EnviroTrac) is submitting this 2023 Periodic Review Report (PRR) and Certification for the Former Baron Blakeslee Property, Site Number C152204, located at 86 Cleveland Avenue in Bay Shore, Suffolk County, New York 11706 (hereinafter referred to as the "Site").

The Site location is shown in Figure 1-1. The Site is an approximately 1.84-acre area bounded by South 3rd Street to the north, a sand and gravel facility to the south, Cleveland Avenue to the east, and a construction materials recycling facility to the west (Figure 1-2). The property includes an approximately 47,000-square foot structure, comprising three interconnected buildings constructed of concrete block and corrugated steel on concrete slabs. At the time of the remedy implementation, the southern building was used by General Electric (GE) as an air conditioning appliance repair shop; the rest of the structure was vacant. The grounds consist of asphalt-paved parking and driveway areas with landscaped and limited vegetated areas occurring along the northern, eastern, and southern property boundaries. A chain link fence separates the abutting commercial and industrial properties to the west and south from the property.

The current owner of the Site is ZWorldwide Enterprises, LLC, which acquired the property from GE in March 2017. The new owner's tenant is Long Island Tent and Party Rental, Inc. The Site investigation and remedy implementation were conducted by GE. Brown and Caldwell (BC), on behalf GE, implemented the remedy and provided operation and maintenance services. The Site remedy, described in the NYSDEC-approved Site Management Plan (SMP) dated February 2016, includes the soil cover, the soil vapor extraction (SVE) system, the sub-slab depressurization system (SSDS), as well as institutional controls (ICs). The soil cover, the SSDS and the ICs are intended to limit the exposure to the contamination remaining at the Site. The SVE system has since been removed from the Site, but was operated until VOC concentrations in the shallow, unsaturated soil under the buildings were reduced to levels that meet the 6 NYCRR Part 375-6 SCOs for Protection of Public Health - Restricted Residential use. The NYSDEC approved the shutdown of the SVE system on October 17, 2017. Soil sampling data collected from beneath the slab in the southern warehouse in September 2016 showed that the SVE system was effective in decreasing levels of tetrachloroethylene (PCE). The SVE trailer was removed from the property and the SVE wells were abandoned according to NYSDEC protocols by BC. The SMP requires the documentation of the annual certification of the SSDS and site cover.

This report covers the reporting and certification of the following elements and time periods of the remedy:

- The SSDS from July 2021–through May 11, 2023
- Site Cover July 2021 through May 11, 2023

BC operated the SSDS on behalf of GE until March of 2017. Following that, the operation of the SSDS was transferred to ZWorldwide Enterprises, LLC. EnviroTrac currently monitors the SSDS on behalf of ZWorldwide Enterprises, LLC.

The remaining reporting/certification requirements as set forth in the SMP have been transferred to ZWorldwide Enterprises LLC. Photographic Documentation of the Site Certification is provided in Appendix A.



## Section 2: SSDS

The SSDS is described in detail in the February 2016 FER provided by BC. The layout of the system is shown on Drawings 3 and 1A of the FER (Appendix B of this PRR). The objective of the system is to mitigate soil vapor intrusion into the onsite structure by creating a negative pressure underneath the floor slab of the structure. The SSDS originally consisted of a total of 4 roof mounted Obar GBR 76 Compact Radial Blowers, 14 suction points (SP1-1 through SP1-6, SP2-1 through SP2-3, SP3-1 through SP3-3, and SP4-1 through SP4-2), 18 manual monitoring points identified on the as-built drawings as permanent test holes (PT-1 through PT-18) and 4 Radonaway Checkpoint IIA Mitigation System Alarms. EnviroTrac installed the alarms in May 2018 to replace the previous 4 remote monitoring points tied into the Vapor Guardian 5500 monitoringsystem. This remote monitoring system is no longer operating.

In June 2022, EnviroTrac went to the Site to conduct the annual certification of the SSDS; however, the SSDS fans for SP1 and SP2 appeared to have failed. At the time, EnviroTrac ordered replacement fans for SP1 and SP2, but the fans appeared to be on back order. The owner of the property, ZWorldwide Enterprises, LLC, requested if we could turn all SSDS fans off and conduct a follow-up Soil Vapor Intrusion (SVI) Investigation to determine if the SSDS was still needed. In August 2022, EnviroTrac requested from the NYSDEC if all SSDS fans could be turned off for a period of six weeks followed by a follow-up SVI Investigation during the heating season (November 15 to March 31).

In consultation with the New York State Department of Health (NYSDOH), the NYSDEC accepted this request on September 1, 2022, and requested that a work plan for the above tasks be submitted for review. The order for the SSDS fans that were on back order was put on hold. On October 14, 2022, EnviroTrac returned to the Site to record the vacuum at the PT locations, which showed no to limited vacuum at PT locations surrounding SP1 and SP2 and acceptable vacuum at PT locations surrounding SP3 and SP4. Following the vacuum readings, the remaining working SSDS fans (SP-3 and SP4) were shut down. Since the SSDS was not operating correctly, the PRR could not be certified by an engineer. The work plan to conduct the SVI Investigation was submitted to the NYSDEC on November 21, 2022. The work plan was accepted by the NYSDEC on December 16, 2022.

The SVI Investigation was conducted on January 5, 2023, and included the collection of four sub-slab soil vapor samples (SS-1 through SS-4) below the concrete slab of the office and warehouses, the collection of four indoor air samples (IA-1 through IA-4) paired with the sub-slab soil vapor samples, and the collection of an outdoor air sample (OA-1). SS-1 and IA-1 were collected from the southern warehouse. SS-2 and IA-2 and SS-3 and IA-3 were collected from the main warehouse. SS-4 and IA-4 were collected from the offices. The samples were collected over an eight (8) hour period and laboratory analyzed for volatile organic compounds (VOCs) via US EPA Method TO-15. A helium gas test was conducted at each sub-slab soil vapor sample location and the NYSDOH building questionnaire and chemical inventory sheets were completed. The results of the SVI Investigation showed that due to slightly elevated PCE concentrations in sub-slab soil vapor sample SS-2 (southwestern portion of the main warehouse), mitigation was still required for this area. No exceedances of the NYSDOH Air Guideline Values were reported for the indoor air samples. Based on the SVI Investigation results, EnviroTrac recommended that SSDS fan, SP2, be replaced and turned back on while the remaining fans, SP1, SP3, and SP-4, remain off and that follow-up indoor air samples (at locations IA-1 through IA-4) be collected from the building during the heating season for the next SSDS annual certification. The SVI Investigation Report was provided to the NYSDEC and NYSDOH for review on January 23, 2023. Revisions were made in accordance with a NYSDEC and NYSDOH comment letter dated March 30, 2023, and the request to operate SP2 only at the Site was approved via email dated March 30, 2023. The final SVI Investigation Report was dated March 31, 2023, and provided to the NYSDEC. The SSDS fan



at SP3 was removed and placed at location SP2 on the roof and was turned back on, on April 27, 2023. Based on the SVI Investigation results, human health within the building was protected since no indoor air sample results exceeded the available NYSDOH Air Guideline Values.

### 2.1 SSDS Status and Operations

During the period of the SSDS operation covered by this PRR (July 2021 to May 11, 2023), the onsite structure was occupied by Long Island Tent and Party Rental, Inc. and utilized for the storage of party tents, tables, chairs, and other miscellaneous party rental items.

The SSDS was constructed in October-November 2015, and the system start-up occurred in November 2015 – January 2016. Additional system adjustments were performed in February 2016. SSDS fans SP1 and SP2 were shown to have failed in June 2022. Approval to temporarily shut down the operating SSDS fans was requested in August 2022 and approved in September 2022. All SSDS fans were temporarily shut down on October 4, 2022, and remained off until April 27, 2023, when only SP2 was replaced and turned back on. This action was approved by the NYSDEC and NYSDOH on March 30, 2023.

Following the initial installation of the SSDS, quarterly system inspections were performed starting in March 2016, with the exception of September 2016, when the operation of the system was suspended to allow for the completion of the soil sampling program. Since June 2017, the SSDS inspection has been conducted on an annual basis. Due to the failure of two SSDS fans in June 2022, all SSDS fans were allowed to remain off for a period of six weeks followed by an SVI Investigation. Based on the results of the SVI Investigation, only SSDS SP2 will operate on a continuous basis while SSDS fans SP1, SP3, and SP4 will remain off. The SSDS piping has not been dismantled at the Site and will remain in-place until approval is provided for permanent removal by the NYSDEC and NYSDOH.

EnviroTrac visited the Site on May 11, 2023, to conduct the annual SSDS certification for SP2 only. The alarm system for SP2 was plugged in and properly operating. SSDS inspection data are shown in Appendix C. The following parameters were recorded:

- Air flow rate at suction pits associated with SP2
- Vacuum at suction points associated with SP2
- Vacuum at monitoring points surrounding SP2 suction pits

Equipment used to obtain SSDS performance data are as follows:

- SSDS blower performance data for SP2 were obtained from system instrumentation;
- SSDS riser flow measurements were obtained using an anemometer (TSI Model VelociCalc 9545);
- SSDS riser vacuum data were obtained using a (0-40 inches water column) digital micromanometer (UEI – Model EM201B); and
- All permanent test ports (PT) sub-slab vacuum data were obtained using a low range (0-40 inches water column) digital micromanometer (UEI Model EM201B).

Data are summarized in Table 2-1 (flow rates and vacuums at suction points associated with SP2) and 2-2 (vacuums at monitoring points surrounding the suction pits associated with SP2).

## 2.2 SSDS Performance Evaluation

Vacuum levels at the monitoring points were recorded during one (1) event on May 11, 2023. No access issues were reported for the monitoring points.



### 2.2.1 SSDS Suction Points

The total extraction rate for the SSDS SP2 was stable on May 11, 2023, at approximately 82.46 acfm. The vacuum at the suction points for the points tributary to the blowers serving the southwest portion of the main building/warehouse (SP2-1 through SP2-3) was between approximately -0.519 and -0.566 in. w.c. These flow rates and vacuums, although lower than previous annual vacuum readings, indicate that the SSDS is operating as designed.

## 2.2.2 SSDS Monitoring Points

The sub-slab vacuums were recorded for the PTs surrounding SP2-1 through SP2-3 (PT-4 and PT-5 located in the southern warehouse, and PT-7, PT-8, PT-9, PT-10, PT-11, and PT-12 located in the main warehouse) were maintained at levels higher than the SMP criterion of -0.004 in. w.c. Sub-slab vacuum was also recorded for PT-13 and PT-14, which is outside the radius of influence for SP2 and showed no vacuum or 0.00 in. w. c. Photoionization detector (PID) readings were also collected from the PT locations listed above. No PID readings over 0.0 parts per million (ppm) were measured.

In summary, the SSDS fan associated with SP2 is operating as designed as shown during the annual monitoring event that occurred on May 11, 2023, and maintained sub-slab vacuum levels higher than -- 0.004 in. w.c.



## **Section 3: Certification**

### 3.1 SSDS Certification

I certify that all of the following statements are true:

- The SSDS employed at this Site was modified since its installation in November 2015, and included only operating SSDS fan SP2 only. The NYSDEC and NYSDOH-approved modification includes operating only SSDS fan SP2. This modification was approved by the NYSDEC and NYSDOH on March 30, 2023. Based on the SVI Investigation results, the indoor air within the building was not impacted following a six week shutdown of all SSDS fans and prior failure of SSDS fans SP1 and SP2. Therefore, human health was not impacted during the shutdown period or failure period for the SSDS. This PRR covers the period July 2021 to May 11, 2023;
- Two SSDS fans failed as of June 2022. The NYSDEC and NYSDOH approved that all SSDS fans could be temporarily shut down by October 14, 2022. Based on the results of the January 2023 SVI Investigation, the sub-slab soil vapor and indoor air sample results do not indicate that mitigation is required in the areas of SSDS fans SP1, SP3, and SP4, but is still required in the area of SSDS fan SP2. The NYSDEC and NYSDOH agreed that only SSDS fan SP2 was required to operate at the Site. Nothing has occurred that would impair the ability of SSDS at the Site to protect the public health and environmental. This PRR covers the period July 2021 to May 11, 2023;
- Nothing has occurred that would constitute a violation or failure to comply with any site management plan for the SSDS during the period covered by this PRR (July 2021 to May 11, 2023);
- To the best of my knowledge and belief, the work and conclusions described in this certification are in accordance with the requirements of the site remedial program; and
- The information presented in this report is accurate and complete.

### 3.2 Signature

I certify that all information and statements in Sections 3.1 above are true. I understand that a false statement made herein is punishable as a Class "A" misdemeanor, pursuant to Section 210.45 of the Penal Law. I, Dale Konas, of EnviroTrac Engineering, PE, PC, 5 Old Dock Road, Yaphank, NY 11980, am certifying as ZWorldwide Enterprises, LLC, for the Site for the periods indicated above.

Dale Konas, PE

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## **Section 4: Site Cover Inspection**

### 4.1 Site Cover

EnviroTrac inspected the site cover at the Site on May 11, 2023. No changes to the site cover were noted since the last site certification. The Site is still being used for commercial purposes by LI Tent Rental for office space, storage of tents and furniture for events and parties, storage of equipment for moving and loading tents and furniture into delivery trucks, and the parking of delivery trucks. The site cover consists of concrete and asphalt pavement as well as landscaped/lawn areas on the exterior portions, and the building and concrete slab for the interior portions. No evidence of cuts, holes, or excavations were observed for the site cover.



## TABLES



# Table 2-1Vacuum Monitoring Point Measurements86 Cleveland Avenue, Bay Shore, NY

Vacuum Monitoring Point		Vacuum Measurement													
	inches of water														
Date	2/22/2017	6/29/2017	9/19/2017	12/29/2017	3/14/2018	6/15/2018	9/26/2018	6/19/2019	7/11/2019	6/9/2020	6/3/2021	10/4/2022	5/11/2023		
PT-1	NA	NA	-0.063	-0.027	-0.029	-0.031	-0.052	-0.061	NA	-0.031	-0.086	0.000	-		
PT-2	-0.040	NA	-0.042	-0.020	-0.020	-0.020	-0.039	-0.044	NA	-0.277	-1.024	0.000	-		
PT-3	-0.030	NA	-0.127	-0.042	-0.040	-0.121	-0.145	-0.155	NA	-0.064	-0.060	0.000	-		
PT-4	-0.060	-0.150	-0.382	-0.020	-0.020	-0.020	-0.121	-0.091	NA	-0.080	-0.257	0.000	-0.030		
PT-5	-0.010	NA	-0.001	-0.064	-0.066	-0.036	-0.046	-0.087	NA	-0.409	-0.286	0.000	-0.008		
PT-6	-0.030	NA	-0.007	-0.022	-0.028	-0.210	-0.193	-0.261	NA	-0.108	-0.100	0.000	-		
PT-7	-0.004	NA	-0.027	-0.017	-0.016	-0.018	-0.010	-0.024	NA	-0.013	-0.011	0.000	-0.009		
PT-8	-0.005	NA	-0.523	-0.059	-0.044	-0.040	NA	NA	-0.036	-0.011	-0.010	0.000	-0.010		
PT-9	-0.004	NA	-0.005	-0.022	-0.020	-0.127	NA	NA	-0.114	-0.024	-0.016	0.000	-0.011		
PT-10	-0.280	NA	-0.444	-0.114	-0.111	-0.768	-1.088	-0.415	NA	-0.139	-0.194	0.000	-0.100		

Vacuum Monitoring Point		Vacuum Measurement												
-	inches of water													
Date	2/22/2017	6/29/2017	9/19/2017	12/29/2017	3/14/2018	6/15/2018	9/26/2018	6/19/2019	7/11/2019	6/9/2020	6/3/2021	10/4/2022	5/11/2023	
PT-11	-0.060	NA	-0.052	-0.045	-0.044	-0.05	-0.48	-0.062	NA	-0.047	-0.021	0.000	-0.014	
PT-12	-0.015	NA	-0.368	-0.236	-0.222	-0.148	-0.098	-0.319	NA	-0.145	-0.079	-0.061	-0.009	
PT-13	-0.004	NA	-0.051	-0.046	-0.045	-0.126	0.114	NA	-0.094	-0.071	-0.025	-0.010	0.000	
PT-14	-0.020	NA	-0.046	-0.105	-0.100	-0.096	-0.026	NA	-0.026	-0.014	-0.012	-0.009	0.000	
PT-15	-0.100	NA	-0.015	-0.488	-0.400	-0.022	-0.014	NA	-0.019	-0.010	-0.010	-0.010	-	
PT-16	-0.004	NA	-0.001	-0.717	-0.722	-0.02	-0.016	NA	-0.021	-0.010	-0.010	-0.012	-	
PT-17	-0.005	NA	-0.043	-0.071	-0.071	-0.028	NA	NA	-0.044	-0.012	-0.011	-0.010	-	
PT-18	-0.004	NA	-0.002	-0.230	-0.219	-0.026	-0.021	NA	-0.032	-0.009	-0.009	-0.010	-	

## Table 2-2 ADS Blower and Riser Pipe Vacuum and Air Flow Measurements 86 Cleveland Avenue, Bay shore, NY

ADS Blowers					Vacuu	ım Measurei	ment						
ADS DIOWERS	inches of water												
Date	2/22/2017	6/29/2017	9/19/2017	12/29/2017	3/14/2018	6/15/2018	9/26/2018	6/9/2020	6/3/2021	10/4/2022	5/11/2023		
B-1	NA	NA	-2	-1.6	-1	-3	-1.8	-2.0	-4.0	0.0	0.0		
B-2	NA	NA	-12	-13	-11	-15	-12.5	-9.0	-14.0	0.0	0.0		
B-3	NA	NA	-10	-17.5	-9	-10	-10.5	-16.0	-2.0	-2.0	-1.0		
B-4	NA	NA	-4.2	-4.5	-4	-4	-4.2	-4.0	-4.0	-4.0	0.0		

Notes:

B = Blower

NA = Not Available

## Table 2-2 ADS Blower and Riser Pipe Vacuum and Air Flow Measurements 86 Cleveland Avenue, Bay shore, NY

						Vacuu	um Measurei	nent						
Riser	inches of water													
Date	2/22/2017	6/29/2017	9/19/2017	12/29/2017	3/14/2018	6/15/2018	9/26/2018	6/19/2019	7/11/2019	6/9/2020	6/3/2021	10/4/2022	5/11/2023	
1-1	NA	NA	-1.875	-0.072	-0.673	-2.728	-1.371	-4.29	NA	-1.529	-3.589	0.00	-	
1-2	NA	NA	-1.821	-0.036	-0.612	-2.78	-1.687	-3.902	NA	-1.503	-3.561	0.00	-	
1-3	NA	NA	-1.837	-0.212	-0.547	-2.549	-1.647	-4.264	NA	-1.477	-3.655	0.00	-	
1-4	NA	NA	-1.76	-0.939	-0.513	-2.626	-1.6	-4.154	NA	-1.468	-3.594	0.00	-	
1-5	NA	NA	-1.785	-0.744	-0.381	-2.546	-1.693	-3.998	NA	-1.410	-3.468	0.00	-	
1-6	NA	NA	-1.822	-1.059	-0.558	-2.511	-1.617	-4.071	NA	-1.475	-3.482	0.00	-	
2-1	NA	NA	-12.37	-14.390	-11.580	-15.38	-15.12	-15.13	NA	-9.536	-15.26	0.00	-0.52	
2-2	NA	NA	-12.26	-0.348	-11.530	-15.3	-15.03	-15.19	NA	-9.381	-15.15	0.00	-0.57	
2-3	NA	NA	-12.46	-14.410	-11.700	-16.42	-14.98	-15.8	NA	-9.672	-15.56	0.00	-0.52	
3-1	NA	NA	-10.49	-0.358	-9.384	-10.43	-12.31	NA	-20.82	-16.30	-0.792	-0.643	-	
3-2	NA	NA	-10.28	-0.475	-8.764	-10.22	-9.34	NA	-20.28	-15.41	-0.802	-0.591	-	
3-3	NA	NA	-10.30	-0.255	-8.898	-10.28	-10.49	NA	-20.43	-15.87	-0.766	-0.633	-	
4-1	NA	NA	NA	NA	-4.222	-4.113	-4.01	-4.429	NA	-4.169	-3.546	-4.111	-	
4-2	NA	NA	NA	NA	-4.016	-4.039	-3.981	-4.088	NA	-3.888	-3.775	-3.701	-	

## Table 2-2 ADS Blower and Riser Pipe Vacuum and Air Flow Measurements 86 Cleveland Avenue, Bay shore, NY

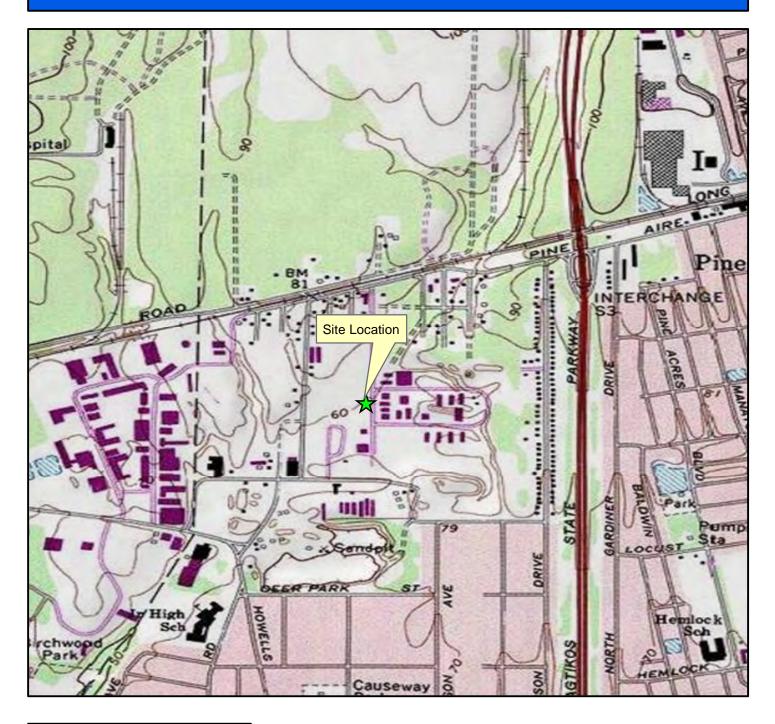
						Air Flow						
					cubi	ic feet per mi	iter					
2/22/2017	6/29/2017	9/19/2017	12/29/2017	3/14/2018	6/15/2018	9/26/2018	6/19/2019	7/11/2019	6/9/2020	6/3/2021	10/4/2022	5/11/2023
NA	NA	1.31	2.22	1.980	1.66	1.83	7.98	NA	2.52	3.72	0.00	-
NA	NA	2.40	1.45	3.790	1.74	2.71	15.3	NA	2.19	6.75	0.00	-
NA	NA	1.27	5.95	3.850	10.19	8.93	9.42	NA	7.50	9.31	0.00	-
NA	NA	21.41	41.02	22.250	29.23	21.93	32.95	NA	20.70	31.18	0.00	-
NA	NA	20.03	65.16	45.240	40.7	28.36	39.67	NA	27.50	36.11	0.00	-
NA	NA	14.93	26.35	15.420	25.39	16.1	30.94	NA	19.60	31.25	0.00	-
NA	NA	10.06	21.43	10.010	17.07	17.38	23.75	NA	25.80	30.10	0.00	30.00
NA	NA	19.37	18.39	14.610	16.52	17.15	16.25	NA	28.40	21.64	0.00	22.02
NA	NA	16.55	27.36	24.420	21.47	16.39	25.08	NA	18.60	30.39	0.00	30.44
NA	NA	13.07	22.54	11.190	12.66	21.01	NA	25.64	25.40	3.59	7.61	-
NA	NA	25.26	65.54	40.490	27.08	26.12	NA	42.33	53.50	4.01	8.98	-
NA	NA	15.60	40.33	24.660	18.56	17.51	NA	33.82	37.40	6.73	9.60	-
NA	NA	NA	NA	22.47	21.26	20.39	19.91	NA	34.50	32.44	26.92	-
NA	NA	NA	NA	50.98	32.49	30.68	42.48	NA	41.90	42.43	52.10	-



## FIGURES



## **TOPOGRAPHIC MAP**

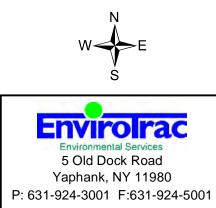


### Figure 1**-1** Site Location

86 Cleveland Avenue Bay Shore, NY 11706

USGS Quadrangle: Greenlawn

Approx. Elevation: 60 feet







## APPENDICES



## **APPENDIX A**

## **Photographic Documentation**



Industrial Property 86 Cleveland Avenue Bay Shore, New York 11706



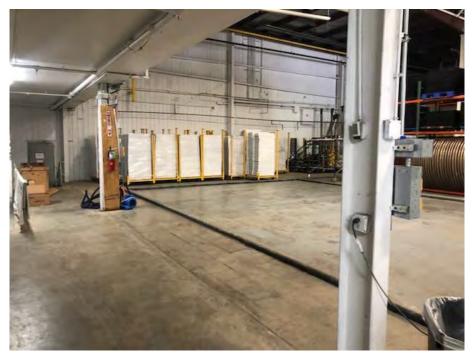
**Photograph 1:** View of the alarms for the SSDS fans. Only the alarm for SP2 is plugged in since this is the only required SSDS fan to be operating.



Photograph 2: View of the southern warehouse.



Industrial Property 86 Cleveland Avenue Bay Shore, New York 11706



Photograph 3: View of the main warehouse in the area of SP2.



Photograph 4: View of the main warehouse and the piping for SP-2.



Industrial Property 86 Cleveland Avenue Bay Shore, New York 11706



Photograph 5: View of the northern parking lot.



Photograph 6: View of the eastern parking lot and landscaped area.



Industrial Property 86 Cleveland Avenue Bay Shore, New York 11706



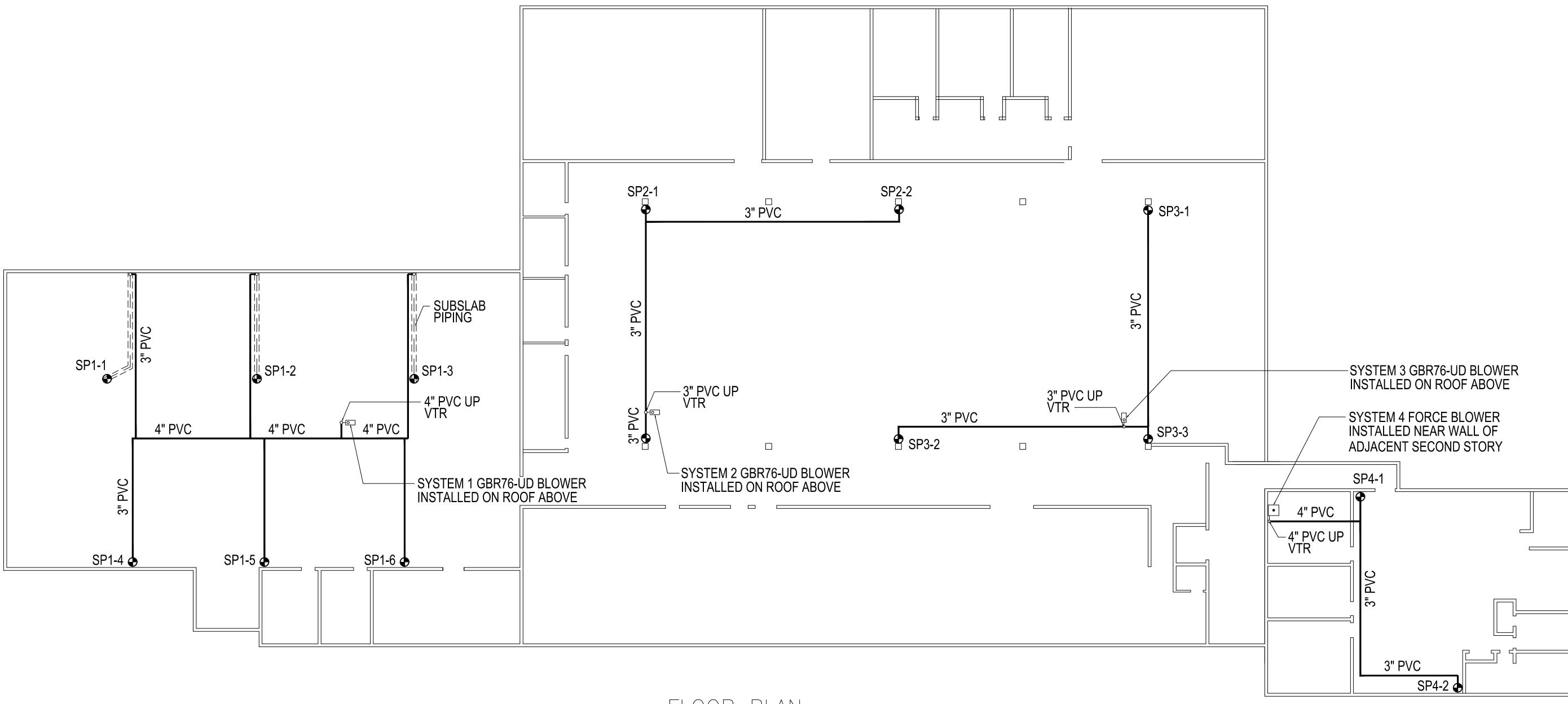
Photograph 7: View of the southwestern portion of the property.

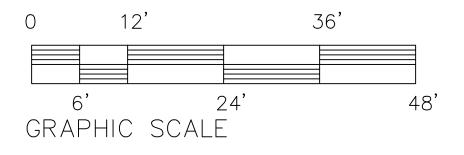


## **APPENDIX B**

# SSDS Layouts (from Final Engineering Report)



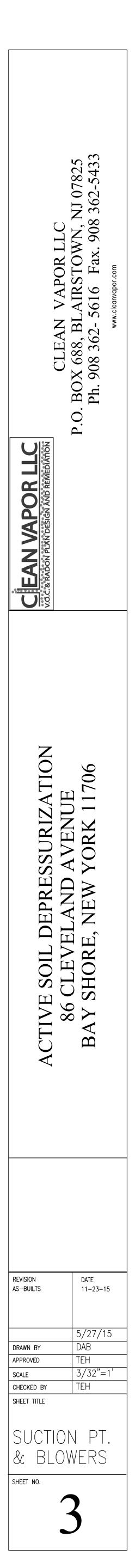




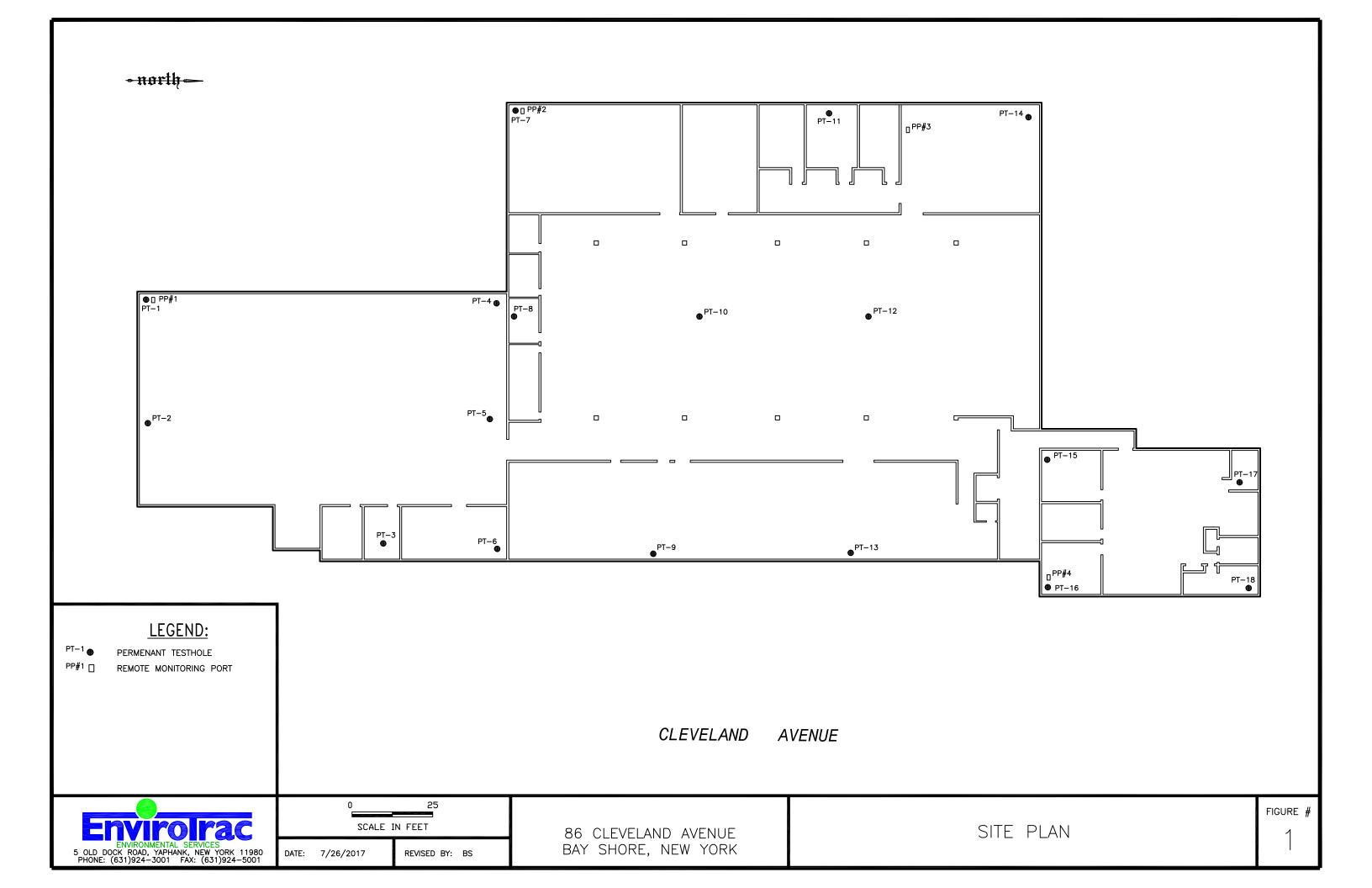
FLOOR PLAN

	<u>LEGEND</u>
SP#-#	SUCTION POINT
	MAGNEHELIC PANEL
Ħ	VAPOR GUARDIAN PANEL
0	obar Gbr76-ud blowe
•	FRT FORCE BLOWER
□ PB#1	PRESSURE PROBES
	FIRE COLLAR (as req'd.)

I FGFND



NER



## APPENDIX C

## **SSDS** Operation Data



## Table 2-1 Vacuum Monitoring Point Measurements 86 Cleveland Avenue, Bay Shore, NY

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Vacuum Monitoring Point		Vacuum Measurement inches of water														
Date	2/22/2017	6/29/2017	9/19/2017	12/29/2017	3/14/2018	6/15/2018	9/26/2018	6/19/2019	7/11/2019	6/9/2020	6/3/2021	10/4/2022	5/11/2023	5/11/23		
PT-1	NA	NA	-0.063	-0.027	-0.029	-0.031	-0.052	-0.061	NA	-0.031	-0.086	0.000				
PT-2	-0.040	NA	-0.042	-0.020	-0.020	-0.020	-0.039	-0.044	NA	-0.277	-1.024	0.000	-	-		
PT-3	-0.030	NA	-0.127	-0.042	-0.040	-0.121	-0.145	-0.155	NA	-0.064	-0.060	0.000	-	-		
PT-4	-0.060	-0.150	-0.382	-0.020	-0.020	-0.020	-0.121	-0.091	NA	-0.080	-0.257	0.000	-0.030	0.0		
PT-5	-0.010	NA	-0.001	-0.064	-0.066	-0.036	-0.046	-0.087	NA	-0.409	-0.286	0.000	-0.008	6.0		
PT-6	-0.030	NA	-0.007	-0.022	-0.028	-0.210	-0.193	-0.261	NA	-0.108	-0.100	0.000		-		
PT-7	-0.004	NA	-0.027	-0.017	-0.016	-0.018	-0.010	-0.024	NA	-0.013	-0.011	0.000	-0,009	6.0		
PT-8	-0.005	NA	-0.523	-0.059	-0.044	-0.040	NA	NA	-0.036	-0.011	-0.010	0.000	-0.010	0.0		
PT-9	-0.004	NA	-0.005	-0.022	-0.020	-0.127	NA	NA	-0.114	-0.024	-0.016	0.000	.0.011	6.0		
PT-10	-0.280	NA	-0.444	-0.114	-0.111	-0.768	-1.088	-0.415	NA	-0.139	-0.194	0.000	-0.100	6.0		

Vacuum Monitoring Point		Vacuum Measurement inches of water														
Date	2/22/2017	6/29/2017	9/19/2017	12/29/2017	3/14/2018	6/15/2018	9/26/2018	6/19/2019	7/11/2019	6/9/2020	6/3/2021	10/4/2022	5/11/2023	5/11/		
PT-11	-0.060	NA	-0.052	-0.045	-0.044	-0.05	-0.48	-0.062	NA	-0.047	-0.021	0.000	-0.014	0.0		
PT-12	-0.015	NA	-0.368	-0.236	-0.222	-0.148	-0.098	-0.319	NA	-0.145	-0.079	-0.061	-0.009	0.0		
PT-13	-0.004	NA	-0.051	-0.046	-0.045	-0.126	0.114	NA	-0.094	-0.071	-0.025	-0.010	. 0. 000	0.0		
PT-14	-0.020	NA	-0.046	-0.105	-0.100	-0.096	-0.026	NA	-0.026	-0.014	-0.012	-0.009	0.000	0.0		
PT-15	-0.100	NA	-0.015	-0.488	-0.400	-0.022	-0.014	NA	-0.019	-0.010	-0.010	-0.010				
PT-16	-0.004	NA	-0.001	-0.717	-0.722	-0.02	-0.016	NA	-0.021	-0.010	-0.010	-0.012	-			
PT-17	-0.005	NA	-0.043	-0.071	-0.071	-0.028	NA	NA	-0.044	-0.012	-0.011	-0.010	-			
PT-18	-0.004	NA	-0.002	-0.230	-0.219	-0.026	-0.021	NA	-0.032	-0.009	-0.009	-0.010	-			

#### Table 2-2 ADS Blower and Riser Pipe Vacuum and Air Flow Measurements 86 Cleveland Avenue, Bay shore, NY

Date 2/22/2017 6/29/2017 9/19/2017 12/29/2017 3/14/2018 6/15/2018 9/2	
	26/2018 6/9/2020 6/3/2021 10/4/2022 5/11/20
B-1 NA NA -2 -1.6 -1 -3	-1.8 -2.0 -4.0 0.0 0.0
B-2 NA NA -12 -13 -11 -15 -	-12.5 -9.0 -14.0 0.0 0.6
B-3 NA NA -10 -17.5 -9 -10 -	-10.5 -16.0 -2.0 -2.0 -1.0
B-4 NA NA -4.2 -4.5 -4 -4	-4.2 -4.0 -4.0 -4.0 O

Notes:

0.0. \*

B = Blower

NA = Not Available

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#### Table 2-2 ADS Blower and Riser Pipe Vacuum and Air Flow Measurements 86 Cleveland Avenue, Bay shore, NY

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Riser	Vacuum Measurement inches of water										Air Flow cubic feet per miter															
Date	2/22/2017	6/29/2017	9/19/2017	12/29/2017	3/14/2018	6/15/2018	9/26/2018	6/19/2019	7/11/2019	6/9/2020	6/3/2021	10/4/2022	5/11/2023	2/22/2017	6/29/2017	9/19/2017	12/29/2017	3/14/2018	6/15/2018	9/26/2018	6/19/2019	7/11/2019	6/9/2020	6/3/2021	10/4/2022	5/11/20
1-1	NA	NA	-1.875	-0.072	-0.673	-2.728	-1.371	-4.29	NA	-1.529	-3.589	0.00	-	NA	NA	1.31	2.22	1.980	1.66	1.83	7.98	NA	2.52	3.72	0.00	-
1-2	NA	NA	-1.821	-0.036	-0.612	-2.78	-1.687	-3.902	NA	-1.503	-3.561	0.00	4	NA	NA	2.40	1.45	3.790	1.74	2.71	15.3	NA	2.19	6.75	0.00	
1-3	NA	NA	-1.837	-0.212	-0.547	-2.549	-1.647	-4.264	NA	-1.477	-3.655	0.00		NA	NA	1.27	5.95	3.850	10.19	8.93	9.42	NA	7.50	9.31	0.00	
1-4	NA	NA	-1.76	-0.939	-0.513	-2.626	-1.6	-4.154	NA	-1.468	-3.594	0.00		NA	NA	21.41	41.02	22.250	29.23	21.93	32.95	NA	20.70	31.18	0.00	
1-5	NA	NA	-1.785	-0.744	-0.381	-2.546	-1.693	-3.998	NA	-1.410	-3.468	0.00		NA	NA	20.03	65.16	45.240	40.7	28.36	39.67	NA	27.50	36.11	0.00	
1-6	NA	NA	-1.822	-1.059	-0.558	-2.511	-1.617	-4.071	NA	-1.475	-3.482	0.00	1	NA	NA	14.93	26.35	15.420	25.39	16.1	30.94	NA	19.60	31.25	0.00	4
2-1	NA	NA	-12.37	-14.390	-11.580	-15.38	-15.12	-15.13	NA	-9.536	-15.26	0.00	0.522	NA	NA	10.06	21.43	10.010	17.07	17.38	23.75	NA	25.80	30.10	0.00	30.00
2-2	NA	NA	-12.26	-0.348	-11.530	-15.3	-15.03	-15.19	NA	-9.381	-15.15	0.00	0. 566	NA	NA	19.37	18.39	14.610	16.52	17.15	16.25	NA	28.40	21.64	0.00	22.0
2-3	NA	NA	-12.46	-14.410	-11.700	-16.42	-14.98	-15.8	NA	-9.672	-15.56	0.00	0.519	NA	NA	16.55	27.36	24.420	21.47	16.39	25.08	NA	18.60	30.39	0.00	30.44
3-1	NA	NA	-10.49	-0.358	-9.384	-10.43	-12.31	NA	-20.82	-16.30	-0.792	-0.643	-	NA	NA	13.07	22.54	11.190	12.66	21.01	NA	25.64	25.40	3.59	7.61	-
3-2	NA	NA	-10.28	-0.475	-8.764	-10.22	-9.34	NA	-20.28	-15.41	-0.802	-0.591		NA	NA	25.26	65.54	40.490	27.08	26.12	NA	42.33	53.50	4.01	8.98	-
3-3	NA	NA	-10.30	-0.255	-8.898	-10.28	-10.49	NA	-20.43	-15.87	-0.766	-0.633	1.1	NA	NA	15.60	40.33	24.660	18.56	17.51	NA	33.82	37.40	6.73	9.60	
4-1	NA	NA	NA	NA	-4.222	-4.113	-4.01	-4.429	NA	-4.169	-3.546	-4.111		NA	NA	NA	NA	22.47	21.26	20.39	19.91	NA	34.50	32.44	26.92	1
4-2	NA	NA	NA	NA	-4.016	-4.039	-3.981	-4.088	NA	-3.888	-3.775	-3.701	-	NA	NA	NA	NA	50.98	32.49	30.68	42.48	NA	41.90	42.43	52.10	1000



See table fable operfide