



Weiss Associates

Environmental Science, Engineering, and Management

453 Ravendale Drive, Suite C, Mountain View, CA 94043

Fax: 650-968-7034 Phone: **650-968-7000**

**2015 ANNUAL
SUB-SLAB DEPRESSURIZATION SYSTEM
OPERATION, MAINTENANCE, AND
MONITORING REPORT**

for

**369 and 379 North Whisman Road
Mountain View, California**

prepared for

Schlumberger Technology Corporation

100 Gillingham Lane
Sugar Land, Texas 77478

January 28, 2016



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Weiss Associates Project No. 363-2016.02

Weiss Associates' work at 369-379 North Whisman Road was conducted under my supervision. To the best of my knowledge, the data contained herein are true and accurate, based on what can be reasonably understood as a result of this project while satisfying the scope of work prescribed by the client for this project. The data, findings, recommendations, specifications, and/or professional opinions were prepared solely for the use of Schlumberger Technology Corporation in accordance with generally accepted professional engineering and geologic practice. We make no other warranty, either expressed or implied, and are not responsible for the interpretation by others of the contents herein.



Thomas Fojut

January 28, 2016

Thomas Fojut, PE, PG, CHG
Principal Engineer

Date

Stamp No. C057963, Expiration June 30, 2016

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1. SITE INFORMATION

This Sub-Slab Depressurization System Operation, Maintenance and Monitoring Report for Buildings 6 and 7 located at 379 and 369 North Whisman Road, respectively, was prepared in accordance with the Sub-Slab Depressurization System Operations, Maintenance, and Monitoring Plan (OM&M Plan) for these buildings (Geosyntec, 2013).

Site Location: 369 and 379 North Whisman Road
Mountain View, California (see Figure 1)

Contact: Trish Eliasson
Senior Project Engineer
Weiss Associates
453 Ravendale Drive, Suite C
Mountain View, California 94043
(650) 968-7000

Lead Regulatory Agency: United States Environmental Protection Agency
Region IX

EPA ID Number: CAD09598778

Administrative Order Docket Number: 91-4

Lead Regulatory Agency Contact: Alana Lee
Project Manager
EPA Region IX, Superfund Division
75 Hawthorne Street
San Francisco, California 94105
(415) 972-3141

2. SUB-SLAB DEPRESSURIZATION (SSD) SYSTEM OPERATION AND MAINTENANCE SUMMARY

SSD System Operation Summary				
Reporting Period	July through December 2015. Data for January through June 2015 were reported in the 2015 First and Second Quarter Reports (Weiss, 2015a and 2015b).			
Continuous Operation?	All Equipment Enclosures (EEs) listed below operated continuously except for one unscheduled shutdown when the blower at EE-4 failed on December 18, 2015. The blower was replaced and EE-4 was offline for less than 12 hours. In addition, EE-2 and EE-3 both had multiple high temperature shutdowns. These EEs are located in areas which receive direct sunlight. The EEs are programmed to shut down when the temperature inside the EE exceeds 140 degrees Fahrenheit in order to protect the equipment. In each of these high temperature shutdowns, the blower restarted automatically that same evening after the temperature decreased.			
Equipment Enclosure	Building 6 (379 North Whisman Road)		Building 7 (369 North Whisman Road)	
	EE-1	EE-2	EE-3	EE-4
Minimum -0.04 inches of water as gauged (IWG) observed at all monitoring points?¹	Yes	Yes, with the exception of MP-4 as discussed in the SSD System Performance section below.	Yes	Yes
Range of influent Photoionization Detector (PID) concentrations in parts per billion by volume (ppbv)²	563 – 1,447	1,001 – 4,630	579 – 1,256	264 - 963
Range of effluent PID concentrations (ppbv)²	29 - 256	20 - 183	10 - 556 ⁵	21 - 411 ⁵
Effluent polishing: current period volatile organic compound (VOC) mass removal in pounds (lbs), Vapor Phase³	8.1	18.8	5.6	5.6
Effluent polishing: cumulative total VOC mass removal (lbs), Vapor Phase³	24.6	39.8	15.1	13.9
Extraction points operated⁴	EP-1 and EP-2	EP-3	EP-4	EP-5 and EP-6

Notes:

¹ SSD system pressure summary is provided in Table 1 for Building 6 and Table 2 for Building 7 and discussed in the “SSD System Performance” section below.

² PID concentration and mass removal data are provided in Table 3.

³ Current period mass estimate is calculated by multiplying the total volume of air removed by each blower by the average PID concentration in samples collected during the reporting period. Cumulative total mass estimate calculation includes mass removed starting on May 29, 2014, after PID calibration procedures were modified to improve accuracy of readings.

⁴ Extraction point data are provided in Tables 1 and 2.

⁵ Carbon was changed after this PID reading was collected.

SSD System Summary:	<ul style="list-style-type: none"> - The SSD systems (see Figure 2) began operating at the Site in April 2014. Influent to the SSD systems consists of sub-slab vapor extracted from six extraction points (EPs). Twelve monitoring points (MPs) are used for monitoring sub-slab pressures. Sub-slab vapor is conveyed via underground extraction pipes to four EEs and is treated by 200-pound vapor-phase granular activated carbon (GAC) units to adsorb VOCs. Treated extracted soil vapor is discharged to the atmosphere. - A process flow diagram is provided as Figure 3. - No operational changes or alterations were made to the SSD systems during this reporting period.
Site Chemicals of Concern (COCs) (USEPA, 2010):	<ul style="list-style-type: none"> - VOCs, including tetrachloroethene, trichloroethene, cis-1,2-dichloroethene, trans-1,2-dichloroethene, vinyl chloride, 1,1-dichloroethene, and 1,1-dichloroethane.
Institutional Controls (ICs) Monitoring:	<ul style="list-style-type: none"> - The property owner has not reported any improvements or alterations at the Site that impact remedial work. A Declaration of Environmental Restrictions and Access for the Site is recorded with the Santa Clara County Clerk Recorder's Office.
Scheduled Site Visits:	<ul style="list-style-type: none"> - Monthly monitoring events were conducted on: <ul style="list-style-type: none"> • July 14, 2015 • August 11, 2015 • September 15, 2015 • October 13, 2015 • November 17, 2015 • December 15, 2015 - Additional biweekly site visits were conducted to monitor the vacuum at EE-2 and MP-4 (as discussed in SSD System Performance below) and/or to remove water from the vapor lines on: <ul style="list-style-type: none"> • October 2, 2015 • November 3, 2015 • December 1, 2015 • December 28, 2015

-
- SSD System Performance:
- Quarterly field pressure readings were collected in July and October 2015 at all performance monitoring points.
 - Data indicate that the sub-slab environment met the performance objective (design criterion) of -0.04 IWG (i.e., differential pressure was more negative than -0.04 IWG) in all monitoring points except MP-4. A field pressure summary is provided in Table 1. On November 17, 2015, the differential pressure at MP-4 was observed to be -0.03 IWG, which is below the design criterion but meets the recommended negative pressure (-0.020 IWG) for effective mitigation by the California Department of Toxic Substances Control (DTSC, 2011). During each observance of a differential pressure below the design criteria, steps were taken to increase the differential pressure to meet the design criteria. These steps included tasks such as shaking and later replacing the carbon drum at EE-2 to reduce the impact of fine particles that may accumulate and clog the drum, additional cleaning of the inlet filter to the carbon drum, and additional water removal from the vacuum lines. After performing these steps, the differential pressure met the performance objective. Starting in the fourth quarter, Weiss monitored the differential vacuum at MP-4 every two weeks.
 - The effluent from each SSD system was in compliance with effluent limits during this reporting period. SSD system PID results are provided in Table 3.

-
- SSD System Trends:
- Blowers operated within manufacturer's recommended operating range with consistent amperage draw (Table 3).
 - Temperatures were below the manufacturer's limit of 140°F (60°C) (Table 3).
 - Relative humidity met the carbon manufacturer's recommended limit of less than 50%, except for some measurements at EE-1 and EE-4 throughout the reporting period (Table 3). Based on the effluent air quality at EE-1 and EE-4, the humidity does not appear to significantly impact treatment performance.
 - Influent VOC concentrations were relatively consistent at EE-1 through EE-4, though a slight decrease in concentrations was observed at all four locations in December 2015 (Table 3 and Figure 4).
-

Maintenance Performed: - Routine maintenance was performed on the SSD systems, including GAC drum changeouts, as follows:

- July 14-16, 2015 – GAC changeout at EE-1, EE-3, and EE-4
- September 15, 2015 – GAC changeout at EE-1, EE-2, and EE-4
- November 17, 2015 – GAC changeout at EE-2 and EE-3
- December 15, 2015 – Influent hose replaced at EE-2
- December 18, 2015 – Blower replaced at EE-4

- A summary of SSD system O&M for this reporting period is included as Table 4.

Other Activities: - No other activities occurred during the reporting period.

Next Quarter Planned Activities: - Continued monthly monitoring of treatment system parameters, including temperature, relative humidity, blower amperage, and influent/effluent VOC concentrations; and

- Continued quarterly monitoring of differential pressures and flow rates in accordance with Section 5.2 of the OM&M Plan (Geosyntec, 2013).

Future Reporting Activities: - In accordance with Section 11 of the OM&M Plan (Geosyntec, 2013), the next annual report will summarize activities for 2016 and will be submitted by January 31, 2017 following the end of the reporting period.

3. REFERENCES

Department of Toxic Substances Control (DTSC), 2011. *Vapor Intrusion Mitigation Advisory*, October.

Geosyntec, 2013. *Building-Specific Long-Term Vapor Intrusion Operations, Maintenance, and Monitoring Plan, 369 and 379 North Whisman Road, Mountain View, California*. 21 October.

Geosyntec, 2014. *Building-Specific Vapor Intrusion Response Action Implementation Report, 369 and 379 North Whisman Road, Mountain View, California*. 3 September.

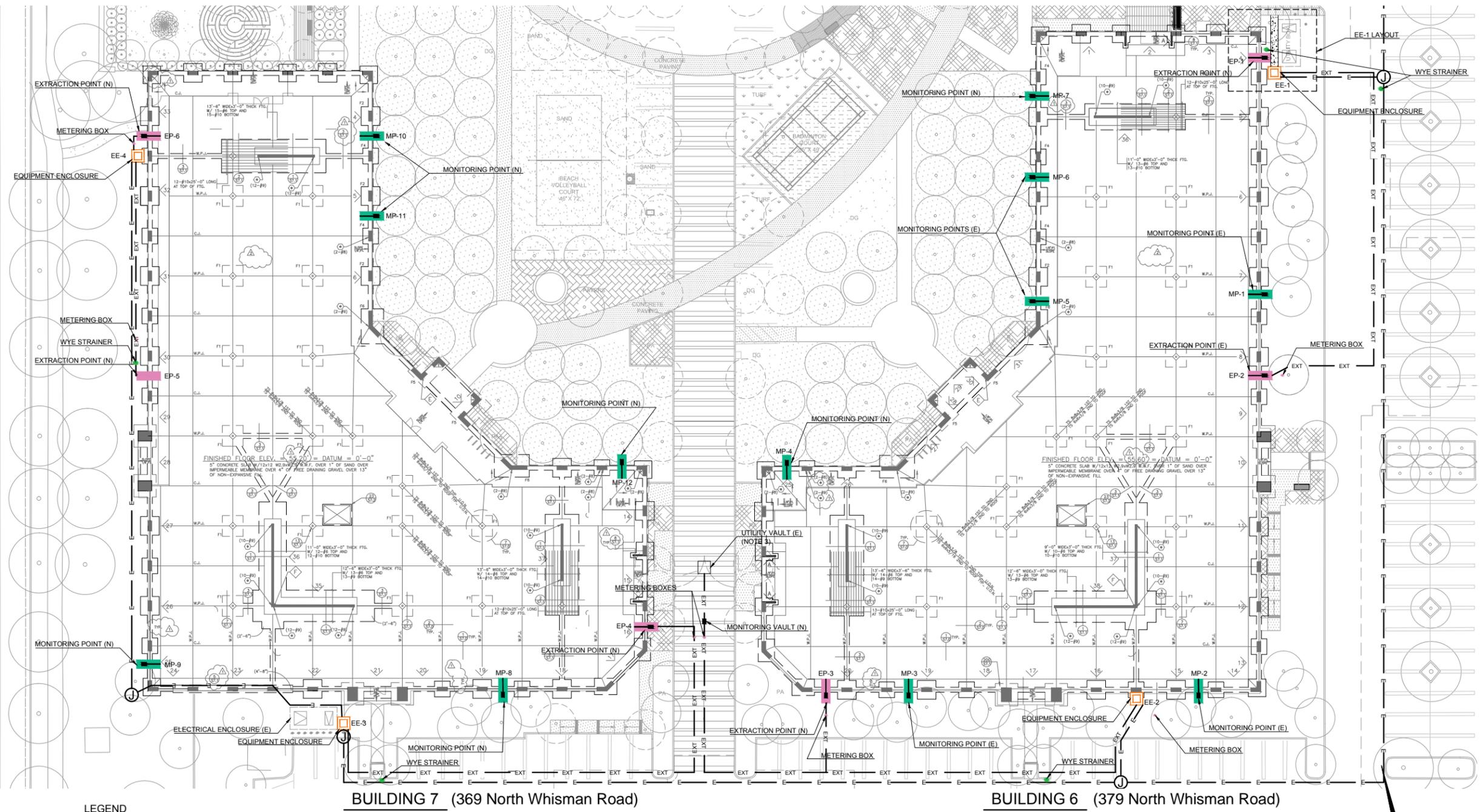
Weiss, 2015a. *First Quarter 2015 Sub-Slab Depressurization System Operation, Maintenance, and Monitoring Report, 369 and 379 North Whisman Road, Mountain View, California*. 29 April.

Weiss, 2015b. *Second Quarter 2015 Sub-Slab Depressurization System Operation, Maintenance, and Monitoring Report, 369 and 379 North Whisman Road, Mountain View, California*. 31 July.

United States Environmental Protection Agency (USEPA), 2010. *Record of Decision Amendment for the Vapor Intrusion Pathway, MEW Superfund Study Area, Mountain View and Moffett Field, California*. 16 August.

FIGURES

NORTH WHISMAN ROAD



LEGEND

	EXTRACTION POINT (EP)		EXTRACTION PIPE
	MONITORING POINT (MP)		METERING BOX
	EQUIPMENT ENCLOSURE		ELECTRICAL AND COMMUNICATION TRENCH
	ELECTRICAL JUNCTION BOX		WYE STRAINER

- NOTES**
- BUILDING 7 AND 6 FLOOR PLANS PROVIDED BY THE LICENSED STRUCTURAL ENGINEER RESPONSIBLE FOR THE BUILDING DESIGN.
 - FOR FULL SCALE SYSTEM, EXISTING EXTRACTION AND MONITORING POINT NAMES AND NUMBERS HAVE BEEN REASSIGNED. PEP-1 AND PEP-3 ARE RENAMED AS MP-1 AND MP-3, RESPECTIVELY, AND ARE A 3-INCH SIZE. ALL OTHER MONITORING POINTS ARE 1-INCH, AND ALL EXTRACTION POINTS ARE 3-INCH.
 - LOCATION OF EXISTING UTILITY VAULT IS APPROXIMATE.

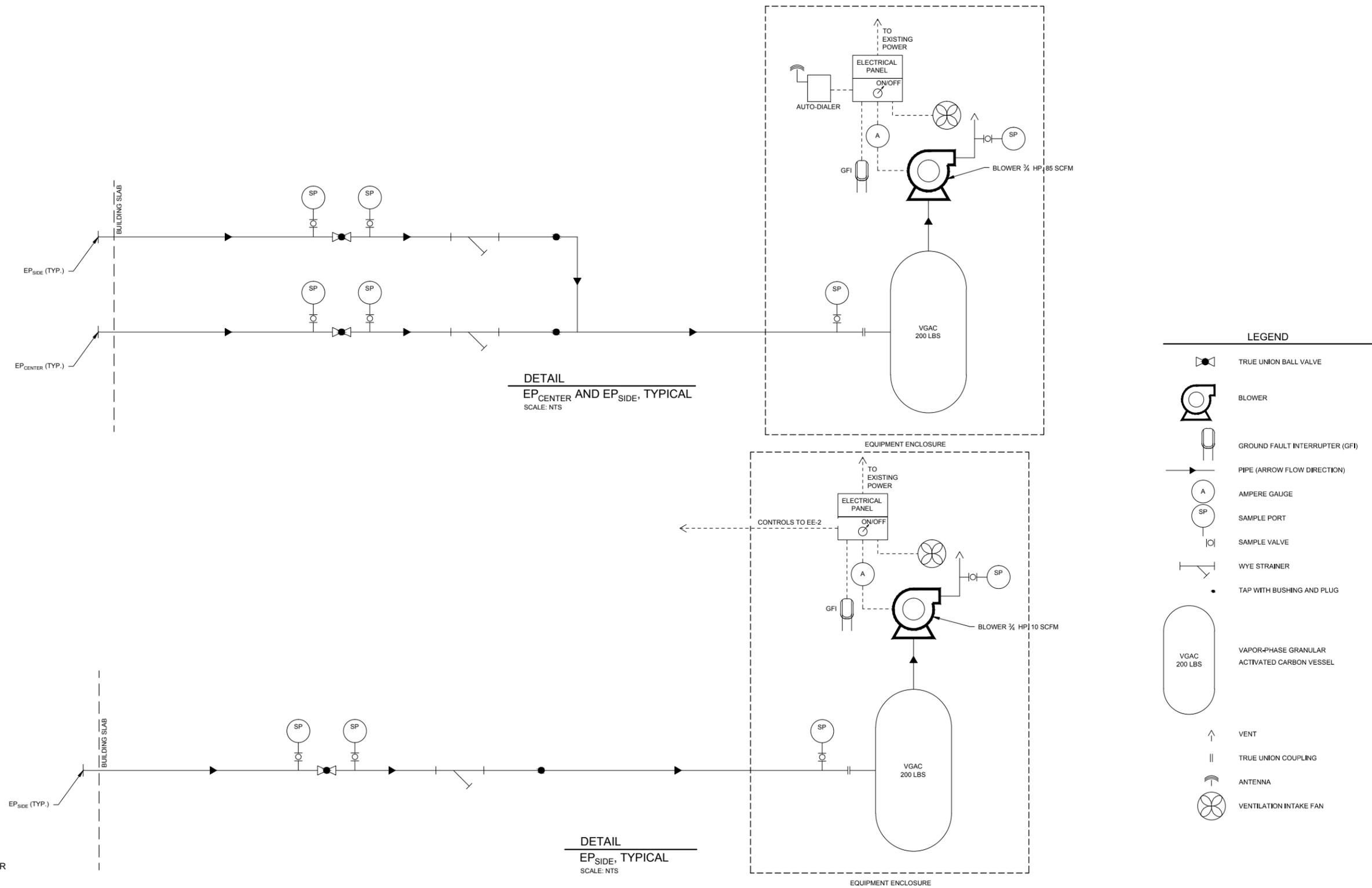
BUILDING 7 (369 North Whisman Road)

BUILDING 6 (379 North Whisman Road)

SOURCE: GEOSYNTEC, 2015, FOURTH QUARTER 2014 SUB-SLAB DEPRESSURIZATION SYSTEM OPERATION, MAINTENANCE, AND MONITORING REPORT, 369 AND 379 NORTH WHISMAN ROAD, MOUNTAIN VIEW, CALIFORNIA, JANUARY



Figure 2. Site Layout, 369 and 379 North Whisman Road, Mountain View, California



SOURCE: GEOSYNTEC, 2015, FOURTH QUARTER
2014 SUB-SLAB DEPRESSURIZATION SYSTEM
OPERATION, MAINTENANCE, AND MONITORING
REPORT, 369 AND 379 NORTH WHISMAN ROAD,
MOUNTAIN VIEW, CALIFORNIA, JANUARY

Figure 3. Process and Instrumentation Diagram, Sub-Slab Depressurization Systems, 369 and 379 North Whisman Road, Mountain View, California

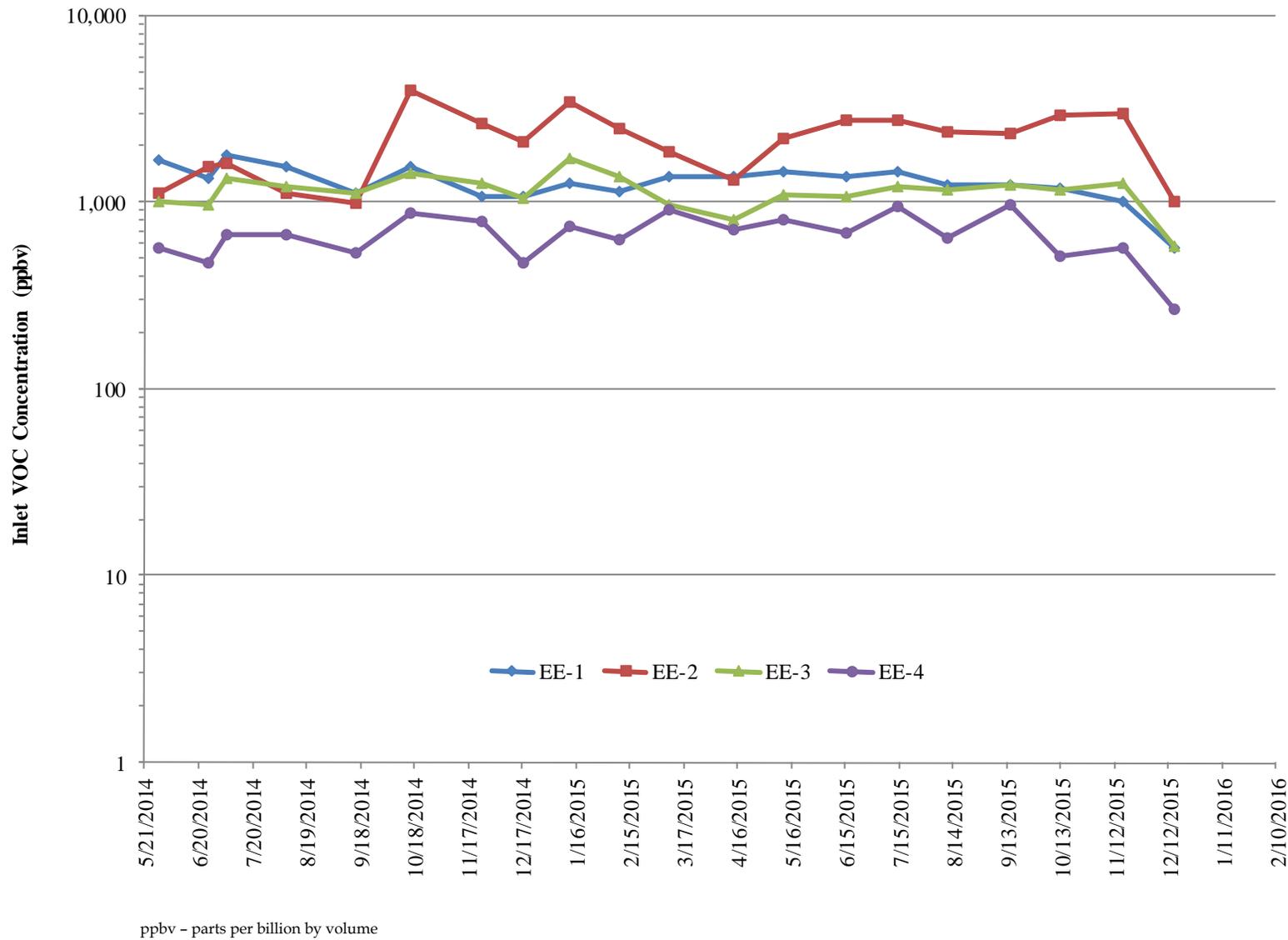


Figure 4. Sub-Slab Depressurization Systems Inlet PID Time Series Plot, 369 and 379 North Whisman Road, Mountain View, California

TABLES

Table 1. Summary of Building 6 Extraction and Monitoring Point Parameters, 369-379 North Whisman Road, Mountain View, California

Date	Building Pressure ^a	Monitoring Points ^b						
		MP-1	MP-2	MP-3	MP-4	MP-5	MP-6	MP-7
	Pressure (IWG)	Pressure (IWG)	Pressure (IWG)	Pressure (IWG)	Pressure (IWG)	Pressure (IWG)	Pressure (IWG)	Pressure (IWG)
7/14/2015	0.02	-0.39	-0.27	-0.08	-0.07	-0.19	-0.11	-0.10
8/11/2015	---	---	---	---	---	---	---	---
9/15/2015	---	---	---	-0.08	-0.07	---	---	---
10/13/2015	0.30	-0.37	-0.29	-0.08	-0.04	-0.15	-0.05	-0.07
11/3/2015	---	---	---	---	-0.04	---	---	---
11/17/2015 ^d	---	---	---	-0.07	-0.03	---	---	---
	---	---	---	-0.08	-0.05	---	---	---
12/1/2015 ^d	---	---	---	---	-0.04	---	---	---
	---	---	---	---	-0.04	---	---	---
12/15/2015	---	---	---	-0.06	-0.06	---	---	---
12/28/2015 ^d	---	---	---	---	-0.04	---	---	---
	---	---	---	---	-0.05	---	---	---

Table 1. Summary of Building 6 Extraction and Monitoring Point Parameters, 369-379 North Whisman Road, Mountain View, California

Extraction Points

Date	EP-1				EP-2				EP-3			
	Pressure (IWG)	Flow Rate ^c (SCFM)	Temperature (deg C)	Relative Humidity (percent)	Pressure (IWG)	Flow Rate ^c (SCFM)	Temperature (deg C)	Relative Humidity (percent)	Pressure (IWG)	Flow Rate ^c (SCFM)	Temperature (deg C)	Relative Humidity (percent)
7/14/2015	-4.84	20.27	27.5	36	-4.89	73.5	26.7	62	-2.85	15.39	30.1	47
8/11/2015	---	---	---	---	---	---	---	---	---	---	---	---
9/15/2015	---	---	---	---	---	---	---	---	-3.66	12.96	30.3	59
10/13/2015	-4.35	5.95	31.2	48	-5.36	78.9	31.0	72	-3.33	14.17	32.2	57
11/3/2015	---	---	---	---	---	---	---	---	---	---	---	---
11/17/2015 ^d	---	---	---	---	---	---	---	---	-3.27	11.09	23.2	67
	---	---	---	---	---	---	---	---	-3.91	11.85	24.7	61
12/1/2015 ^d	---	---	---	---	---	---	---	---	---	---	---	---
	---	---	---	---	---	---	---	---	---	---	---	---
12/15/2015	---	---	---	---	---	---	---	---	-5.75	11.40	19.6	67
12/28/2015 ^d	---	---	---	---	---	---	---	---	---	---	---	---
	---	---	---	---	---	---	---	---	---	---	---	---

Notes:

Pressure differential is measured at least quarterly at each extraction point and monitoring point. Third and fourth quarter measurements collected in July and October, respectively.

Additional measurements were collected during other months to evaluate system performance.

^a Building pressure is measured across building doorway and is relative to outdoor ambient pressure.

^b Design pressure differential is -0.04 IWG or less for all monitoring points.

^c Field flow rate measurements collected using a TSI VelociCalc instrument.

^d Some field measurements were collected twice on this date - once before and once after system maintenance activities.

Abbreviations:

-- not measured

deg C – degrees Celsius

IWG – inches of water column

SCFM – standard cubic feet per minute

Table 2. Summary of Building 7 Extraction and Monitoring Point Parameters, 369-379 North Whisman Road, Mountain View, California

Date	Building Pressure ^a	Monitoring Points ^b				
		MP-8	MP-9 ^c	MP-10	MP-11	MP-12
	Pressure (IWG)	Pressure (IWG)	Pressure (IWG)	Pressure (IWG)	Pressure (IWG)	Pressure (IWG)
7/14/2015	0.03	-0.28	---	-0.07	-0.15	-0.32
9/15/2015	---	---	---	---	---	---
10/13/2015	0.02	-0.28	---	-0.05	-0.11	-0.38
11/17/2015 ^e	---	---	---	---	---	---
12/15/2015	---	---	---	---	---	---

Table 2. Summary of Building 7 Extraction and Monitoring Point Parameters, 369-379 North Whisman Road, Mountain View, California

Date	EP-4				EP-5				EP-6			
	Pressure (IWG)	Flow Rate ^d (SCFM)	Temperature (deg C)	Relative Humidity (percent)	Pressure (IWG)	Flow Rate ^d (SCFM)	Temperature (deg C)	Relative Humidity (percent)	Pressure (IWG)	Flow Rate ^d (SCFM)	Temperature (deg C)	Relative Humidity (percent)
7/14/2015	-5.21	66.2	30.2	45	-4.50	84.8	24.4	58	-0.77	33.1	27.0	55
9/15/2015	-5.32	61.6	25.2	52	---	---	---	---	---	---	---	---
10/13/2015	-5.31	60.1	31.4	54	-3.51	87.3	27.4	76	-0.68	32.9	28.3	65
11/17/2015 ^e	-4.94	60.5	23.3	51	---	---	---	---	---	---	---	---
	-5.10	61.3	23.4	61	---	---	---	---	---	---	---	---
12/15/2015	-5.06	57.7	17.4	47	---	---	---	---	---	---	---	---

- Notes:**
 Pressure differential is measured quarterly at each extraction point and monitoring point. Third and fourth quarter measurements collected in July and October, respectively. Additional measurements were collected during other months to evaluate system performance.
- ^a Building pressure is measured across building doorway and is relative to outdoor ambient pressure.
- ^b Design pressure differential is -0.04 IWG or less for all monitoring points.
- ^c Pressure readings were discontinued on 7/5/2014 at MP-9 because the raised floor and cooling system in the vicinity of this location led to anomalous readings. See Section 4.3.2.1 and Appendix E in the Response Action Implementation report (Geosyntec, 2014) for an evaluation of the anomalous pressure readings.
- ^d Field flow rate measurements collected using a TSI VelociCalc instrument.
- ^e Some field measurements were collected twice on this date - once before and once after system maintenance activities.

Abbreviations:
 --- not measured
 deg C – degrees Celsius
 IWG – inches of water column
 SCFM – standard cubic feet per minute

Table 3. Summary of Extraction and Treatment System Parameters, 369 and 379 North Whisman Road, Mountain View, California

Date	Ambient Air				EE-1 (Building 6)							EE-2 (Building 6)								
					Extraction			Treatment ^{1,2}				Extraction			Treatment ^{1,2}					
	Temperature (deg C)	Relative Humidity (%)	Pressure (IWG)	Flow Rate ³ (SCFM)	Temperature (deg C)	Relative Humidity (%)	Blower Amperage (A)	Inlet (ppbv)	Outlet (ppbv)	Monthly VOC Mass Removal ² (lbs)	Cumulative VOC Mass Removal (lbs)	Pressure (IWG)	Flow Rate ³ (SCFM)	Temperature (deg C)	Relative Humidity (%)	Blower Amperage (A)	Inlet (ppbv)	Outlet (ppbv)	Monthly VOC Mass Removal ² (lbs)	Cumulative VOC Mass Removal (lbs)
7/14/2015	21.6	54	-8.14	93.7	28.2	45	5.00	1,447 ^a	70 ^a	1.7	18.2	-5.36	82.2	32.1	41	3.50	2,749 ^a	183 ^a	2.9	23.9
8/11/2015	26.2	44	-8.23	89.4	28.3	61	5.00	1,226	60	1.4	19.7	-4.52	74.5	32.1	39	3.00	2,352	127	2.4	26.2
9/15/2015	23.6	42	-8.11	89.2	26.2	45	5.00	1,235	35	1.8	21.5	-6.85	94.6	29.8	30	2.00	2,310	90	3.2	29.4
10/2/2015	---	---	---	---	---	---	---	---	---	---	---	-6.04	---	---	---	---	4,630	25	3.6	33.0
10/13/2015	25.7	52	-8.38	89.1	25.1	52	5.00	1,185	29	1.4	22.9	-6.18	87.6	28.9	45	3.00	2,893	63	1.3	34.3
11/3/2015	---	---	---	---	---	---	---	---	---	---	---	-6.21	---	---	---	2.00	---	---	---	---
11/17/2015 ⁴	14.8	60	-8.42	89.1	17.7	58	5.00	1,006	256	1.1	24.0	-6.10	89.0	20.6	50	3.00	2,988	168	4.2	38.5
	14.8	60	---	---	---	---	---	---	---	---	---	-7.25	94.7	19.5	52	3.00	2,854	28	---	---
12/1/2015 ⁴	---	---	---	---	---	---	---	---	---	---	---	-7.24	---	---	---	---	---	---	---	---
	---	---	---	---	---	---	---	---	---	---	---	-7.68	---	---	---	---	---	---	---	---
12/15/2015	10.1	62	-8.33	91.9	15.0	82	5.00	563	121	0.5	24.6	-7.64	106.1	17.0	39	3.00	1,001	20	1.3	39.8
12/28/2015 ⁴	---	---	---	---	---	---	---	---	---	---	---	-7.57	---	---	---	---	---	---	---	---
	---	---	---	---	---	---	---	---	---	---	---	-7.61	---	---	---	---	---	---	---	---

Table 3. Summary of Extraction and Treatment System Parameters, 369 and 379 North Whisman Road, Mountain View, California

Date	Ambient Air				EE-3 (Building 7)								EE-4 (Building 7)							
					Extraction				Treatment ^{1,2}				Extraction				Treatment ^{1,2}			
	Temperature (deg C)	Relative Humidity (%)	Pressure (IWG)	Flow Rate ³ (SCFM)	Temperature (deg C)	Relative Humidity (%)	Blower Amperage (A)	Inlet (ppbv)	Outlet (ppbv)	Monthly VOC Mass Removal (lbs)	Cumulative VOC Mass Removal ² (lbs)	Pressure (IWG)	Flow Rate ³ (SCFM)	Temperature (deg C)	Relative Humidity (%)	Blower Amperage (A)	Inlet (ppbv)	Outlet (ppbv)	Monthly VOC Mass Removal (lbs)	Cumulative VOC Mass Removal (lbs)
7/14/2015	21.6	54	-7.91	66.2	33.5	40	5.00	1,205 ^a	12 ^a	1.1	10.6	-6.86	117.9	23.8	64	5.00	945 ^a	411 ^{a,b}	0.9	9.2
8/11/2015	26.2	44	-7.84	65.2	30.6	42	5.00	1,153	10	1.0	11.6	-6.63	124.1	22.5	68	5.00	641	56	1.0	10.1
9/15/2015	23.6	42	-7.83	60.8	28.8	38	4.50	1,239	37	1.2	12.8	-6.10	123.4	21.3	64	5.00	963	67	1.9	12.0
10/2/2015	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
10/13/2015	25.7	52	-7.83	67.6	30.5	47	4.50	1,153	70	1.0	13.8	-6.47	125.5	23.2	65	5.00	509	21	0.8	12.8
11/3/2015	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
11/17/2015 ⁴	14.8	60	-8.03	64.5	20.2	39	5.00	1,256	556 ^b	0.8	14.6	-6.74	124.1	17.4	80	5.00	572	156	0.9	13.7
	14.8	60	-8.12	71.0	20.8	54	4.50	---	---	---	---	---	---	---	---	---	---	---	---	---
12/1/2015 ⁴	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
12/15/2015	10.1	62	-8.47	61.8	17.2	45	5.00	579	10	0.5	15.1	-6.50	124.1	15.7	66	5.00	264	144	0.2	13.9
12/28/2015 ⁴	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
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Notes:

¹ Field PID measurements collected using a ppbRAE 3000 calibrated with 10 ppmv isobutylene gas.

² Current period mass estimate is calculated by multiplying the total volume of air removed by each blower by the average PID concentration in samples collected during the reporting period. Cumulative total mass estimate calculation includes mass removed starting on May 29, 2014, after PID calibration procedures were modified to improve accuracy of readings.

³ Field flow rate measurements collected using a TSI VelociCalc instrument.

⁴ Select field measurements on this date were measured both before and after system maintenance activities.

^a PID measurements were collected on 7/16/2015 due to a PID malfunction on 7/14/2015.

^b The carbon was changed after this PID measurement was collected.

EE-2 flow rates are calculated based on individual flow rates at the utility vault and EP-3.

Abbreviations:

- A – ampere
- deg C – degrees Celsius
- EE – equipment enclosure
- IWG – inches of water column as gauged
- lbs – pounds
- PID – photoionization detector
- ppbv – parts per billion by volume
- ppmv – parts per million by volume
- SCFM – standard cubic feet per minute
- VOC – volatile organic compound

Table 4. Sub-Slab Depressurization Systems Maintenance Summary, 369-379 North Whisman Road, Mountain View, California

Date	Maintenance Activities
July 14-16, 2015	<ul style="list-style-type: none"> - Performed quarterly monitoring - Changed carbon at EE-1, EE-3, and EE-4
August 11, 2015	<ul style="list-style-type: none"> - Performed monthly monitoring
September 15, 2015	<ul style="list-style-type: none"> - Performed monthly monitoring - Changed carbon at EE-1, EE-2, and EE-4
October 2, 2015	<ul style="list-style-type: none"> - Performed monitoring at EE-2
October 13, 2015	<ul style="list-style-type: none"> - Performed quarterly monitoring
November 3, 2015	<ul style="list-style-type: none"> - Performed monitoring at EE-2
November 17, 2015	<ul style="list-style-type: none"> - Performed monthly monitoring - Changed carbon at EE-2 and EE-3
December 1, 2015	<ul style="list-style-type: none"> - Performed monitoring at EE-2
December 15, 2015	<ul style="list-style-type: none"> - Performed monthly monitoring - Replaced influent hose at EE-2
December 18, 2015	<ul style="list-style-type: none"> - Responded to an alarm at EE-4 and replaced the failed blower. EE-4 was offline for less than 12 hours.
December 28, 2015	<ul style="list-style-type: none"> - Performed monitoring at EE-2

Notes:

EE – equipment enclosure