March 27, 2015

Mr. Brian Jankauskas, P.E. Environmental Engineer II Remedial Bureau A, Section C New York State Department of Environmental Conservation Division of Environmental Remediation Remedial Bureau A, 12<sup>th</sup> Floor 625 Broadway Albany, NY 12233 – 7015

Subject: Chez Valet Dry Cleaners – NYSDEC Site Number 1-03-169 Revised Progress Report For Time Period 4/9/2013 through 1/29/2015

Dear Mr. Jankauskas:

Attached please find a progress report for the subject site covering the time frame of April 9, 2013 through January 29, 2015. This progress report has been modified to reflect comments received from you in a letter dated February 26, 2015. A summary of the modifications to the report are summarized below as they relate to your comments.

- Page 4, Groundwater Sampling Further groundwater sampling will not be required at this time. Groundwater sampling will be required prior to removal of the groundwater use restriction.
   A bullet item has been added under Groundwater Sampling to reflect this directive.
- Page 4, Section 1, last bullet, Draft Environmental Easement please note that this site is still a Class 2 site since the Site Management Plan and Final Engineering Report have not been finalized, the Certificate of Completion has not been issued and State costs of not been paid (see attached letter from April 4, 2013). The department would like to revise the classification as soon as the necessary steps are completed.
  - A description and a list of items requiring completion prior to NYSDEC considering reclassification of the site has been added under Draft Environmental Easement paragraph.
- 3. Page 5 Section 2 table Suggest including when the system was restarted and if any other system checks were performed (9/5/14 and 12/12/14 as indicated on page 3).
  - > 9/5/14 and 12/12/14 site visits and system checks have been added to table
- 4. Page 11, Section 3.d.ii, observations, bullets 2 and 3 attachment E contains PID measurements, which cannot be compared to guideline values for a particular chemical. Suggest referencing a table with an Attachment E that has inlet sample results from laboratory analysis. Suggest the table include the results from February 2011, April 2011, and March 2012 at a minimum.
  - Clarification wording has been added to Paragraphs 3.d.i and 3.d.ii clarifying sample results related to field PID measurements versus laboratory analyses.
  - Attachment E has been expanded to include a table and graph representing laboratory results for tetrachloroethene for the airstream extracted by the SVE/SSD prior to carbon treatment.

Additionally, in September 2013 the Department of Health changed the air guideline value for tetrachloroethene from 100 micrograms per cubic meter to 30 micrograms per cubic meter (see attached). Suggest revising the text for these bullets accordingly.

- > Removed 100 mcg/m<sup>3</sup> PERC associations with indoor air guidelines.
- Clarified that the < 100 mcg/m<sup>3</sup> reading was identified as a target level for subslab vapor concentrations as identified in Soil Vapor/Indoor Air Matrix 2, October 2006.
- 5. Page 12, Section 5, second bullet The Department is receptive to the shutdown and sampling of the system. The system should be shut down on or before March 4<sup>th</sup> and samples collected on or shortly after April 20<sup>th</sup>. Preliminary laboratory result shall be provided by June 1<sup>st</sup> so the Department can assess the data and determine if the system shall be restarted. A formal report shall be provided by August 20<sup>th</sup>.
  - Based on this recommendation, system was shut down and documented by present owner on 3/3/2015, 9:25 AM with an hour meter reading of 8430.1.
  - Severn Trent Environmental Services has been contacted and instructed of the proposed sampling dates, laboratory turnaround times and reporting target dates.

We trust that we have responded to the items listed in your reference letter. Should you have any questions or require additional information please do not hesitate to call me at 516-467-4537.

Best regards,

Andris H. Ledins NYSPE

CC: David Brodsky - 1 – 3 Manorhaven Blvd., LLC Keyvan Ghaytanchi - 1 – 3 Manorhaven Blvd., LLC Joe Covati - STES Additionally, in September 2013 the Department of Health changed the air guideline value for tetrachloroethene from 100 micrograms per cubic meter to 30 micrograms per cubic meter (see attached). Suggest revising the text for these bullets accordingly.

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#### SSD/SVE SYSTEM NYSDEC Site Number 1-03-169 Former Chez Valet Dry Cleaners 1-3 Manorhaven Boulevard Port Washington, NY 11050

#### **Progress Report**

#### Submitted 3/27/2015

Time Period 4/9/2013 to 1/29/2015

The purpose of this report will be to generally outline work efforts conducted and remedial progress at the above referenced site for the time period indicated.

- 1. <u>Summary of Highlights This Reporting Period</u>
  - The **Sub Slab Depressurization System (SSD)**/ **Soil Venting and Extraction (SVE)** system continues operation and has been operational since 2/7/2011. Except for planned shutdowns in CY 2013 and CY 2014 for sampling, the system has had an uptime operating rate of 99.6%

#### • Sub-Slab TVOC

- Sub-Slab, Total Volatile Organic Compound (TVOC) concentrations, represented by the influent air concentration to the carbon vessels, continues to be low. Typically below 0.2 ppm and frequently around 0.1 ppm TVOC.
- These concentrations seem to have reached an asymptotic level, but it should be noted that the TVOC measurement detected by a portable Photoionization Detector (PID) registers all volatile compounds beyond our compound of concern, tetrachloroethene (PCE), and is likely influenced by the volatile compounds utilized in the haircare/nail salon as well as the interior renovation activities in the "North Room".
- We recorded spikes in TVOC levels during the post-sampling restart of the system on 9/27/13 (11.72 ppm) as well as 3/17/14 (3.32 ppm) due to construction activities on the site which included painting of floors and applying lacquer finish to interior doors. Due to the ppb levels that we are now measuring, even these activities have an impact on our results.

#### • Indoor Air (Specific to PCE)

South Room (Salon)

- $\circ$  Summa canister sampling showed a decrease from 2.51  $\mu g/m^3$  in 2009 to 0.25  $\mu g/m^3$  in April 2014.
- $\circ~$  It should be noted that while the samples collected in 2011 and 2013 both were non-detect they did have a method detection limit (MDL) exceeding the original 2.51  $\mu g/m^3$  detection limit.

#### North Room

- $\circ~$  Summa canister sampling showed a decrease from 11  $\mu g/m^3$  in August 2013 to non-detect in April 2014
- Ambient Air (summa canister results)
  - $\circ$  0.48 µg/m<sup>3</sup> August 2013
  - o non-detect April 2014

#### • Sub-Slab Vapor (Specific to PCE) (summa canister results)

South Room (Salon) VP-4

- $\circ$  2900 µg/m<sup>3</sup> in 2009 prior to the SVE/SSD
- $\circ$  220  $\mu$ g/m<sup>3</sup> in August 2013
- $\circ$  44 µg/m<sup>3</sup> in April 2014

North Room (West of basement area) VP-3

- $\circ$  13,700 µg/m<sup>3</sup> in 2009 prior to the SVE/SSD
- $\circ$  1400 µg/m<sup>3</sup> in August 2013
- $\circ$  700 µg/m<sup>3</sup> in April 2014

#### • Soil Vapor/Indoor Air Matrix 2

The New York State Department of Environmental Conservation (NYSDEC) utilizes this matrix to provide guidance to sites that have indoor air and/or sub-slab vapor which contain chemicals of concern. Please refer to Attachment 1. Based on the relationship of indoor air concentrations versus sub slab vapor concentrations certain actions are then dictated that range from "No Further Action" to "Mitigate". Until recently the Chez Valet site has always fallen solidly in the Mitigate category.

August 2013 results:

- ο The highest value indoor air result was  $2.51 \,\mu\text{g/m}^3$  and the highest value subslab vapor result was 1400  $\mu\text{g/m}^3$ .
- Applying these values to the matrix, yielded a Mitigate recommendation

April 2014 results:

- ο The highest value indoor air result was 0.25  $\mu$ g/m<sup>3</sup> and the highest value subslab vapor result was 700  $\mu$ g/m<sup>3</sup>.
- Applying these values to the matrix, yielded a Monitor recommendation.

Although a "Monitor" designation is already a significant improvement for the site, the ultimate goal is to achieve a "No Further Action" classification for the site. Therefore the target value we are looking to achieve for subslab vapor is  $<100 \ \mu g/m^3$ .

The site's , most recent (April 2014), highest recorded subslab vapor concentration is 700  $\mu$ g/m<sup>3</sup> which is not far from the 100  $\mu$ g/m<sup>3</sup> target value. For this reason the engineer recommended to continue operating the SVE/SSD through the 2014/2015 winter heating season, in an effort to further reduce the sub slab vapor concentrations. The basis for this recommendation is further represented in the following graph.



- Severn Trent Environmental Services (STES) has continued long-term operations and maintenance of the system since 5/16/2011.
  - Continued monitoring has identified that sub slab depressurization system continues to maintain appropriate negative pressures. Monitoring is performed in accordance with STES prepared Standard Operating Procedures for this site. (Attachment A)
  - STES conducted site visits to verify that sub slab vacuums are sustained and the remedial system is properly balanced and maintained. These site visits are documented in the following table.
  - During times when the system was operational, AHL conducted random, monthly site visits on to verify system was running. In support of STES additional runtimes were logged on 9/5/14 and 12/12/14.

- Groundwater Sampling
  - $\circ$  A groundwater sampling event was conducted on 4/1/14.
  - In accordance with an NYSDEC approved protocol, only MW–1 was sampled.
  - MW–1 showed a slight decrease in concentration from the previous sampling event as can be seen in the graphic below.
  - Based on the letter dated February 26, 2015, "... Further groundwater sampling will not be required at this time. Groundwater sampling will be required prior to removal of the groundwater use restrictions."



- Draft Environmental Easement
  - Through telephone communications (10/16/13) NYSDEC informs engineer that the Environmental Easement has been completed and Site's classification could be downgraded. The site is still a Class 2 site, and the Department would like to revise the classification as soon as the following conditions are met.
    - Finalize Site Management Plan.
    - Finalize Final Engineering Report.
    - State costs have to be paid (refer to letter dated April 4, 2013 from NYSDEC to Mr. Hugo Raimo).
    - Certificate of Completion must be issued.

### 2. <u>Work Performed This Reporting Period (STES)</u>

• General operating information. New tasks executed after the last reporting period are presented in **bold**. (Please refer to Attachment C – to see copy of field notes).

Date	Vacuum Point Readings	Vacuum Gauge readings	PID Readings @ Carbon	Blower elapsed time Readings	Comments
12/12/14				x	• AHL visits site to confirm system operational and log hours. 6495.2
9/5/14				X	• System restarted and documented by present property owner at 10:35 AM, identifying total hours reading 4145.9. AHL visit site later that day to verify that system continues to operate in "Focused Extraction Mode" as described below for (3/17/14).
4/1/14					• Ambient air, indoor air, subslab vapor and groundwater sampling takes place
3/21/14					Remedial system shutdown prior to sampling event
3/17/14	X	X	X	X	<ul> <li>SVE/SSD system continues to operate in a "Focused Extraction Mode" concentrating on pulling vacuums from the identified "Hot Spots" of the North room. Essentially, the western portion of the North Room. In this mode of operation, valves 1 through 8 were closed on September 27<sup>th</sup>, 2014 when the system was re-started and remain closed through present day operation.</li> <li>PID readings were collected: <ul> <li>in the Basement (while system is running) - 209 ppb (note construction comments below)</li> <li>outside in the Parking lot reading 2 ppb.</li> </ul> </li> <li>The previously empty "North Room" had been divided into 2 separate rooms by the new owner: <ul> <li>The back portion of one of those rooms had extensive Plumbing work performed which including cutting through the concrete slab in several locations. [Subsequent inspection by engineer showed that penetrations had been properly grouted and sealed with epoxy paint to maintain vapor tight integrity.]</li> <li>Two of the 5 Vapor Point valves were missing one Vapor Point was plugged (VP-5) while the other was sheared off at ground level and open (VP-3). The</li> </ul> </li> </ul>

Date	Vacuum Point Readings	Vacuum Gauge readings	PID Readings @ Carbon	Blower elapsed time Readings	Comments
					<ul> <li>Contractor onsite replaced the two missing valves.</li> <li>Ongoing construction work included newly lacquered doors, and a freshly painted floor. [Note - this could affect TVOC readings taken this day.]</li> <li>The Asphalt Parking lot had a new trench cut through it to connect to the water service. The trench had been refilled and re-asphalted,</li> <li>A surplus pile of soil from the excavation was noted outside the building. Utilizing the PID meter STES personnel had some minor TVOC hits at the pile (between 20 and 150 ppb). STES personnel collected PID readings in the "North Room" the readings varied between 300 ppb up to 1700 ppb.</li> <li>The site Engineer was notified of the high PID readings through the System as well as the Construction work that had been performed.</li> <li>The Pre-Carbon PID readings dropped to 2546 ppb approximately one hour after the Valve in VP-3 was replaced.</li> <li>It was determined after the Engineer contacted the NYSDEC that the system would not be shut down as originally planned for ambient air and subslab vapor sampling. After letting the system equilibrate after the construction activities, STES would head back to the site on Friday the 21st to collect System PID readings again. It was hoped that the readings would allow us to plan on shutting the system down for ambient air and subslab vapor analyses</li> <li>The Pile of dirt was be drummed and sampled in preparation for disposal at an approved facility.</li> </ul>
1/31/2014	X	X	X	x	<ul> <li>SVE/SSD system continues to operate in a "Focused Extraction Mode" concentrating on pulling vacuums from the identified "Hot Spots" of the North room. Essentially, the western portion of the North room. In this mode of operation, valves 1 through 8 were closed on September 27<sup>th</sup>, 2014 when the system was re-started.</li> <li>Outside PID readings 0 ppb, basement readings 2 ppb</li> </ul>
10/4/2013	X	x	X	X	<ul> <li>SVE/SSD system continues to operate in a "Focused Extraction Mode" concentrating on pulling vacuums from the identified "Hot Spots" of the North room. Essentially, the western portion of the North room. In this mode of operation, valves 1 through 8 were closed on September 27<sup>th</sup>, 2014 when the system was re-started.</li> </ul>

Date	Vacuum Point Readings	Vacuum Gauge readings	PID Readings @ Carbon	Blower elapsed time Readings	Comments
					• Prior to restarting the SVE/SSD System, it was agreed that the system would be modulated to focus on areas of highest residual vapor concentration. In order to determine this, a field evaluation of each of the individual vacuum headers was performed in order to identify which headers had airflow with the highest TVOC concentration.
9/27/2013	Х	х	Х	x	• The field study showed that extraction legs 9, 10, 11 and 12 showed an order of magnitude higher concentration of TVOCs during the field test. These legs serviced the westerly side of the North Room, the area where the dry cleaner equipment had been historically placed.
					• In order to isolate the vacuum to this region of the sub slab soil, valves connecting headers #1 through #8 were closed and valves connecting legs #9 through #12 were left open.
6/28/2013	x	x	x	x	• Outside PID readings 0 ppb basement readings 33 ppb
4/8/2013	Х	Х	Х	х	<ul> <li>Outside PID readings 0.0 – 11 ppb, basement 37 – 27 ppb. PID readings conducted twice due to increased level displayed.</li> <li>Collected Carbon influent samples utilizing TO- 15 summa canisters.</li> <li>Removed hose-barbs from two remaining sampling points within salon area and replace them with PVC plugs to avoid breakage.</li> <li>Note first-quarter monitoring performed late due to break-in observed that the end of last month.</li> </ul>
3/28/2013	Not conducted due to system being off upon arrival.	<ul> <li>Upon arrival at site STES determines the basement door has been pried open &amp; system turned off.</li> <li>Equipment inspected and no apparent damage found.</li> <li>Power supply and controls inspected with no apparent damage detected.</li> <li>It appears that power switch was not tripped but manually turned to the off position. System was off for a total of 2.7 days. Fuse panel that supplies power to system inspected and no tripped switch is found as well.</li> <li>New owner notified. New owner will have discussion with existing building occupants and will evaluate upgrading security if necessary.</li> <li>NYSDEC case manager notified.</li> <li>System restarted and allowed to rebalance before sub slab vapor samples taken.</li> </ul>			

Date	Vacuum Point Readings	Vacuum Gauge readings	PID Readings @ Carbon	Blower elapsed time Readings	Comments
12/28/12	x	x	х	х	<ul> <li>Basement light found to be burned out (location of SVE/SSD system). Replaced by STES.</li> <li>Plugs installed in all vapor points other than those inside the salon. (Salon busy &amp; full of clientele.)</li> </ul>
9/28/12	X	X	Х	Х	<ul> <li>Header valve #6 was found opened. [AHL comment – The valves are typically not moved as they are set to a certain position to balance out the vacuums over the areas of concern. These valves are difficult to manipulate and would take a conscious effort to move.]</li> <li>STES noted that before resetting the valves the vacuum reading was 12 inches of H2O. After resetting the valves to the correct position vacuum immediately returned to 20 inches of H2O.</li> <li>VP-2 was again found open.</li> <li>After discussions with AHL, STES instructed to replace all sampling valves and barbs with plugs. Plugs can be removed during monitoring efforts and will prevent valve manipulation or breakage.</li> </ul>
8/24/12	х	х	х	Х	<ul> <li>The parking lot on the side and in front of the building has been repaved with new asphalt.</li> <li>Town is working on sidewalks and what appears to be some utility work in front of the building.</li> <li>STES is assuming that these two activities have had an impact on the vacuum readings as well as PID readings. 401 ppb is still a very small number but it is significantly higher than previous readings. STES suspects that the high PID readings are from the new asphalt and that these readings will drop in future monitoring events.</li> </ul>
7/12/12	Х	Х	Х	Х	• VP-1 and VP-3 barbs broken. Valve on VP-5 was again found open.
6/9/12	X	X	X	X	• Was not able to get reading from VP-6 due to damaged barb on sample port
5/3/12			X		• Site revisited to take PID readings due to failed meter on 5/1/12
5/1/12	X	x		Х	<ul> <li>Rented PID meter failed have to calibration an attempted infield. Replacement PID being sent, return to site required to take readings.</li> <li>VP- 5 valve was in the open position &amp; hose Barb was damaged again. Damaged hose Barb was removed and upon inspection STES found a "core plywood" in the barb. It appears that a sheet of plywood was dropped on the monitoring point.</li> </ul>

Date	Vacuum Point Readings	Vacuum Gauge readings	PID Readings @ Carbon	Blower elapsed time Readings	Comments		
3/27/12	Х	x	Х	Х	<ul> <li>Vapor samples collected from SVE/SSD System (Carbon Influent &amp; Carbon System Discharge)</li> <li>STES determines that are more sensitive PID is available that can read to ppb levels whereas existing unit needs to ppm level. Due to continued low concentration levels, was sensitive PID unit will be rented for next monthly monitoring event</li> </ul>		
2/29/12	Х	Х	Х	Х	System Operating Normally		
1/25/2012	x	x	x	x	<ul> <li>Inspected MW-1, MW-2 and MW-3.</li> <li>MW-2 did not have well, temporarily covered with duct tape. Repair to be done during next site visit</li> <li>MW-4 and MW-5 not located due to high activity level of heavy equipment in area</li> </ul>		
12/28/11	x	X	x	x	<ul> <li>Small crack on discharge pipe of the primary carbon vessel.</li> <li>Temporary repairs were made.</li> <li>PID readings appear to indicate that soil vapor in the capture zone has reached non-detect levels.</li> </ul>		
11/23/11	Х	X	Х	X	System Operating Normally		
10/31/11	X	X	X		System Operating Normally		

3. Summary of Historical Data

This section will review and trend the historical data at the site. Three primary areas will be discussed:

- a. Post Start-Up Sub Slab Vacuums.
- b. Vacuum Gauge Settings & Miscellaneous System Information.
- c. Elapsed Time And Runtime Calculations
- d. Carbon Drum Readings
- a. Post Start-Up Sub Slab Vacuums (please refer to Attachment B)
  - i) Description of Attachments:
  - Page 1 of 4: represents a table that summarizes the field measured sub slab vacuums. All vacuum readings less than or equal to -0.024 are shaded green all vacuums >-0.025 are shaded in red. This shading allows us to monitor which vacuums are becoming marginal thus necessitating readjustment of system balancing.<sup>1</sup>
  - Page 2 of 4: location plan for all the vapor points and well locations.
  - Page 3 of 4: graphically shows sub slab vacuums over the period of operations.
  - Page 4 of 4: similar to page 3 other than the graph is represented by lines versus bars.
  - ii) Observations
  - All vapor points, in the focused area of extraction, continue to maintain a negative vacuum.
- b. Vacuum Gauge Settings & Miscellaneous System Information (please refer to Attachment C)
  - i) Description of Attachments:
  - Page 1 and 2 of 6: summarizes the vacuum gauge readings taken at each lateral off the header (page 1) as well as vacuum readings at the relative vapor points located near that particular lateral (page 2).
  - Page 3 of 6: location plan for all the vapor points and well locations.
  - Page 4 of 6: graphically presents vacuum readings at the header laterals. This graphic was prepared in order to determine how the site was balancing at the vapor points and what affect the vacuum at the lateral had on the final vacuum at the vapor points.
  - Page 5 of 6 graphically represents vacuums at designated vapor points over time.
  - Page 6 of 6: graphically represents the vacuum in the Knockout Pot (in. Hg) as well as the average vacuum in the distribution header located at the vacuum pump (in. H<sub>2</sub>O) and average vacuum at all vapor points (in. H<sub>2</sub>O). Note the high vacuum readings 9/27/13 when the system was restarted. Vacuum levels recovered quickly as the system equalized subslab pressures.

<sup>&</sup>lt;sup>1</sup> It should be noted that the SVE/SSD extraction system was focused on the North Room's westerly side, suspected hotspot location as of 9/27/13. This rebalancing of the SVE/SSD system showed much lower vacuums as a result in the vacuum system servicing the North Room's, easterly side and the salon areas. This phenomenon is represented on all the graphics discussed in this paragraph.

c. Elapsed Time and Runtime Calculations. (Please refer to Attachment D) Description of Attachments:

This table summarizes the run time meter readings after 5/24/11, the date and time STES installed the hour meter on the system.

- On 8/12/13, the day the system was scheduled to be shut down for ambient, indoor and subslab vapor sampling, the system was found operating but the hour meter had failed. A new hour meter was installed for system restart on 9/27/13.
- The system was again shut down for ambient air and subslab sampling on 3/17/2014. The system was restarted on 9/5/2014.
- d. Carbon Drum Readings (please refer to Attachment E)
  - i) Description of Attachments:

This table and graph summarize field PID readings taken:

- Before the air phase carbon treatment vessels = Pre Carbon.
- Between the primary air phase carbon vessel and the secondary air phase carbon vessel = Mid Carbon.
- After the final air phase carbon treatment system or exhaust = Post Carbon.
- In addition the blower discharge velocity measurements taken at the air phase carbon treatment vessels is represented by the "purple" line graph.

Site monitoring includes taking PID measurements of the exhaust to ensure that the drums will be changed out an ample time should break through occur.

The second table and graph represent laboratory based results for the air discharge from the SVE/SSD to the carbon drums (before treatment)

- ii) Observations
  - Field PID (TVOC) readings:
    - Note TVOC, PID readings beginning 5/3/12 were taking with field meter capable of measuring ppb levels.
    - "Pre-Carbon" readings on 8/24/2012 and 9/28/2012 were elevated, but did not exceed the SubSlab guideline of 100  $\mu$ g/m<sup>3</sup> (Soil Vapor/Indoor air Matrix 2, October 2006. Please refer to Attachment 1). Although these readings were elevated, STES believes that it was due to new asphalt paving surrounding approximately 50% of the building perimeter.
  - Laboratory Summa Canister results (PERC only)
    - TO-15 summa canisters samples showed two pre-carbon readings for Tetrachloroethene at 56 and 60 ug/m<sup>3</sup> respectively. Both samples were below the 100 ug/m<sup>3</sup> SubSlab guideline.
- 4. Problems Encountered & Proposed Resolutions
  - No major system operational problems were encountered with the SVE/SSD system.
  - Site problems regarding renovation and new construction by new owner needed to be addressed given Site's classification:
    - 3/17/2014 STES advises engineer that renovation/plumbing work performed my new owner at the sight, has penetrated interior floor slab in the North room and includes excavation of water supply trench in the existing parking lot. Engineer visits the Site, instructs owner to consolidate excavated material (minimal amounts,

approximately 2 – 55 gallon drums) and dispose of in an approved manner. Engineer informs responsible party of action at the site and required response. [Ultimately this material disposed of with additional surplus material generated at the Site. See below.]

- 4/21/2014 through 5/12/2014 engineer observes dry well excavation at site. New owner installing required storm water dry wells in pavement area to the north and east of the building. Upgrade required by building permit for facility upgrade being performed by new owner.
  - Engineer advises responsible party and NYSDEC of site activities.
  - Responsible party advises new owner of site restrictions and instructs new owner to stop excavation.
  - Engineer coordinates surplus material staging, and proper disposal to prove facility with NYSDEC, new owner and responsible party.
  - As part of excavation process, new owner removes existing, unused, underground storage tank (identified in Phase 1 report) in accordance with all regulatory requirements, including final documentation.
  - Some surplus soil is placed in remove tank grave, remaining surplus material removed by Jamaica Ash, an approved disposal facility.
- 8/22/14 engineer visits site to restart system. As part of the renovations the electrical supply to the new owner's facility was modified. The three-phase power to the SVE/SSD system was incorrectly connected thus causing the blower to rotate backwards. Because of this, the system was not started on this day. Ultimately the electrician repaired the problem and the system was restarted on 9/5/14.
- 5. Expected Work During the Next Progress Period
  - March 2015 anticipate performing SVE/SSD inspection site visit.
  - Based on continued low sub slab vapor concentrations we intend to recommend to NYSDEC to shut down the remedial system towards the end of the heating season (end of March). Once approved by NYSDEC this will trigger indoor air monitoring events as outlined in the Site Management Plan.

## ATTACHMENT 1

Soil Vapor/Indoor Air Matrix 2 October 2006

# Soil Vapor/Indoor Air Matrix 2

October 2006

	I	NDOOR AIR CONCENTRAT	ION of COMPOUND (mcg/r	m³)
SUB-SLAB VAPOR CONCENTRATION of COMPOUND (mcg/m <sup>3</sup> )	< 3	3 to < 30	30 to < 100	100 and above
< 100	1. No further action	2. Take reasonable and practical actions to identify source(s) and reduce exposures	3. Take reasonable and practical actions to identify source(s) and reduce exposures	4. Take reasonable and practical actions to identify source(s) and reduce exposures
100 to < 1,000	5. MONITOR	6. MONITOR / MITIGATE	7. MITIGATE	8. MITIGATE
1,000 and above	9. MITIGATE	10. MITIGATE	11. MITIGATE	12. MITIGATE

#### No further action:

Given that the compound was not detected in the indoor air sample and that the concentration detected in the sub-slab vapor sample is not expected to significantly affect indoor air quality, no additional actions are needed to address human exposures.

#### Take reasonable and practical actions to identify source(s) and reduce exposures:

The concentration detected in the indoor air sample is likely due to indoor and/or outdoor sources rather than soil vapor intrusion given the concentration detected in the sub-slab vapor sample. Therefore, steps should be taken to identify potential source(s) and to reduce exposures accordingly (e.g., by keeping containers tightly capped or by storing volatile organic compound-containing products in places where people do not spend much time, such as a garage or outdoor shed). Resampling may be recommended to demonstrate the effectiveness of actions taken to reduce exposures.

#### MONITOR:

Monitoring, including sub-slab vapor, basement air, lowest occupied living space air, and outdoor air sampling, is needed to determine whether concentrations in the indoor air or sub-slab vapor have changed. Monitoring may also be needed to determine whether existing building conditions (e.g., positive pressure heating, ventilation and air-conditioning systems) are maintaining the desired mitigation endpoint and to determine whether changes are needed. The type and frequency of monitoring is determined on a site-specific and building-specific basis, taking into account applicable environmental data and building operating conditions. Monitoring is an interim measure required to evaluate exposures related to soil vapor intrusion until contaminated environmental media are remediated.

#### MITIGATE:

Mitigation is needed to minimize current or potential exposures associated with soil vapor intrusion. The most common mitigation methods are sealing preferential pathways in conjunction with installing a sub-slab depressurization system, and changing the pressurization of the building in conjunction with monitoring. The type, or combination of types, of mitigation is determined on a building-specific basis, taking into account building construction and operating conditions. Mitigation is considered a temporary measure implemented to address exposures related to soil vapor intrusion until contaminated environmental media are remediated.

#### MONITOR / MITIGATE:

Monitoring or mitigation may be recommended after considering the magnitude of sub-slab vapor and indoor air concentrations along with building- and site-specific conditions.

### ATTACHMENT A

STES Standard Operating Procedures for NYSDEC Site Number 1-03-169 Former Chez Valet Dry Cleaners 1-3 Manorhaven Boulevard Port Washington, NY 11050

### **STES**

Standard Operating Procedures for NYSDEC Site Number 1-03-169 Former Chez Valet Dry Cleaners 1-3 Manorhaven Boulevard Port Washington, NY 11050

#### **Required Equipment**

- 1. Photoionization Detector (PID) with Calibration Kit
- 2. Three Tedlar Bags
- 3. Anemometer to measure Carbon System Discharge Flow Rate
- 4. Dywer Digitial Monometer 0.0000 to -4.0000 inches Water range
- 5. Chez Valet SSDS/SVE System Monitoring Sheet

#### **Procedure - Monthly Site Visit**

- 1. Notify engineer prior to scheduling Site visit
- 2. Notify Evergreen Salon at least 48 hours before site visit
- 3. Upon arrival locate the Onsite Logbook (located on girder above primary Vapor Phase Carbon Vessel).
- 4. Log in the date, time, Weather and operator initials note any other individuals onsite
- 5. Calibrate PID
- 6. Collect readings from; Influent to Primary Carbon Vessel, Influent to Secondary Carbon Vessel, and Carbon System Effluent.
- 7. Log the readings in Logbook and LogSheet
- 8. Collect blower elapsed time readings log in both logbook and logsheet note elapsed time reading AND time of Day reading taken.
- 9. Collect Vacuum Gauge readings from Header and Knock-Out Pot.
- 10. Collect background PID Readings from Basement and Parking Lot outside basement entrance
- 11. Collect Vacuum readings from Vacuum points.
- 12. Review data.
  - a. Contact Engineer if there are anomalies, or if any part of the system is damaged or requires repair
- 13. In the event that any SSD/SVE system adjustments are made, recollect Vacuum Point and Vacuum Gauge readings
- 14. Transfer all Readings and Notes to Chez Valet SSDS/SVE sheet
- 15. Sign out and put Onsite logbook back in its place
- 16. Tell Evergreen that STES is leaving Site
- 17. Take Equipment (PID, Velocity Meter and Monometer) and leave site.
- 18. Upon arrival at office enter data into electronic spreadsheet and electronically transmit data/report to Engineer.

#### Quarterly Site Visit Sheet

4/8/13 0800-1200 Operator

Ross Hibler

Weather			Warm 60's p	artly cloudy		
		Va	cuum Point read	ings		
				after adjustme	nts	
	time	Inches WC			time	Inches WC
VP-1	10:28	-0.115		VP-1		
VP-2	10:24	-0.069		VP-2		
VP-3	10:38	-0.070		VP-3		
VP-4	10:15	-0.039		VP-4		
VP-5	10:35	-0.026		VP-5		
VP-6	10:32	-0.030		VP-6		
VP-7	10:14	-0.011		VP-7		
		Vacu	uum Guage Rea	dings		
				After adjustme	ents	
	time	Inches WC			time	In Water
Valve -1	9:44	-0.356		Valve -1		
Valve -2	9:45	-0.512		Valve -2		
Valve -3	9:46	-0.134		Valve -3		
Valve -4	9:47	-0.064		Valve -4		
Valve -5	9:50	-30		Valve -5		
Valve -6	9:51	-20		Valve -6		
Valve -7	9:51	-28		Valve -7		
Valve-8	9:51	-28		Valve-8		
Valve -9	9:53	-2.43		Valve -9		
Valve 10	9:55	-4.371		Valve 10		
Valve 11	9:56	-0.821		Valve 11		
Valve 12	9:57	-0.549		Valve 12		
K.O.P	9:57	-3 in Hg		K.O.P		

Blower elapsed time reading	16265.7 @11:32
Blower Discharge velocity	7159 ft/Min 155 CFM

			PID Readings		
	ppb		ppb		ppb
Pre-Carbon	140-249	Mid-Carbon	149-200	Post-Carbon	143-149
Comments-No	otes - outside l	PID reading 0.0	) -11 ppb Basei	ment 37 -27 pp	ob - Collected PID readings
twice due to th	ne increased le	vel displayed,	the PID had mul	Itiple problems	when I attempted to
recalibrate me	eter. Collected	Carbon Influe	nt Samples San	npling for TO-1	5 via Summa canister.
Checked the F	Regenerative B	Blower Demiste	r and Filter all ap	pears clear. F	Removed the barbs from the
the two remain	ning Vapor Poi	nts inside the s	alon, and replac	ed them with P	VC plugs. The Monitoring
was performed late due to the discovery of the system being off the end of the last month, we allowed					
the systesm to	o re-equalibriat	e before we too	ok readings or sa	ampled. Calle	d the engineer after I saw
the elevated F	PID readings, w	we did smell so	mthing sweet in	the basement	used the PID as a "sniffer" to
check the bas	ement area to	see if there wa	s an identifiable	leak in the disc	harge piping or through the
foundation, no	one were discov	vered.			

#### Monthly Site Visit Sheet

Date-Time	6/2	28/13 07:15 - 1	1:30	Operator	Ross Hibler	
Weather	Hazy Hot and Humid					
		Va	cuum Point read	ings		
				after adjustme	nts	
	time	Inches WC			time	Inches WC
VP-1	10:14	-0.123		VP-1		
VP-2	10:21	-0.095		VP-2		
VP-3	10:24	-0.07		VP-3		
VP-4	10:32	-0.034		VP-4		
VP-5	10:27	-0.032		VP-5		
VP-6	10:15	-0.031		VP-6		
VP-7	10:30	-0.017		VP-7		
		Vacı	uum Guage Rea	dings		
				After adjustme	ents	
	time	Inches WC			time	In Water
Valve -1	9:39	-0.373		Valve -1		
Valve -2	9:42	-0.52		Valve -2		
Valve -3	9:42	-0.153		Valve -3		
Valve -4	9:43	-0.301		Valve -4		
Valve -5	9:31	-30		Valve -5		
Valve -6	9:31	-20		Valve -6		
Valve -7	9:31	-28		Valve -7		
Valve-8	9:31	-28		Valve-8		
Valve -9	9:44	-2.563		Valve -9		
Valve 10	9:45	-4.472		Valve 10		
Valve 11	9:46	-0.88		Valve 11		
Valve 12	9:47	-0.584		Valve 12		
K.O.P	9:31	2.5 in Hg		K.O.P		

Blower elapsed time reading	8202.5 Hours @ 9:30
Blower Discharge velocity	133.87 CFM 7527 ft/min 2 inch Pipe

	PID Readings						
	ppb		ppb		ppb		
Pre-Carbon	144	Mid-Carbon	140	Post-Carbon	137		
Comments-No engineer who Cove. Receiv approximately collected and	otes: Arrived o came down to red call at 8:30/ 9 AM. Outdo logged, I made	nsite at 7:30am check his keys AM that keys w or PID reading e and gave a c	1 found access f 5 - left site aroun rere on the way t 0.0 ppb basem opy of the keys o	natch locks had d 8 AM to head o the site, and nent reading 33 of the engineer.	been changed, contacted back to Office in Glen headed back, Onsite ppb. After readings were		

#### Quarterly Site Visit Sheet

Date-T	ïme
--------	-----

9/27/2013 Operator

Ross Hibler

Weather

Vacuum Point readings						
				after adjustme	nts	
	time	Inches WC			time	Inches WC
VP-1		-0.839		VP-1		
VP-2		-1.38		VP-2		
VP-3		-5.666		VP-3		
VP-4		-0.238		VP-4		
VP-5		-0.012		VP-5		
VP-6		-0.015		VP-6		
VP-7		-0.002		VP-7		
		Vacu	um Guage Rea	dings		
				After adjustme	ents	
	time	Inches WC			time	In Water
Valve -1		-0.003		Valve -1		
Valve -2		-0.005		Valve -2		
Valve -3		-0.006		Valve -3		
Valve -4		-0.008		Valve -4		
Valve -5		-0.013		Valve -5		
Valve -6		-0.009		Valve -6		
Valve -7		-0.01		Valve -7		
Valve-8		-0.003		Valve-8		
Valve -9		-7.632		Valve -9		
Valve 10		-7.22		Valve 10		
Valve 11		-7.378		Valve 11		
Valve 12		-7.624		Valve 12		
K.O.P		-2.4 in Hg		K.O.P		

Blower elapsed time reading	1.4 @11:14
Blower Discharge velocity	8530 ft/Min 189 CFM

PID Readings @10:30 AM						
	ppb		ppb		ppb	
Pre-Carbon	8200 - 15250	Mid-Carbon		Post-Carbon	3805-4600	
Notes: Prior to various sampl readings colect After reviewing legs 9 through system to equ	o system Start- e location insid cted from each g the readings, 12 as these w illibriate for app	up New Elapse le the Building of the 12 legs it was decided rere those that proximatly an ho	ed Time Meter in ( see attached D of the collection I to close legs 1 t exibited the high our - regular Sys	istalled, PID ( prawing), After system, (see a through 8 and o lest PID reading tem readings v	readings collected from starting up system PID attached Spreadsheet). concentrate the vacuum in gs. After allowing the vere collected.	

#### 9/27/13

### Chez Valet SSD/SVE Re-Start Sampling

	At finished	floor level	Va	por point sam	ple	Vacuum IN of	
Location	Min ppb	Max ppb	Spike ppb	Min ppb	Max ppb	H2 <i>0</i>	
VP-1	20	117	620	68	360	-0.0839	
VP-2	6	90	1180	400	500	-1.38 <mark>00</mark>	area most
VP-3		34		170	333	-5.6000	affected
VP-4	200	460		300	460	-0.2380	
VP-5	0	132		0	132	-0.0120	
VP-6	50	214		50	214	-0.0150	
VP-7	44	44		250	330	-0.0020	
Note – background mete	er readings very une	stable. Any mo	vement of met	er could cause	it to jump 0 -	- 300 ppb. (Sh	ould this be
		considere	ed background i	noise?)			
Indoor air gampleg- Appr	ovimately 4 feet ab	ove finich for	10 feet abov	e finich floor			
maloor an oampioo Appro	level		ala	ab			
			512				
Between columns – East	; Min nnb	Max nnb	Min ppb	Max ppb			
to West		Max ppr	141111 PPP	Max ppb	Note-These	Samples were t	taken without
CL-1	34	44			ventilation	ofrom ie st	taanant air
CL-2	34	57			VCITUIAUCI	10110011, 1.0. 91	agnant an
CL-3	34	34					
CI-4	30	54	55	130			
CL-5	34	85					
Near VP – 2	10	40					
Extraction Leg	Min ppb	Max ppb	Area				
1	200	300					
2	100	100	North Room				
3		800	East		Samples take	n by isolating o	one leg at a
4	115	250			time and oper	ating it for ap	proximately
5	78	226			30 seconds n	oting lowest a	nd highest
6	51	160	Hair Salon		concentration	15. Short durat	tion was used
	23	98			to minimize ai	to minimize area of influence and identify which legs had the highest remaining concentration of volatile organics.	
8	125	292	Dye Area		which legs had		
9	120	4,300			concentration		
10	1,000	7,200	North Room				
11	1,000	5,800	West				
12	1,000	7,500				1	1
Carbon Drum	Startup	10:30 AM					
In	8,200	15,250					
Out	3, <i>80</i> 5	4,600					

#### Monthly Site Visit Sheet

Date-Time	10/4/2013 7:30 to 12:30			Operator	Ross	Hibler	
Weather	Warm 70's						
		Va	cuum Point read	ings			
				after adjustme	ents		
	time	Inches WC			time	Inches WC	
VP-1		-4.243		VP-1			
VP-2		-2.764		VP-2			
VP-3		-2.534		VP-3			
VP-4		-0.612		VP-4			
VP-5		0		VP-5			
VP-6		0		VP-6			
VP-7		-0.009		VP-7			
Vacuum Guage Readings							
			_	After adjustme	ents		
	time	Inches WC			time	In Water	
Valve -1		0		Valve -1			
Valve -2		0		Valve -2			
Valve -3		0		Valve -3			
Valve -4		0		Valve -4			
Valve -5		0		Valve -5			
Valve -6		0		Valve -6			
Valve -7		0		Valve -7			
Valve-8		0		Valve-8			
Valve -9		-10		Valve -9			
Valve 10		-5		Valve 10			
Valve 11		-8		Valve 11			
Valve 12		-5		Valve 12			
K.O.P		-6	Hg"	K.O.P			

Blower elapsed time reading	167.4 Hours at 9:46 AM
Blower Discharge velocity	7020-7390 FPM or 154 - 162 CFM

PID Readings						
ppb		ppb		ppb		
122	Mid-Carbon	37	Post-Carbon	17		
I collected sev	eral PID readin	as - detailed on	attached figure	. Valves 1 through 8 were		
otember 27th w	hen the system	n was re-started.				
	ppb 122 I collected sev otember 27th w	ppb 122 Mid-Carbon I collected several PID readin otember 27th when the system	PID Readings         ppb       ppb         122 Mid-Carbon       37         I collected several PID readings - detailed on otember 27th when the system was re-started.	PID Readings           ppb         ppb           122 Mid-Carbon         37 Post-Carbon           I collected several PID readings - detailed on attached figure           otember 27th when the system was re-started.		



#### Monthly Site Visit Sheet

Date-Time		1/31/2014		Operator	Ross	Hibler	
Weather			Overcast and Co	vid - 10's to 20's			
Weather	Vacuum Doint readings						
		va		after adjustme	nts		
	time	Inches WC			time	Inches WC	
VP-1	8:19	-0.361		VP-1			
VP-2	8:13	-0.164		VP-2			
VP-3	8:33	-0.312		VP-3			
VP-4	8:52	-0.061		VP-4			
VP-5	8:29	0		VP-5			
VP-6	8:26	0		VP-6			
VP-7	8:45	0		VP-7			
		Vacu	uum Guage Rea	dings			
			_	After adjustme	ents		
	time	Inches WC			time	In Water	
Valve -1		0		Valve -1			
Valve -2		0		Valve -2			
Valve -3		0		Valve -3			
Valve -4		0		Valve -4			
Valve -5		0		Valve -5			
Valve -6		0		Valve -6			
Valve -7		0		Valve -7			
Valve-8		0		Valve-8			
Valve -9	7:45	-10		Valve -9			
Valve 10	7:45	-5		Valve 10			
Valve 11	7:45	-7		Valve 11			
Valve 12	7:45	-5		Valve 12			
K.O.P	7:45	-3	Hg"	K.O.P			

Blower elapsed time reading	2968.8 Hours at 8:00 am
Blower Discharge velocity	7377 FPM or 162 CFM

PID Readings					
	ppb		ppb		ppb
Pre-Carbon	13	Mid-Carbon	12	Post-Carbon	6

Valves 1 through 8 were closed on September 27th when the system was re-started. PID readings were collected in the Basement (while system is running) - 2 ppb and outside in the Parking lot reading 0 ppb.

#### Monthly Site Visit Sheet

Date-Time	3/17	7/2014 8:00 to	12:45	Operator	Ross	Ross Hibler		
Weather			Overcast and C	old - upper 20's	<b>,</b>			
weather		Va	Cuum Point read	inas	)			
				after adjustme	nts			
	time	Inches WC			time	Inches WC		
VP-1	12:00	-0.196		VP-1				
VP-2	11:58	-0.562		VP-2				
VP-3	11:54	-2.01		VP-3				
VP-4	12:11	-0.102		VP-4				
VP-5	12:03	0		VP-5				
VP-6	12:05	0		VP-6				
VP-7	12:08	0		VP-7				
		Vacu	uum Guage Rea	dings				
				After adjustme	ents			
	time	Inches WC			time	In Water		
Valve -1		0		Valve -1				
Valve -2		0		Valve -2				
Valve -3		0		Valve -3				
Valve -4		0		Valve -4				
Valve -5		0		Valve -5				
Valve -6		0		Valve -6				
Valve -7		0		Valve -7				
Valve-8		0		Valve-8				
Valve -9	9:10	-10		Valve -9				
Valve 10	9:10	-4		Valve 10				
Valve 11	9:11	-5.5		Valve 11				
Valve 12	9:11	-4		Valve 12				
K.O.P	9:11	-7	Hg"	K.O.P				

Blower elapsed time reading	4046.1 Hours @ 9:10 AM
Blower Discharge velocity	7200 fps or 157 CFM

PID Readings													
	ppb	ppb											
Pre-Carbon	3323	Mid-Carbon	1530	Post-Carbon	994								
Valves 1 thro were collected reading 2 ppb back portion of cutting throug one Vapor po Construction v been laquered in the "new ro valves. It wa the water serv	ugh 8 were closed in the Baseme . The previous of one of those h the concrete int was plugged work was still ce d, and near VP om" had recent as also observe vice, the trenct	sed on Septem ent (while syste sly empty "Nort rooms have ha slab in several d (VP-5) while t ontinuing at the 3 was a pipe t ty been painte d that the Asph h had been re-a	ber 27th when them is running) - 2 h Room" has be d extensive Plur locations, two c he other was sh e site, in the Pre hreading machir and Parking lot h asphalted, It wa	ne system was 209 ppb and ou en divided into nbing work per f the 5 Vapor p eared off at gro viously empty r ne that was acti actor onsite rep ad a new trenc as also observe	re-started. PID readings utside in the Parking lot 2 seperate rooms - the formed which including point valves were missing pund level and open (VP-3). north room, doors had just ively being used. The floor laced the two missing th cut through it to connect to ed that there was a pile of dirt								

outside the building which had previously not been there, utilizing the PID meter I had some minor hits at the pile (between 20 and 150 ppb). I collected PID readings in the "North Room" the reaadings varied between 300 ppb up to 1700 ppb. The site Engineer was notified of to high PID readings through the System as well as the Construction work that had been performed. The Pre-Carbon PID readings dropped to 2546 ppb approximately one hour after the Valve in VP-3 was replaced. It was determined after the Engineer contacted the NYSDEC that the system would not be shut down as originally planned - we would head back to the site on Friday the 21st to collect System PID readings again and plan on shutting the system down based on those readings, then follow up in 10 days (April 1) to collect GW and Vapor samples. The Pile of dirt will be drummed and sampled in preparation for disposal at a proper facility.

## ATTACHMENT B

POST START UP VACUUM RESULTS Chez Valet

		2/7/2011 OPERATING MODE	2/16/2011 OPERATING MODE	4/13/2011 OPERATING MODE	5/24/2011 OPERATING MODE	5/24/2011 OPERATING MODE (slight rebalance)	6/24/11 OPERATING MODE	7/28/11 OPERATING MODE	8/11/11 OPERATING MODE	8/19/11 OPERATING MODE	9/23/11 OPERATING MODE	10/31/11/11 OPERATING MODE	11/23/11 OPERATING MODE	12/28/11 OPERATING MODE	1/25/12 OPERATING MODE	2/29/12 OPERATING MODE	3/27/12 OPERATING MODE	5/1/12 OPERATING MODE	6/9/12 OPERATING MODE	7/12/12 OPERATING MODE	8/24/12 OPERATING MODE	9/28/12 OPERATING MODE	12/28/12 OPERATING MODE	4/8/13 OPERATING MODE	6/28/13 OPERATING MODE	9/27/13 FOCUSED EXTRACTION MODE	10/4/13 FOCUSED EXTRACTION MODE	1/31/14 FOCUSED EXTRACTION MODE	3/17/14 FOCUSED EXTACTION MODE
Vapor Point Designation	Location	C (vert well) closed all other Salon wells open wide. North room all valves open very small amount.	ALL WELLS ONLINE	ALL WELLS ONLINE	ALL WELLS ONUNE	ALL WELLS ON UNE	ALL WELLS ONLINE	ALL WELLS ONLINE	ALL WELLS ONLINE	ALL WELLS ONLINE	ALL WELLS ONLINE	ALL WELLS ONLINE	ALL WELLS ONLINE	<b>ALL WELLS ONLINE</b>	ALL WELLS ONLINE	ALL WELLS ONLINE	ALL WELLS ONLINE	ALL WELLS ONLINE	ALL WELLS ONLINE	ALL WELLS ON UNE	Focused Extraction	Focused Extraction	Focused Extraction	Focused Extraction					
1 - NR WEST	NORTH ROOM	-0.033	-0.040	-0.060	-0.073	-0.104	-0.091	-0.463	-0.058	-0.121	-0.110	-0.068	-0.106	-0.104	-0.102	-0.085	-0.083	-0.082	-0.081	-0.141	-0.088	-0.104	-0.089	-0.115	-0.123	-0.839	-4.243	-0.361	-0.19
2 - NR WEST	NORTH ROOM	-0.057	-0.091	-0.035	-0.107	-0.095	-0.083	-0.343	-0.046	-0.093	-0.092	-0.048	-0.082	-0.084	-0.086	-0.048	-0.066	-0.083	-0.082	-0.124	-0.078	-0.062	-0.066	-0.069	-0.095	-1.380	-2.764	-0.164	-0.562
3 - NR NORTH	NORTH ROOM	-0.035	-0.056	-0.071	-0.058	-0.071	-0.051	-0.453	-0.065	-0.073	-0.079	-0.077	-0.087	-0.078	-0.070	-0.043	-0.061	-0.066	-0.068	-0.047	-0.074	-0.073	-0.072	-0.070	-0.070	-5.666	-2.534	-0.312	-2.010
4 - SALON BACK	S - BACK	-0.014	-0.015	-0.021	-0.018	-0.048	-0.053	0.090	-0.021	-0.046	-0.037	-0.041	-0.020	-0.048	-0.040	-0.017	-0.031	-0.032	-0.040	-0.051	-0.051	-0.056	-0.041	-0.039	-0.034	-0.238	-0.612	-0.061	-0.102
5 - NR EAST WALL	NORTH ROOM	-0.025	-0.071	-0.070	-0.090	-0.070	-0.062		-0.049	-0.069	-0.061	-0.038	-0.046	-0.042	-0.042	-0.044	-0.059	-0.041	-0.490	-0.236	-0.027	-0.024	-0.024	-0.026	-0.032	-0.012	0.000	0.000	0.00
6 - NORTH ROOM SOUTH WALL	NORTH ROOM	-0.027	-0.040	-0.060	-0.059	-0.042	-0.039	-0.407	-0.025	-0.047	-0.046	-0.038	-0.043	-0.043	-0.033	-0.033	-0.040	-0.032		-0.316	-0.016	-0.028	-0.018	-0.030	-0.031	-0.015	0.000	0.000	0.00
7 - SALON FRONT ROOM	S -FRONT	-0.022	-0.018	-0.018	-0.020	-0.013	-0.026	-0.292	-0.018	-0.130	-0.023	-0.044	-0.042	-0.044	-0.098	-0.014	-0.054	-0.101	-0.077	-0.018	-0.021	-0.020	-0.016	-0.011	-0.017	-0.002	-0.009	0.000	0.00
-0.025	LES	SS THAN OR EQ	UAL TO -0.024	1																									
-0.023		GREATER TH	AN -0.025																										
		_																											
NR =	NORTH ROOM																												
5 =		-																											





## ATTACHMENT C

### VACUUM GAUGE SETTINGS & MISCELLANEOUS SYSTEM INFORMATION Chez Valet

	Comparison of Vacuums Measured at Distribution Header Versus Relative Vapor Point Measurements.															_											
																											1
	DATE		5/24/2011 6	/24/2011	7/28/2011	8/11/2011	8/19/2011	9/23/2011	10/31/2011	11/23/2011	12/28/2011	1/25/2012	2/29/2012	3/27/2012	5/1/2012	6/9/2012	7/12/2012	8/24/2012	9/28/2012	12/28/2012	4/8/2013	6/28/2013	9/27/2013	10/4/2013	1/31/2014	3/17/2014	1
Valve Number	Location								Vaci	um reading at	distribution h	eader specific t	o lateral being	controlled.													
1	North Room NE	-0.395	-0.430	-0.410	-0.407	-0.371	-0.399	-0.395	-0.394	-0.366	-0.355	-0.372	-0.363	-0.371	-0.310	-0.373	-0.416	-0.463	-0.311	-0.340	-0.356	-0.373	-0.003	0.000	0.000	0.000	1
2	North Room NE	-0.557	-0.600	-0.550	-0.511	-0.533	-0.542	-0.557	-0.626	-0.609	-0.571	-0.653	-0.635	-0.615	-0.579	-0.582	-0.567	-0.535	-0.525	-0.532	-0.512	-0.520	-0.005	0.000	0.000	0.000	1
3	North Room SE	-0.195	-0.180	-0.180	-0.527	-0.136	-0.163	-0.195	-0.150	-0.155	-0.152	-0.153	-0.139	-0.145	-0.155	-0.143	-0.179	-0.161	-0.131	-0.126	-0.134	-0.153	-0.006	0.000	0.000	0.000	1
4	North Room SE	-0.308	-0.330	-0.330	-0.360	-0.290	-0.309	-0.308	-0.289	-0.301	-0.294	-0.293	-0.301	-0.311	-0.297	-0.299	-0.344	-0.313	-0.297	-0.272	-0.064	-0.301	-0.008	0.000	0.000	0.000	1
5	Salon	-30.000	-30.000	-30.000	-30.000	-30.000	-30.000	-30.000	-32.000	-30.000	-30.000	-32.000	-31.000	-31.000	-31.000	-30.000	-30.000	-30.000	-30.000	-30.000	-30.000	-30.000	-0.013	0.000	0.000	0.000	1
6	Salon	-20.000	-18.000	-20.000	-20.000	-20.000	-20.000	-20.000	-20.000	-20.000	-20.000	-20.000	-20.000	-20.000	-20.000	-20.000	-20.000	-20.000	-20.000	-20.000	-20.000	-20.000	-0.009	0.000	0.000	0.000	1
7	Salon	-28.000	-28.000	-28.000	-30.000	-28.000	-28.000	-28.000	-31.000	-30.000	-29.000	-30.000	-30.000	-30.000	-30.000	-28.000	-28.000	-28.000	-28.000	-29.000	-28.000	-28.000	-0.010	0.000	0.000	0.000	1
8	Salon	-28.000	-28.000	-28.000	-28.000	-28.000	-28.000	-28.000	-30.000	-29.000	-28.000	-30.000	-29.000	-29.000	-28.000	-28.000	-28.000	-28.000	-28.000	-28.000	-28.000	-28.000	-0.003	0.000	0.000	0.000	1
9	North Room SW	-8.000	-2.600	-8.000	-8.000	-8.000	-8.000	-8.000	-2.602	-3.157	-8.000	-8.000	-8.000	-8.000	-8.000	-8.000	-8.000	-8.000	-8.000	-2.566	-2.430	-2.563	-7.632	-10.000	-10.000	-10.000	1
10	North Room SW	-4.631	-4.500	-4.670	-4.000	-4.550	-4.621	-4.631	-4.617	-4.618	-4.577	-4.605	-4.529	-4.647	-4.600	-2.210	-4.650	-4.506	-4.503	-4.691	-4.371	-4.472	-7.220	-5.000	-5.000	-4.000	1
11	North Room NW	-0.871	-0.880	-0.880	-0.801	-0.838	-0.845	-0.871	-0.812	-0.865	-0.813	-0.814	-0.805	-0.804	-0.871	-0.810	-0.874	-0.905	-0.872	-0.840	-0.821	-0.880	-7.378	-8.000	-7.000	-5.500	i.
12	North Room NW	-0.591	-0.600	-0.570	-0.571	-0.579	-0.592	-0.591	-0.560	-0.595	-0.577	-0.583	-0.554	-0.554	-0.591	-0.533	-0.595	-0.594	-0.582	-0.569	-0.549	-0.584	-7.624	-5.000	-5.000	-4.000	i.
	Avg. Vacume @ Header (in H <sub>2</sub> O)		-9.510	-10.133	-10.265	-10.108	-10.123	-10.129	-10.254	-9.972	-10.195	-10.623	-10.444	-10.454	-10.367	-9.913	-10.135	-10.123	-10.102	-9.745	-9.603	-9.654	-2.493	-2.333	-2.250	-1.958	
																											ł
Knockout pot reading	Hg"		-26	-28	-6.5	-8	-8	-7.25	-3.5	-7	-5	-3	-3.5	-4	-6.5	-8	-11	-10	-10	-4	-3	-2.5	-2.4	-6	-3	-7	l
	H <sub>2</sub> O"		-353.496	-380.688	-88.374	-108.768	-108.768	-98.571	-47.586	-95.172	-67.98	-40.788	-47.586	-54.384	-88.374	-108.768	-149.556	-135.96	-135.96	-54.384	-40.788	-33.99	-32.6304	-81.576	-40.788	-95.172	ī
																											í T
		VP	VP	VP	VP	VP	VP	VP	VP	VP	VP	VP	VP	VP	VP	VP	VP	VP	VP	VP	VP	VP	VP	VP	VP	VP	-
Vapor Point			5/24/2011 6	/24/2011	7/28/2011	8/11/2011	8/19/2011	9/23/2011	10/31/2011	11/23/2011	12/28/2011	1/25/2012	2/29/2012	3/27/2012	5/1/2012	6/9/2012	7/12/2012	8/24/2012	9/28/2012	12/28/2012	4/8/2013	6/28/2013	9/27/2013	10/4/2013	1/31/2014	3/17/2014	ſ
1			-0.073	-0.091	-0.463	-0.058	.0 121	-0.110	-0.068	-0.106	-0.104	-0.102	-0.085	-0.083	-0.082	-0.081	-0.141	-0.088	-0 104	-0.089	-0.115	-0.123	.0.839	-4 243	-0.361	-0.196	<u> </u>
2			-0.107	-0.083	-0.343	-0.038	-0.121	-0.110	-0.008	-0.082	-0.104	-0.102	-0.085	-0.085	-0.082	-0.081	-0.141	-0.088	-0.104	-0.065	-0.115	-0.123	-0.833	-4.243	-0.301	-0.190	
3			-0.058	-0.051	-0.453	-0.040	-0.033	-0.032	-0.048	-0.082	-0.084	-0.030	-0.048	-0.000	-0.065	-0.062	-0.124	-0.078	-0.002	-0.000	-0.003	-0.033	-1.360	-2.704	-0.104	-2.010	_
4			-0.018	-0.053	-0.090	-0.005	-0.075	-0.073	-0.041	-0.020	-0.078	-0.070	-0.043	-0.001	-0.000	-0.008	-0.047	-0.074	-0.075	-0.072	-0.070	-0.070	-0.238	-2.554	-0.312	-2.010	-
5			-0.090	-0.062	0.050	-0.049	-0.069	-0.061	-0.038	-0.046	-0.042	-0.042	-0.044	-0.059	-0.041	-0.490	-0.236	-0.027	-0.024	-0.024	-0.026	-0.032	-0.012	0.000	0.000	0.000	<u>_</u>
6			-0.059	-0.039	-0.402	-0.025	-0.047	-0.046	-0.038	-0.043	-0.043	-0.033	-0.033	-0.040	-0.032	0.450	-0.316	-0.016	-0.024	-0.018	-0.030	-0.031	-0.015	0.000	0.000	0.000	<u> </u>
7			-0.018	-0.026	-0.252	-0.018	-0.130	-0.023	-0.044	-0.042	-0.044	-0.098	-0.014	-0.054	-0.101	-0.077	-0.018	-0.021	-0.020	-0.016	-0.016	-0.017	-0.002	-0.009	0.000	0.000	<u>_</u>
/			-0.010	-0.026	-0.232	-0.016	-0.150	-0.025	-0.044	-0.042	-0.044	-0.098	-0.014	-0.054	-0.101	-0.077	-0.010	-0.021	-0.020	-0.010	-0.010	-0.017	-0.002	-0.009	0.000	0.000	<u>.                                    </u>

	Comparison of Vacuums Measured at Distribution Header Versus Relative Vapor Point Measurements.																							
	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27
	5/24/2011	6/24/2011	7/28/2011	8/11/2011	8/19/2011	9/23/2011	10/31/2011	11/23/2011	12/28/2011	1/25/2012	2/29/2012	3/27/2012	5/1/2012	6/9/2012	7/12/2012	8/24/2012	9/28/2012	12/28/2012	4/8/2013	6/28/2013	9/27/2013	10/4/2013	1/31/2014	3/17/2014
relative																								
Vapor									a va	cuum poin	ts influence	d by specific	c lateral and	their comp	arative rea	dings								
Point																, in the second s								
3	-0.058	-0.051	-0.453	-0.065	-0.073	-0.079	-0.077	-0.087	-0.078	-0.070	-0.043	-0.061	-0.066	-0.068	-0.047	-0.074	-0.073	-0.072	-0.070	-0.070	-5.666	-2.534	-0.312	-2.010
5	-0.090	-0.062	0.000	-0.049	-0.069	-0.061	-0.038	-0.046	-0.042	-0.042	-0.044	-0.059	-0.041	-0.490	-0.236	-0.027	-0.024	-0.024	-0.026	-0.032	-0.012	0.000	0.000	0.000
6	-0.059	-0.039	-0.402	-0.025	-0.047	-0.046	-0.038	-0.043	-0.043	-0.033	-0.033	-0.040	-0.032	0.000	-0.316	-0.016	-0.028	-0.018	-0.030	-0.031	-0.015	0.000	0.000	0.000
6	-0.059	-0.039	-0.402	-0.025	-0.047	-0.046	-0.038	-0.043	-0.043	-0.033	-0.033	-0.040	-0.032	0.000	-0.316	-0.016	-0.028	-0.018	-0.030	-0.031	-0.015	0.000	0.000	0.000
7	-0.018	-0.026	-0.252	-0.018	-0.130	-0.023	-0.044	-0.042	-0.044	-0.098	-0.014	-0.054	-0.101	-0.077	-0.018	-0.021	-0.020	-0.016	-0.016	-0.017	-0.002	-0.009	0.000	0.000
7	-0.018	-0.026	-0.252	-0.018	-0.130	-0.023	-0.044	-0.042	-0.044	-0.098	-0.014	-0.054	-0.101	-0.077	-0.018	-0.021	-0.020	-0.016	-0.016	-0.017	-0.002	-0.009	0.000	0.000
4	-0.018	-0.053	-0.090	-0.021	-0.046	-0.037	-0.041	-0.020	-0.048	-0.040	-0.017	-0.031	-0.032	-0.040	-0.051	-0.051	-0.056	-0.041	-0.039	-0.034	-0.238	-0.612	-0.061	-0.102
4	-0.018	-0.053	-0.090	-0.021	-0.046	-0.037	-0.041	-0.020	-0.048	-0.040	-0.017	-0.031	-0.032	-0.040	-0.051	-0.051	-0.056	-0.041	-0.039	-0.034	-0.238	-0.612	-0.061	-0.102
1	-0.073	-0.091	-0.463	-0.058	-0.121	-0.110	-0.068	-0.106	-0.104	-0.102	-0.085	-0.083	-0.082	-0.081	-0.141	-0.088	-0.104	-0.089	-0.115	-0.123	-0.839	-4.243	-0.361	-0.196
1	-0.073	-0.091	-0.463	-0.058	-0.121	-0.110	-0.068	-0.106	-0.104	-0.102	-0.085	-0.083	-0.082	-0.081	-0.141	-0.088	-0.104	-0.089	-0.115	-0.123	-0.839	-4.243	-0.361	-0.196
2	-0.107	-0.083	-0.343	-0.046	-0.093	-0.092	-0.048	-0.082	-0.084	-0.086	-0.048	-0.066	-0.083	-0.082	-0.124	-0.078	-0.062	-0.066	-0.069	-0.095	-1.380	-2.764	-0.164	-0.562
3	-0.058	-0.051	-0.453	-0.065	-0.073	-0.079	-0.077	-0.087	-0.078	-0.070	-0.043	-0.061	-0.066	-0.068	-0.047	-0.074	-0.073	-0.072	-0.070	-0.070	-5.666	-2.534	-0.312	-2.010
Avg Vacume @ VP (in H <sub>2</sub> O)	-0.054	-0.055	-0.305	-0.039	-0.083	-0.062	-0.052	-0.060	-0.063	-0.068	-0.040	-0.055	-0.063	-0.092	-0.126	-0.050	-0.054	-0.047	-0.053	-0.056	-1.243	-1.463	-0.136	-0.432
							_						-	-				_						
		-					_	-		-				-				_		-		-		
												_	_											









## ATTACHMENT D

### ELAPSED TIME AND RUNTIME CALCULATIONS Chez Valet

Date @ Time	Meter reading (hours)	Meter Read By	Actual Elapsed Time (hours)	Interval between readings	Interval % runtime	Cumulative % runtime	Days not operating	Comments
5/24/11 9:00	-		(110013)		70 Functione			
6/24/2011 8:35	743.6	RH	743.6	743.6	100.0%	100.0%		
7/28/2011 7:15	1,555.5	RH	1,558.3	814.7	99.7%	99.8%	0.12	
8/11/2011 7:10	1,890.7	RH	1,894.2	335.9	99.8%	99.8%	0.03	
8/19/11 7:00	2,082.0	RH	2,086.0	191.8	99.7%	99.8%	0.02	
9/23/11 8:20	2,921.0	RH	2,927.3	841.3	99.7%	99.8%	0.10	
11/23/11 7:45	4,379.5	RH	4,390.7	1,463.4	99.7%	99.7%	0.20	
12/28/11 8:00	5,217.5	RH	5,231.0	840.3	99.7%	99.7%	0.09	
1/25/12 7:54	5 <i>,</i> 887.5	RH	5,902.9	671.9	99.7%	99.7%	0.08	
2/29/12 7:47	6,725.2	RH	6,742.8	839.9	99.7%	99.7%	0.09	
3/27/12 8:00	7,370.7	RH	7,391.0	648.2	99.6%	99.7%	0.11	
5/1/12 10:23	8,210.8	RH	8,233.4	842.4	99.7%	99.7%	0.10	
5/3/12 8:03	8,256.3	RH	8,279.1	45.7	99.6%	99.7%	0.01	
6/9/2012 7:36	9,117.1	RH	9,166.6	933.2	97.1%	99.5%	1.12	Summer thunder Storm
7/12/2012 9:10	9,932.4	RH	9,960.2	793.6	102.7%	99.7%	-0.91	
8/24/2012 8:15	10,960.7	RH	10,991.3	1,031.1	99.7%	99.7%	0.12	
9/27/2012 12:25	11,778.7	AHL	11,811.4	820.2	99.7%	99.7%	0.09	
9/28/2012 9:00	11,799.2	RH	11,832.0	20.6	99.6%	99.7%	0.00	
11/14/2012 10:30	12,856.3	AHL	12,961.5	1,129.5	95.4%	99.2%	2.16	Hurricane Sandy
12/28/2012 9:07	13,908.1	RH	14,016.1	1,054.6	99.7%	99.2%	0.12	
2/7/2013 8:49	14,888.2	AHL	14,999.8	983.7	99.6%	99.3%	0.15	
3/28/2013 11:00	16,001.9	AHL	16,178.0	1,178.2	94.5%	98.9%	2.69	Break In
4/8/2013 11:32	16,265.7	RH	16,442.5	264.5	99.7%	98.9%	0.03	
6/28/2013 11:30	18,202.5	RH	18,386.5	1,944.0	99.6%	99.0%	0.30	
8/12/2013 11:32		RH	19,466.5	1,080.0				System found Running, but hour meter failed
	S	YSTEM SHUTD	OWN FOR SAMP	LING			45.99	
9/27/2013 11:14	1.4	RH	1.4					NEW HOURMETER
10/4/2013 9:46	167.4	RH	166.5	165.1	100.5%	100.5%	-0.04	
1/31/2014 8:00	2,968.8	RH	3,020.8	2,854.2	98.1%	98.3%	2.20	
3/17/2014 9:10	4,046.1	RH	4,101.9	1,081.2	99.6%	98.6%	0.16	
	S	YSTEM SHUTDO	OWN FOR SAMP	LING		•	172.06	
9/5/2014 10:35	4,145.9	Don	4,145.9				-	
12/12/2014 13:14	6,495.2	AHL	6,456.6	2,310.7	101.7%	100.6%	(1.6)	
		•		Avera	ge uptime *	99.6%	225.58	* when not subject to planned sutdown
							38.63%	

## Elapsed Time and Run time calculations

### ATTACHMENT E

CARBON DRUM READINGS Chez Valet



7/28/11 8/11/11 8/19/11 9/23/11 11/23/2011 12/28/2011 1/25/2012 2/29/2012 3/27/2012 5/1/2012 5/3/2012 6/9/2012 7/12/2012 8/24/2012 9/28/2012 12/28/2012 4/8/2013 6/28/2013 9/27/2013 at 10/4/2013 1/31/2014 3/17/2014

164

PID (PPM) PID (PPM)

167

153

PID (PPM)

145

PID (PPM)

164

PID (PPM)

156

PID (PPM)

restart

189

PID (PPM)

134

PID (PPM)

162

PID (PPM)

162

PID (PPM)

157

PID (PPM)

155

PID (PPM)

Date

PID (PPM)

Blower discharge Velocity (CFM)

139

PID (PPM) PID (PPM) PID (PPM) PID (PPM)

99

135

152

PID (PPM)

156

PID (PPM)

166

PID (PPM)

178

PID (PPM)

155

PID (PPM) PID (PPM)

164

#### Chez Valet Dry Cleaners New York State Superfund Project Site # 130169

Soil Vapor Extraction - Sub Slab Depressurization System VOC Sampling Results (Laboratory)

				Carbon Influ	uent			
Compound Analyzed	Result	Result	LRL	Result	Result	LRL	Result	LRL
	ug/m3	ug/m3	ug/m3	ug/m3	ug/m3	ug/m3	ug/m3	ug/m3
	2/7/2011	4/6/2011		3/27/2012	4/8/2013		4/8/2013	
Tetrachloroethene	882.05	140	4.6	41	60	6.8	56	4.5

