DEPARTMENT OF THE AIR FORCE
AIR FORCE CIVIL ENGINEER CENTER

OCT 25 2013

MEMORANDUM FOR: U.S. Environmental Protection Agency – Region 2
Attn: Robert Morse
Federal Facilities Section
290 Broadway, 18th Floor
New York, NY 10007-1866

New York State Department of Environmental Conservation
Attn: Ms. Heather Bishop
Division of Environmental Remediation
625 Broadway 11th Floor
Albany, NY 12233-7015

Ms. Kristin Kulow
New York State Department of Health
Bureau of Environmental Exposure Investigation
28 Hill Street, Suite 201
Oneonta, NY 13820

FROM: AFCEC/CIBE - Griffiss
706 Brooks Road
Rome, New York 13441

SUBJECT: Final Quarterly Operations and Maintenance Report
(2nd Quarter / Calendar Year 2013)
SD-052-02 Building 775 Site (Buildings 774 and 776) and SD-052-01 Apron 2 Chlorinated Plume Site (Buildings 785 and 786)
Sub-Slab Vapor Mitigation Systems, October 2013
Former Griffiss Air Force Base (AFB) Rome, New York
Contract Number FA8903-10-D-8595 / Delivery Order 0014

1. Enclosed please find the "Final Quarterly Operations and Maintenance Report (2nd Quarter / Calendar Year 2013) for SD-052-02 Building 775 Site (Buildings 774 and 776) and SD-052-01 Apron 2 Chlorinated Plume Site (Buildings 785 and 786)". The regulatory Agencies elected not to comment on the draft version that was provided on September 9, 2013.

2. The Report documents the operations and maintenance performed on the respective sub-slab vapor mitigation systems at the Former Griffiss AFB in Rome, New York. This version incorporates data up until June 2013.

3. Request that any comments or concerns be provided by November 25, 2013 so that project schedules and performance milestones can be maintained in accordance with this PBR Contract.

4. Should you have any questions please contact me at 315 356 0810 ex 202.

MICHAEL F. MCDERMOTT
Air Force Civil Engineer Center
AFCEC/CIBE – Griffiss

Enclosures; As noted

FINAL

QUARTERLY OPERATION AND MAINTENANCE DATA SUMMARY REPORT
SD-052-02 BUILDING 775 SITE (BUILDINGS 774 AND 776) AND SD-052-01 APRON 2 CHLORINATED PLUME SITE (BUILDINGS 785 AND 786)
SUB-SLAB VAPOR MITIGATION SYSTEMS
(2ND QUARTER / CALENDAR YEAR 2013 / APRIL – JUNE)

FORMER GRIFFISS AIR FORCE BASE SITE
ROME, NEW YORK

Prepared for:

Air Force Civil Engineer Center
706 Brooks Road
Rome, New York 13441

Prepared by:

584 Phoenix Drive
Rome, New York 13441

In association with:

10901 Lowell Avenue, Suite 271
Overland Park, Kansas 66210

Contract Number FA8903-10-D-8595/Delivery Order 0014

October 2013

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LIST OF ACRONYMS AND ABBREVIATIONS

AFB	Air Force Base
AFCEC	Air Force Civil Engineer Center
CY	calendar year
FPM	FPM Remediations, Inc.
GAC	granular activated carbon
O&M	Operation and Maintenance
SSVM	Sub-Slab Vapor Mitigation

1 Introduction

FPM Remediations, Inc. (FPM), in association with CAPE Environmental Management, Inc., under contract with the Air Force Civil Engineer Center (AFCEC), is conducting Operation and Maintenance (O&M) on Sub-Slab Vapor Mitigation (SSVM) systems associated with SD-052-02 Building 775 Site [Buildings 774 and 776] and SD-052-01 Apron 2 Chlorinated Plume Site [Buildings 785 and 786] at the former Griffiss Air Force Base (AFB) in Rome, New York. The O&M at the sites is conducted in accordance with provisions of the Basic Contract # FA8903-10-D-8595 and Delivery Order # 0014.

This abbreviated Data Summary Report has been prepared to provide the SSVM systems O&M activities from the 2nd quarter of the calendar year (CY) 2013 including the months of October through December. As recommended in the 3rd Quarter CY 2012 Quarterly Operation and Maintenance Report (FPM, March 2013), comprehensive reporting of O&M activities will be reduced to semi-annually (to coincide with semi-annual soil vapor monitoring) and quarterly O&M results will be provided in abbreviated Data Summary Reports. O&M was conducted in accordance with the Final Completion Report Sub-Slab Vapor Mitigation Systems (FPM, February 2013). Previous results are presented in the 1st Quarter CY 2013 Quarterly Operation and Maintenance Report (CAPE/FPM, July 2013).

2 Sub-Slab Vapor Mitigation System Operation and Maintenance

Table 2-1 provides the O&M schedule for the SD-052-02 Building 775 Site [Buildings 774 and 776] and SD-052-01 Apron 2 Chlorinated Plume Site [Buildings 785 and 786] SSVM systems.

2.1 2nd Quarter / Calendar Year 2013 (April – June) Buildings 774 and 776 Sub-Slab Vapor Mitigation System Operation and Maintenance Results

The SSVM system at Buildings 774 and 776 has been in operation since June 2011. O&M activities conducted during this quarter included weekly system component readings (system temperature, flow, vacuum and motor status) and granular activated carbon (GAC) replacement. The system flow rate and vacuum readings collected in previous quarters and this quarter are illustrated on Figure 2-1 and Figure 2-2, respectively. GAC was not replaced during this quarter. All scanned O&M field forms are provided in Appendix A.

Additional O&M activities conducted during this quarter included water removal from the knock-out tank. The system was not running upon arrival for the weekly inspection on April 4, 2013. It was assumed that the system had been off for up to one week since the system was operating during the previous week's readings. Approximately 27 gallons of water were pumped out of the knock-out tank into a drum awaiting sampling and proper disposal. After the water was removed, the system was turned on. There were no additional shut downs reported during this quarter.

2.2 2nd Quarter / Calendar Year 2013 (April – June) Buildings 785 and 786 Sub-Slab Vapor Mitigation System Operation and Maintenance Results

The SSVM system at Buildings 785 and 786 has been in operation since May 2011. O&M activities conducted during this quarter included weekly system component readings (system temperature, flow, vacuum and motor status) and GAC replacement. The system flow rate and vacuum readings collected in previous quarters and this quarter are illustrated on Figure 2-3 and Figure 2-4, respectively. GAC was not replaced during this quarter. All scanned O&M field forms are provided in Appendix A.

3 REFERENCES

FPM Remediations, Inc. *Final Completion Report Sub-Slab Vapor Mitigation Systems, Buildings 774, 776, 785 and 786,* Former Griffiss Air Force Base, Rome, New York, Revision 0.0, February 2013.

FPM Remediations, Inc., *Quarterly Operations and Maintenance Report, (4th Quarter / Calendar Year 2011), SD052 (Buildings 774, 776, 785 and 786), Monitoring Program,* Former Griffiss Air Force Base, Rome, New York, Revision 1.0, May 2012.

FPM Remediations, Inc., *Quarterly Operations and Maintenance Report, (1st Quarter / Calendar Year 2012), SD052 (Buildings 774, 776, 785 and 786), Monitoring Program,* Former Griffiss Air Force Base, Rome, New York, Revision 1.0, October 2012.

FPM Remediations, Inc., *Quarterly Operations and Maintenance Report, (2nd Quarter / Calendar Year 2012), SD052 (Buildings 774, 776, 785 and 786), Monitoring Program,* Former Griffiss Air Force Base, Rome, New York, Revision 1.0, November 2012.

FPM Remediations, Inc., *Quarterly Operations and Maintenance Report, (3rd Quarter / Calendar Year 2012), SD052 (Buildings 774, 776, 785 and 786), Monitoring Program,* Former Griffiss Air Force Base, Rome, New York, Revision 2.0, May 2013.

FPM Remediations, Inc., *Quarterly Operations and Maintenance Data Summary Report, (4th Quarter / Calendar Year 2012), SD052 (Buildings 774, 776, 785 and 786), Monitoring Program*, Former Griffiss Air Force Base, Rome, New York, Revision 2.0, July 2013.

FPM Remediations, Inc., *Quarterly Operations and Maintenance Report, (1st Quarter / Calendar Year 2013), SD052 (Buildings 774, 776, 785 and 786), Monitoring Program,* Former Griffiss Air Force Base, Rome, New York, Revision 1.0, July 2013.

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Figures

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Figure 2-1 - 774SSVM-1, -2 and 776SSVM-1
Long Term Operation Flow Rate
(June 2011 through June 2013)

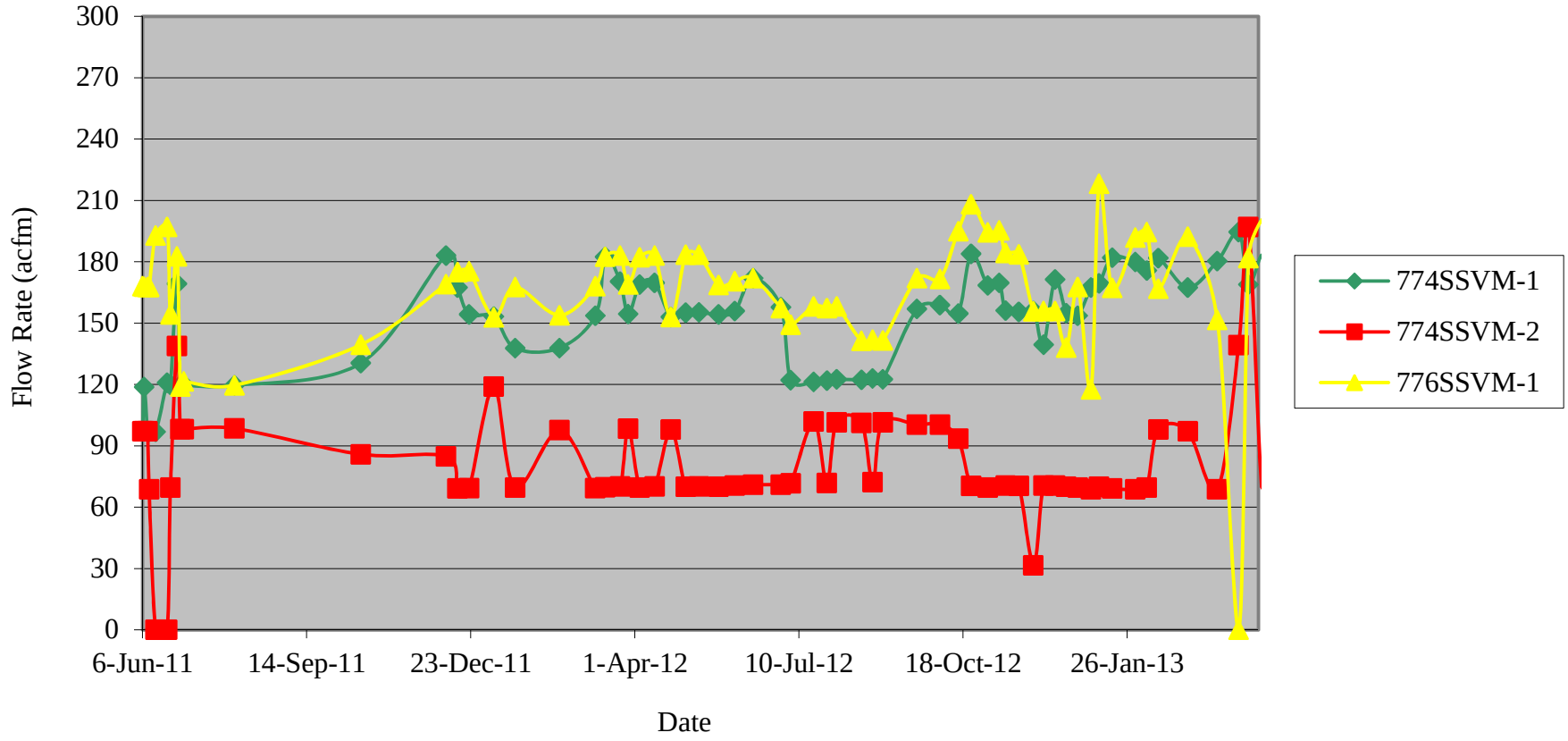


Figure 2-2 - 774SSVM-1, -2 and 776SSVM-1
Long Term Operation Vacuum
(June 2011 through June 2013)

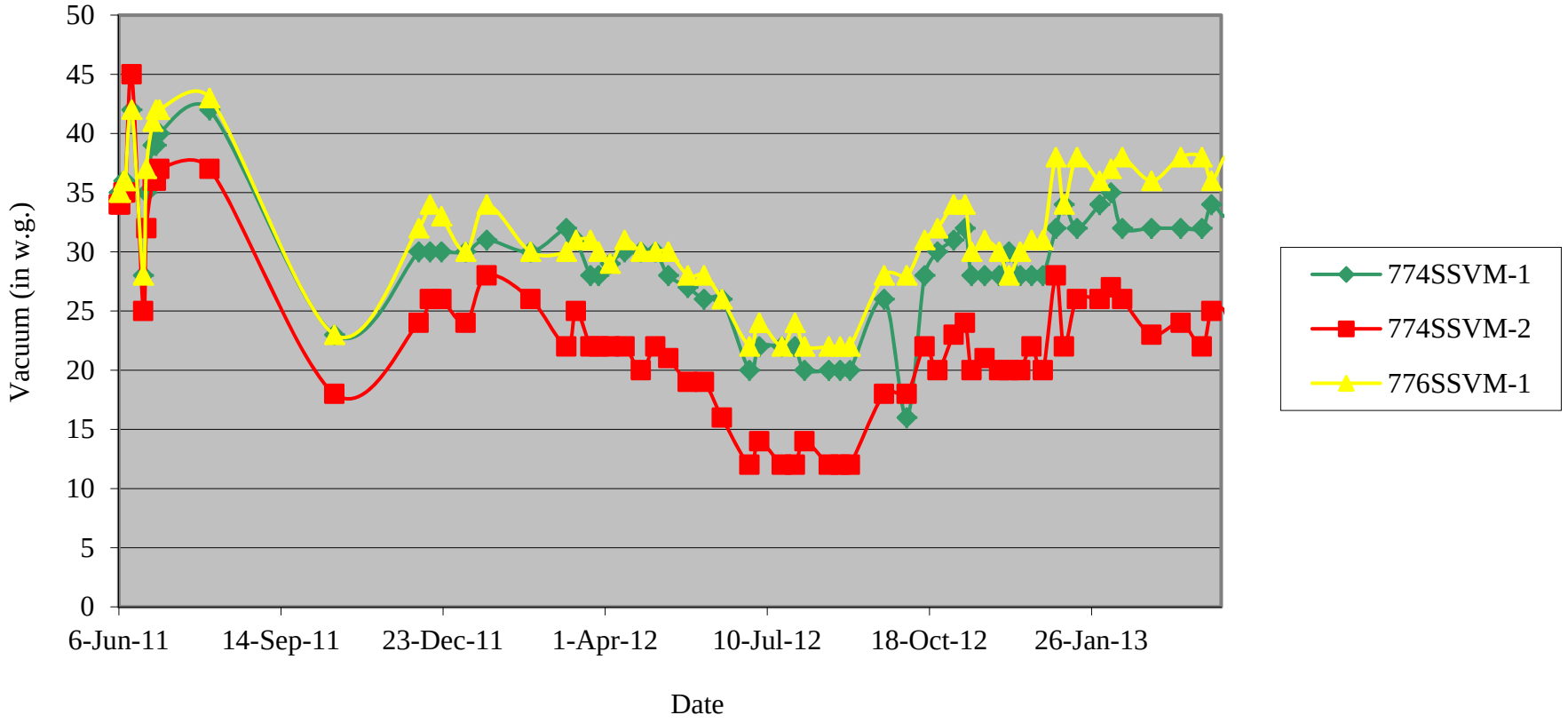


Figure 2-3 - 785SSVM-1 and 786SSVM-1
Long Term Operation Flow Rate
(May 2011 through June 2013)

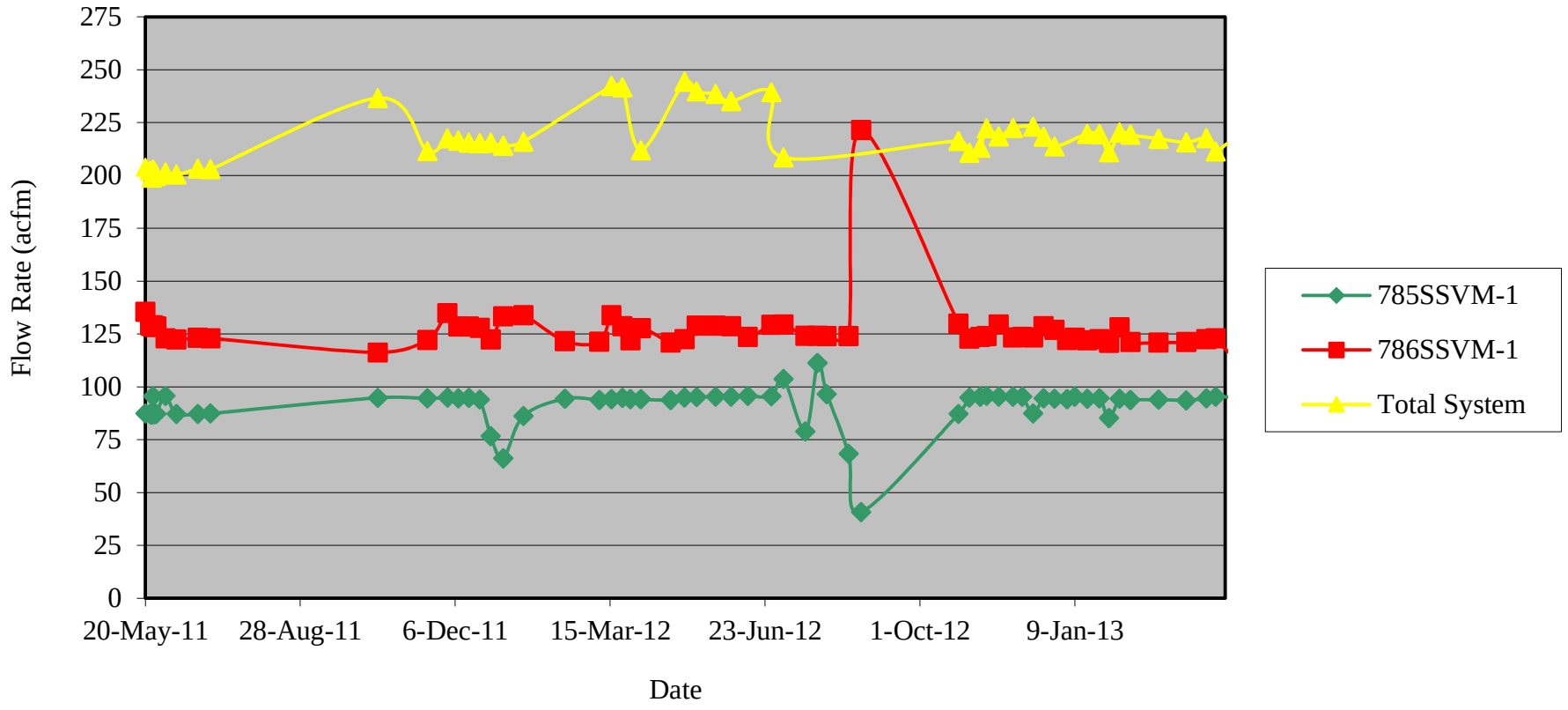
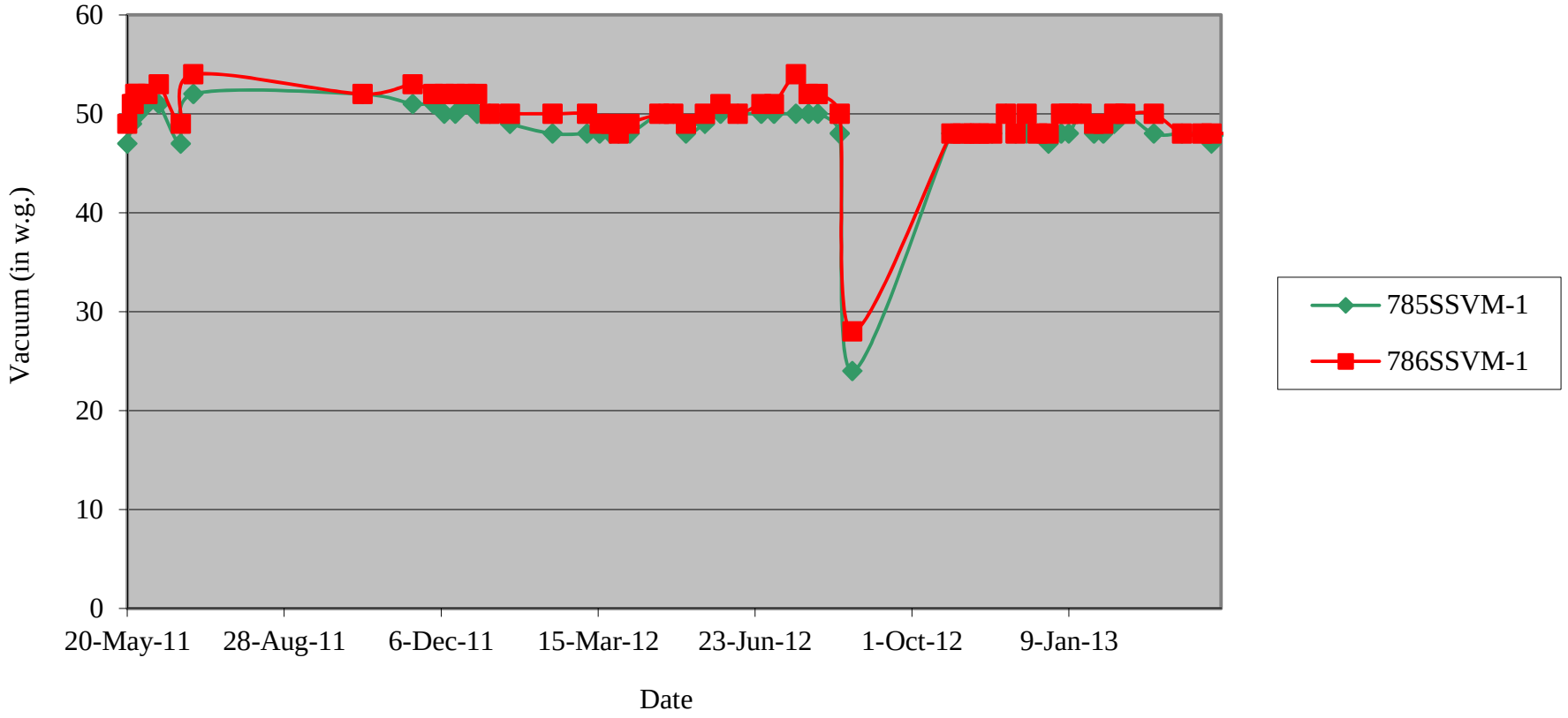


Figure 2-4 - 785SSVM-1 and 786SSVM-1
Long Term Operation Vacuum
(May 2011 through June 2013)



Table

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Table 2-1
SSVM Systems Operation and Maintenance

Field Activities	Rationale	Location	Parameters
System Component Readings	Weekly recording of system temperature, flow, vacuum and motor status to determine proper operation.	Building 774 / 776 Blower Shed and Building 785 / 786 Blower Shed	None
VMP Vacuum Measurements	Semi-annually recording to support sub-slab depressurization.	VMPs inside buildings as shown on Figure 3-1 and 3-2	None
Granular Activated Carbon Replacement	Every four months to adsorb extracted chlorinated solvent vapors.	Building 774 / 776 Blower Shed and Building 785 / 786 Blower Shed	None
Indoor Air Sampling	Semi-Annually to evaluate current human exposure and to obtain site specific attenuation factors for risk assessment (ratio of indoor air to sub-slab vapor concentrations).	One sample per building as shown on Figure 3-1 and 3-2	VOC: Method TO-15 Full List
Outdoor Air Sampling	Semi-Annually to occur simultaneously with indoor air sampling to evaluate potential influence of outdoor air on indoor air sampled.	One sample per site as shown on Figure 3-1 and 3-2	VOC: Method TO-15 Full List
Sub-Slab Vapor Sampling	Semi-Annually to occur simultaneously with indoor air sampling to evaluate chlorinated solvent transport and mitigation and to obtain site specific attenuation factors for risk assessment (ratio of indoor air to sub-slab vapor concentrations).	VMPs inside buildings as shown on Figure 3-1 and 3-2	VOC: Method TO-15 Full List
Influent Sampling	Semi-Annually prior to sub-slab sampling to determine soil vapor extraction.	SSVM System's exhaust stack before carbon treatment	VOC: Method TO-15 Full List

Appendix A

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SSVM Vapor Monitoring Point Vacuum Measurements

Date:	4/4/13	945AM Not Running on arrival, turned on 11 AM		
conducted by:	JW			
Site ID:	776/774		Patm (inch hg).	30.35

Vacuum Gauge.	Vacuum (inch w g)	Magnehelic Gauge	Differential Pressure (inch w.g)	Temperature (Deg F)
774-1	~~-32 0.8~~	774-1	0,8	50.0
774-2	~~-22 0,4~~	774-2	0,4	50
776-1	~~-38 0~~	776-1	0	50
Blower Temp (deg F)	-	After Cooler Temp (deg F)	100	

Well_ID, Distance from well axis (ft)	Time	Shallow Vacuum (inch w g.)	Medium Vacuum (inch w.g.)	Deep Vacuum (inch w g)

Knock-out tank has water (27 gallons in it)
- pumped out the water into drum for proper disposal.

SSVM Vapor Monitoring Point Vacuum Measurements

Date:	4.10.13			
conducted by:	JP			
Site ID:	774		Patm (inch hg):	
Vacuum Gauge:	Vacuum (inch w.g.)	Magnehelic Gauge:	Differential Pressure (inch w.g.)	Temperature (Deg F)
774-1	-34	774-1	0.6	54
774-2	-25	774-2	0.8	54
776-1	-36	776-1	0.7	54
Blower Temp (deg F)	110°	After Cooler Temp (deg F)	102°	
Well_ID, Distance from well axis (ft)	Time	Shallow Vacuum (inch w.g.)	Medium Vacuum (inch w.g.)	Deep Vacuum (inch w.g.)

SSVM Vapor Monitoring Point Vacuum Measurements

Date:	4/18/13			
conducted by:	KM			
Site ID:	774/776		Patm (inch hg):	30.07
Vacuum Gauge:	Vacuum (inch w.g.)	Magnehelic Gauge:	Differential Pressure (inch w.g.)	Temperature (Deg F)
774-1	33	774-1	0.7	58
774-2	25	774-2	0.1	61
776-1	38	776-1	0.85	56
Blower Temp (deg F)	112	After Cooler Temp (deg F)	106	

Well_ID, Distance from well axis (ft)	Time	Shallow Vacuum (inch w.g.)	Medium Vacuum (inch w.g.)	Deep Vacuum (inch w.g.)

change carbon on 4/19/13

SSVM Vapor Monitoring Point Vacuum Measurements

Date:	4/24/13
conducted by:	JP

Site ID:	774/776		Patm (inch hg):	29.83
Vacuum Gauge:	Vacuum (inch w.g.)	Magnehelic Gauge:	Differential Pressure (inch w.g.)	Temperature (Deg F)
774-1	-34	774-1	0.65	58
774-2	-22	774-2	0.1	60
776-1	-38	776-1	0.8	58
Blower Temp (deg F)	110	After Cooler Temp (deg F)	108	

Well_ID, Distance from well axis (ft)	Time	Shallow Vacuum (inch w.g.)	Medium Vacuum (inch w.g.)	Deep Vacuum (inch w.g.)

SSVM Vapor Monitoring Point Vacuum Measurements

Date:	5/2/13			
conducted by:	KM			
Site ID:	774/776		Patm (inch hg):	30.40
Vacuum Gauge:	Vacuum (inch w.g.)	Magnehelic Gauge:	Differential Pressure (inch w.g.)	Temperature (Deg F)
774-1	-34	774-1	0.7	62
774-2	-23	774-2	0.1	66
776-1	-37	776-1	0.85	61
Blower Temp (deg F)	118	After Cooler Temp (deg F)	116	

Well_ID, Distance from well axis (ft)	Time	Shallow Vacuum (inch w.g.)	Medium Vacuum (inch w.g.)	Deep Vacuum (inch w.g.)

SSVM Vapor Monitoring Point Vacuum Measurements

Date:	5/9/13			
conducted by:	km			
Site ID:	774/776		Patm (inch hg):	29.88
Vacuum Gauge:	Vacuum (inch w.g.)	Magnehelic Gauge:	Differential Pressure (inch w.g.)	Temperature (Deg F)
774-1	31	774-1	0.6	62
774-2	23	774-2	0.1	68
776-1	38	776-1	0.85	62
Blower Temp (deg F)	117	After Cooler Temp (deg F)	112	

Well_ID. Distance from well axis (ft)	Time	Shallow Vacuum (inch w.g.)	Medium Vacuum (inch w.g.)	Deep Vacuum (inch w.g.)

SSVM Vapor Monitoring Point Vacuum Measurements

Date:	5/14/13			
conducted by:	JP			
Site ID:	774/776		Patm (inch hg):	30.10
Vacuum Gauge:	Vacuum (inch w.g.)	Magnehelic Gauge:	Differential Pressure (inch w.g.)	Temperature (Deg F)
774-1	32	774-1	0.6	61
774-2	24	774-2	0.1	62
776-1	37	776-1	0.85	62
Blower Temp (deg F)	110	After Cooler Temp (deg F)	104	

Well_ID, Distance from well axis (ft)	Time	Shallow Vacuum (inch w.g.)	Medium Vacuum (inch w.g.)	Deep Vacuum (inch w.g.)

SSVM Vapor Monitoring Point Vacuum Measurements

Date:	5-22-13			
conducted by:	MG			
Site ID:	B774-B776 SVE		Patm (inch hg):	29.77 inch. Hg.
Vacuum Gauge:	Vacuum (inch w.g.)	Magnehelic Gauge:	Differential Pressure (inch w.g.)	Temperature (Deg F)
774-1	-30	774-1	.6	70°F
774-2	-20	774-2	.1	75°F
776-1	-28	776-1	.8	68°F
Blower Temp (deg F)	110°F	After Cooler Temp (deg F)	105°F	
Well_ID, Distance from well axis (ft)	Time	Shallow Vacuum (inch w.g.)	Medium Vacuum (inch w.g.)	Deep Vacuum (inch w.g.)

SSVM Vapor Monitoring Point Vacuum Measurements

Date:	5/30/13
conducted by:	JB

Site ID:			Patm (inch hg).	-8
Vacuum Gauge.	Vacuum (inch w.g)	Magnehelic Gauge	Differential Pressure (inch w.g)	Temperature (Deg F)
774-1	-34	774-1	~~0.8~~ 0.7	58
774-2	-23	774-2	~ 0.1 (Flutter 0-.1)	64
776-1	-38	776-1	0.8	57
Blower Temp (deg F)	122	After Cooler Temp (deg F)	114	

Well_ID, Distance from well axis (ft)	Time	Shallow Vacuum (inch w.g)	Medium Vacuum (inch w.g.)	Deep Vacuum (inch w.g)

SSVM Vapor Monitoring Point Vacuum Measurements

Date:	6-6-13			
conducted by:	MG			
Site ID:	B774-B776 SVE		Patm (inch hg):	30.09 inch. HG.
Vacuum Gauge:	Vacuum (inch w.g.)	Magnehelic Gauge:	Differential Pressure (inch w.g.)	Temperature (Deg F)
774-1	-38	774-1	1	65°F
774-2	-22	774-2	.1	67°F
776-1	-32	776-1	.6	62°F
Blower Temp (deg F)	110°F	After Cooler Temp (deg F)	100°F	
Well_ID, Distance from well axis (ft)	Time	Shallow Vacuum (inch w.g.)	Medium Vacuum (inch w.g.)	Deep Vacuum (inch w.g.)

SSVM Vapor Monitoring Point Vacuum Measurements

Date:	6/21/13			
conducted by:	DB			
Site ID:	774/776		Patm (inch hg)	
Vacuum Gauge	Vacuum (inch w.g)	Magnehelic Gauge.	Differential Pressure (inch w g.)	Temperature (Deg F)
774-1	-32	774-1	.6	68
774-2	-22	774-2	1.5	70
776-1	-36	776-1	0.8	68
Blower Temp (deg F)	118	After Cooler Temp (deg F)	112	
Well_ID, Distance from well axis (ft)	Time	Shallow Vacuum (inch w.g)	Medium Vacuum (inch w.g)	Deep Vacuum (inch w.g)

SSVM Vapor Monitoring Point Vacuum Measurements

Date:	6-27-13			
conducted by:	MG			
Site ID:	B774B776 SVE		Patm (inch hg):	29.75. inch Hg.
Vacuum Gauge:	Vacuum (inch w.g.)	Magnehelic Gauge:	Differential Pressure (inch w.g.)	Temperature (Deg F)
774-1	-28	774-1	.5	68°F
774-2	-20	774-2	.2	72°F
776-1	-34	776-1	.7	70°F
Blower Temp (deg F)	124°F	After Cooler Temp (deg F)	115°F	

Well_ID, Distance from well axis (ft)	Time	Shallow Vacuum (inch w.g.)	Medium Vacuum (inch w.g.)	Deep Vacuum (inch w.g.)

SSVM Vapor Monitoring Point Vacuum Measurements

Date:	4/4/13			
conducted by:	JW			
Site ID:	785/786		Patm (inch hg):	30.35
Vacuum Gauge	Vacuum (inch w.g.)	Magnehelic Gauge.	Differential Pressure (inch w.g.)	Temperature (Deg F)
785-1	-48	785-1	0.6	37°F
786-1	-48	786-1	1	41°F
total	4	total	4	50°F
Blower Temp (deg F)	100	After Cooler Temp (deg F)	50	
Well_ID. Distance from well axis (ft)	Time	Shallow Vacuum (inch w.g.)	Medium Vacuum (inch w.g.)	Deep Vacuum (inch w.g.)

SSVM Vapor Monitoring Point Vacuum Measurements

Date:	4-10-12
conducted by:	JD

Site ID:	NOSEDOCKS		Patm (inch hg):	
Vacuum Gauge:	Vacuum (inch w.g.)	Magnehelic Gauge:	Differential Pressure (inch w.g.)	Temperature (Deg F)
785-1	48	785-1	20.6	46
786-1	48	786-1	1.0	44
total	4.5 "Hg	total	3.8	54
Blower Temp (deg F)	135°	After Cooler Temp (deg F)	110°	

Well_ID, Distance from well axis (ft)	Time	Shallow Vacuum (inch w.g.)	Medium Vacuum (inch w.g.)	Deep Vacuum (inch w.g.)

SSVM Vapor Monitoring Point Vacuum Measurements

Date:	4/18/13
conducted by:	KM

Site ID:	B785/786		Patm (inch hg):	30.07
Vacuum Gauge:	Vacuum (inch w.g.)	Magnehelic Gauge:	Differential Pressure (inch w.g.)	Temperature (Deg F)
785-1	47	785-1	0.6	43
786-1	48	786-1	0.9	44
total	4.4 in hg	total	3.9	57
Blower Temp (deg F)	135	After Cooler Temp (deg F)	118	

Well_ID, Distance from well axis (ft)	Time	Shallow Vacuum (inch w.g.)	Medium Vacuum (inch w.g.)	Deep Vacuum (inch w.g.)

change carbon on 4/19/13

SSVM Vapor Monitoring Point Vacuum Measurements

Date:	4/24/13			
conducted by:	JP			
Site ID:	785/786		Patm (inch hg):	29.83
Vacuum Gauge:	Vacuum (inch w.g.)	Magnehelic Gauge:	Differential Pressure (inch w.g.)	Temperature (Deg F)
785-1	-48	785-1	0.6	
786-1	-48	786-1	0.9	
total	4.5inhg	total	3.8	
Blower Temp (deg F)	135	After Cooler Temp (deg F)	112	

Well_ID, Distance from well axis (ft)	Time	Shallow Vacuum (inch w.g.)	Medium Vacuum (inch w.g.)	Deep Vacuum (inch w.g.)

SSVM Vapor Monitoring Point Vacuum Measurements

Date:	5/2/13			
conducted by:	KM			
Site ID:	785/786		Patm (inch hg):	30.40
Vacuum Gauge:	Vacuum (inch w.g.)	Magnehelic Gauge:	Differential Pressure (inch w.g.)	Temperature (Deg F)
785-1	48	785-1	0.7	48
786-1	48	786-1	1.0	48
total	4.5 in hg	total	3.9	61
Blower Temp (deg F)	140	After Cooler Temp (deg F)	122	

Well_ID, Distance from well axis (ft)	Time	Shallow Vacuum (inch w.g.)	Medium Vacuum (inch w.g.)	Deep Vacuum (inch w.g.)

SSVM Vapor Monitoring Point Vacuum Measurements

Date:	5/9/13			
conducted by:	KM			
Site ID:	785/786		Patm (inch hg):	29.88
Vacuum Gauge:	Vacuum (inch w.g.)	Magnehelic Gauge:	Differential Pressure (inch w.g.)	Temperature (Deg F)
785-1	48	785-1	0.7	50
786-1	48	786-1	1.0	50
total	5 in Hg	total	3.8	64
Blower Temp (deg F)	145	After Cooler Temp (deg F)	124	

Well_ID, Distance from well axis (ft)	Time	Shallow Vacuum (inch w.g.)	Medium Vacuum (inch w.g.)	Deep Vacuum (inch w.g.)

SSVM Vapor Monitoring Point Vacuum Measurements

Date:	5/14/13			
conducted by:	JP			
Site ID:	785/786		Patm (inch hg):	30.10
Vacuum Gauge:	Vacuum (inch w.g.)	Magnehelic Gauge:	Differential Pressure (inch w.g.)	Temperature (Deg F)
785-1	-48	785-1	0.7	50
786-1	-49	786-1	1.0	50
total	0.5 in hg	total	3.9	
Blower Temp (deg F)	140	After Cooler Temp (deg F)	118	

Well_ID, Distance from well axis (ft)	Time	Shallow Vacuum (inch w.g.)	Medium Vacuum (inch w.g.)	Deep Vacuum (inch w.g.)

SSVM Vapor Monitoring Point Vacuum Measurements

Date:	5-22-13			
conducted by:	MG			
Site ID:	B785-B786-SVI		Patm (inch hg):	29.77 in Hg
Vacuum Gauge:	Vacuum (inch w.g.)	Magnehelic Gauge:	Differential Pressure (inch w.g.)	Temperature (Deg F)
785-1	-48	785-1	.6	56°F
786-1	-48	786-1	1	52°F
total	5	total	4	70°F
Blower Temp (deg F)	150°F	After Cooler Temp (deg F)	120°F	
Well_ID, Distance from well axis (ft)	Time	Shallow Vacuum (inch w.g.)	Medium Vacuum (inch w.g.)	Deep Vacuum (inch w.g.)

SSVM Vapor Monitoring Point Vacuum Measurements

Date:	5/30/13
conducted by:	DD

Site ID:			Patm (inch hg):	
Vacuum Gauge:	Vacuum (inch w.g.)	Magnehelic Gauge:	Differential Pressure (inch w.g.)	Temperature (Deg F)
785-1	-48	785-1	0.6	56
786-1	-49	786-1	1.0	54
total	-5 1/4	total	3.8	58
Blower Temp (deg F)	150	After Cooler Temp (deg F)	130	

Well_ID, Distance from well axis (ft)	Time	Shallow Vacuum (inch w.g.)	Medium Vacuum (inch w.g.)	Deep Vacuum (inch w.g.)

SSVM Vapor Monitoring Point Vacuum Measurements

Date:	6-6-13			
conducted by:	MG			
Site ID:	B785-B786 SVI		Patm (inch hg):	30.09 inch. hG.
Vacuum Gauge:	Vacuum (inch w.g.)	Magnehelic Gauge:	Differential Pressure (inch w g)	Temperature (Deg F)
785-1	-48	785-1	.4	60°F
786-1	-48	786-1	1	58°F
total	4.5	total	4	70°F
Blower Temp (deg F)	150°F	After Cooler Temp (deg F)	120°F	

Well_ID, Distance from well axis (ft)	Time	Shallow Vacuum (inch w.g.)	Medium Vacuum (inch w.g.)	Deep Vacuum (inch w.g.)

SSVM Vapor Monitoring Point Vacuum Measurements

Date:	6/21/13			
conducted by:	DB			DB
Site ID:	785/786		Patm (inch hg):	
Vacuum Gauge:	Vacuum (inch w g.)	Magnehelic Gauge:	Differential Pressure (inch w.g)	Temperature (Deg F)
785-1	-48	785-1	.6	56
786-1	-48	786-1	1	56
total	4.5	total	3.8	70°
Blower Temp (deg F)	150°	After Cooler Temp (deg F)	120 °F	

Well_ID, Distance from well axis (ft)	Time	Shallow Vacuum (inch w.g.)	Medium Vacuum (inch w.g)	Deep Vacuum (inch w.g)

SSVM Vapor Monitoring Point Vacuum Measurements

Date:	6-27-13			
conducted by:	MG			
Site ID:	B785-B786		Patm (inch hg):	29.75 inch HG.
Vacuum Gauge:	Vacuum (inch w.g.)	Magnehelic Gauge:	Differential Pressure (inch w.g.)	Temperature (Deg F)
785-1	-50	785-1	.9	58°F
786-1	-50	786-1	1	62°F
total	5	total	3.8	74°F
Blower Temp (deg F)	155°F	After Cooler Temp (deg F)	135°F	← Hotter than Normal Optimal for carbon 120°F
Well_ID. Distance from well axis (ft)	Time	Shallow Vacuum (inch w.g.)	Medium Vacuum (inch w.g.)	Deep Vacuum (inch w.g.)