Sub-Slab Depressurization System (SSDS) Pilot Test Report

Site:

655-671 Stanley Avenue
Booklyn, New York
NYSDEC Site #224415

Prepared for:

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Franklyn Square, NY 11010

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February 2026

EnviroTrac

Sub-Slab Depressurization System (SSDS) Pilot Study Report
655-671 Stanley Avenue, Brooklyn, NY

PURPOSE

This report is intended to summarize the results of the SSDS pilot study that was conducted by EnviroTrac on January 13th and January 14th, 2026. The purpose of the test was to determine the feasibility of implementing a full-scale SSD system as a viable means of soil vapor mitigation throughout the proposed building structure. The results of this study were used to determine the feasibility of this technology, as well as determining the required operating parameters and layout for the selected system.

TECHNICAL SCOPE OF WORK PERFORMED

1. Pilot Test Equipment

For the purpose of the pilot test, EnviroTrac mobilized its mobile SSD system equipment to conduct the study at representative locations. The mobile system consists of a regenerative vacuum blower mounted to a mobile steel skid and radon mitigation style vacuum blowers that were connected to the temporarily installed SSDS test well. The test equipment also includes a vacuum gauge, a flow/sample port, associated piping, and discharge stack. Major system components of the mobile SSD system are described below.

Sub-Slab Depressurization Equipment:

- Extraction Blowers: – Radon Away Model No. HS5500 Vacuum Blower (110V, 1 Phase).
  - Max Flow: 65 SCFM
  - Max Vac: 50 “H_2O

  Radon Away Model No. GX5, Vacuum Blower (110V, 1 Phase).
  - Max Flow: 178 SCFM
  - Max Vac: 5.0 “H_2O

Additional Test Equipment

- Dwyer Instruments Handheld Air Velocity Meter – Model 471B-1
- UEI Digital Manometer – EM201B (0.000 – 20.000 “H2O)

2. Test Zones

To facilitate the SSDS test, EnviroTrac installed four (4) 4-inch diameter temporary extraction test wells (TP-1 through TP-4). A 5-inch diameter core drill was used to install a 4-inch diameter schedule 40 PVC pipe that was sealed to the floor slab penetration at each test location. The soil immediately below the slab was manually hand cleared in order to install the temporary extraction point. The temporary extraction well was constructed using 4-inch diameter schedule 40 PVC well screen (20-slot) that extended down into the subgrade soil (~12” bgs) and was fitted with a PVC end cap. Gravel was installed around the well screen up to the elevation of the bottom of the existing concrete floor slab. The well screen was transitioned to solid schedule 40 PVC pipe at the bottom of the existing concrete floor slab with the annulus between the outside of the PVC pipe and the concrete edge sealed with quick setting hydraulic cement. Adequate time was given to allow for the sealant to set up prior to the commencement of the pilot test. Once the temporary point was set up, the test blowers were individually mounted to the top of the test well and a flexible hose was routed from the blower to the exterior of the building. The locations of each extraction test well and the associated monitoring points can be seen in **Figure 1**.

SSDS TESTING METHODOLOGY

Throughout the pilot study each extraction well was evaluated at varying operational conditions. Prior to starting the test, each test blower was connected to the piping riser extending from the test wells. A flexible hose was routed from the blower and riser pipe to the exterior of the building. In order to monitor the sub-slab vacuum response of the test, several temporary vacuum monitoring points (VMPs) were installed through the concrete floor slab, at select locations. During the test, the vacuum blowers were configured to operate at the maximum rate for each relative to flow and vacuum. Throttling of the blowers was conducted by adjusting the mobile system piping manifold control valve. During each step, operating parameters such as applied flow, vacuum, and sub-slab vacuum responses were recorded. The applied extraction well flow and vacuum were measured from a monitoring point located in the extraction piping several feet above where the piping penetrates the floor slab. The wellhead vacuum and extraction flow rate for each step were recorded as the following:

TP-1

Step #	Wellhead Vacuum (H2O)	Extraction Flow Rate (scfm)
1	5.2	16.9
2	22.0	40.1
3	33.0	51.2
4	42.0	69.2
5	49.0	79.3

TP-2

Step #	Wellhead Vacuum (H2O)	Extraction Flow Rate (scfm)
1	5.0	18.1
2	21.0	36.5
3	30.0	45.1
4	39.0	60.7
5	43.0	67.8

TP-3

Step #	Wellhead Vacuum (H2O)	Extraction Flow Rate (scfm)
1	5.2	18.5
2	23.0	33.0
3	32.0	48.0
4	38.0	58.2
5	46.0	62.6

TP-4

Step #	Wellhead Vacuum (H2O)	Extraction Flow Rate (scfm)
1	5.0	21.2
2	20.0	31.2
3	25.0	41.2
4	28.0	48.3
5	34.0	59.5

During each step vacuum influence was recorded from each monitoring point utilizing a handheld digital manometer. For each step, the operating conditions were allowed to sufficiently stabilize at a steady-state condition prior to the recording of any readings.

PILOT TESTING RESULTS

The field data collected during the SSD pilot test is included as an attachment to this report. Flow and vacuum readings were recorded during each step of the SSDS test, while vacuum influence was measured at each observation point. A copy of each pilot test data analysis, along with the associated data plots, are included in the Attachments of this report.

In order to determine the performance requirements at each of the SSD extraction zones, the pilot test data is used to generate a semi-logarithmic plot of sub-slab vacuum response vs. distance. From this plot the effective Radius of Influence (ROI) of each of the test steps of the pilot study is determined by finding the radial distance where a best fit logarithmic line plot of the data intersects the line y = 0.03"H_2O (~7 pascals) vacuum response. Extrapolating out the results from the data set and the plots developed from SSDS-1 shows that applying a minimum vacuum ranging from <0.2"H_2O to 17.6"H_2O at a flow rate ranging from <2.0cfm to 35.8cfm would achieve a minimum radius of influence (ROI) of ~20 feet. In order to achieve complete vacuum coverage of the building footprint, the selected ROI would be used to assist in the layout of the full-scale SSD System.

CONCLUSIONS AND RECOMENDATIONS

Based on the results tabulated, the performed pilot test demonstrates that full-scale SSD systems can serve as an effective means of mitigation for the proposed site building. For the proposed SSD system, if a target ROI of 20 feet is selected for each proposed extraction well, it was determined that a minimum vacuum of 21.2"H_2O and an air flow rate of 43.0 CFM would need to be applied at each extraction wellhead throughout the building. These values were conservatively determined by taking the highest calculated value for applied vacuum and extracted flow rate. Appropriate consideration shall be addressed concerning the number and spacing of the proposed extraction wells. It should be noted that the results of the pilot study data could be extrapolated further to determine required system operational parameters at other selected ROIs.

In addition, it is recommended that the repair of any noted foundation or floor slab damage or deficiencies be conducted prior to the installation of the full-scale SSD System to ensure the proper function and effectiveness of the system. It is critical for any system of this type to be implemented within a building containing a continuous and competently sealed floor in order to maintain an evenly distributed sub-slab vacuum. Any cracks, holes, or unsealed penetrations can adversely affect the operation of the system and potentially provide pathways for unwanted vapors to migrate into the habitable interior space of the structure.

Recommended SSDS Design Parameters (each extraction well):

- Target Radius of Influence (ROI): 20 feet
- Applied Vacuum (+~20% FOS): 21.2 "H_2O
- Applied Flow Rate (+~20% FOS): 43.0 CFM

FIGURES

1. Site Plan with Test Locations

ATTACHMENTS

1. SSDS-1: Pilot Test Data – Field Measurements
2. SSDS-1: SSD Test Data Analysis
3. SSDS-1: Plot: SSD Vacuum Response vs. Monitoring Point Radial Distance
4. SSDS-1: Plot: Vacuum vs. ROI
5. SSDS-1: Plot: Air Flow Rate vs. ROI
6. SSDS-2: Pilot Test Data – Field Measurements
7. SSDS-2: SSD Test Data Analysis

8. SSDS-2: Plot: SSD Vacuum Response vs. Monitoring Point Radial Distance
9. SSDS-2: Plot: Vacuum vs. ROI
10. SSDS-2: Plot: Air Flow Rate vs. ROI
11. SSDS-3: Pilot Test Data – Field Measurements
12. SSDS-3: SSD Test Data Analysis
13. SSDS-3: Plot: SSD Vacuum Response vs. Monitoring Point Radial Distance
14. SSDS-3: Plot: Vacuum vs. ROI
15. SSDS-3: Plot: Air Flow Rate vs. ROI
16. SSDS-4: Pilot Test Data – Field Measurements
17. SSDS-4: SSD Test Data Analysis
18. SSDS-4: Plot: SSD Vacuum Response vs. Monitoring Point Radial Distance
19. SSDS-4: Plot: Vacuum vs. ROI
20. SSDS-4: Plot: Air Flow Rate vs. ROI
21. Test Blower(s) Specifications (Radon Away GX5 & Radon Away HS5500)

REFERENCES

1. ASTM E2121-21 “Standard Practice for Installing Radon Mitigation Systems in Existing Low-Rise Residential Buildings”
2. New York State Department of Environmental Conservation, (NYSDEC), DER-10 “Technical Guidance for Site Investigation and Remediation”
3. New York State Department of Health (NYSDOH) Guidance for Evaluating Soil Vapor Intrusion in the State of New York (2006)

FIGURES

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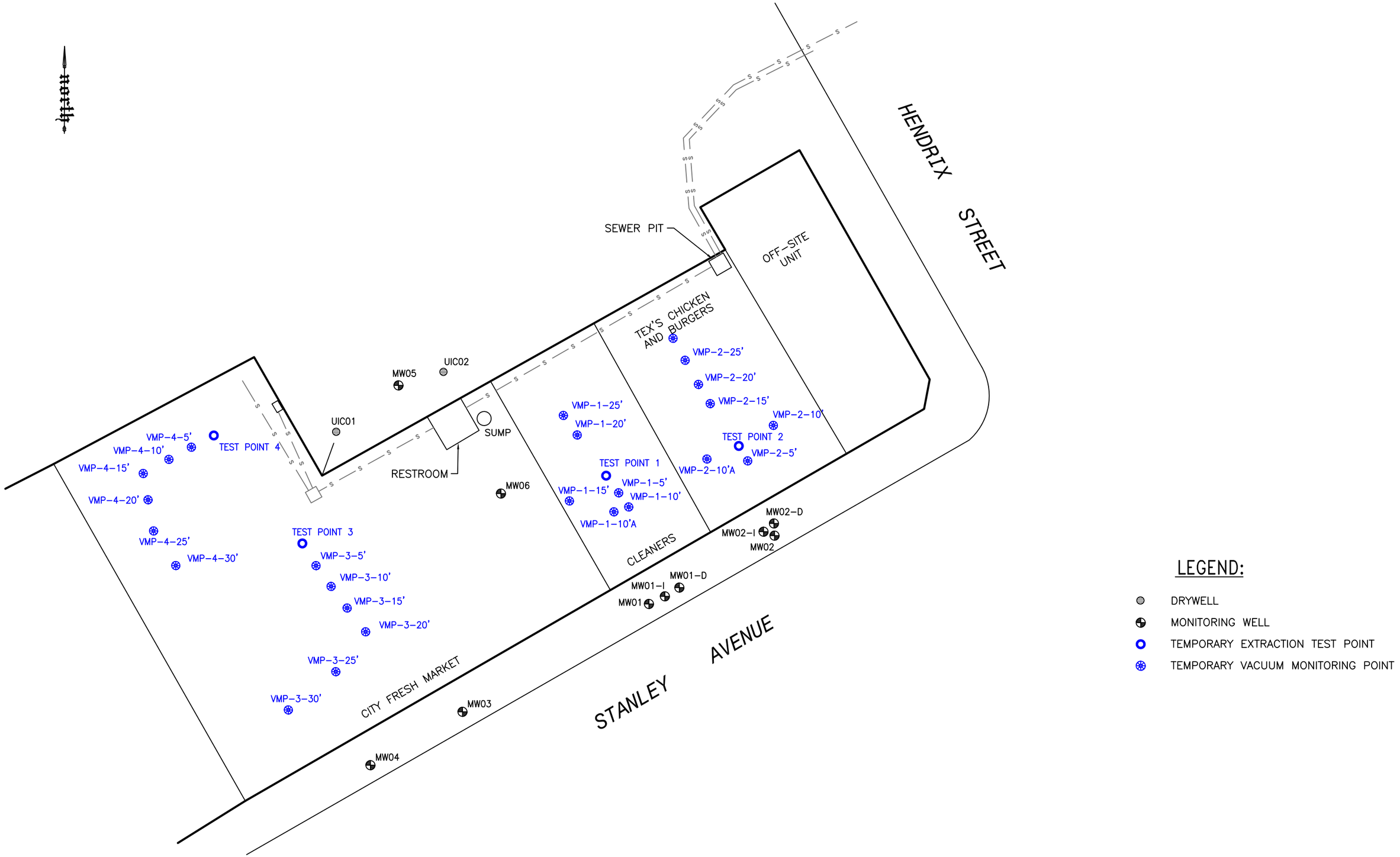

EnviroTrac
Environmental Services

0 20
SCALE IN FEET

DATE: 2/23/2026

REVISED BY: B.S.

655-671 STANLEY AVENUE
BROOKLYN, NEW YORK

SSDS PILOT TESTING LOCATIONS

FIGURE #
1

ATTACHMENTS

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Sub-Slab Depressurization (SSD) Pilot Test Data

Site Name:	**Castleton Environmental** **655-671 Stanley Ave. Brooklyn, NY**
Test Date:	1/14/2026
Personnel:	MS/NZ
Weather:	40's deg Cloudy

Extraction Well
TP-1

Blower Model	Well Head Vac "H20	System Vac	Flow (scfm)	Time	Observation Well	Observation Well	Observation Well	Observation Well	Observation Well	Observation Well	Observation Well	Observation Well
					VMP-1-5'	VMP-1-10'	VMP-1-10'A	VMP-1-15'	VMP-1-20'	VMP-1-25'		
					*Distance (ft)	*Distance (ft)	*Distance (ft)	*Distance (ft)	*Distance (ft)	*Distance (ft)	*Distance (ft)	*Distance (ft)
					5'	10'	10'	15'	20'	25'		
					Vacuum "H_20	Vacuum "H_20	Vacuum "H_20	Vacuum "H_20	Vacuum "H_20	Vacuum "H_20	Vacuum "H_20	Vacuum "H_20
GX5a	5.2		16.9	9:30	0.381	0.175	0.203	0.000	0.020	0.004		
HS5500	22.0	28	40.1	9:55	1.685	0.736	0.938	0.033	0.093	0.019		
	33.0	38	51.2	10:05	2.258	0.993	1.255	0.040	0.118	0.024		
	42.0	45	69.2	10:16	2.839	1.236	1.565	0.057	0.154	0.032		
	49.0	52	79.3	10:30	3.233	1.419	1.803	0.056	0.175	0.037		

Comment / Notes:

* Distance measured from Test Point to each Monitoring Point

NM = Not Measured

Summary of SSD Pilot Test

655-671 Stanley Ave.
Brooklyn , NY

SSD Analysis

Test Date:	1/14/2026
Performed By:	MS/NZ
Extraction Point:	**TP-1**
Test Duration (min.):	1.0 hr
Wellhead Vacuum ("H2O):	5.2 to 49
Wellhead Flow (scfm):	16.9 to 79.3

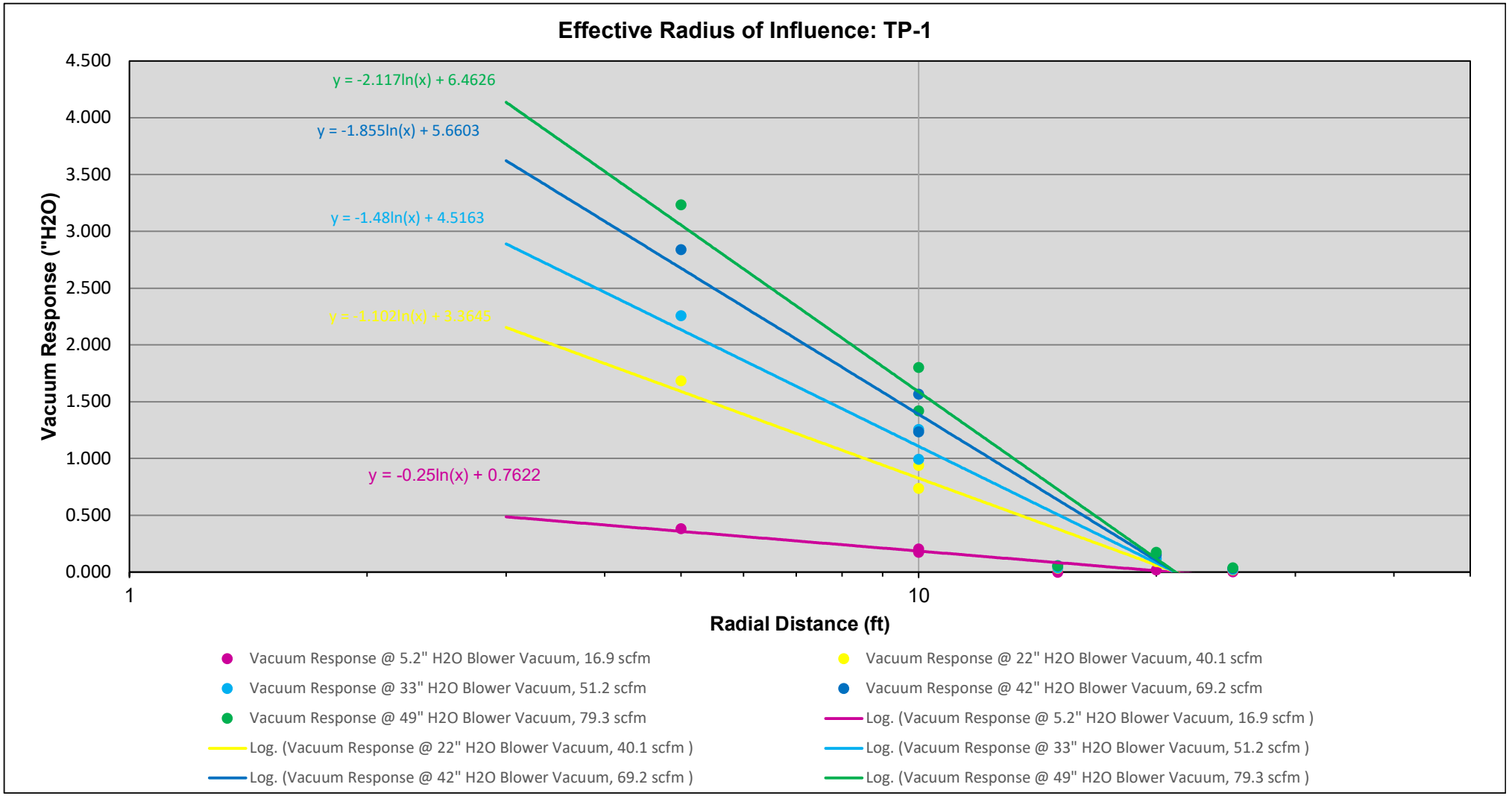
TP-1	RA GX5a	RadonAway HS5500				
Radial Distance (ft.)	Vacuum Response @ 5.2" H2O Blower Vacuum, 16.9 scfm	Vacuum Response @ 22" H2O Blower Vacuum, 40.1 scfm	Vacuum Response @ 33" H2O Blower Vacuum, 51.2 scfm	Vacuum Response @ 42" H2O Blower Vacuum, 69.2 scfm	Vacuum Response @ 49" H2O Blower Vacuum, 79.3 scfm	Reference Line 0.03 "H2O
5	0.381	1.685	2.258	2.839	3.233	0.030
10	0.175	0.736	0.993	1.236	1.419	0.030
10	0.203	0.938	1.255	1.565	1.803	0.030
15	0.000	0.033	0.040	0.057	0.056	0.030
20	0.020	0.093	0.118	0.154	0.175	0.030
25	0.004	0.019	0.024	0.032	0.037	0.030

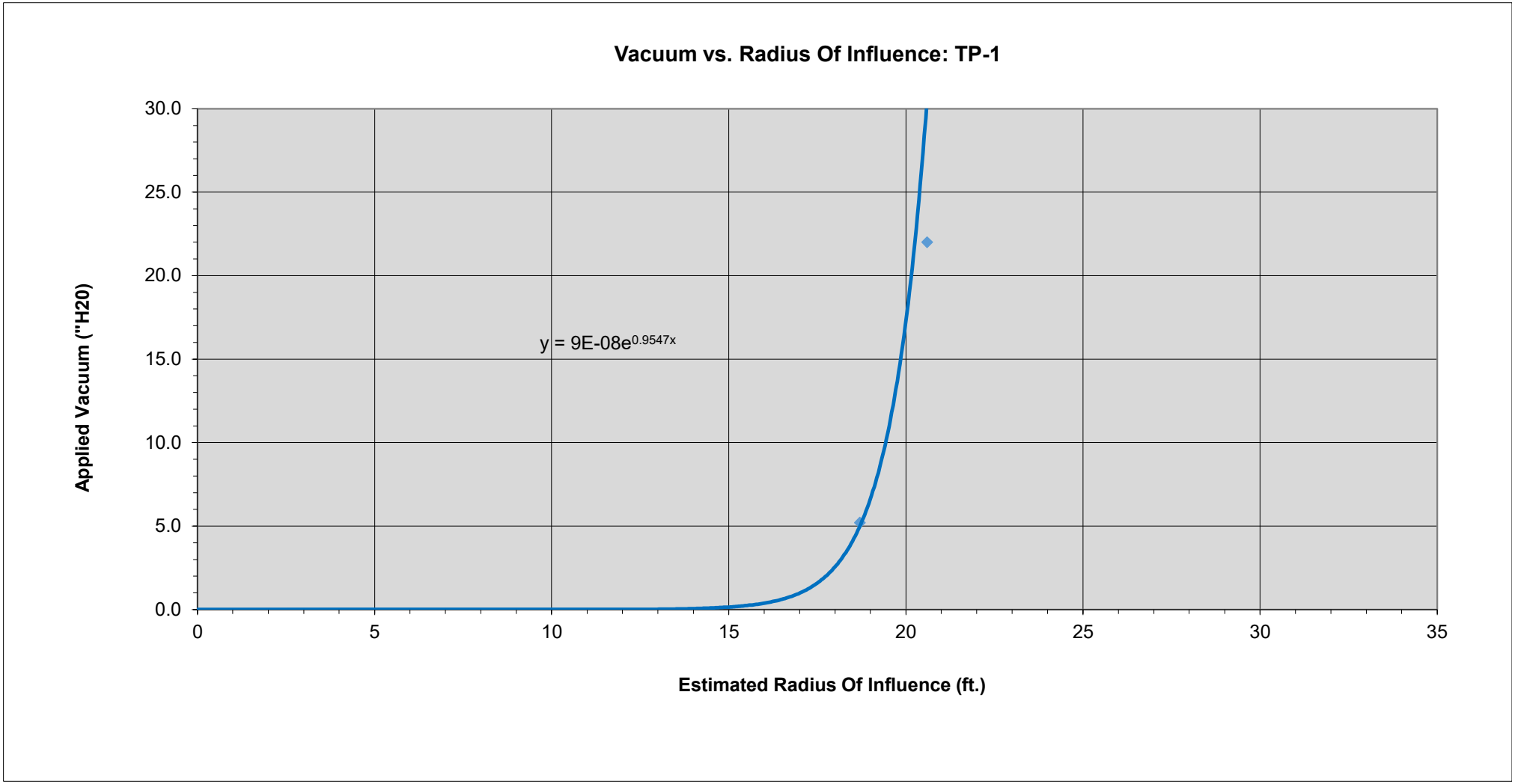
Est ROI @ 0.03" H2O Threshold

Est. ROI (ft.)	Vacuum ("H2O)	Flow (scfm)
18.7	5.2	16.9
20.6	22.0	30.1
20.7	33.0	51.2
20.8	42.0	69.2
20.9	49.0	79.3

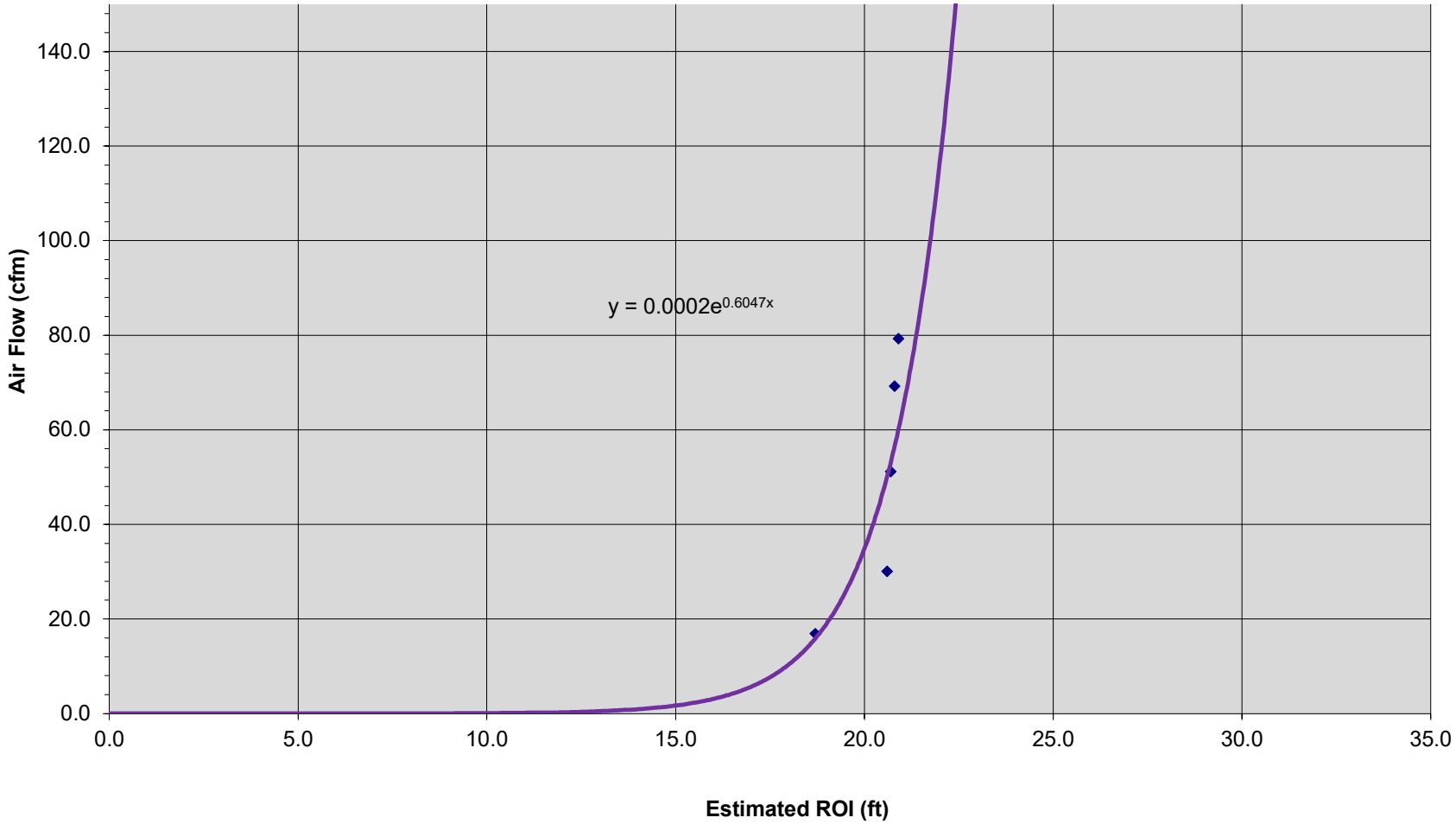
Minimum Parameters (per Extraction Point)

Target ROI (ft)	Design Vac ("H2O)	Design Flow (scfm)
20	17.6	35.8


Effective Radius of Influence: TP-1
Vacuum Response ("H2O)
4.500
4.000
3.500
3.000
2.500
2.000
1.500
1.000
0.500
0.000
y = -2.117ln(x) + 6.4626
y = -1.855ln(x) + 5.6603
y = -1.48ln(x) + 4.5163
y = -1.102ln(x) + 3.3645
y = -0.25ln(x) + 0.7622
1
10
Radial Distance (ft)
Vacuum Response @ 5.2" H2O Blower Vacuum, 16.9 scfm
Vacuum Response @ 22" H2O Blower Vacuum, 40.1 scfm
Vacuum Response @ 33" H2O Blower Vacuum, 51.2 scfm
Vacuum Response @ 42" H2O Blower Vacuum, 69.2 scfm
Vacuum Response @ 49" H2O Blower Vacuum, 79.3 scfm
Log. (Vacuum Response @ 5.2" H2O Blower Vacuum, 16.9 scfm)
Log. (Vacuum Response @ 22" H2O Blower Vacuum, 40.1 scfm)
Log. (Vacuum Response @ 33" H2O Blower Vacuum, 51.2 scfm)
Log. (Vacuum Response @ 42" H2O Blower Vacuum, 69.2 scfm)
Log. (Vacuum Response @ 49" H2O Blower Vacuum, 79.3 scfm)


Vacuum vs. Radius Of Influence: TP-1
Applied Vacuum ("H20)
30.0
25.0
20.0
15.0
10.0
5.0
0.0
y = 9E-08e0.9547x
0
5
10
15
20
25
30
35
Estimated Radius Of Influence (ft.)

Air Flow vs. Estimated Radius of Influence: TP-1



Sub-Slab Depressurization (SSD) Pilot Test Data

Site Name:	**Castleton Environmental** **655-671 Stanley Ave. Brooklyn, NY**
Test Date:	1/14/2026
Personnel:	MS/NZ
Weather:	40's deg Cloudy

					Extraction Well							
					TP-2							
					Observation Well	Observation Well	Observation Well	Observation Well	Observation Well	Observation Well	Observation Well	Observation Well
					VMP-2-5'	VMP-2-10'	VMP-2-10'A	VMP-2-15'	VMP-2-20'	VMP-2-25'	VMP-2-30'	
					*Distance (ft)	*Distance (ft)	*Distance (ft)	*Distance (ft)	*Distance (ft)	*Distance (ft)	*Distance (ft)	*Distance (ft)
					5'	10'	10'	15'	20'	25'	30'	
Blower Model	Well Head Vac "H20	System Vac	Flow (scfm)	Time	Vacuum "H_20	Vacuum "H_20	Vacuum "H_20	Vacuum "H_20	Vacuum "H_20	Vacuum "H_20	Vacuum "H_20	Vacuum "H_20
GX5a	5.0		18.1	13:20	0.522	0.222	0.405	0.064	0.046	0.018	0.000	
HS5500	21.0	27.0	36.5	13:40	2.197	0.926	1.593	0.312	0.212	0.073	0.020	
	30.0	36.0	45.1	13:50	2.945	1.257	2.161	0.427	0.300	0.103	0.034	
	39.0	44.0	60.7	14:00	3.627	1.562	2.663	0.546	0.368	0.138	0.044	
	43.0	48.0	67.8	14:10	4.028	1.709	2.917	0.592	0.393	0.148	0.044	

Comment / Notes:

* Distance measured from Test Point to each Monitoring Point

NM = Not Measured

Summary of SSD Pilot Test

655-671 Stanley Ave.
Brooklyn , NY

SSD Analysis

Test Date:	1/14/2026
Performed By:	MS/NZ
Extraction Point:	**TP-2**
Test Duration (min.):	1.0 hr
Wellhead Vacuum ("H2O):	5.0 to 43
Wellhead Flow (scfm):	18.1 to 67.8

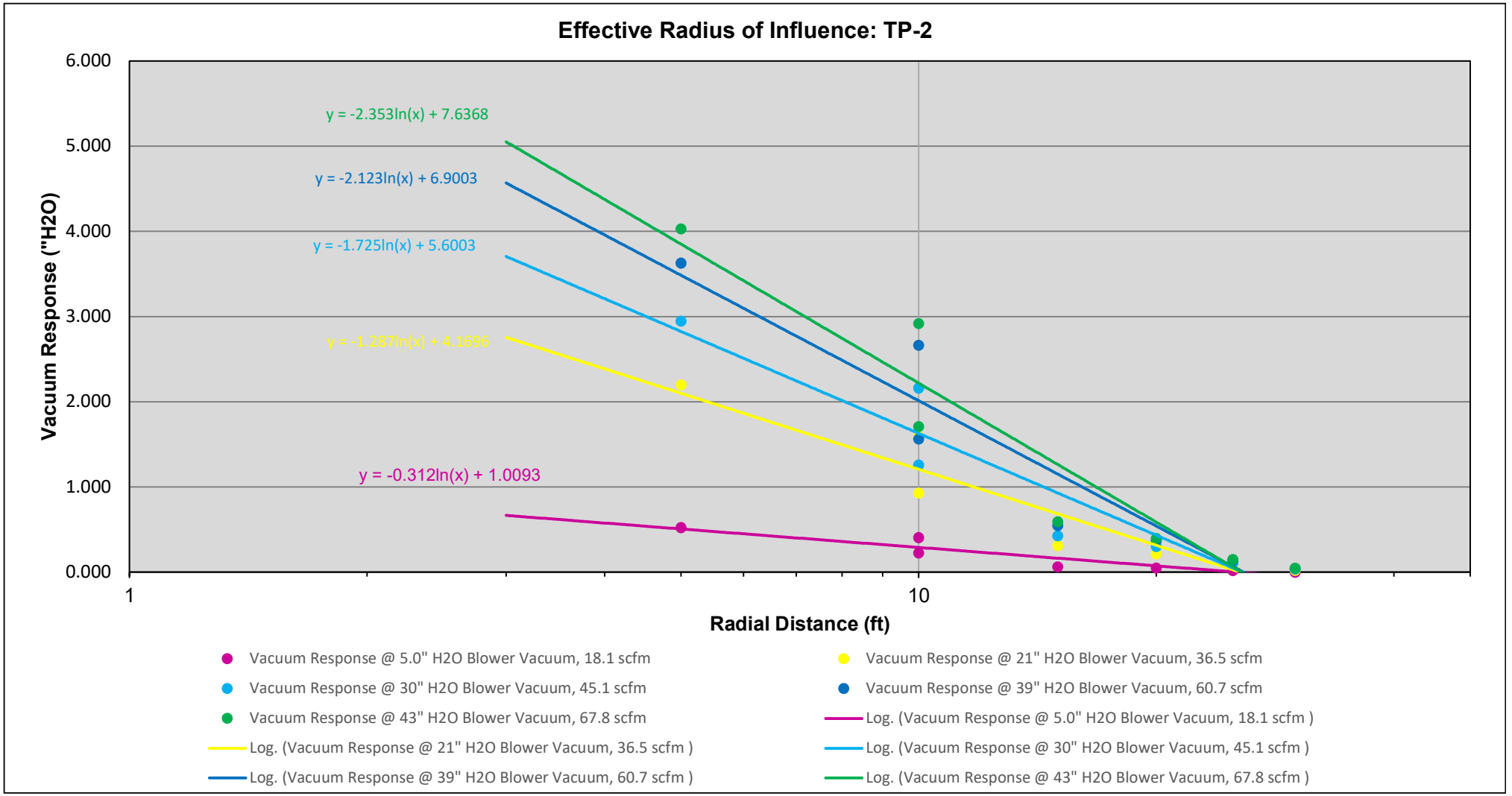
TP-2	RA GX5a	RadonAway HS5500				
Radial Distance (ft.)	Vacuum Response @ 5.0" H2O Blower Vacuum, 18.1 scfm	Vacuum Response @ 21" H2O Blower Vacuum, 36.5 scfm	Vacuum Response @ 30" H2O Blower Vacuum, 45.1 scfm	Vacuum Response @ 39" H2O Blower Vacuum, 60.7 scfm	Vacuum Response @ 43" H2O Blower Vacuum, 67.8 scfm	Reference Line 0.03 "H2O
5	0.522	2.197	2.945	3.627	4.028	0.030
10	0.222	0.926	1.257	1.562	1.709	0.030
10	0.405	1.593	2.161	2.663	2.917	0.030
15	0.064	0.312	0.427	0.546	0.592	0.030
20	0.046	0.212	0.300	0.368	0.393	0.030
25	0.018	0.073	0.103	0.138	0.148	0.030
30	0.000	0.020	0.034	0.044	0.044	0.030

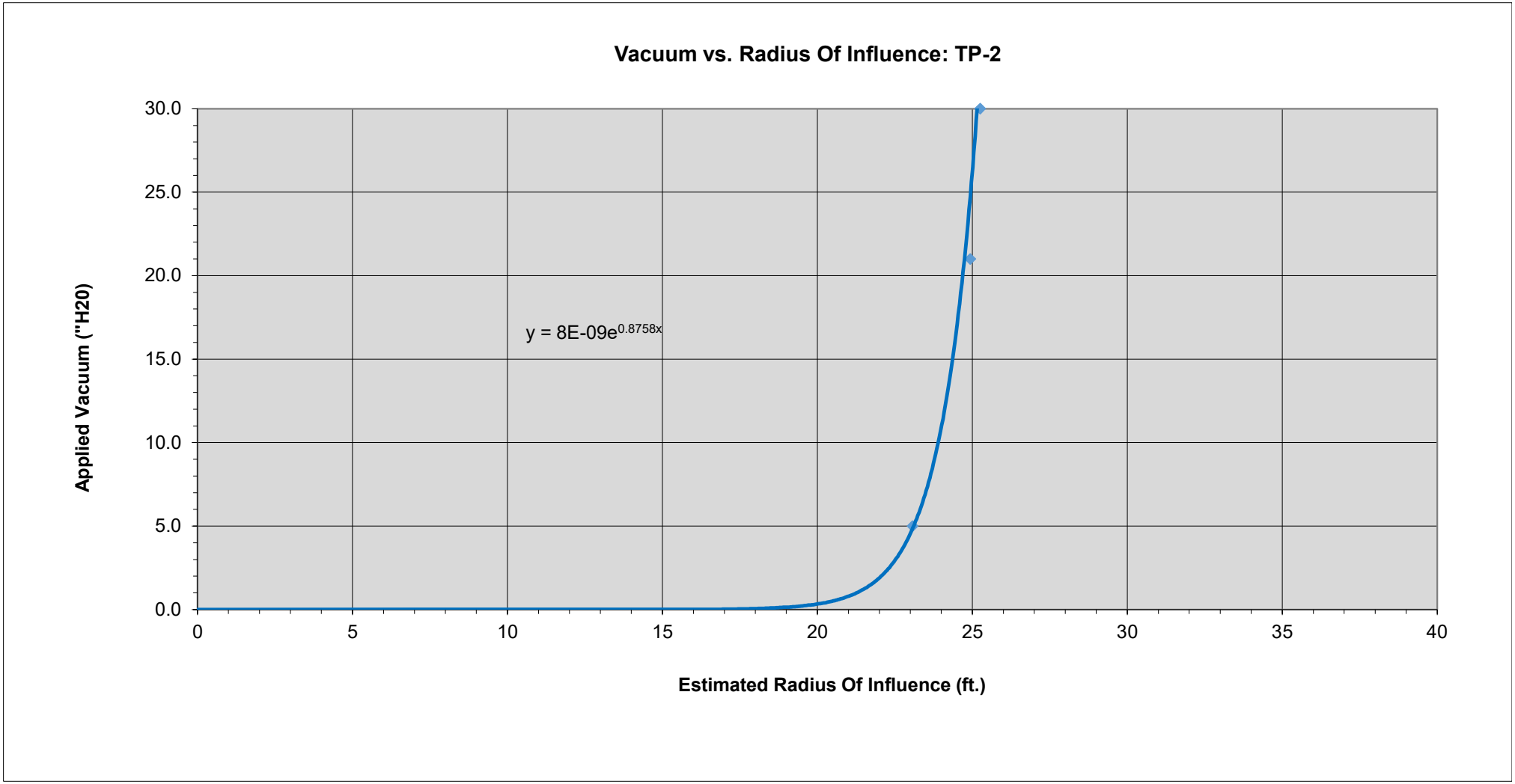
Est ROI @ 0.03" H2O Threshold

Est. ROI (ft.)	Vacuum ("H2O)	Flow (scfm)
23.1	5.0	18.1
24.9	21.0	36.5
25.3	30.0	45.1
25.4	39.0	60.7
25.4	43.0	67.8

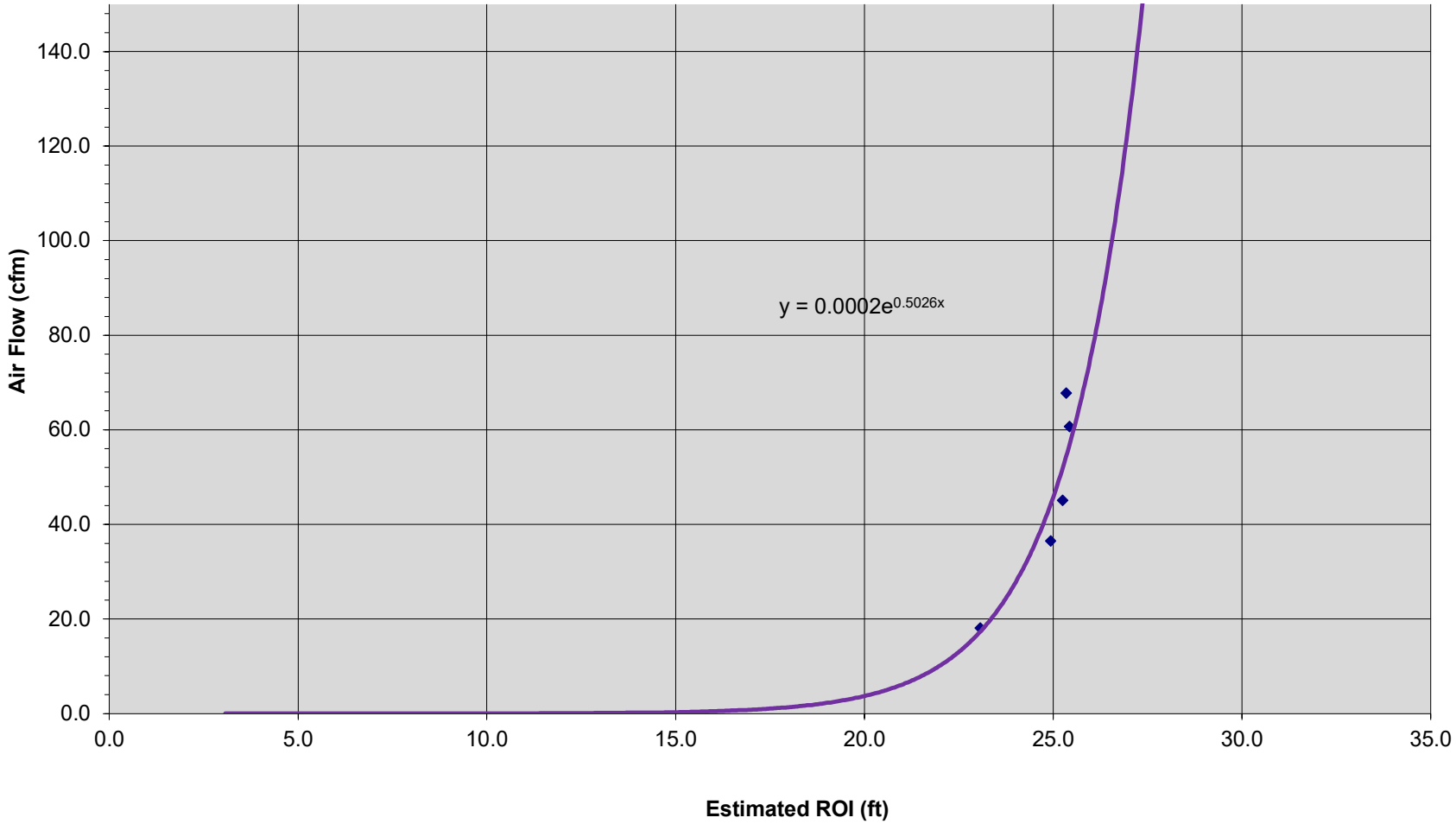
Minimum Parameters (per Extraction Point)

Target ROI (ft)	Design Vac ("H2O)	Design Flow (scfm)
20	0.32	4.6
25	25.8	57


Effective Radius of Influence: TP-2
Vacuum Response ("H2O)
6.000
5.000
4.000
3.000
2.000
1.000
0.000
1
10
Radial Distance (ft)
y = -2.353ln(x) + 7.6368
y = -2.123ln(x) + 6.9003
y = -1.725ln(x) + 5.6003
y = -1.287ln(x) + 4.1696
y = -0.312ln(x) + 1.0093
Vacuum Response @ 5.0" H2O Blower Vacuum, 18.1 scfm
Vacuum Response @ 21" H2O Blower Vacuum, 36.5 scfm
Vacuum Response @ 30" H2O Blower Vacuum, 45.1 scfm
Vacuum Response @ 39" H2O Blower Vacuum, 60.7 scfm
Vacuum Response @ 43" H2O Blower Vacuum, 67.8 scfm
Log. (Vacuum Response @ 5.0" H2O Blower Vacuum, 18.1 scfm)
Log. (Vacuum Response @ 21" H2O Blower Vacuum, 36.5 scfm)
Log. (Vacuum Response @ 30" H2O Blower Vacuum, 45.1 scfm)
Log. (Vacuum Response @ 39" H2O Blower Vacuum, 60.7 scfm)
Log. (Vacuum Response @ 43" H2O Blower Vacuum, 67.8 scfm)


Vacuum vs. Radius Of Influence: TP-2
Applied Vacuum ("H20)
30.0
25.0
20.0
15.0
10.0
5.0
0.0
y = 8E-09e0.8758x
0
5
10
15
20
25
30
35
40
Estimated Radius Of Influence (ft.)

Air Flow vs. Estimated Radius of Influence: TP-2



Sub-Slab Depressurization (SSD) Pilot Test Data

Site Name:	**Castleton Environmental** **655-671 Stanley Ave. Brooklyn, NY**
Test Date:	1/13/2026
Personnel:	MS/NZ
Weather:	40's deg Clear

					Extraction Well							
					TP-3							
					Observation Well	Observation Well	Observation Well	Observation Well	Observation Well	Observation Well	Observation Well	Observation Well
					VMP-3-5'	VMP-3-10'	VMP-3-15'	VMP-3-20'	VMP-3-25'	VMP-3-30'		
					*Distance (ft)	*Distance (ft)	*Distance (ft)	*Distance (ft)	*Distance (ft)	*Distance (ft)	*Distance (ft)	*Distance (ft)
					5'	10'	15'	20'	25'	30'		
Blower Model	Well Head Vac "H20	System Vac	Flow (scfm)	Time	Vacuum "H_20	Vacuum "H_20	Vacuum "H_20	Vacuum "H_20	Vacuum "H_20	Vacuum "H_20	Vacuum "H_20	Vacuum "H_20
GX5a	5.2		18.5	13:15	0.600	0.182	0.147	0.079	0.083	0.077		
HS5500	23.0	27.0	33	13:35	3.718	1.296	0.709	0.416	0.423	0.398		
	32.0	36.0	48	13:45	4.286	1.761	0.991	0.563	0.581	0.557		
	38.0	44.0	58.2	13:55	5.076	2.068	1.155	0.659	0.673	0.653		
	46.0	48.0	62.6	14:05	5.584	2.409	1.349	0.777	0.796	0.762		

Comment / Notes:

* Distance measured from Test Point to each Monitoring Point

NM = Not Measured

Summary of SSD Pilot Test

655-671 Stanley Ave.
Brooklyn , NY

SSD Analysis

Test Date:	1/13/2026
Performed By:	MS/NZ
Extraction Point:	**TP-3**
Test Duration (min.):	1.0 hr
Wellhead Vacuum ("H2O):	5.2 to 46
Wellhead Flow (scfm):	18.5 to 62.6

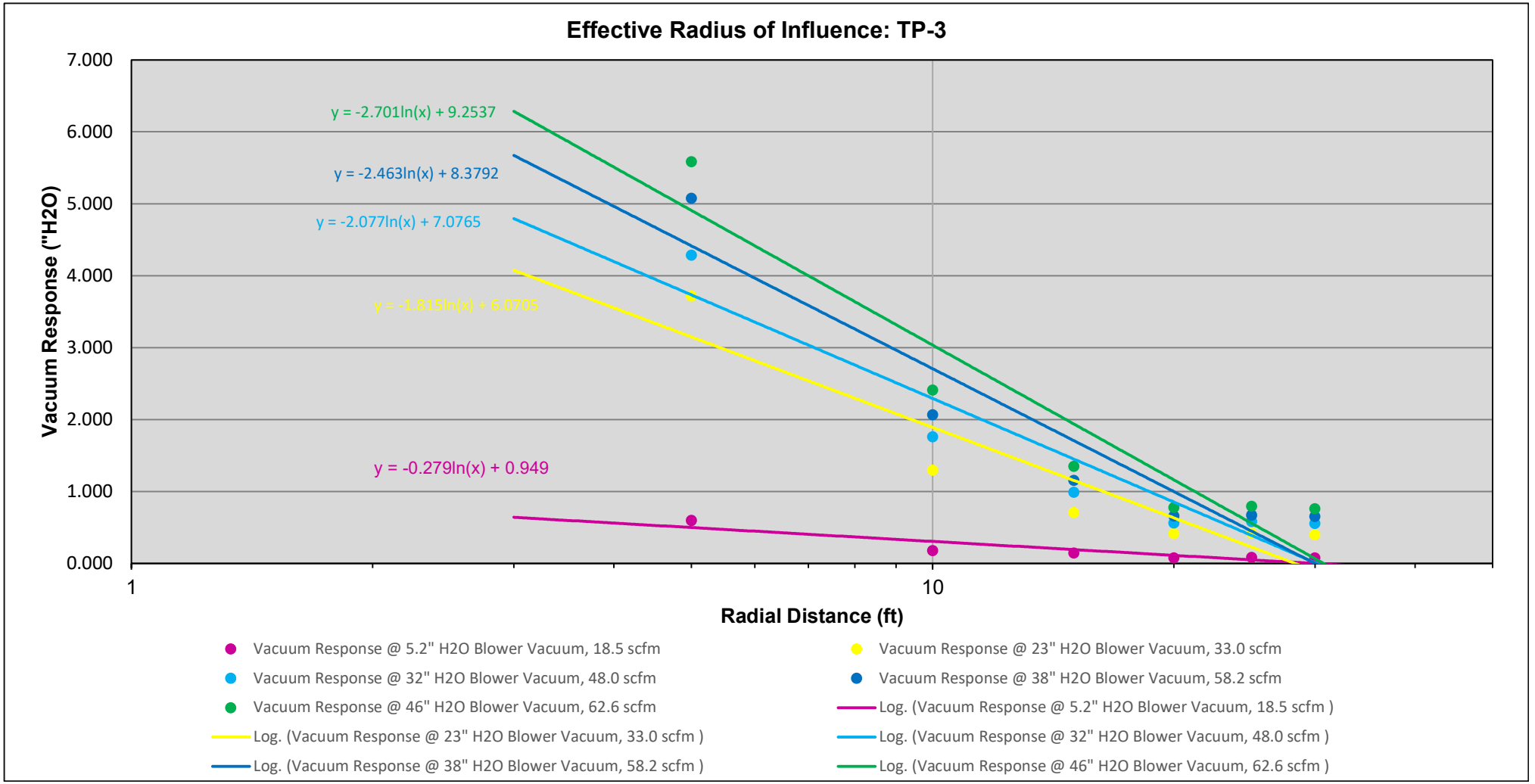
TP-3	RA GX5a	RadonAway HS5500				
Radial Distance (ft.)	Vacuum Response @ 5.2" H2O Blower Vacuum, 18.5 scfm	Vacuum Response @ 23" H2O Blower Vacuum, 33.0 scfm	Vacuum Response @ 32" H2O Blower Vacuum, 48.0 scfm	Vacuum Response @ 38" H2O Blower Vacuum, 58.2 scfm	Vacuum Response @ 46" H2O Blower Vacuum, 62.6 scfm	Reference Line 0.03 "H2O
5	0.600	3.718	4.286	5.076	5.584	0.030
10	0.182	1.296	1.761	2.068	2.409	0.030
15	0.147	0.709	0.991	1.155	1.349	0.030
20	0.079	0.416	0.563	0.659	0.777	0.030
25	0.083	0.423	0.581	0.673	0.796	0.030
30	0.077	0.398	0.557	0.653	0.762	0.030

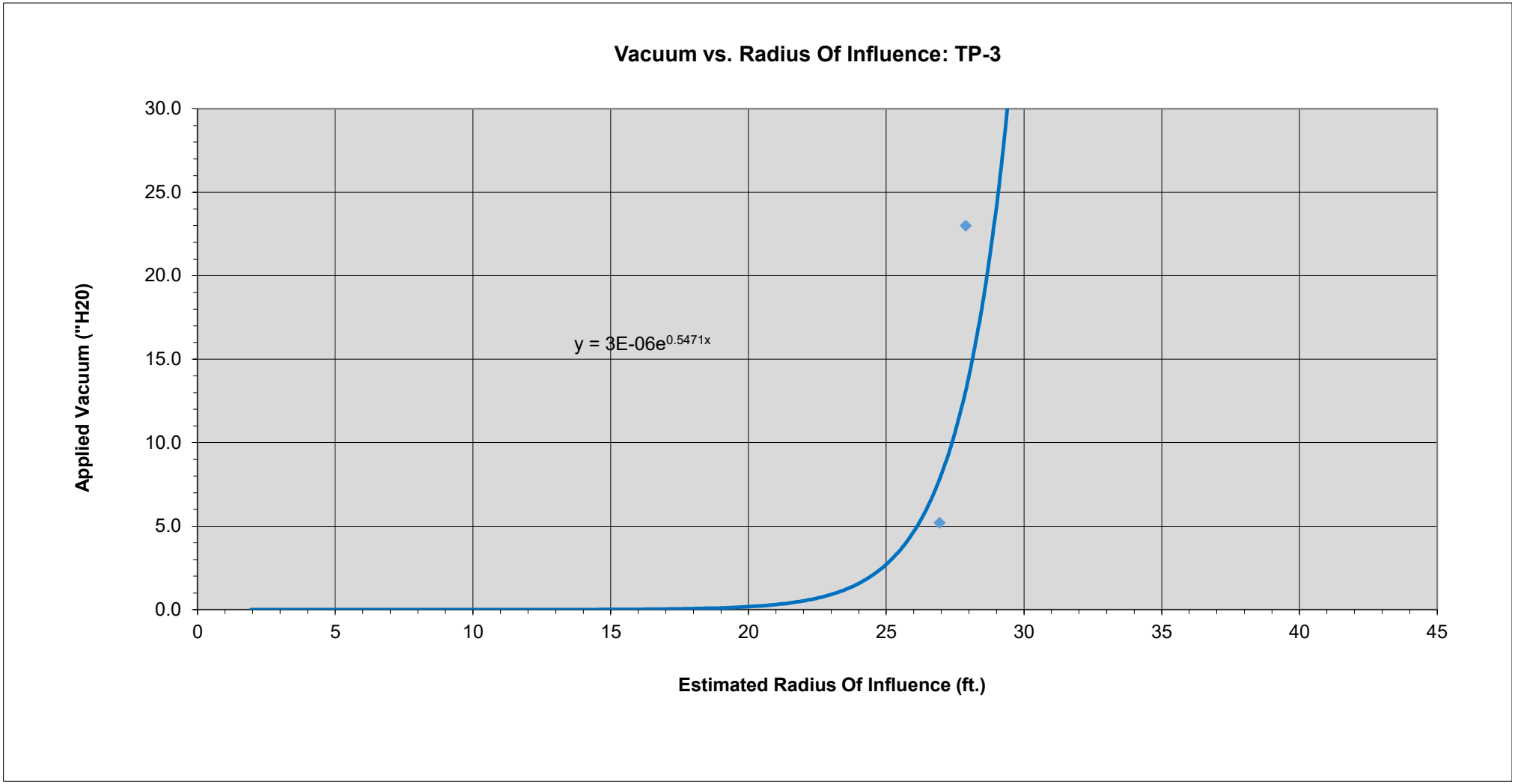
Est ROI @ 0.03" H2O Threshold

Est. ROI (ft.)	Vacuum ("H2O)	Flow (scfm)
26.9	5.2	18.5
27.9	23.0	33.0
29.7	32.0	48.0
29.7	38.0	58.2
30.4	46.0	62.6

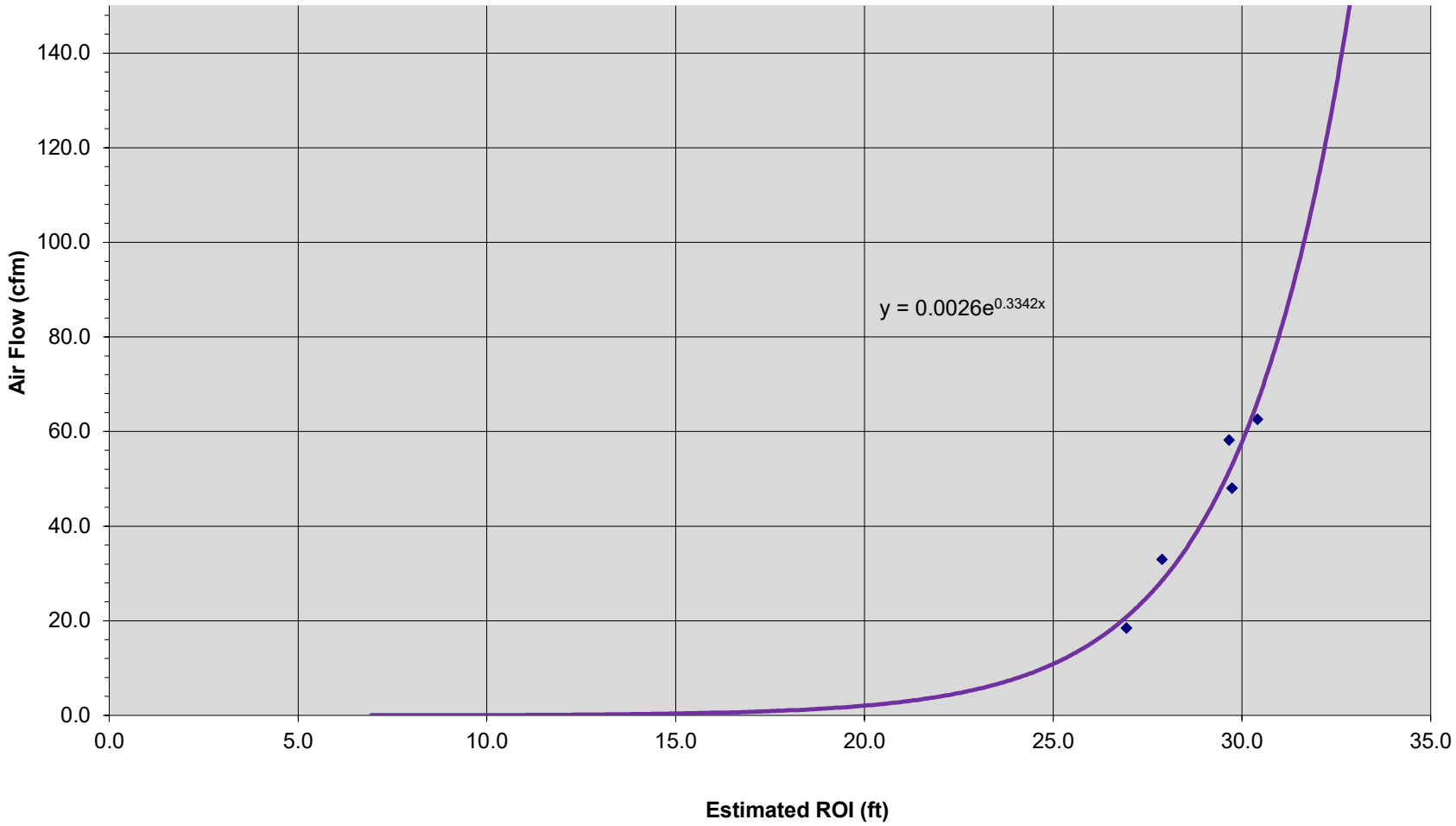
Minimum Parameters (per Extraction Point)

Target ROI (ft)	Design Vac ("H2O)	Design Flow (scfm)
20	0.17	2.1
25	2.28	11.1


Effective Radius of Influence: TP-3
Vacuum Response ("H2O)
7.000
6.000
5.000
4.000
3.000
2.000
1.000
0.000
1
10
Radial Distance (ft)
y = -2.701ln(x) + 9.2537
y = -2.463ln(x) + 8.3792
y = -2.077ln(x) + 7.0765
y = -1.815ln(x) + 6.0705
y = -0.279ln(x) + 0.949
Vacuum Response @ 5.2" H2O Blower Vacuum, 18.5 scfm
Vacuum Response @ 23" H2O Blower Vacuum, 33.0 scfm
Vacuum Response @ 32" H2O Blower Vacuum, 48.0 scfm
Vacuum Response @ 38" H2O Blower Vacuum, 58.2 scfm
Vacuum Response @ 46" H2O Blower Vacuum, 62.6 scfm
Log. (Vacuum Response @ 5.2" H2O Blower Vacuum, 18.5 scfm)
Log. (Vacuum Response @ 23" H2O Blower Vacuum, 33.0 scfm)
Log. (Vacuum Response @ 32" H2O Blower Vacuum, 48.0 scfm)
Log. (Vacuum Response @ 38" H2O Blower Vacuum, 58.2 scfm)
Log. (Vacuum Response @ 46" H2O Blower Vacuum, 62.6 scfm)


Vacuum vs. Radius Of Influence: TP-3
Applied Vacuum ("H20)
Estimated Radius Of Influence (ft.)
y = 3E-06e0.5471x
30.0
25.0
20.0
15.0
10.0
5.0
0.0
0
5
10
15
20
25
30
35
40
45

Air Flow vs. Estimated Radius of Influence: TP-3



Sub-Slab Depressurization (SSD) Pilot Test Data

Site Name:	**Castleton Environmental** **655-671 Stanley Ave. Brooklyn, NY**
Test Date:	1/13/2026
Personnel:	MS/NZ
Weather:	40's deg Clear

					Extraction Well							
					TP-4							
					Observation Well	Observation Well	Observation Well	Observation Well	Observation Well	Observation Well	Observation Well	Observation Well
					VMP-4-5'	VMP-4-10'	VMP-4-15'	VMP-4-20'	VMP-4-25'	VMP-4-30'		
					*Distance (ft)	*Distance (ft)	*Distance (ft)	*Distance (ft)	*Distance (ft)	*Distance (ft)	*Distance (ft)	*Distance (ft)
					5'	10'	15'	20'	25'	30'		
Blower Model	Well Head Vac "H20	System Vac	Flow (scfm)	Time	Vacuum "H_20	Vacuum "H_20	Vacuum "H_20	Vacuum "H_20	Vacuum "H_20	Vacuum "H_20	Vacuum "H_20	Vacuum "H_20
GX5a	5.0		21.2	9:35	0.382	0.225	0.154	0.157	0.086	0.040		
HS5500	20.0	24.0	31.2	10:08	1.619	0.942	0.640	0.633	0.340	0.163		
	25.0	31.0	41.2	10:18	1.135	1.250	0.853	0.838	0.444	0.208		
	28.0	40.0	48.3	10:30	2.062	1.208	0.819	0.811	0.430	0.225		
	34.0	38.0	59.5	10:40	2.493	1.448	0.982	0.971	0.511	0.250		

Comment / Notes:

* Distance measured from Test Point to each Monitoring Point

NM = Not Measured

Summary of SSD Pilot Test

655-671 Stanley Ave.
Brooklyn , NY

SSD Analysis

Test Date:	1/13/2026
Performed By:	MS/NZ
Extraction Point:	**TP-4**
Test Duration (min.):	1.0 hr
Wellhead Vacuum ("H2O):	5.0 to 34
Wellhead Flow (scfm):	21.2 to 59.5

TP-4	RA GX5a	RadonAway HS5500				
Radial Distance (ft.)	Vacuum Response @ 5.0" H2O Blower Vacuum, 21.2 scfm	Vacuum Response @ 20" H2O Blower Vacuum, 31.2 scfm	Vacuum Response @ 25" H2O Blower Vacuum, 41.2 scfm	Vacuum Response @ 28" H2O Blower Vacuum, 48.3 scfm	Vacuum Response @ 34" H2O Blower Vacuum, 59.5 scfm	Reference Line 0.03 "H2O
5	0.382	1.619	1.135	2.062	2.493	0.030
10	0.225	0.942	1.250	1.208	1.448	0.030
15	0.154	0.640	0.853	0.819	0.982	0.030
20	0.157	0.633	0.838	0.811	0.971	0.030
25	0.086	0.340	0.444	0.430	0.511	0.030
30	0.040	0.163	0.208	0.225	0.250	0.030

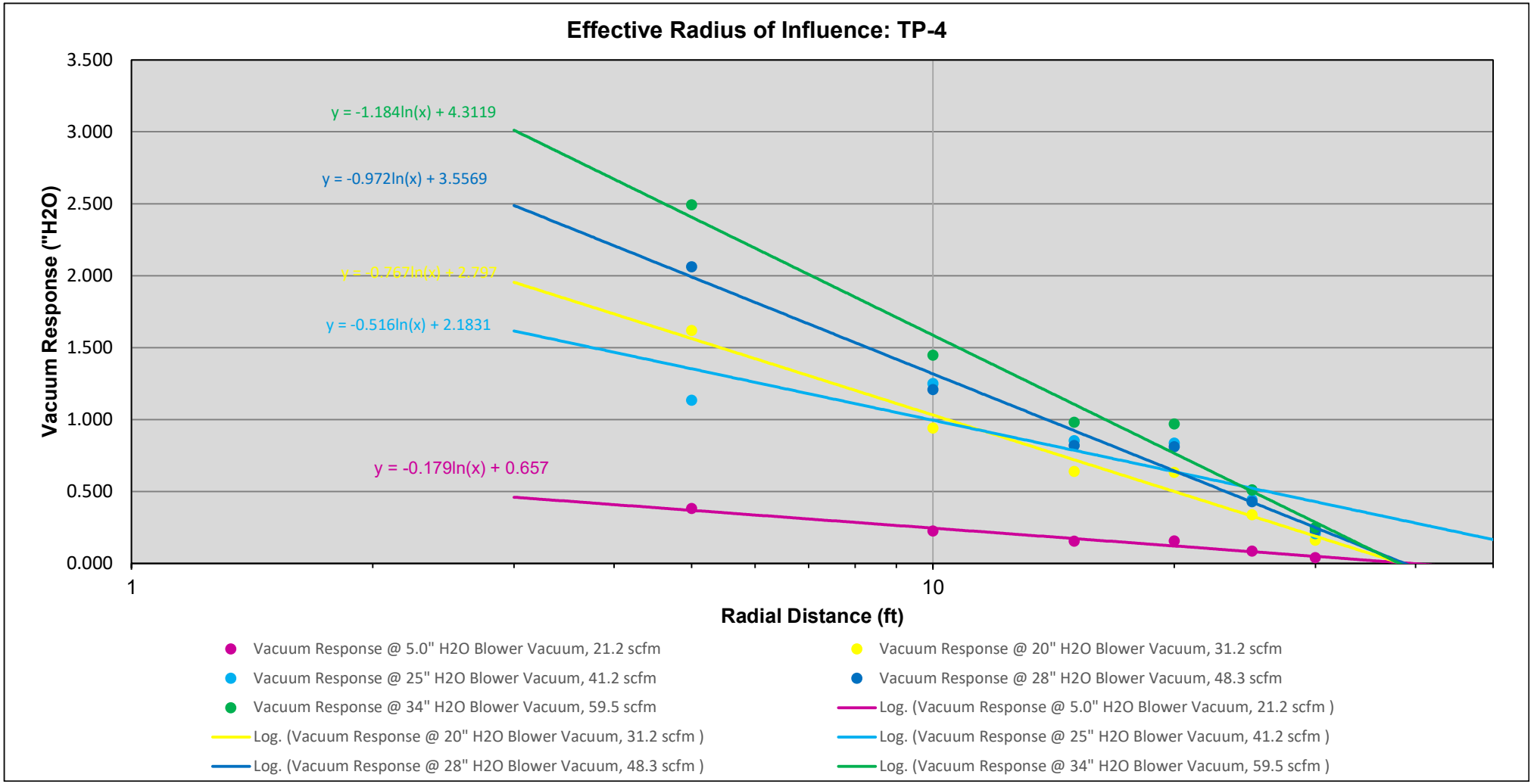
Est ROI @ 0.03" H2O Threshold

Est. ROI (ft.)	Vacuum ("H2O)	Flow (scfm)
33.2	5.0	21.2
36.9	20.0	31.2
	25.0	48.3
37.7	28.0	48.3
37.2	34.0	59.5

* Outlier data point, not used for analysis

Minimum Parameters (per Extraction Point)

Target ROI (ft)	Design Vac ("H2O)	Design Flow (scfm)
20	0.02	1.6
25	0.2	4.2


Effective Radius of Influence: TP-4
Vacuum Response ("H2O)
3.500
3.000
2.500
2.000
1.500
1.000
0.500
0.000
1
10
Radial Distance (ft)
y = -1.184ln(x) + 4.3119
y = -0.972ln(x) + 3.5569
y = -0.767ln(x) + 2.797
y = -0.516ln(x) + 2.1831
y = -0.179ln(x) + 0.657
Vacuum Response @ 5.0" H2O Blower Vacuum, 21.2 scfm
Vacuum Response @ 20" H2O Blower Vacuum, 31.2 scfm
Vacuum Response @ 25" H2O Blower Vacuum, 41.2 scfm
Vacuum Response @ 28" H2O Blower Vacuum, 48.3 scfm
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Log. (Vacuum Response @ 5.0" H2O Blower Vacuum, 21.2 scfm)
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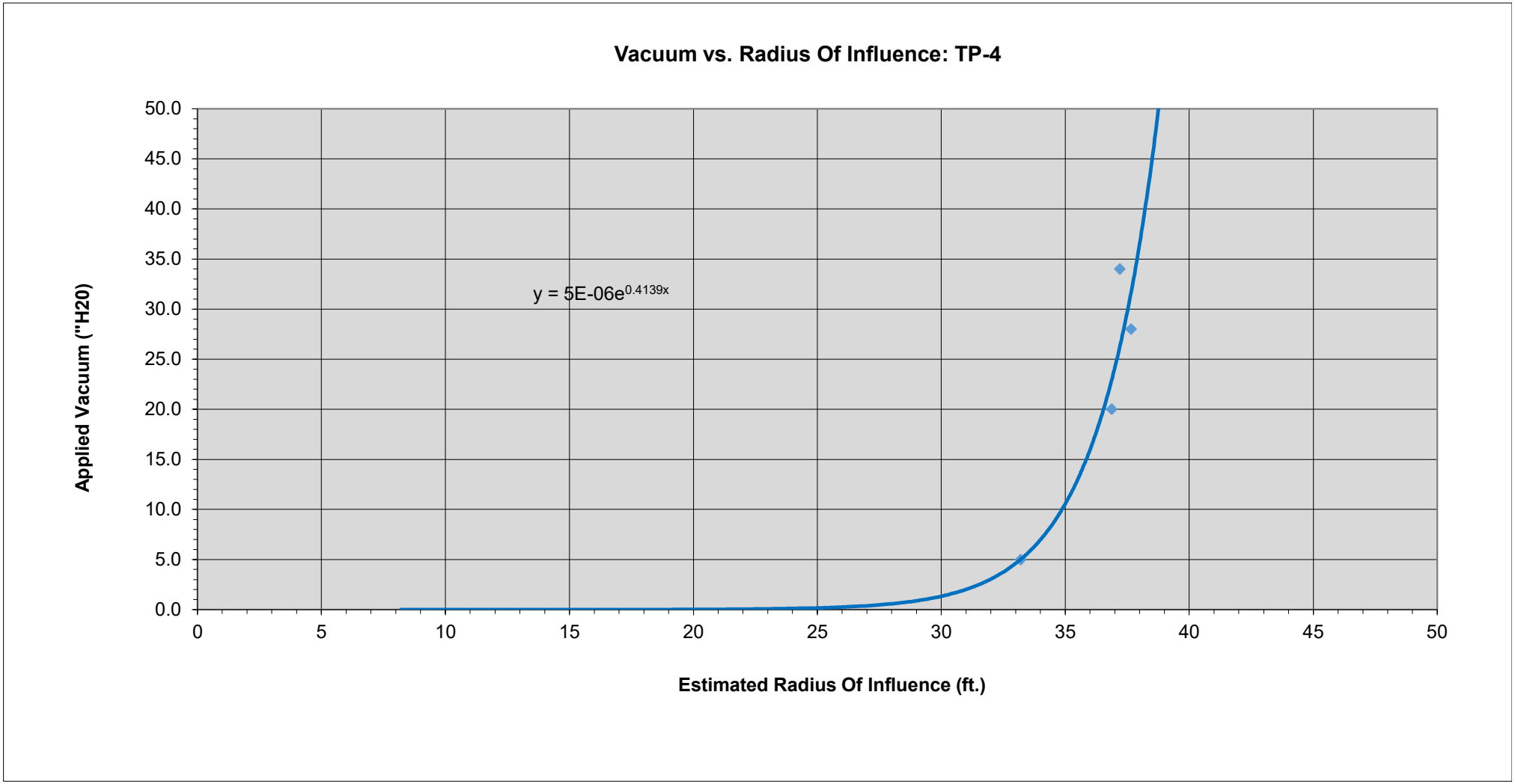
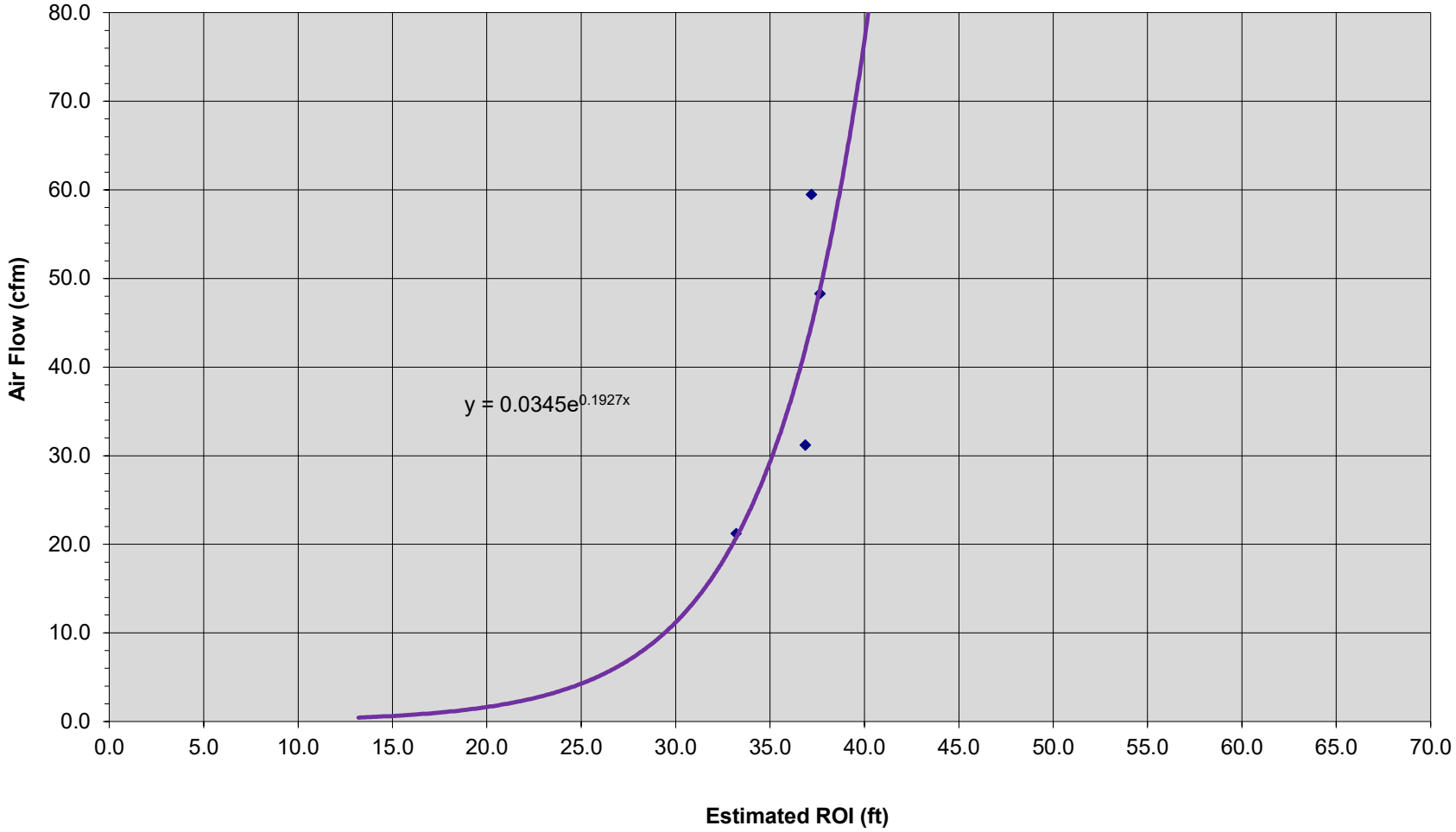
Log. (Vacuum Response @ 28" H2O Blower Vacuum, 48.3 scfm)
Log. (Vacuum Response @ 34" H2O Blower Vacuum, 59.5 scfm)


Vacuum vs. Radius Of Influence: TP-4
Applied Vacuum ("H20)
Estimated Radius Of Influence (ft.)
y = 5E-06e0.4139x
50.0
45.0
40.0
35.0
30.0
25.0
20.0
15.0
10.0
5.0
0.0
0
5
10
15
20
25
30
35
40
45
50

Air Flow vs. Estimated Radius of Influence: TP-4



GX PRO SERIES

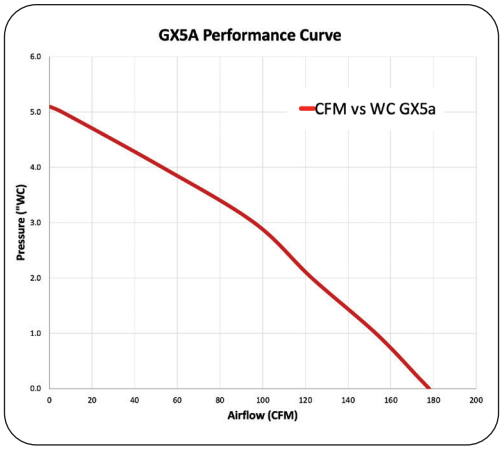
RadonAway

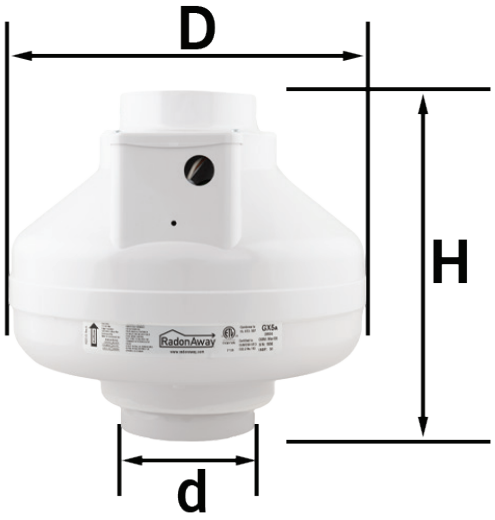
GX5A

Features

- Eternalast™ polycarbonate plastic fan housing
- Revolutionary impeller
- Water-hardened thermally-protected motor
- Quiet operation
- 4” duct for use with 3” or 4” Pipe
- Sealed seams to inhibit radon leakage
- Electrical box for hard wire of plug in
- For indoor or outdoor use
- Rated for commercial or residential use

MODEL	P/N	FAN DUCT DIAMETER	WATTS	RECOM. MAX. OP. PRESSURE “WC	MAX PRESSURE	TYPICAL CFM vs. STATIC PRESSURE WC						
						0"	0.2"	1.0”	2.0”	3.0”	4.0”	5.0”
GX5A	28536	4”	80-180	5.0”	5.1”	178	173	153	123	96	53	6





MODEL	DUCT SIZE - OD (d)	DIAMETER (D)	HEIGHT (H)
GX5A	4.5”	11.9”	11.1”

MADE IN USA with U.S. and imported parts.

ETL Listed

RadonAway® Pro Series inline radon fans are covered by a 5-year, limited warranty.

For more information
(800) 767-3703
radonaway.com

RadonAway

Rev B 0723
P/N 02104

HS5500

RadonAway's new HS5500 (P/N 28596) is an ETL-listed high pressure blower that has been designed with the professional in mind. The HS5500 features multiple speed settings to meet site-specific pressures and air flows easily verified by a built-in pressure gauge in the front cover of the unit. These blower units have a new electrical box design with a wire terminal strip along with two flexible pipe couplings for quick and easy site installation.

HS5500 FEATURES

- 4 Blower Speed Settings
- Integrated Condensate Bypass
- Integrated Thermal Overload Protection
- ETL Listed
- Built-in 60" Vacuum Gauge
- Quiet Operation
- 4-Stage Blower Designed for Harsh Environmental Conditions

SPEED SETTING	MAX RECOMMENDED OPERATING VACUUM	MAX OPERATING RANGE WATTS
LOW	20" WC	243-281
MEDIUM	30" WC	372-477
HIGH	40" WC	527-625
MAX	50" WC	591-632