

December 29, 2003

Mr. Joseph Peck New York State Department of Environmental Conservation Remedial Bureau B, Section D 625 Broadway, 12<sup>th</sup> Floor Albany, New York 12233

### Subject: Quarterly Remedial Measure Operation & Maintenance and Indoor Air Quality Monitoring Report Jimmy's Dry Cleaner Site, Roosevelt, New York NYSDEC Site No. 1-30-080

Dear Mr. Peck:

Shaw Environmental, Inc. (Shaw) has developed this letter to serve as a Quarterly Operation, Monitoring & Maintenance (O&M) and Indoor Air Quality Report for the Soil Vapor Extraction (SVE) System located at the former Jimmy's Dry Cleaner (Site) located in Roosevelt, New York. The SVE system was installed as an Interim Remedial Measure (IRM) to abate volatile organic compounds (VOCs) from a business and residence located near the Site.

On May 9, 2002 the Nassau County Department of Health (NCDOH) performed indoor air quality sampling within several residences located along Dutchess Street and three commercial establishments located in the area of the Site. The sampling was performed to evaluate the ambient air quality in each of the structures as a result of VOCs detected in soil and groundwater at the Site and in the area down gradient (south) of the Site.

The May 9, 2002 indoor air sampling results identified the presence of tetrachloroethene (PCE) in ambient air at #40 Dutchess Street, the Kentucky Fried Chicken Restaurant (KFC) (located approximately 250 feet south of the Site on Nassau Road) and within the Deli (located within the former dry cleaner building). Additional air quality samples were collected from the Miss Shelly School at #66 Nassau Road (located across Nassau Road from the Site). The analytical results indicated that concentrations of PCE at each of the sampling locations were below the NYSDOH Ambient Air Guidance Value for PCE (100 ug/m<sup>3</sup>) with the exception of #40 Dutchess Street and the Deli. Based on the sampling results, the NYSDOH, and the NYSDEC requested

that Shaw design and install an IRM to reduce the presence of PCE at #40 Dutchess Street and the Deli and to inhibit any further migration of VOCs. On August 14, 2002 Shaw provided the New York State Department of Environmental Conservation (NYSDEC) a letter report describing the IRM. The letter included a description of site conditions that made the IRM necessary, a description of the SVE system design, IRM installation activities, a summary of the SVE system start-up procedures, and a summary of the initial SVE system O&M activities. Following the first month of O&M visits the SVE system operation stabilized and the frequency of O&M visits was adjusted from weekly to a periodic basis.

After the installation of the SVE system, Shaw implemented an Indoor Air Quality Monitoring program for the select sampling locations. Throughout subsequent monitoring events an overall decrease in concentrations of PCE in ambient air has been observed.

To date, seven (7) O&M letter reports and four (4) Indoor Air Quality letters have been submitted to the NYSDEC summarizing the IRM. This letter report serves the first time the O&M and Indoor Air Quality reports have been presented under the same cover. This report covers the period of May 2, 2003 through November 1, 2003.

## **Remedial System Operation and Maintenance**

To further evaluate the SVE system's operating performance, Shaw completed nine site visits during the reporting period to monitor and adjust the SVE system. VOC concentrations, flow rates, and vacuum readings were recorded at extraction wells SVE - 2, SVE - 3, SVE - 4, SVE - 5, SVE - 6, SVE - 7, VMP - 1 and at the SVE blower (**Attachment 1 – IRM-SVE Plan**). Extraction wells SVE - 1, SVE - 2, SVE - 3, SVE - 4 and SVE - 5 were not monitored during one or more site visits due to the inability to access the extraction well locations. A summary of the monitoring data collected during the monitoring events is tabulated in **Attachment 2 - IRM Parameters** of this letter report.

The monitoring data reveals elevated VOC concentrations at SVE - 2, SVE - 3, and SVE - 4 during several monitoring events. During the monitoring period, the vacuum extraction rates at the wellheads were fully opened, allowing for maximum extraction rate. This adjustment helped address the elevated VOC concentrations observed in the soil gas.

Modeling performed with earlier flow rates and influent VOC concentrations indicated that the carbon would be depleted at a rate of approximately one vessel every month. Recent VOC concentrations have allowed for a greater than 1 month life expectancy for the carbon vessels.

The first carbon change out occurred on August 27, 2002. Additional carbon change outs were performed during the September 18, 2002, November 1, 2002, January 13, 2003, March 5, 2003, July 29, 2003, September 24, 2003, and October 21, 2003 monitoring events. During the carbon change out, the lag vessel was moved to the lead position and a new carbon vessel placed in the lag position. Used carbon was staged on-site for disposal by an approved waste disposal firm. The rate of carbon usage will be monitored during each site visit to determine the maximum VOC extraction rate that can be performed to prevent VOC migration while maximizing the life of the carbon vessels.

## Indoor Air Quality Results

Shaw conducted a fifth indoor air quality sampling event for the Deli, KFC and # 40 Dutchess Street. Attempts were made to sample # 44 Dutchess, however the resident was not available on the date of sampling (September 23, 2003). A total of four passive diffusion dosimeters were installed at the Deli, KFC, and # 40 Dutchess. A duplicate sample was also collected from KFC for analytical comparative purposes. In addition a background sample was collected near the Deli. Attached is a copy of the analytical data for the September 23, 2003 Indoor Air Quality Monitoring Event (Attachment 3 – Indoor Air Analytical). Shaw has tabulated the analytical results for the monitoring events performed by both the NYSDOH and Shaw for comparison purposes (Attachment 4 – Indoor Air Quality Data). Comparison of the analytical results indicates that concentrations of PCE are below the NYSDOH Ambient Air Guidance Value (100 ug/m<sup>3</sup>). Furthermore, most concentrations were below the NYSDOH indoor air ambient air goal (10 ug/m<sup>3</sup>) as discussed in the NYSDOH Fact Sheet, <u>PCE in Indoor Air Quality</u> May 2003. Concentrations of PCE were recorded at levels slightly above the NYSDOH goal in the front room of the Deli (26 ug/m<sup>3</sup>). Shaw will adjust the bleed-air valve at the blower to help address the slightly elevated ambient air concentration.

Following the completion of the next quarter monitoring events, a letter report will be prepared by Shaw and submitted to the NYSDEC summarizing the findings of the November 2003 through March 2004 O & M events.

If you have any questions or comments regarding this information, please contact Shaw at 518-783-1996.

Sincerely, **Shaw Environmental, Inc.** 

Jennifer M. Nafus Project Scientist

Shaw Environmental, Inc.

Heide-Marie Dudek, P.E. Project Manager

Marc E. Flanagan Site Supervisor

cc: Robert Cozzy, NYSDEC Rebecca Mitchell, NYSDOH Joseph DeFranco, NCDOH Margie Gardner, Shaw

Attachments: 1-4

## **ATTACHMENT 1**

## **IRM-SVE PLAN**





# LEGEND:

0	
o	
	SITE PERIMETER
	SOIL VAPOR EXTRACTION WELL
$\otimes$	VAPOR MONITORING POINT
	SVE PIPING
C	CORBON VESSELS
Shaw Environmental, Inc.	NYSDEC JIMMY'S DRY CLEANER
	ATTACHMENT 1 IRM—SVE PLAN

ROOSEVELT, NEW YORK

### **ATTACHMENT 2**

### **IRM PARAMETERS**

		August 7, 200	2			August 12	, 2002			August 21, 2	2002	
	Vac (inches of	-	PID	Valve %	Vac (inches of			Valve %	Vac (inches of	F	PID	Valve %
Sample Location	water)	Flow (cfm)	(ppm)	Open	water)	Flow (cfm)	PID (ppm)	Open	water)	Flow (cfm)	(ppm)	Open
SVE - 1	7.0	30.0	326.0	100%	3.5	18.8	449.0	25%	7.0	31.7	925.0	25%
SVE - 2	6.0	10.0	64.4	100%	4.0	9.5	32.4	100%	7.0	17.9	68.9	100%
SVE - 3	5.5	25.0	695.0	100%	4.0	17.7	221.0	50%	7.0	23.0	521.0	50%
SVE - 4	6.0	39.0	36.4	100%	5.0	34.5	28.0	100%	8.0	25.2	37.1	100%
SVE - 5	N/S	N/S	N/S	100%	N/S	N/S	N/S	100%	N/S	N/S	N/S	100%
SVE - 6	5.0	17.0	0.0	100%	4.0	20.5	0.0	100%	6.0	11.4	0.0	100%
SVE - 7	5.0	10.5	0.0	100%	4.0	22.0	0.0	100%	6.0	9.3	0.0	100%
VMP - 1	0.0	NA	283.0	NA	0.0	NA	50.6	NA	0.0	NA	NS	NA
Before blower	NA	98.0	157.0	NA	NA	80.0	132.0	50%	NA	73.5	178.0	50%
Influent	NA	113.0	162.0	NA	NA	105.0	96.5	NA	NA	115.0	145.0	NA
Mid	NA	97.5	0.0	NA	NA	99.0	0.0	NA	NA	102.0	163.0	NA
Effluent	NA	110.0	0.0	NA	NA	110.0	0.0	NA	NA	108.0	0.0	NA
	Open bleed air	valve 10%.										
Before blower	NA	95.0	156.0	NA								
Influent	NA	113.0	143.0	NA								
Mid	NA	95.0	0.0	NA								
Effluent	NA	104.0	0.0	NA								
Notes:												
NA = not applicabl	etween carb	on.										
NS = not sampled due to access issues. Effluent = After car					on.							
Influent = Before c	arbon	acuum										

		August 27, 2	002			September	5, 2002			September 5,	2002	
	Vac (inches of		PID	Valve %	Vac (inches of			Valve %	Vac (inches of	F	PID	Valve %
Sample Location	water)	Flow (cfm)	(ppm)	Open	water)	Flow (cfm)	PID (ppm)	Open	water)	Flow (cfm)	(ppm)	Open
SVE - 1	4.0	18.0	1098.0	25%	4.0	19.8	>2000	15%	N/S	N/S	N/S	10%
SVE - 2	4.0	12.5	93.2	100%	5.0	10.5	576.0	100%	N/S	N/S	N/S	100%
SVE - 3	4.0	16.5	425.0	50%	3.0	11.5	>2000	50%	N/S	N/S	N/S	50%
SVE - 4	4.0	20.6	33.2	100%	5.0	26.5	385.0	100%	N/S	N/S	N/S	100%
SVE - 5	N/S	N/S	N/S	100%	N/S	N/S	N/S	100%	N/S	N/S	N/S	100%
SVE - 6	4.0	23.4	0.0	100%	3.0	10.1	0.0	100%	N/S	N/S	N/S	100%
SVE - 7	3.0	6.5	0.0	100%	3.0	7.5	0.0	100%	N/S	N/S	N/S	100%
VMP - 1	0.0	NA	116.0	NA	0.0	NA	1220.0	NA	Oper	n bleed air valve	e to 75%.	
Before blower	NA	57.0	193.0	65%	NA	43.5	>2000	65%	NA	35.2	>2000	75%
Influent	NA	103.0	90.3	NA	NA	103.0	1150.0	NA	NA	104.0	615.0	NA
Mid	NA	83.0	69.6	NA	NA	76.0	915.0	NA	NA	78.0	850.0	NA
Effluent	NA	128.0	0.0	NA	NA	99.5	0.0	NA	NA	101.0	0.0	NA
	Carbon change out performed											
					1							
Notes:												
NA = not applicable. Mid = Between ca					on.							
NS = not sampled due to access issues Effluent = After car				on.								
Influent = Before c	arbon.		acuum									

	September 12, 2002					. 12, 2002 (Afte	r adjustments	s)		September 18	, 2002	
	Vac (inches of	F	PID	Valve %	Vac (inches o	f	-	Valve %	Vac (inches of	•		Valve %
Sample Location	water)	Flow (cfm)	(ppm)	Open	water)	Flow (cfm)	PID (ppm)	Open	water)	Flow (cfm)	PID (ppm)	Open
SVE - 1	1.0	9.7	>2000	10%	NA	NA	NA	0%	NA	NA	NA	0%
SVE - 2	3.0	20.4	682.0	100%	2.0-3.0	12.3	668.0	50%	3.5	8.0	68.1	100%
SVE - 3	2.0-3.0	8.6	>2000	50%	2.0	6.8	>2000	30%	3.2	3.0	368.0	30%
SVE - 4	2.0-3.0	21.9	410.0	100%	3.0	17.2	276.0	50%	3.7	10.2	54.5	50%
SVE - 5	N/S	N/S	N/S	100%	N/S	N/S	N/S	100%	N/S	N/S	N/S	100%
SVE - 6	2.0-3.0	14.7	0.0	100%	N/S	N/S	N/S	100%	3.0	16.5	0.0	100%
SVE - 7	2.0-3.0	21.5	0.0	100%	N/S	N/S	N/S	100%	3.0	8.5	0.0	100%
VMP - 1	0.0	NA	>2000	NA	N/S	NA	N/S	NA	0.0	NA	0.0	NA
Before blower	NA	32.8	>2000	75%	NA	30.3	626.0	75%	NA	34.0	69.2	75%
Influent	NA	98.5	711.0	NA	NA	98.0	153.0	NA	NA	106.0	16.5	NA
Mid	NA	84.5	763.0	NA	NA	78	494.0	NA	NA	94.5	48.6	NA
Effluent	NA	130.0	0.0	NA	NA	115.0	0.0	NA	NA	94.0	46.3	NA
									Followi	ng carbon vess	el change out.	
									Before blower	36.1	67.1	NA
Notes:									Influent	110.0	16.1	NA
NA = not applicabl	e.		tween carb	carbon.				Mid	94.5	43.7	NA	
NS = not sampled due to access issues Effluent = After ca					oon.				Effluent	104.0	0.0	NA
Influent = Before c	arbon.		Vac = Va	acuum				I				

	September 30, 2002					October 14	1, 2002			November	1, 2002	
	Vac (inches of			Valve %	Vac (inches o	f		Valve %	Vac (inches o	f		Valve %
Sample Location	water)	Flow (cfm)	PID (ppm)	Open	water)	Flow (cfm)	PID (ppm)	Open	water)	Flow (cfm)	PID (ppm)	Open
SVE - 1	NA	NA	NA	0%	NA	NA	NA	0%	NA	NA	NA	0%
SVE - 2	NS	NS	NS	50%	NS	NS	NS	50%	NS	NS	NS	50%
SVE - 3	3-4	6.4	>2000	30%	3.5	10.8	513.0	30%	3.0	8.8	369.0	50%
SVE - 4	2-3	24.5	1245.0	50%	4.5	38.5	109.0	50%	3.5	17.0	105.0	100%
SVE - 5	NS	NS	NS	100%	NS	NS	NS	100%	NS	NS	NS	100%
SVE - 6	2-3	21.1	0.0	100%	2.5	11.8	0.0	100%	<1.0	2.0	0.0	100%
SVE - 7	2.0	8.3	0.0	100%	3.0	3.07	0.0	100%	<1.0	9.40	0.0	100%
VMP - 1	0.0	NA	620.0	NA	0.0	NA	0.0	NA	0.0	NA	0.0	NA
Before blower	NA	31.5	1350.0	NA	NA	40.4	95.4	NA	NA	53.0	140.0	NA
Influent	NA	106.0	240.0	NA	NA	113.0	7.4	NA	NA	118.0	16.5	NA
Mid	NA	94.5	144.0	NA	NA	95.0	0.0	NA	NA	97.0	10.5	NA
Effluent	NA	114.0	0.0	NA	NA	113.0	0.0	NA	NA	102.0	0.0	NA
					·				C	arbon change o	ut performed	
Notes:												
NA = not applicabl	e.		Mid = Between	carbon.								
NS = not sampled	due to access iss	sues	Effluent = After	carbon.								
Influent = Before c	arbon.		Vac = Vacuum									
. <u>.</u>												

		November 1	5, 2002			December 4	4, 2002			December 1	6, 2002	
	Vac (inches of			Valve %	Vac (inches of	F		Valve %	Vac (inches of			Valve %
Sample Location	water)	Flow (cfm)	PID (ppm)	Open	water)	Flow (cfm)	PID (ppm)	Open	water)	Flow (cfm)	PID (ppm)	Open
SVE - 1	NA	NA	NA	0%	3.0	10.4	29.1	30%	NS	NS	NS	30%
SVE - 2	NS	NS	NS	50%	NS	NS	NS	50%	NS	NS	NS	50%
SVE - 3	~1.0	5.2	0.0	50%	2-3	17.0	225.0	50%	0.5	1.6	117.0	50%
SVE - 4	NS**	NS**	NS**	100%	4.0	12.0	97.1	100%	1.5	1.3	126.0	100%
SVE - 5	NS	NS	NS	100%	3-4	3.2	0.0	100%	1.0	1.3	0.0	100%
SVE - 6	~2.0	11.8	0.0	100%	2.0	4.5	0.0	100%	1.0	0.5	0.0	100%
SVE - 7	~2.0	5.0	0.0	100%	2.0	4.7	0.0	100%	1.0	0.5	0.0	100%
VMP - 1	0.0	NA	0.0	NA	0.0	NA	8.7	NA	0.0	NA	0.0	NA
Before blower	NA	High	92.9	NA	NA	47.9	120.0	NA	NA	40.5	190.0	NA
Influent	NA	82.5	25.2	NA	NA	110.0	15.0	NA	NA	98.1	26.4	NA
Mid	NA	84.0	17.0	NA	NA	86.5	4.5	NA	NA	911	39.0	NA
Effluent	NA	126.0	0.0.	NA	NA	107.5	0.0	NA	NA	132.9	0.0	NA
** = Well under wa	= Well under water, could not bail out fast enough.											
Notes:												
NA = not applicabl	e.	n carbon.										
NS = not sampled due to access issues Effluent = After carbon.												
Influent = Before c	arbon.		Vac = Vacuur	ı								

		January 6,	2003			January 13	, 2003			January 31	, 2003	
	Vac (inches of	F		Valve %	Vac (inches of	F		Valve %	Vac (inches of	1		Valve %
Sample Location	water)	Flow (cfm)	PID (ppm)	Open	water)	Flow (cfm)	PID (ppm)	Open	water)	Flow (cfm)	PID (ppm)	Open
SVE - 1	4.0	3.0	900.0	30%	3.0	13.0	823.0	30%	4.0	8.0	425.0	30%
SVE - 2	NS**	NS**	NS**	50%	NS	NS	NS	50%	NS	NS	NS	50%
SVE - 3	~1.0	2.4	78.2	50%	1.25	1.10	72.0	50%	0-1	1.00	10.0	50%
SVE - 4	NS	NS	NS	100%	NS	NS	NS	100%	NS	NS	NS	100%
SVE - 5	3.0	4.1	0.0	100%	NS	NS	NS	100%	NS	NS	NS	100%
SVE - 6	~2.0	5.8	0.0	100%	3.0	8.15	0.0	100%	2-3	6.00	0.0	100%
SVE - 7	~2.0	4.6	0.0	100%	2.0	4.70	0.0	100%	2-3	5.10	0.0	100%
VMP - 1	0.0	NA	0.0	NA	0.0	NA	0.0	NA	0.0	NA	0.0	NA
Before blower	NA	40.1	180.0	NA	NA	120.0	210.0	NA	NA	17.0	525.0	NA
Influent	NA	NS	NS	NA	NA	103.0	36.0	NA	NA	115.0	38.6	NA
Mid	NA	91.0	24.0	NA	NA	93.0	12.0	NA	NA	96.0	28.0	NA
Effluent	NA	111.0	0.0.	NA	NA	118.0	1.5	NA	NA	112.0	0.0	NA
** = Well under wa	iter, could not ba	ail out fast enou	ıgh.		Ca	arbon change o	ut performed					
Notes:												
NA = not applicabl	e.		n carbon.									
NS = not sampled due to access issues Effluent = After carbon												
Influent = Before c	arbon.		Vac = Vacuur	n								

		February 10	), 2003			March 5,	2003			March 18,	2003	
	Vac (inches of			Valve %	Vac (inches of	F		Valve %	Vac (inches of			Valve %
Sample Location	water)	Flow (cfm)	PID (ppm)	Open	water)	Flow (cfm)	PID (ppm)	Open	water)	Flow (cfm)	PID (ppm)	Open
SVE - 1	8.0	28.7	350.0	30%	NA	NA	NA	0%	NA	NA	NA	0%
SVE - 2	NS	NS	NS	50%	<1	0.3	7.7	100%	2.0	3.6	0.0	100%
SVE - 3	0.0	0.0	0.0	50%	<1	0.0	0.0	50%	2.0	4.6	46.1	50%
SVE - 4	NS	NS	NS	100%	NS	NS	NS	100%	NS	NS	NS	100%
SVE - 5	NS	NS	NS	100%	<1	0.2	2.7	100%	2.5	11.3	0.0	100%
SVE - 6	0.0	0.0	0.0	100%	0.0	0.0	0.0	100%	2.5	3.9	0.0	100%
SVE - 7	0.0	0.0	0.0	100%	0.0	0.0	0.0	100%	3.0	10.9	0.0	100%
VMP - 1	0.0	NA	0.0	NA	0.0	NA	0.0	NA	0.0	NA	0.0	NA
Before blower	NA	30.0	165.0	NA	NA	44.0	0.0	NA	NA	54.0	2.6	NA
Influent	NA	15.3	109.0	NA	NA	106.0	0.0	NA	NA	113.0	0.0	NA
Mid	NA	92.5	3.3	NA	NA	88.6	22.3	NA	NA	85.0	0.0	NA
Effluent	NA	126.0	0.0	NA	NA	115.0	0.0	NA	NA	121.0	0.0	NA
Close valve at SV	E -1 to 0%				Open valve at	SVE -2 to 100%	)					
			Ca	rbon Change o	ut performed.							
Notes:					·							
NA = not applicabl	e.		Mid = Betwee	n carbon.								
NS = not sampled	due to access is	ssues	er carbon.									
Influent = Before c	arbon.		Vac = Vacuur	n								

		April 5, 2	2003			April 14,	2003			May 1, 2	2003	
	Vac (inches of			Valve %	Vac (inches of	F		Valve %	Vac (inches of			Valve %
Sample Location	water)	Flow (cfm)	PID (ppm)	Open	water)	Flow (cfm)	PID (ppm)	Open	water)	Flow (cfm)	PID (ppm)	Open
SVE - 1	NA	NA	NA	0%	NA	NA	NA	0%	NA	NA	NA	0%
SVE - 2	7.5	7.2	0.5	100%	9.0	11.5	10.8	100%	NA	NA	NA	100%
SVE - 3	7.0**	9.8**	131.0**	100%	9.0	5.0	85.0	100%	8.0	22.1	89.2	100%
SVE - 4	NS	NS	NS	100%	NS	NS	NS	100%	NS	NS	NS	100%
SVE - 5	7.0	21.3	0.0	100%	NS	NS	NS	100%	NS	NS	NS	100%
SVE - 6	6.5	13.1	0.0	100%	8.0	55.0	0.0	100%	7.0	40.5	0.0	100%
SVE - 7	6.0	9.5	0.0	100%	9.0	34.0	0.0	100%	7.0	43.4	0.0	100%
VMP - 1	0.0	NA	0.0	NA	0.0	NA	0.0	NA	0.0	NA	0.0	NA
Before blower	NA	46.0	36.6	NA	NA	93.0	36.4	NA	NA	59.0	24.5	NA
Influent	NA	120.0	9.7	NA	NA	118.0	15.6	NA	NA	109.5	15.1	NA
Mid	NA	96.1	0.6	NA	NA	94.0	5.5	NA	NA	101.0	20.5	NA
Effluent	NA	105.0	0.0	NA	NA	106.0	0.0	NA	NA	111.0	0.0	NA
Cha	nged the extrac	tion rate at SVE	E-3 to 100%.									
SVE - 3	7.0	10.6	144	100%								
Notes:												
NA = not applicable. Mid = Between carbon.												
NS = not sampled due to access issues Effluent = After carbon.												
Influent = Before c	arbon.	n										

		May 14, 1	2003			May 27, 3	2003			June 11,	2003	
	Vac (inches of	F		Valve %	Vac (inches o	f		Valve %	Vac (inches of	F		Valve %
Sample Location	water)	Flow (cfm)	PID (ppm)	Open	water)	Flow (cfm)	PID (ppm)	Open	water)	Flow (cfm)	PID (ppm)	Open
SVE - 1	NA	NA	NA	0%	NA	NA	NA	0%	NA	NA	NA	0%
SVE - 2	NS	NS	NS	100%	8.5	83.0	14.5	100%	NS	NS	NS	100%
SVE - 3	>5	5.35	101.0	100%	NS	NS	NS	100%	NS	NS	NS	100%
SVE - 4	>5	15.7	35.9	100%	NS	NS	NS	100%	NS	NS	NS	100%
SVE - 5	NS	NS	NS	100%	8.0	71.5	5.6	100%	NS	NS	NS	100%
SVE - 6	>5	21.7	0.0	100%	8.0	46.8	0.0	100%	<5	23.3	0.0	100%
SVE - 7	>5	16.0	0.0	100%	8.0	25.3	0.0	100%	<5	18.3	0.0	100%
VMP - 1	0.0	NA	0.0	NA	0.0	NA	0.0	NA	0.0	NA	0.0	NA
Before blower	NA	74.5	31.6	NA	NA	140.0	35.5	NA	NA	71.5	6.6	NA
Influent	NA	104.0	17.5	NA	NA	105.0	16.2	NA	NA	81.5	0.0	NA
Mid	NA	90.5	14.6	NA	NA	25.6	26.2	NA	NA	86.5	0.0	NA
Effluent	NA	122.0	0.0	NA	NA	106.0	0.0	NA	NA	128.0	0.0	NA
Notes:												
NA = not applicable. Mid = Between carbon.				n carbon.								
NS = not sampled due to access issues Effluent = After carbon.			er carbon.									
nfluent = Before carbon. Vac = Vacuum												

		June 30, 1	2003			July 16, 2	2003			July 29, 20	003	
	Vac (inches of	•		Valve %	Vac (inches of	-		Valve %	Vac (inches of	-		Valve %
Sample Location	water)	Flow (cfm)	PID (ppm)	Open	water)	Flow (cfm)	PID (ppm)	Open	water)	Flow (cfm)	PID (ppm)	Open
SVE - 1	NA	NA	NA	0%	NA	NA	NA	0%	NA	NA	NA	0%
SVE - 2	5.0	23.5	0.0	100%	NS	NS	NS	100%	5.0	15.6	0.0	100%
SVE - 3	6.0	25.0	76.8	100%	5.5	NS	3.0	100%	6.0	6.0	0.0	100%
SVE - 4	NS	NS	NS	100%	NS	NS	NS	100%	5	29.9	0	100%
SVE - 5	NS	NS	NS	100%	NS	NS	NS	100%	4.5	10.0	0.0	100%
SVE - 6	6.0	43.2	0.0	100%	4.0	NS	3.2	100%	4.0	7.6	0.0	100%
SVE - 7	5.5	19.2	0.0	100%	4.0	NS	1.6	100%	5.0	13.0	0.0	100%
VMP - 1	0.0	NA	0.0	NA	0.0	NA	0.0	NA	0.0	NA	0.0	NA
Before blower	NA	62.5	7.0	NA	NA	NS	31.0	NA	NA	65.0	34.9	NA
Influent	NA	96.0	0.0	NA	NA	NS	21.6	NA	NA	108.0	18.3	NA
Mid	NA	89.5	7.0	NA	NA	NS	22.0	NA	NA	91.5	11.5	NA
Effluent	NA	121.3	20.6	NA	NA	NS	16.4	NA	NA	121.0	7.6	NA
	Unable to chan	ge out carbon ι	inits due to acc		Flow meter no	t working		Followi	ng carbon vess	el change out.		
									Before blower	71.5	31.2	NA
Notes:								Influent	100.0	14.0	NA	
NA = not applicable. Mid = Between carbon				n carbon.					Mid	92.0	0.0	NA
NS = not sampled due to access issues Effluent = After carbon.									Effluent	114.0	0.0	NA
Influent = Before c	arbon.		Vac = Vacuur	n								

		August 26	, 2003			September 2	4, 2003			October 21	, 2003	
	Vac (inches of			Valve %	Vac (inches of			Valve %	Vac (inches of			Valve %
Sample Location	water)	Flow (cfm)	PID (ppm)	Open	water)	Flow (cfm)	PID (ppm)	Open	water)	Flow (cfm)	PID (ppm)	Open
SVE - 1	NA	NA	NA	0%	NA	NA	NA	0%	NA	NA	NA	0%
SVE - 2	NS	NS	NS	100%	5.0	10.8	1026.0	100%	NS	NS	NS	100%
SVE - 3	5.0	36.5	157.0	100%	4.0	28.1	82.5	100%	3.0	13.7	101.0	100%
SVE - 4	5.0	26.3	50.2	100%	5.0	20.2	127.0	100%	3.0	25.2	53.8	100%
SVE - 5	NS	NS	NS	100%	NS	NS	NS	100%	NS	NS	NS	100%
SVE - 6	4.0	19.0	0.0	100%	3.5	24.5	0.0	100%	2.0	27.2	0.0	100%
SVE - 7	4.0	23.6	0.0	100%	4.0	16.9	0.0	100%	2.0	24.4	0.0	100%
VMP - 1	0.0	NA	0.0	NA	0.0	NA	0.0	NA	0.0	NA	0.0	NA
Before blower	NA	120.0	43.0	NA	NA	52.0	478.0	NA	NA	101.0	46.2	NA
Influent	NA	125.0	20.2	NA	NA	119.0	139.0	NA	NA	114.0	17.0	NA
Mid	NA	102.0	0.0	NA	NA	98.5	53.0	NA	NA	97.5	0.0	NA
Effluent	NA	110.0	0.0	NA	NA	99.5	67.0	NA	NA	87.0	0.0	NA
					Ca	rbon change ou	ut performed.		Ca	rbon change o	ut performed.	
Notes:												
NA = not applicable	e.	n carbon.										
NS = not sampled due to access issues Effluent = After carbon.												
Influent = Before carbon. Vac = Vacuum												

## **ATTACHMENT 3**

INDOOR AIR ANALYTICAL



6601 Kirkville Road East Syracuse, NY 13057

(315) 432-5227 Fax: (315) 437-0571 www.galsonlabs.com

### LABORATORY ANALYSIS REPORT

Client Site Project No.	: : :	Shaw Environment NYS DEC-Jimmy's 824324-04000000	al & Infrastructure Dry Cleaner
Date Sampled Date Received Date Analyzed	::	23-SEP-03 25-SEP-03 29-SEP-03	Account No.: 14965 Login No. : L97201

#### Perchloroethylene

Sample ID Lab ID		Time minutes	Total	Conc ug/m3
BKGD	L97201-1	1440	0.26	6.2
DUPE	L97201-2	1440	0.22	5.2
KFC	L97201-3	1440	0.25	5.9
DELI	L97201-4	1440	1.11	26
40 DUTCHESS	L97201-5	1440	0.26	6.2
BLANK	L97201-6	NA	0.06	NA
DELI 40 DUTCHESS BLANK	L97201-3 L97201-4 L97201-5 L97201-6	1440 1440 1440 NA	1.11 0.26 0.06	26 6.2 NA

<u>COMMENTS:</u> Total ug corrected for a desorption efficiency of 103%. Sample results have not been corrected for the blank value.

	Level of quantit Analytical Metho OSHA PEL (TWA) Collection Media	tation: 0.03 ug od : NYS DOH 311-9 : 100 ppm a : OVM	Submitted by: AS Approved by : jmt Date : 01-OCT-03 QC by: NYS DOH # : 11626				
< > NA	-Less Than -Greater Than -Not Applicable	mg -Milligrams ug -Micrograms ND -Not Detected	m3 -Cubic Meters l -Liters ppm -Parts per Million	kg -Kilograms NS -Not Specified			

Galson		Reques	t For Industria	I Hygiene Ana	alysis
6601 Kirkville Road		Company Name:	lans Fracion	Ma Lal Accou	
<ul> <li>P.O. Box 369</li> <li>E. Syracuse, NY 13057-0</li> </ul>	369	Site Name: NYSA	EC - Direne s 1	In Clar	п <del>к .</del>
Tel: (315) 437-7252 888- Fax: (315) 437-0571	577-Labs (5227)	Sampled By: 545	Proie	ort # 974 324-	0/1720 020
Check if Report to: Change of Address	Chew Environe 13 British A.	merican Bludi	ice to:	MR	
 Phone: (ح	Lathan, NY 18) 783-190	/2/ <i>(</i> 0	1000e; ( )		
V Purchase order number:	205629	NDA GBedos	rbal Authorization:		
Credit Card (type):		\ ¥ Card #:		Exp D	ate:
Standard Turn-Around Time (5 b Same Day (SD) Ne: Surcharges: SD = 200% ND	business days) kt Day(ND) 12PM by 12PM = 150% NE	5PM by 5PM = 100%	2 Day 3 2 Day= 75% 3	Day 🗌 4 Day Day = 50% 4 Day = 35	j%
Fax Results to:	arc. Jang pana	Fax Shaw grf, Com	; #: ()		
Sample Identification	Date Sampled	Sample Medium Catalog # / Lot #	Air Sample Volume (liters)*	Analysis Requested	Method Reference
Bkgd	9/23/03	3500 OVM	1440 min	fere	NY SPOH
Dupe	1			1	- Still g
KFE					
Deli					
+ 40 Outchess	×			×	
				Stel	A X
Blank		V HG		lerc	NYSPOH 311-9
If blanks are not submit charged at the normal ra	ted, our policy state ate. IF YOU DO NO	es that a laboratory Γ WANT A LABORAT	blank will be added ORY BLANK ADDED	for each analyte an PLEASE CHECK B	d it will be OX
*For passive monitors please	e list time exposed in n	ninutes.			
Comments (Please list any k	nown interferences pre	esent in sampling area): 7. NECI J	samples to efection lim.	te minimum	of by
10 mg/m3	,				
Chain of Custody	Print Name	· · · ·	Signatur	e	Date/Time
Relinquished by: 52	ohn A. Shad	and	fly a. Il	aang	1/24/03
Received by LAB.	1 - Graff		the bul	K 09-25-0	13 A10:19 IN
	Samples received	after 3pm will be con	sidered as next day's	s business.	

## **ATTACHMENT 4**

INDOOR AIR QUALITY DATA

### Attachment 4 Indoor Air Quality Data NYSDEC - Jimmy's Dry Cleaner 61 Nassau Road, Roosevelt, New York

		NYSDOH					
Sample Location	Units	Guidance Value	09/29/98	01/05/99	08/17/00 08/28/01		05/09/02
KFC - Kitchen	ug/m <sup>3</sup>	100	NS	NS	NS	10	70
40 Dutchess (Bsmt. Living. Rm)	ug/m <sup>3</sup>	100	NS	NS	NS	5 (PL)	NS
40 Dutchess (Bsmt. Bdrm/baby rm)	ug/m <sup>3</sup>	100	NS	NS	NS	5 (PL)	490
40 Dutchess (Kitchen/First Floor)	ug/m <sup>3</sup>	100	NS	NS	NS	5 (PL)	280
Deli - Front Room	ug/m <sup>3</sup>	100	1250/1400	400/400	510/480	108	900/870
Deli - Storage Room (Back)	ug/m <sup>3</sup>	100	930/970	400/400	490/480	NS	NS
Dupe 1 (Deli - Front Room)	ug/m <sup>3</sup>	100	NS	NS	NS	NS	NS
Dupe 2 (40 Dutchess.Bsmt)	ug/m <sup>3</sup>	100	NS	NS	NS	NS	NS
Dupe 3 (Deli - Front Room)	ug/m <sup>3</sup>	100	NS	NS	NS	NS	NS
Dupe 4 (KFC)	ug/m <sup>3</sup>	100	NS	NS	NS	NS	NS
44 Dutchess (Jackson Bsmt./Family Rm)	ug/m <sup>3</sup>	100	NS	NS	NS	NS	NS
44 Dutchess (First Floor/Kitchen)	ug/m <sup>3</sup>	100	NS	NS	NS	NS	NS
34 Dutchess (Bsmt. Rec Room)	ug/m <sup>3</sup>	100	NS	NS	NS	5 (PL)/5 (PL)	NS
34 Dutchess (Bsmt. Bdrm)	ug/m <sup>3</sup>	100	NS	NS	NS	5 (PL)	NS
34 Dutchess (First Floor/Kitchen)	ug/m <sup>3</sup>	100	NS	NS	NS	5 (PL)	NS
MSUP - Bld. 1 Basement, store room	ug/m <sup>3</sup>	100	NS	NS	NS	ND	ND
MSUP - Bld. 1 First floor, southwest corner	ug/m <sup>3</sup>	100	NS	NS	NS	NS ND/ND	
MSUP - Bld. First floor, northwest corner	ug/m <sup>3</sup>	100	NS	NS	NS	ND	5 (PL)
MSUP - Bld. 2 First floor, front room	ug/m <sup>3</sup>	100	NS	NS	NS	ND	5 (PL)
MSUP - Bld. 2 First floor, rear room	ug/m <sup>3</sup>	100	NS	NS	NS	ND	ND
MSUP - Bld. 3 Basement, computer room	ug/m <sup>3</sup>	100	NS	NS	NS	ND	5 (PL)/5 (PL)
MSUP - Bld. 3 First floor, office	ug/m <sup>3</sup>	100	NS	NS	NS	ND	ND
MSUP - Play area southwest of Bld. 1	ug/m <sup>3</sup>	100	NS	NS	NS	ND/ND	5 (PL)
Background	ug/m <sup>3</sup>	100	NS	NS	NS	NA	NA
Notes:							
Bold = Value exceeds NYSDOH guidance value.	NS = Not sampled.						
MSUP = Miss Shelly's School - 66 Nassau Road.	NA = Data not available.						
KFC = 497 North Main Street. ND = Non - Detect.							
Il samples were sampled for Tetrachloroethene by NYSDOH Method 311-9. (PL) = value detected less that the reported value.							
NYSDOH Guidance Value references NYSDOH's "Tetra	e references NYSDOH's "Tetrachloroethene in Indoor and 5 (PL)/5 (PL) = Indicates that the NCDOH collected a						

NYSDOH Guidance Value references NYSDOH's "Tetrachloroethene in Indoor and in Indoor and Outdoor Air", May, 2003.

duplicate sample from this location

### Attachment 4 Indoor Air Quality Data NYSDEC - Jimmy's Dry Cleaner 61 Nassau Road, Roosevelt, New York

		NYSDOH					
Sample Location	Units	Guidance Value	07/01/02	11/25/02	01/13/03	03/05/03	05/01/03
KFC - Kitchen	ug/m <sup>3</sup>	100	NS	18	6.4	3.3	42
40 Dutchess (Bsmt. Living. Rm)	ug/m <sup>3</sup>	100	5 (PL)	NS	NS	NS	NS
40 Dutchess (Bsmt. Bdrm/baby rm)	ug/m <sup>3</sup>	100	5	1.0	5.2	24	NS
40 Dutchess (Kitchen/First Floor)	ug/m <sup>3</sup>	100	NS	NS	NS	NS	NS
Deli - Front Room	ug/m <sup>3</sup>	100	230	67	48	119	69
Deli - Storage Room (Back)	ug/m <sup>3</sup>	100	NS	NS	NS	NS	NS
Dupe 1 (Deli - Front Room)	ug/m <sup>3</sup>	100	NS	NS	49	NS	NS
Dupe 2 (40 Dutchess.Bsmt)	ug/m <sup>3</sup>	100	NS	NS	NS	20	NS
Dupe 3 (Deli - Front Room)	ug/m <sup>3</sup>	100	NS	NS	NS	NS	69
Dupe 4 (KFC)	ug/m <sup>3</sup>	100	NS	NS	NS	NS	NS
44 Dutchess (Jackson Bsmt./Family Rm)	ug/m <sup>3</sup>	100	14	7.4	NS	2.6	NS
44 Dutchess (First Floor/Kitchen)	ug/m <sup>3</sup>	100	5 (PL)	NS	NS	NS	NS
34 Dutchess (Bsmt. Rec Room)	ug/m <sup>3</sup>	100	NS	NS	NS	NS	NS
34 Dutchess (Bsmt. Bdrm)	ug/m <sup>3</sup>	100	NS	NS	NS	NS	NS
34 Dutchess (First Floor/Kitchen)	ug/m <sup>3</sup>	100	NS	NS	NS	NS	NS
MSUP - Bld. 1 Basement, store room	ug/m <sup>3</sup>	100	NS	NS	NS	NS	NS
MSUP - Bld. 1 First floor, southwest corner	ug/m <sup>3</sup>	100	NS	NS	NS	NS	NS
MSUP - Bld. First floor, northwest corner	ug/m <sup>3</sup>	100	NS	NS	NS	NS	NS
MSUP - Bld. 2 First floor, front room	ug/m <sup>3</sup>	100	NS	NS	NS	NS	NS
MSUP - Bld. 2 First floor, rear room	ug/m <sup>3</sup>	100	NS	NS	NS	NS	NS
MSUP - Bld. 3 Basement, computer room	ug/m <sup>3</sup>	100	NS	NS	NS	NS	NS
MSUP - Bld. 3 First floor, office	ug/m <sup>3</sup>	100	NS	NS	NS	NS	NS
MSUP - Play area southwest of Bld. 1	ug/m <sup>3</sup>	100	NS	NS	NS	NS	NS
Background	ug/m <sup>3</sup>	100	NS	1.7	2.4	4.0	15
Notes:							
Bold = Value exceeds NYSDOH guidance value.     NS = Not sampled.							
MSUP = Miss Shelly's School - 66 Nassau Road. NA = Data not available.							
KFC = 497 North Main Street.			ND = Non - Detec	ot.			
All samples were sampled for Tetrachloroethene by NYSDOH Method 311-9. (PL) = value detected less that the reported value.							

NYSDOH Guidance Value references NYSDOH's "Tetrachloroethene in Indoor and Outdoor Air", May, 2003.

5 (PL)/5 (PL) = Indicates that the NCDOH collected a duplicate sample from this location.

### Attachment 4 Indoor Air Quality Data NYSDEC - Jimmy's Dry Cleaner 61 Nassau Road, Roosevelt, New York

		NYSDOH							
Sample Location	Units	Guidance Value	09/23/03						
KFC - Kitchen	ug/m <sup>3</sup>	100	5.9						
40 Dutchess (Bsmt. Living. Rm)	ug/m <sup>3</sup>	100	NS						
40 Dutchess (Bsmt. Bdrm/baby rm)	ug/m <sup>3</sup>	100	6.2						
40 Dutchess (Kitchen/First Floor)	ug/m <sup>3</sup>	100	NS						
Deli - Front Room	ug/m <sup>3</sup>	100	26						
Deli - Storage Room (Back)	ug/m <sup>3</sup>	100	NS						
Dupe 1 (Deli - Front Room)	ug/m <sup>3</sup>	100	NS						
Dupe 2 (40 Dutchess.Bsmt)	ug/m <sup>3</sup>	100	NS						
Dupe 3 (Deli - Front Room)	ug/m <sup>3</sup>	100	NS						
Dupe 4 (KFC)	ug/m <sup>3</sup>	100	5.2						
44 Dutchess (Jackson Bsmt./Family Rm)	ug/m <sup>3</sup>	100	NS						
44 Dutchess (First Floor/Kitchen)	ug/m <sup>3</sup>	100	NS						
34 Dutchess (Bsmt. Rec Room)	ug/m <sup>3</sup>	100	NS						
34 Dutchess (Bsmt. Bdrm)	ug/m <sup>3</sup>	100	NS						
34 Dutchess (First Floor/Kitchen)	ug/m <sup>3</sup>	100	NS						
MSUP - Bld. 1 Basement, store room	ug/m <sup>3</sup>	100	NS						
MSUP - Bld. 1 First floor, southwest corner	ug/m <sup>3</sup>	100	NS						
MSUP - Bld. First floor, northwest corner	ug/m <sup>3</sup>	100	NS						
MSUP - Bld. 2 First floor, front room	ug/m <sup>3</sup>	100	NS						
MSUP - Bld. 2 First floor, rear room	ug/m <sup>3</sup>	100	NS						
MSUP - Bld. 3 Basement, computer room	ug/m <sup>3</sup>	100	NS						
MSUP - Bld. 3 First floor, office	ug/m <sup>3</sup>	100	NS						
MSUP - Play area southwest of Bld. 1	ug/m <sup>3</sup>	100	NS						
Background	ug/m <sup>3</sup>	100	6.2						
Notes:									
Bold = Value exceeds NYSDOH guidance value.			NS = Not sam	npled.					
MSUP = Miss Shelly's School - 66 Nassau Road.			NA = Data no	t available.					
KFC = 497 North Main Street.			ND = Non - Detect.						
All samples were sampled for Tetrachloroethene by NYSDOH Method 311-9.			(PL) = value detected less thatn the reported value.						
NYSDOH Guidance Value references NYSDOH's "Tetrachloroethene			5 (PL)/5 (PL) = Indicates that the NCDOH collected						
in Indoor and Outdoor Air", May, 2003.	a duplicate sa	mple from this	s location.						