



March 23, 2018

Richard Joslin  
Wisconsin Department of Natural Resources  
625 E County Road Y, Suite 700  
Oshkosh, Wisconsin 54901-9731

**Subject: Project Progress Update and Request for Change Order for Vapor Mitigation System Installation  
Former Dutch Cleaners  
403 S. Main Street, Cedar Grove, Wisconsin  
BRRTS# 02-60-271527**

Dear Mr. Joslin:

On behalf of the responsible party (RP), Jere Ebbers, EnviroForensics, LLC (EnviroForensics) is providing you with this project progress update and change order request for installation of a sub-slab depressurization system (SSDS).

### **Project Progress**

EnviroForensics has completed the diagnostic testing and design of an SSDS for the former Dutch Cleaners building located at 403 S. Main Street, Cedar Grove, Wisconsin (Site). SSDS design criteria and costing information are addressed below.

We have also completed one (1) round of vapor intrusion (VI) sampling at two (2) of the four (4) nearby buildings slated for VI sampling as described in our work scope titled: *Letter Report and Work Scope for Further Site Investigation Activities*, dated November 10, 2017. You have been sent copies of our results notifications that were also sent to the property owners. At this time, there were no identified VI risks to the commercial building located at 406 S. Main Street, or to the 3-family apartment building located at 416 S. Main Street.

As indicated in a past email communication, we were not successful in gaining access to the commercial property located directly to the north of the Site (349 S. Main Street), or the residential home to the west of the Site (11 Wisconsin Avenue). We have followed all access request procedures and have sent you proof of delivery and a copy of a follow-up letter via email. We will be scheduling a second round of VI sampling to occur in the upcoming non-

*Document: 6420-0106*  
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heating months for the two (2) properties that have granted us access, but we are suspending our efforts to gain access to the other two (2) properties at this time.

We also collected a sample of foundation water from the basement sump and have reported discharge concentrations and quantities to the Village of Cedar Grove per their permit requirements.

### **Vapor Mitigation System Design**

Advance diagnostics were performed prior to design of the SSDS at the Site building. The diagnostics included impressing negative pressure at two (2) locations below the basement concrete slab and measuring negative pressures at several test point locations. **Figure 1** shows the basement layout, test extraction points (EP-1 and EP-2), and negative pressure test points (TP-1, TP-2, and TP-3). We also measured negative pressure in existing sub-slab vapor collection points SSV-1 and SSV-2. **Table 1** contains all of the pressure field extension measurements.

As can be seen in **Table 1**, the negative pressure induced at EP-1 did not sufficiently propagate across the basement slab. However, when negative pressure was applied to EP-2, good negative pressure readings were observed in all of the test points. The negative pressures observed by EP-2 are also recorded on **Figure 1**. As seen on **Figure 1**, vapor mitigation of the basement slab can be achieved by venting through only one (1) extraction point (EP-2).

Based on the results of the PFE testing, one (1) extraction point will be connected with conveyance piping to a RadonAway RP 265 fan (or similar) and exhausted a minimum of 2 feet above the building roofline. A minimum of three (3) gallons of sub-slab soil will be removed from the extraction point to create a sump and increase connectivity to the subsurface. Sub-slab soils will be containerized in drums, sampled for volatile organic compounds (VOCs) by U.S. EPA SW-846 Method 8260, and disposed of at a permitted disposal facility. Conveyance piping, consisting of 3-inch and/or 4-inch Schedule 40 PVC, will be sealed to the sump with polyurethane caulk and sloped toward the extraction points to facilitate drainage of condensate back toward the sump. A U-tube manometer will be installed on the conveyance piping to visually indicate operating vacuum. The fan will be mounted outside of the building and hardwired to a dedicated circuit breaker inside the building with a dedicated on/off switch next to the fan. Visible cracks in the slab foundation will be sealed to maximize efficacy of the SSDS. The proposed SSDS layout is depicted on **Figure 1**.

A sub-membrane depressurization system (SMDS) is proposed to mitigate potential vapor intrusion through the western crawl space. Crawl space soils will be sealed off using 6-mil plastic sheeting and polyurethane caulk. A horizontal perforated pipe of 3 to 10 feet in length will be installed under the sheeting as a depressurization point. Based on the size of the crawl space, it is anticipated that one (1) depressurization point will be sufficient. The perforated piping will be connected to conveyance piping and routed to a RadonAway RP 380 fan (or similar), mounted next to the SSDS fan on the outside of the building, and exhausted above the building roofline. The SMDS fan will be hardwired to the same circuit breaker as the SSDS fan, with a dedicated on/off switch next to the fan. The proposed SMDS layout is depicted on **Figure 1**.

Due to limited overhead clearance within the southern crawl space and the related lack of access for SMDS installation purposes, the entire crawl space cavity will be vented. The crawl space cavity will be sealed off from the basement with 6-mil plastic sheeting over the crawl space entrance. The sheeting will be bonded to the crawl space entrance with polyurethane caulk to create a seal. Conveyance piping will be installed as specified for the SMDS proposed above, but the perforated piping is not required. The conveyance piping will be routed to the same RadonAway RP 380 fan (or similar) as proposed for use with the SMDS. The proposed cavity vent system layout is depicted on **Figure 1**.

### **Vapor Mitigation System Commissioning**

Installation and startup of the vapor mitigation systems are proposed to be completed in April of 2018. Per PUB-RR-800, commissioning of the vapor mitigation systems will be performed following installation and startup. Pressure field extension testing will be completed following startup of the SSDS in the same manner as previously performed. Two (2) additional pressure field extension testing events will be performed 4 and 8 months following startup, respectively (tentatively scheduled for August and December, 2018). A winter indoor air VI assessment will be performed at the same time as the December pressure field extension testing event to evaluate winter VI conditions during mitigation.

The SMDS will be visually inspected for suction across the sheeting surface upon system startup. A smoke test will be performed to check the integrity of the cavity vent system, with a smoke source placed within the cavity and initiated prior to final sealing of the cavity. The basement and first floor building levels will be inspected for smoke intrusion during testing to identify potential compromises in the cavity vent system.

## **Costing and Change Order Request**

We have attached detailed cost breakdown sheets for the vapor mitigation work and have attached an updated Form 4400-214D. The total estimated cost of this additional work is \$28,848. We are requesting a change order to cover the costs of work scoping, preparation of the change order, installing and commissioning the vapor mitigation system, preparation of the vapor mitigation Operation Maintenance & Monitoring Plan, and associated project coordination and management. This change order will be #6.

We are not requesting a change order for additional mobilization and field time for vapor intrusion sampling at this time. We have performed the pressure field extension testing in house rather than using a subcontractor, and that has saved considerable Phase 2 budget. If access for vapor intrusion sampling is granted for the remaining two (2) off-site properties, we will re-evaluate the budget to determine if additional budget is needed for re-mobilization and field time.

If you have any questions or require additional information, please do not hesitate to contact me at (414) 982-3988, or by email at [wfassbender@enviroforensics.com](mailto:wfassbender@enviroforensics.com).

Sincerely,  
**EnviroForensics, LLC**

A handwritten signature in black ink that reads "Wayne P. Fassbender".

Wayne Fassbender, PG  
*Senior Project Manager*

Attachments:

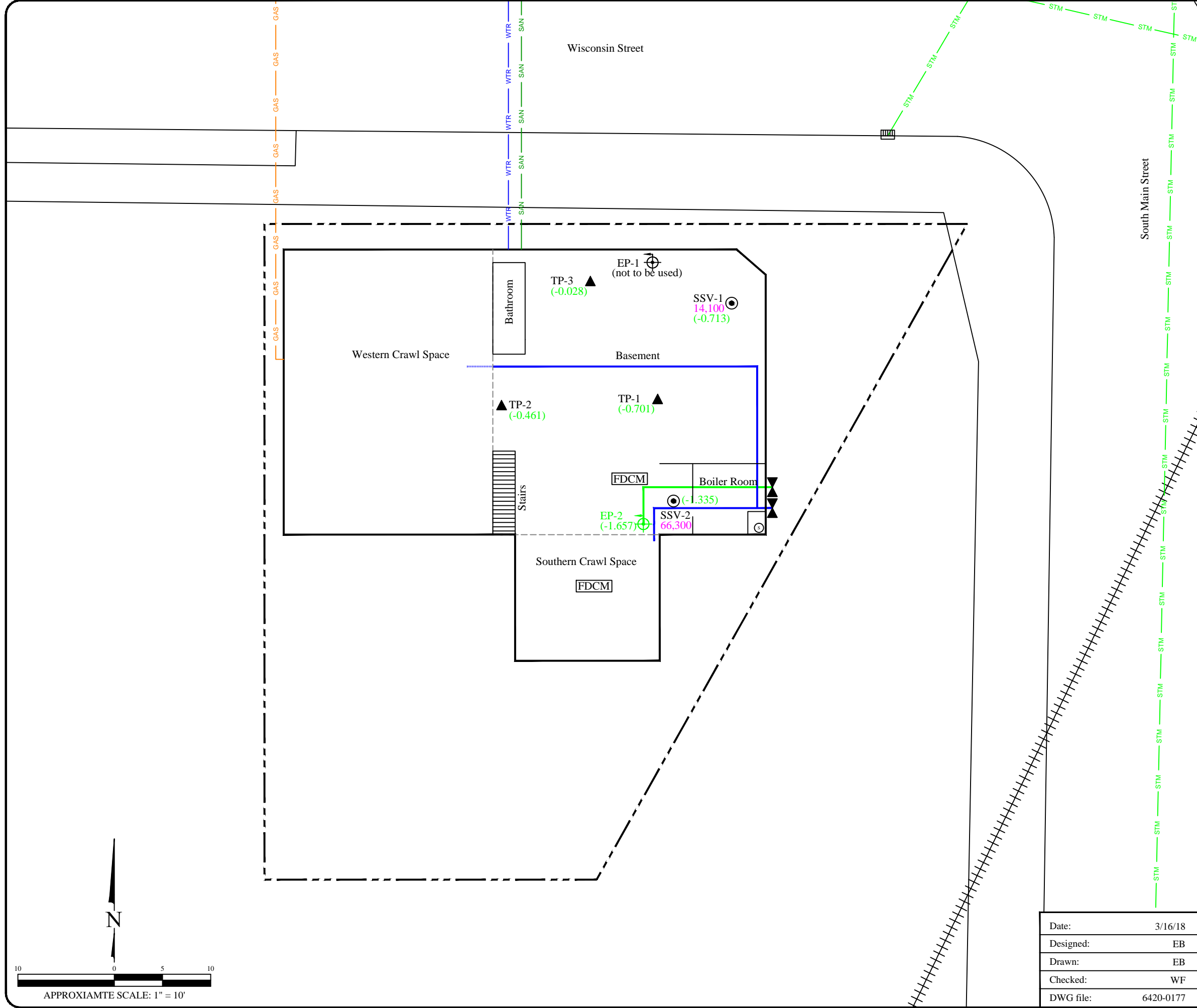
Figure 1

Table 1

Detailed Costing Sheets

Form 4400-214D for Change Order Request #6

Copy: Jere Ebbers  
Tom and Marilyn Berlin



### Legend

- Property boundary
- GAS Underground gas utility line
- WTR Underground water utility line
- SAN Underground sanitary utility line
- STM Underground storm utility line
- Catch Basin
- Manhole
- Sump
- FDCM Former dry cleaning machine location
- SSV-1 Sub-slab vapor sample
- EP-1 Extraction point
- Mitigation Fan
- TP 1 Test Point
- Sub-Slab Depressurization Piping
- Crawl Space Vent Piping
- Open vent/Slotted PVC pipe
- (-0.50) Pressure influence from SVE system, in inches of water (in H<sub>2</sub>O)
- 0.50 PCE concentrations in vapor sample (µg/m<sup>3</sup>)

- Note:
1. Units reported in micrograms per meter cubed = µg/m<sup>3</sup>
  2. PCE = Tetrachloroethene
  3. Samples analyzed using for VOCs using US EPA SW-846 Method 8260
  4. Final piping and fan placement subject to field conditions.

### PROPOSED VAPOR MITIGATION SYSTEM LAYOUT

Former Dutch Cleaners  
 403 South Main Street  
 Cedar Grove, Wisconsin

Date:	3/16/18
Designed:	EB
Drawn:	EB
Checked:	WF
DWG file:	6420-0177

825 North Capitol Avenue • Indianapolis, IN 46204  
 EnviroForensics.com

Figure	1
Project	6420



APPROXIMATE SCALE: 1" = 10'

Table 1  
*Pressure Field Extension*  
 403 S. Main Street, Cedar Grove, Wisconsin

Date	Time <i>hh:mm</i>	Duct Size <i>inches</i>	Extraction Points Open	CFM	Negative Pressue ( <i>in WC</i> )							
					Fan	EP-1	EP-2	SSV-1	SSV-2	TP-1	TP-2	TP-3
1/26/2018	13:09	3	EP-(1 & 2)	134.56	-1.740	-1.685	-1.689	-0.756	-1.323	-0.705	-0.472	NA
1/26/2018	13:19			133.71	-1.729	-1.687	-1.666	-1.729	-1.323	-0.706	-0.468	NA
1/26/2018	13:41	3	EP-1	208.10	-2.691	-2.706	NA	-2.691	0	0	0	NA
1/26/2018	13:51			204.93	-2.65	-2.644	NA	-2.65	0	0	0	NA
1/26/2018	14:07	3	EP-2	134.10	-1.734	NA	-1.686	-1.734	-1.340	-0.669	-0.457	-0.030
1/26/2018	14:17			133.55	-1.727	NA	-1.657	-1.727	-1.335	-0.701	-0.461	-0.028

Distances (in feet) from monitoring points to Extraction Point 2	22	3	16	15.5	21
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Notes:

NA = Not Analyzed

CFM calculated using *typical CFM vs static Pressure WC of Fan*



**TABLE 1**  
**VAPOR MITIGATION SYSTEM INSTALLATION COST ESTIMATE**  
**Former Dutch Cleaners**  
**Cedar Grove, WI**

TASK	LABOR COSTS	SUB-CONTRACTOR COSTS	DIRECT COSTS	PHASE COST
<b>Phase 3a</b>				
Work Scoping and Change Order Request	\$1,240	\$0	\$17	<b>\$1,257</b>
<b>Phase 3b</b>				
Vapor Mitigation System Installation	\$3,660	\$10,047	\$908	<b>\$14,615</b>
<b>Phase 3c</b>				
Vapor Mitigation System Commissioning	\$4,875	\$920	\$572	<b>\$6,367</b>
<b>Phase 3d</b>				
Vapor Mitigation System O&M Plan Development	\$935	\$0	\$8	<b>\$943</b>
<b>Phase 3e</b>				
Project Coordination & Management	\$1,660	\$0	\$5	<b>\$1,665</b>
<b>TOTAL</b>	<b>\$12,370</b>	<b>\$10,967</b>	<b>\$1,511</b>	<b>\$24,848</b>

Project Title:  
 Project Number/Name:  
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Phase 3a Work Scoping and Change Order Request						
<b>Labor - Field</b>						
Principal	\$200.00	hr			\$0.00	Task Total
Director	\$175.00	hr			\$0.00	
Sr Project Manager	\$155.00	hr			\$0.00	
Sr Professional	\$155.00	hr			\$0.00	
Project Manager	\$130.00	hr			\$0.00	
Project Professional	\$130.00	hr			\$0.00	
Staff Professional-Office	\$120.00	hr			\$0.00	
Staff Professional-Field	\$120.00	hr			\$0.00	
Field Professional	\$95.00	hr			\$0.00	
Drafting	\$85.00	hr			\$0.00	
Admin	\$65.00	hr			\$0.00	
Compliance Specialist					\$0.00	
Vapor Intrusion Specialist					\$0.00	
Health and Safety Specialist					\$0.00	
					\$0.00	
<b>Labor - Office/Reporting</b>						
Principal	\$200.00	hr			\$0.00	Task Total
Director	\$175.00	hr			\$0.00	
Sr Project Manager	\$155.00	hr			\$0.00	
Sr Professional	\$155.00	hr	8.0		\$1,240.00	
Project Manager	\$130.00	hr			\$0.00	
Project Professional	\$130.00	hr			\$0.00	
Staff Professional-Office	\$120.00	hr			\$0.00	
Staff Professional-Field	\$120.00	hr			\$0.00	
Field Professional	\$95.00	hr			\$0.00	
Drafting	\$85.00	hr			\$0.00	
Admin	\$65.00	hr			\$0.00	
Compliance Specialist					\$0.00	
Vapor Intrusion Specialist					\$0.00	
Health and Safety Specialist					\$0.00	
		hr			\$0.00	
<b>Contractors/Consultants</b>						
Utility Locate		LS		1.00	\$0.00	Task Total
Driller		LS		1.00	\$0.00	
Surveyor		LS		1.00	\$0.00	
Waste Disposal		LS		1.00	\$0.00	
WDNR Review Fee		LS		1.00	\$0.00	
Remediation		LS		1.00	\$0.00	
				1.00	\$0.00	
				1.00	\$0.00	
				1.00	\$0.00	
				1.00	\$0.00	
				1.00	\$0.00	
				1.00	\$0.00	\$0.00
<b>Contractor/Consultant - Laboratory</b>						
Soil VOC 8260 dry wt	\$71.93	ea		1.00	\$0.00	Task Total
Soil VOC 8260 dry wt QA/QC	\$71.93	ea		1.00	\$0.00	
GW VOC 8260	\$71.93	ea		1.00	\$0.00	
GW VOC 8260 QA/QC	\$71.93	ea		1.00	\$0.00	
Air TO-15 -- Soil Gas		ea		1.00	\$0.00	
Air TO-15 -- Sub-Slab	\$40.00	ea		1.00	\$0.00	
Air TO-15 -- Indoor Air	\$110.00	ea		1.00	\$0.00	
Air - Individual Certification	\$50.00	ea		1.00	\$0.00	
Air - Batch Certification	\$35.00	LS		1.00	\$0.00	
Trip Blank VOCs 8260	\$71.93	ea		1.00	\$0.00	
Level IV QA/QC (15%)					\$0.00	
					\$0.00	\$0.00
<b>Direct Costs - Expenses</b>						
Hotel	\$120.00	day		1.00	\$0.00	Task Total
Meals	\$60.00	LS		1.00	\$0.00	
Misc Materials		LS		1.00	\$0.00	
WDNR File Copy		LS		1.00	\$0.00	
					\$0.00	
					\$0.00	
					\$0.00	
					\$0.00	\$0.00



	Direct Costs - Chargeable Equipment Expense	Rate (hr/unit)	# Hrs/Units	Rate (day/use)	# days/use	Subtotal
Vehicles	Field Vehicle - Full Day	\$ 20.00		\$ 130.00		
	Mileage at Federal IRS Reimbursement Rate (used only for daily use over 230 miles)	\$ 0.56				
Meters	Air Velocity Meter (per use)			\$ 25.00		
	Multi-meter Conductivity/pH/Temp/TDS			\$ 165.00		
	Dissolved Oxygen Meter			\$ 40.00		
	FID Foxboro/Sensidyne (TIP)			\$ 155.00		
	Flow Calibrator			\$ 30.00		
	PID or 580 OVM			\$ 120.00		
	Turbidity Meter			\$ 30.00		
	ppb RAE			\$ 175.00		
Pumps	ORP Meter			\$ 30.00		
	Air Pump - Low Flow (Barcad)			\$ 25.00		
	Development Pump			\$ 130.00		
	Electric Submersible Pump with Control Box (Units)			\$ 130.00		
	Low-Flow Sampling Bladder	\$ 12.00				
	Peristaltic Pump			\$ 105.00		
	Pumping Test Accessory Equipment (Flow Meters/Manifold)	\$ 100.00				
	Portable SVE Unit - 1.5 HP			\$ 155.00		
Other	Intrinsically Safe Vapor Evacuation Blower			\$ 125.00		
	Pneumatic Low-Flow Sampling Kit w/ Flow Cell and Multimeter			\$ 270.00		
	Asbestos Sampling Kit			\$ 250.00		
	Asbestos Investigation Supplies			\$ 130.00		
	Asbestos Sampling Core	\$ 2.50				
	Bailers (Disposable)	\$ 10.00				
	Bailers (Non-Disposable)			\$ 15.00		
	Core Boxes	\$ 10.00				
	Core Sampler			\$ 55.00		
	Data Logger with Transducer			\$ 155.00		
	Well Caps	\$ 30.00				
	Elec. Well Sounder (Probe)			\$ 30.00		
	Metal Detector			\$ 50.00		
	5035 Sample Kit	\$ 16.00				
	Field Book	\$ 11.00				
	Filter - Large	\$ 18.00				
	Filter - Small	\$ 9.00				
	Generator			\$ 105.00		
	Hand Auger			\$ 30.00		
	Helium QA/QC Kit			\$ 265.00		
	Helium QA/QC Accessories	\$ 20.00				
	Oil/Water Interface Probe			\$ 105.00		
	Padlocks	\$ 15.00				
	Steam Cleaner			\$ 130.00		
	Transducer (ea)			\$ 40.00		
	Coring Machine			\$ 200.00		
	Rotary Hammer Drill			\$ 170.00		
	Hand Drill			\$ 75.00		
	Tubing (Bonded) - Polyethylene (Teflon): 1/4" OD X 3/8" C	\$ 1.50				
	Tubing (Bonded) - Polyethylene (Teflon): 1/4" OD X 1/4" C	\$ 1.20				
	Tubing (Bonded) - Polyethylene (Teflon): 1/16" OD X 1/4"	\$ 1.25				
	Tubing (Bonded) - Polyethylene: 1/4" OD X 3/8" OD (per f	\$ 1.10				
	Tubing - Polyethylene: 1/4" OD (per foot)	\$ 0.60				
	Tubing - Polyethylene: 1/2" OD (per foot)	\$ 0.85				
	Tubing - Tygon: 3/8" STD (per foot)	\$ 4.45				
	Tubing - Silicone: 3/8" STD (per foot)	\$ 4.50				
	PFA Tubing - 1/2-inch ID	\$ 5.00				
	55-Gallon Drum	\$ 55.00				
	Temporary Sampling Port	\$ 25.00				
	Vapor Pin Sub-Slab Sampling Port	\$ 75.00				
	Sub-Slab Cover (Stainless Steel)	\$ 40.00				
	Well Cover 8X12"	\$ 105.00				
Measuring Wheel			\$ 15.00			
Camera			\$ 25.00			
1L Tedlar Bag	\$ 20.00					
Radon Sample Kit	\$ 30.00					
HAZMAT Exemption Shipper	\$ 40.00					
Manometers	\$ 105.00					
Westlaw	\$ 105.00					
CAD/drafting/graphics	\$ 90.00					
Safety	Cones, Baracades & Traffic Signs			\$ 10.00		
	Gloves (Chemical Resistant)	\$ 10.00				
	Level "B": Level "C1" plus SCBA			\$ 210.00		
	Level "C1": Level "C2" plus Polycoat Suit			\$ 85.00		
	Level "C2": Level "D" plus Respirator			\$ 40.00		
Production	Standby SCBA			\$ 130.00		
	Routine Field and Safety Equipment			\$ 50.00		
Production	1 Inch Binder	\$ 9.00				
	2 Inch Binder	\$ 12.00				
	3 Inch Binder	\$ 15.00				
	4 Inch Binder	\$ 22.00				
	Binder Tabs (Set of 8)	\$ 5.00				
	Color Copies	\$ 0.40	6			\$ 2.40
	B/W Copies	\$ 0.25				
Document - Format/Sending	\$ 15.00	1			\$ 15.00	
Report CD Copy	\$ 5.00					
						\$17.40
<b>PHASE TOTAL</b>						<b>\$1,257.40</b>

Project Title:  
 Project Number/Name:  
 Date:

SSDS Testing & Vapor Intrusion Assessments  
 6420 / Former Dutch Cleaners  
 3/21/2018



Phase 3b Vapor Mitigation System Installation						
Labor - Field	Price	Unit	# Units		Subtotal	Task Total
Principal	\$200.00	hr			\$0.00	
Director	\$175.00	hr			\$0.00	
Sr Project Manager	\$155.00	hr			\$0.00	
Sr Professional	\$155.00	hr			\$0.00	
Project Manager	\$130.00	hr			\$0.00	
Project Professional	\$130.00	hr			\$0.00	
Staff Professional-Office	\$120.00	hr			\$0.00	
Staff Professional-Field	\$120.00	hr			\$0.00	
Field Professional	\$95.00	hr	24.0		\$2,280.00	
Drafting	\$85.00	hr			\$0.00	
Admin	\$65.00	hr			\$0.00	
Compliance Specialist					\$0.00	
Vapor Intrusion Specialist					\$0.00	
Health and Safety Specialist					\$0.00	
		hr			\$0.00	
					\$2,280.00	\$2,280.00

Labor - Office/Reporting	Price	Unit	# Units		Subtotal	Task Total
Principal	\$200.00	hr			\$0.00	
Director	\$175.00	hr			\$0.00	
Sr Project Manager	\$155.00	hr			\$0.00	
Sr Professional	\$155.00	hr	4.0		\$620.00	
Project Manager	\$130.00	hr			\$0.00	
Project Professional	\$130.00	hr			\$0.00	
Staff Professional-Office	\$120.00	hr			\$0.00	
Staff Professional-Field	\$120.00	hr			\$0.00	
Field Professional	\$95.00	hr	8.0		\$760.00	
Drafting	\$85.00	hr			\$0.00	
Admin	\$65.00	hr			\$0.00	
Compliance Specialist					\$0.00	
Vapor Intrusion Specialist					\$0.00	
Health and Safety Specialist					\$0.00	
		hr			\$0.00	
					\$1,380.00	\$1,380.00

Contractors/Consultants	Price	Unit	# Units	Markup	Subtotal	Task Total
Utility Locate		LS		1.00	\$0.00	
Driller		LS		1.00	\$0.00	
Surveyor		LS		1.00	\$0.00	
Waste Disposal		LS		1.00	\$0.00	
WDNR Review Fee		LS		1.00	\$0.00	
Remediation		LS		1.00	\$0.00	
Vapor Protection Services	\$10,047.00	LS	1.0	1.00	\$10,047.00	
				1.00	\$0.00	
				1.00	\$0.00	
				1.00	\$0.00	
					\$10,047.00	\$10,047.00

Contractor/Consultant - Laboratory	Price	Unit	# Units	Markup	Subtotal	Task Total
Soil VOC 8260 dry wt	\$71.93	ea		1.00	\$0.00	
Soil VOC 8260 dry wt QA/QC	\$71.93	ea		1.00	\$0.00	
GW VOC 8260	\$71.93	ea		1.00	\$0.00	
GW VOC 8260 QA/QC	\$71.93	ea		1.00	\$0.00	
Air TO-15 -- Soil Gas		ea		1.00	\$0.00	
Air TO-15 -- Sub-Slab	\$180.00	ea		1.00	\$0.00	
Air TO-15 -- Indoor Air	\$180.00	ea		1.00	\$0.00	
Air - Individual Certification	\$50.00	ea		1.00	\$0.00	
Air - Batch Certification	\$50.00	LS		1.00	\$0.00	
Trip Blank VOCs 8260	\$71.93	ea		1.00	\$0.00	
	\$75.00	ea		1.00	\$0.00	
	\$95.00	ea		1.00	\$0.00	
					\$0.00	\$0.00

Direct Costs - Expenses	Price	Unit	# Units	Markup	Subtotal	Task Total
Hotel	\$120.00	day	2.0	1.00	\$240.00	
Meals	\$60.00	LS	2.0	1.00	\$120.00	
Misc Materials		LS		1.00	\$0.00	
Equipment Rental		LS		1.00	\$0.00	
					\$0.00	
					\$0.00	
					\$0.00	
					\$0.00	
					\$360.00	\$360.00

Direct Costs - Chargeable Equipment Expense		Rate (hr/unit)	# Hrs/Units	Rate (day/use)	# days/use	Subtotal
Vehicles	Field Vehicle - Full Day	\$ 20.00		\$ 130.00	\$ 3.00	\$ 390.00
	Mileage at Federal IRS Reimbursement Rate (used only for daily use over 230 miles)	\$ 0.56				
Meters	Air Velocity Meter (per use)			\$ 25.00		
	Multi-meter Conductivity/pH/Temp/TDS			\$ 165.00		
	Dissolved Oxygen Meter			\$ 40.00		
	FID Foxboro/Sensidyne (TIP)			\$ 155.00		
	Flow Calibrator			\$ 30.00		
	PID or 580 OVM			\$ 120.00		
	Turbidity Meter			\$ 30.00		
	ppb RAE			\$ 175.00		
ORP Meter			\$ 30.00			
Pumps	Air Pump - Low Flow (Barcad)			\$ 25.00		
	Development Pump			\$ 130.00		
	Electric Submersible Pump with Control Box (Units)			\$ 130.00		
	Low-Flow Sampling Bladder	\$ 12.00				
	Peristaltic Pump			\$ 105.00		
	Pumping Test Accessory Equipment (Flow Meters/Manifolds)	\$ 100.00				
	Portable SVE Unit - 1.5 HP			\$ 155.00		
	Intrinsically Safe Vapor Evacuation Blower			\$ 125.00		
Pneumatic Low-Flow Sampling Kit w/ Flow Cell and Multimeter			\$ 270.00			
Other	Asbestos Sampling Kit			\$ 250.00		
	Asbestos Investigation Supplies			\$ 130.00		
	Asbestos Sampling Core	\$ 2.50				
	Bailers (Disposable)	\$ 10.00				
	Bailers (Non-Disposable)			\$ 15.00		
	Core Boxes	\$ 10.00				
	Core Sampler			\$ 55.00		
	Data Logger with Transducer			\$ 155.00		
	Well Caps	\$ 30.00				
	Elec. Well Sounder (Probe)			\$ 30.00		
	Metal Detector			\$ 50.00		
	5035 Sample Kit	\$ 16.00				
	Field Book	\$ 11.00				
	Filter - Large	\$ 18.00				
	Filter - Small	\$ 9.00				
	Generator			\$ 105.00		
	Hand Auger			\$ 30.00		
	Helium QA/QC Kit			\$ 265.00		
	Helium QA/QC Accessories	\$ 20.00				
	Oil/Water Interface Probe			\$ 105.00		
	Padlocks	\$ 15.00				
	Steam Cleaner			\$ 130.00		
	Transducer (ea)			\$ 40.00		
	Coring Machine			\$ 200.00		
	Rotary Hammer Drill			\$ 170.00		
	Hand Drill			\$ 75.00		
	Tubing (Bonded) - Polyethylene (Teflon): 1/4" OD X 3/8" OD (per foot)	\$ 1.50				
	Tubing (Bonded) - Polyethylene (Teflon): 1/4" OD X 1/4" OD (per foot)	\$ 1.20				
	Tubing (Bonded) - Polyethylene (Teflon) : 1/16" OD X 1/4" OD (per foot)	\$ 1.25				
	Tubing (Bonded) - Polyethylene: 1/4" OD X 3/8" OD (per foot)	\$ 1.10				
	Tubing - Polyethylene: 1/4" OD (per foot)	\$ 0.60				
	Tubing - Polyethylene: 1/2" OD (per foot)	\$ 0.85				
	Tubing - Tygon: 3/8" STD (per foot)	\$ 4.45				
	Tubing - Silicone: 3/8" STD (per foot)	\$ 4.50				
	PFA Tubing - 1/2-inch ID	\$ 5.00				
	55-Gallon Drum	\$ 55.00				
	Temporary Sampling Port	\$ 25.00				
	Vapor Pin Sub-Slab Sampling Port	\$ 75.00				
	Sub-Slab Cover (Stainless Steel)	\$ 40.00				
	Well Cover 8X12"	\$ 105.00				
	Measuring Wheel			\$ 15.00		
	Camera			\$ 25.00		
	1L Tedlar Bag	\$ 20.00				
	Radon Sample Kit	\$ 30.00				
	HAZMAT Exemption Shipper	\$ 40.00				
Manometers	\$ 105.00					
Westlaw	\$ 105.00					
CAD/drafting/graphics	\$ 90.00					
Safety	Cones, Baracades & Traffic Signs			\$ 10.00		
	Gloves (Chemical Resistant)	\$ 10.00				
	Level "B": Level "C1" plus SCBA			\$ 210.00		
	Level "C1": Level "C2" plus Polycoat Suit			\$ 85.00		
	Level "C2": Level "D" plus Respirator			\$ 40.00		
	Standby SCBA			\$ 130.00		
Routine Field and Safety Equipment			\$ 50.00	\$ 3.00	\$ 150.00	
Production	1 Inch Binder	\$ 9.00				
	2 Inch Binder	\$ 12.00				
	3 Inch Binder	\$ 15.00				
	4 Inch Binder	\$ 22.00				
	Binder Tabs (Set of 8)	\$ 5.00				
	Color Copies	\$ 0.40	21			\$ 8.40
	B/W Copies	\$ 0.25				
Document - Format/Sending	\$ 15.00					
Report CD Copy	\$ 5.00					
<b>PHASE TOTAL</b>						\$548.40
<b>PHASE TOTAL</b>						<b>\$14,615.40</b>

Project Title:  
 Project Number/Name:  
 Date:

SSDS Testing & Vapor Intrusion Assessments  
 6420 / Former Dutch Cleaners  
 3/21/2018



Phase 3c Vapor Mitigation System Commissioning						
Labor - Field	Price	Unit	# Units		Subtotal	Task Total
Principal	\$200.00	hr			\$0.00	
Director	\$175.00	hr			\$0.00	
Sr Project Manager	\$155.00	hr			\$0.00	
Sr Professional	\$155.00	hr			\$0.00	
Project Manager	\$130.00	hr			\$0.00	
Project Professional	\$130.00	hr			\$0.00	
Staff Professional-Office	\$120.00	hr			\$0.00	
Staff Professional-Field	\$120.00	hr			\$0.00	
Field Professional	\$95.00	hr	20.0		\$1,900.00	
Drafting	\$85.00	hr			\$0.00	
Admin	\$65.00	hr			\$0.00	
Compliance Specialist					\$0.00	
Vapor Intrusion Specialist					\$0.00	
Health and Safety Specialist		hr			\$0.00	
					\$1,900.00	\$1,900.00

Labor - Office/Reporting	Price	Unit	# Units		Subtotal	Task Total
Principal	\$200.00	hr			\$0.00	
Director	\$175.00	hr			\$0.00	
Sr Project Manager	\$155.00	hr			\$0.00	
Sr Professional	\$155.00	hr	4.0		\$620.00	
Project Manager	\$130.00	hr			\$0.00	
Project Professional	\$130.00	hr			\$0.00	
Staff Professional-Office	\$120.00	hr	12.0		\$1,440.00	
Staff Professional-Field	\$120.00	hr			\$0.00	
Field Professional	\$95.00	hr	8.0		\$760.00	
Drafting	\$85.00	hr			\$0.00	
Admin	\$65.00	hr			\$0.00	
Compliance Specialist					\$0.00	
Vapor Intrusion Specialist	\$155.00	hr	1.0		\$155.00	
Health and Safety Specialist					\$0.00	
		hr			\$0.00	
					\$2,975.00	\$2,975.00

Contractors/Consultants	Price	Unit	# Units	Markup	Subtotal	Task Total
Utility Locate		LS		1.00	\$0.00	
Driller		LS		1.00	\$0.00	
Surveyor		LS		1.00	\$0.00	
Waste Disposal		LS		1.00	\$0.00	
WDNR Review Fee		LS		1.00	\$0.00	
Remediation		LS		1.00	\$0.00	
				1.00	\$0.00	
				1.00	\$0.00	
				1.00	\$0.00	
					\$0.00	\$0.00

Contractor/Consultant - Laboratory	Price	Unit	# Units	Markup	Subtotal	Task Total
Soil VOC 8260 dry wt	\$71.93	ea		1.00	\$0.00	
Soil VOC 8260 dry wt QA/QC	\$71.93	ea		1.00	\$0.00	
GW VOC 8260	\$71.93	ea		1.00	\$0.00	
GW VOC 8260 QA/QC	\$71.93	ea		1.00	\$0.00	
Air TO-15 -- Soil Gas		ea		1.00	\$0.00	
Air TO-15 -- Outdoor Background	\$180.00	ea	2.0	1.00	\$360.00	
Air TO-15 -- Indoor Air	\$180.00	ea	2.0	1.00	\$360.00	
Air - Individual Certification	\$50.00	ea	4.0	1.00	\$200.00	
Air - Batch Certification	\$50.00	LS		1.00	\$0.00	
Trip Blank VOCs 8260	\$71.93	ea		1.00	\$0.00	
Microbial Analyses	\$425.00	ea		1.00	\$0.00	
		ea		1.00	\$0.00	
					\$920.00	\$920.00

Direct Costs - Expenses	Price	Unit	# Units	Markup	Subtotal	Task Total
Hotel	\$120.00	day		1.00	\$0.00	
Meals	\$60.00	LS		1.00	\$0.00	
Misc Materials		LS		1.00	\$0.00	
Equipment Rental		LS		1.00	\$0.00	
					\$0.00	
					\$0.00	
					\$0.00	
					\$0.00	
					\$0.00	\$0.00

	Direct Costs - Chargeable Equipment Expense	Rate (hr/unit)	# Hrs/Units	Rate (day/use)	# days/use	Subtotal
Vehicles	Field Vehicle - Full Day	\$ 20.00		\$ 130.00	2.00	\$ 260.00
	Mileage at Federal IRS Reimbursement Rate (used only for daily use over 230 miles)	\$ 0.56				
Meters	Air Velocity Meter (per use)			\$ 25.00		
	Multi-meter Conductivity/pH/Temp/TDS			\$ 165.00		
	Dissolved Oxygen Meter			\$ 40.00		
	FID Foxboro/Sensidyne (TIP)			\$ 155.00		
	Flow Calibrator			\$ 30.00		
	PID or 580 OVM			\$ 120.00		
	Turbidity Meter			\$ 30.00		
	ppb RAE			\$ 175.00		
Pumps	ORP Meter			\$ 30.00		
	Air Pump - Low Flow (Barcad)			\$ 25.00		
	Development Pump			\$ 130.00		
	Electric Submersible Pump with Control Box (Units)			\$ 130.00		
	Low-Flow Sampling Bladder	\$ 12.00				
	Peristaltic Pump			\$ 105.00		
	Pumping Test Accessory Equipment (Flow Meters/Manifolds)	\$ 100.00				
	Portable SVE Unit - 1.5 HP			\$ 155.00		
Other	Intrinsically Safe Vapor Evacuation Blower			\$ 125.00		
	Pneumatic Low-Flow Sampling Kit w/ Flow Cell and Multimeter			\$ 270.00		
	Asbestos Sampling Kit			\$ 250.00		
	Asbestos Investigation Supplies			\$ 130.00		
	Asbestos Sampling Core	\$ 2.50				
	Bailers (Disposable)	\$ 10.00				
	Bailers (Non-Disposable)			\$ 15.00		
	Core Boxes	\$ 10.00				
	Core Sampler			\$ 55.00		
	Data Logger with Transducer			\$ 155.00		
	Well Caps	\$ 30.00				
	Elec. Well Sounder (Probe)			\$ 30.00		
	Metal Detector			\$ 50.00		
	5035 Sample Kit	\$ 16.00				
	Field Book	\$ 11.00				
	Filter - Large	\$ 18.00				
	Filter - Small	\$ 9.00				
	Generator			\$ 105.00		
	Hand Auger			\$ 30.00		
	Helium QA/QC Kit			\$ 265.00		
	Helium QA/QC Accessories	\$ 20.00				
	Oil/Water Interface Probe			\$ 105.00		
	Padlocks	\$ 15.00				
	Steam Cleaner			\$ 130.00		
	Transducer (ea)			\$ 40.00		
	Coring Machine			\$ 200.00		
	Rotary Hammer Drill			\$ 170.00		
	Hand Drill			\$ 75.00		
	Tubing (Bonded) - Polyethylene (Teflon): 1/4" OD X 3/8" C	\$ 1.50				
	Tubing (Bonded) - Polyethylene (Teflon): 1/4" OD X 1/4" C	\$ 1.20				
	Tubing (Bonded) - Polyethylene (Teflon): 1/16" OD X 1/4"	\$ 1.25				
	Tubing (Bonded) - Polyethylene: 1/4" OD X 3/8" OD (per foot)	\$ 1.10				
	Tubing - Polyethylene: 1/4" OD (per foot)	\$ 0.60				
	Tubing - Polyethylene: 1/2" OD (per foot)	\$ 0.85				
	Tubing - Tygon: 3/8" STD (per foot)	\$ 4.45				
	Tubing - Silicone: 3/8" STD (per foot)	\$ 4.50				
	PFA Tubing - 1/2-inch ID	\$ 5.00				
	55-Gallon Drum	\$ 55.00				
	Temporary Sampling Port	\$ 25.00				
	Vapor Pin Sub-Slab Sampling Port	\$ 75.00				
	Sub-Slab Cover (Stainless Steel)	\$ 40.00				
	Well Cover 8X12"	\$ 105.00				
	Measuring Wheel			\$ 15.00		
	Camera			\$ 25.00		
	1L Tedlar Bag	\$ 20.00				
	Radon Sample Kit	\$ 30.00				
	HAZMAT Exemption Shipper	\$ 40.00				
	Manometers	\$ 105.00	2.00			\$ 210.00
Westlaw	\$ 105.00					
CAD/drafting/graphics	\$ 90.00					
Safety	Cones, Baracades & Traffic Signs			\$ 10.00		
	Gloves (Chemical Resistant)	\$ 10.00				
	Level "B": Level "C1" plus SCBA			\$ 210.00		
	Level "C1": Level "C2" plus Polycoat Suit			\$ 85.00		
	Level "C2": Level "D" plus Respirator			\$ 40.00		
	Standby SCBA			\$ 130.00		
Production	Routine Field and Safety Equipment			\$ 50.00	2.00	\$ 100.00
	1 Inch Binder	\$ 9.00				
	2 Inch Binder	\$ 12.00				
	3 Inch Binder	\$ 15.00				
	4 Inch Binder	\$ 22.00				
	Binder Tabs (Set of 8)	\$ 5.00				
	Color Copies	\$ 0.40	6			\$ 2.40
	B/W Copies	\$ 0.25				
Document - Format/Sending	\$ 15.00					
Report CD Copy	\$ 5.00					
						\$572.40
<b>PHASE TOTAL</b>						<b>\$6,367.40</b>

Project Title:  
 Project Number/Name:  
 Date:

SSDS Testing & Vapor Intrusion Assessments  
 6420 / Former Dutch Cleaners  
 3/21/2018



Phase 3d Vapor Mitigation System O&M Plan Development							
<b>Labor - Field</b>							
Principal	\$200.00	hr			\$0.00	Task Total	
Director	\$175.00	hr			\$0.00		
Sr Project Manager	\$155.00	hr			\$0.00		
Sr Professional	\$155.00	hr			\$0.00		
Project Manager	\$130.00	hr			\$0.00		
Project Professional	\$130.00	hr			\$0.00		
Staff Professional-Office	\$120.00	hr			\$0.00		
Staff Professional-Field	\$120.00	hr			\$0.00		
Field Professional	\$95.00	hr			\$0.00		
Drafting	\$85.00	hr			\$0.00		
Admin	\$65.00	hr			\$0.00		
Compliance Specialist					\$0.00		
Vapor Intrusion Specialist					\$0.00		
Health and Safety Specialist		hr			\$0.00		
					\$0.00		<b>\$0.00</b>
<b>Labor - Office/Reporting</b>							
Principal	\$200.00	hr			\$0.00	Task Total	
Director	\$175.00	hr			\$0.00		
Sr Project Manager	\$155.00	hr			\$0.00		
Sr Professional	\$155.00	hr	0.5		\$77.50		
Project Manager	\$130.00	hr			\$0.00		
Project Professional	\$130.00	hr	6.0		\$780.00		
Staff Professional-Office	\$120.00	hr			\$0.00		
Staff Professional-Field	\$120.00	hr			\$0.00		
Field Professional	\$95.00	hr			\$0.00		
Drafting	\$85.00	hr			\$0.00		
Admin	\$65.00	hr			\$0.00		
Compliance Specialist					\$0.00		
Vapor Intrusion Specialist	\$155.00	hr	0.5		\$77.50		
Health and Safety Specialist					\$0.00		
		hr			\$0.00		<b>\$935.00</b>
<b>Contractors/Consultants</b>							
Utility Locate		LS		1.00	\$0.00	Task Total	
Driller		LS		1.00	\$0.00		
Surveyor		LS		1.00	\$0.00		
Waste Disposal		LS		1.00	\$0.00		
Historical Database Report		LS		1.00	\$0.00		
Remediation		LS		1.00	\$0.00		
				1.00	\$0.00		
				1.00	\$0.00		
				1.00	\$0.00		
				1.00	\$0.00		
				1.00	\$0.00	<b>\$0.00</b>	
<b>Contractor/Consultant - Laboratory</b>							
Soil VOC 8260 dry wt	\$71.93	ea		1.00	\$0.00	Task Total	
Soil VOC 8260 dry wt QA/QC	\$71.93	ea		1.00	\$0.00		
GW VOC 8260	\$210.00	ea		1.00	\$0.00		
GW VOC 8260 QA/QC	\$71.93	ea		1.00	\$0.00		
Air TO-15 -- Soil Gas		ea		1.00	\$0.00		
Air TO-15 -- Sub-Slab	\$40.00	ea		1.00	\$0.00		
Air TO-15 -- Indoor Air	\$110.00	ea		1.00	\$0.00		
Air - Individual Certification	\$200.00	ea		1.00	\$0.00		
Air - Batch Certification	\$35.00	LS		1.00	\$0.00		
Trip Blank VOCs 8260	\$50.00	ea		1.00	\$0.00		
Level IV QA/QC (15%)	\$71.93				\$0.00		
					\$0.00	<b>\$0.00</b>	
<b>Direct Costs - Expenses</b>							
Hotel	\$120.00	day		1.00	\$0.00	Task Total	
Meals	\$60.00	LS		1.00	\$0.00		
Misc Materials		LS		1.00	\$0.00		
Equipment Rental		LS		1.00	\$0.00		
					\$0.00		
					\$0.00		
					\$0.00		<b>\$0.00</b>

	Direct Costs - Chargeable Equipment Expense	Rate (hr/unit)	# Hrs/Units	Rate (day/use)	# days/use	Subtotal
Vehicles	Field Vehicle - Full Day	\$ 20.00		\$ 130.00		
	Mileage at Federal IRS Reimbursement Rate (used only for daily use over 230 miles)	\$ 0.560				
Meters	Air Velocity Meter (per use)			\$ 25.00		
	Multi-meter Conductivity/pH/Temp/TDS			\$ 165.00		
	Dissolved Oxygen Meter			\$ 40.00		
	FID Foxboro/Sensidyne (TIP)			\$ 155.00		
	Flow Calibrator			\$ 30.00		
	PID or 580 OVM			\$ 120.00		
	Turbidity Meter			\$ 30.00		
	ppb RAE			\$ 175.00		
	ORP Meter			\$ 30.00		
Pumps	Air Pump - Low Flow (Barcad)			\$ 25.00		
	Development Pump			\$ 130.00		
	Electric Submersible Pump with Control Box (Units)			\$ 130.00		
	Low-Flow Sampling Bladder	\$ 12.00				
	Peristaltic Pump			\$ 105.00		
	Pumping Test Accessory Equipment (Flow Meters/Manifolds)	\$ 100.00				
	Portable SVE Unit - 1.5 HP			\$ 155.00		
	Intrinsically Safe Vapor Evacuation Blower			\$ 155.00		
Other	Pneumatic Low-Flow Sampling Kit w/ Flow Cell and Multimeter			\$ 270.00		
	Asbestos Sampling Kit			\$ 250.00		
	Asbestos Investigation Supplies			\$ 130.00		
	Asbestos Sampling Core	\$ 2.50				
	Bailers (Disposable)	\$ 10.00				
	Bailers (Non-Disposable)			\$ 15.00		
	Core Boxes	\$ 10.00				
	Core Sampler			\$ 55.00		
	Data Logger with Transducer			\$ 155.00		
	Well Caps	\$ 30.00				
	Elec. Well Sounder (Probe)			\$ 30.00		
	Metal Detector			\$ 50.00		
	5035 Sample Kit	\$ 16.00				
	Field Book	\$ 11.00				
	Filter - Large	\$ 18.00				
	Filter - Small	\$ 9.00				
	Generator			\$ 105.00		
	Hand Auger			\$ 30.00		
	Helium QA/QC Kit			\$ 265.00		
	Helium QA/QC Accessories	\$ 20.00				
	Oil/Water Interface Probe			\$ 105.00		
	Padlocks	\$ 15.00				
	Steam Cleaner			\$ 130.00		
	Transducer (ea)			\$ 40.00		
	Coring Machine			\$ 200.00		
	Rotary Hammer Drill			\$ 170.00		
	Hand Drill			\$ 75.00		
	Tubing (Bonded) - Polyethylene (Teflon): 1/4" OD X 3/8" OD (per foot)	\$ 1.50				
	Tubing (Bonded) - Polyethylene (Teflon): 1/4" OD X 1/4" OD (per foot)	\$ 1.20				
	Tubing (Bonded) - Polyethylene (Teflon): 1/16" OD X 1/4" OD (per foot)	\$ 1.25				
	Tubing (Bonded) - Polyethylene: 1/4" OD X 3/8" OD (per foot)	\$ 1.10				
	Tubing - Polyethylene: 1/4" OD (per foot)	\$ 0.60				
	Tubing - Polyethylene: 1/2" OD (per foot)	\$ 0.85				
	Tubing - Tygon: 3/8" STD (per foot)	\$ 4.45				
	Tubing - Silicone: 3/8" STD (per foot)	\$ 4.50				
	PFA Tubing - 1/2-inch ID	\$ 5.00				
	55-Gallon Drum	\$ 55.00				
	Temporary Sampling Port	\$ 25.00				
	Soil Gas Sampling Port	\$ 75.00				
	Sub-Slab Cover (Stainless Steel)	\$ 40.00				
	Well Cover 8X12"	\$ 105.00				
	Measuring Wheel			\$ 15.00		
	Camera			\$ 25.00		
	1L Tedlar Bag	\$ 20.00				
	Radon Sampling Kit	\$ 30.00				
	HAZMAT Exemption Shipper	\$ 40.00				
	Manometers	\$ 105.00				
Westlaw	\$ 105.00					
CAD/drafting/graphics	\$ 90.00					
Safety	Cones, Baracades & Traffic Signs			\$ 10.00		
	Gloves (Chemical Resistant)	\$ 10.00				
	Level "B": Level "C1" plus SCBA			\$ 210.00		
	Level "C1": Level "C2" plus Polycoat Suit			\$ 85.00		
	Level "C2": Level "D" plus Respirator			\$ 40.00		
	Standby SCBA			\$ 130.00		
Production	Routine Field and Safety Equipment			\$ 50.00		
	1 Inch Binder	\$ 9.00				
	2 Inch Binder	\$ 12.00				
	3 Inch Binder	\$ 15.00				
	4 Inch Binder	\$ 22.00				
	Binder Tabs (Set of 8)	\$ 5.00				
	Color Copies	\$ 0.40	20			\$ 8.00
	B/W Copies	\$ 0.25				
	Document - Format/Sending	\$ 15.00				
Report CD Copy	\$ 5.00					
<b>PHASE TOTAL</b>						<b>\$8.00</b>
<b>PHASE TOTAL</b>						<b>\$8.00</b>
<b>PHASE TOTAL</b>						<b>\$943.00</b>





	Direct Costs - Chargeable Equipment Expense	Rate (hr/unit)	# Hrs/Units	Rate (day/use)	# days/use	Subtotal
Vehicles	Field Vehicle - Full Day	\$ 20.00		\$ 130.00		
	Mileage at Federal IRS Reimbursement Rate (used only for daily use over 230 miles)	\$ 0.560				
Meters	Air Velocity Meter (per use)			\$ 25.00		
	Multi-meter Conductivity/pH/Temp/TDS			\$ 165.00		
	Dissolved Oxygen Meter			\$ 40.00		
	FID Foxboro/Sensidyne (TIP)			\$ 155.00		
	Flow Calibrator			\$ 30.00		
	PID or 580 OVM			\$ 120.00		
	Turbidity Meter			\$ 30.00		
	ppb RAE			\$ 175.00		
Pumps	ORP Meter			\$ 30.00		
	Air Pump - Low Flow (Barcad)			\$ 25.00		
	Development Pump			\$ 130.00		
	Electric Submersible Pump with Control Box (Units)			\$ 130.00		
	Low-Flow Sampling Bladder	\$ 12.00				
	Peristaltic Pump			\$ 105.00		
	Pumping Test Accessory Equipment (Flow Meters/Manifolds)	\$ 100.00				
	Portable SVE Unit - 1.5 HP			\$ 155.00		
Other	Intrinsically Safe Vapor Evacuation Blower			\$ 155.00		
	Pneumatic Low-Flow Sampling Kit w/ Flow Cell and Multimeter			\$ 270.00		
	Asbestos Sampling Kit			\$ 250.00		
	Asbestos Investigation Supplies			\$ 130.00		
	Asbestos Sampling Core	\$ 2.50				
	Bailers (Disposable)	\$ 10.00				
	Bailers (Non-Disposable)			\$ 15.00		
	Core Boxes	\$ 10.00				
	Core Sampler			\$ 55.00		
	Data Logger with Transducer			\$ 155.00		
	Well Caps	\$ 30.00				
	Elec. Well Sounder (Probe)			\$ 30.00		
	Metal Detector			\$ 50.00		
	5035 Sample Kit	\$ 16.00				
	Field Book	\$ 11.00				
	Filter - Large	\$ 18.00				
	Filter - Small	\$ 9.00				
	Generator			\$ 105.00		
	Hand Auger			\$ 30.00		
	Helium QA/QC Kit			\$ 265.00		
	Helium QA/QC Accessories	\$ 20.00				
	Oil/Water Interface Probe			\$ 105.00		
	Padlocks	\$ 15.00				
	Steam Cleaner			\$ 130.00		
	Transducer (ea)			\$ 40.00		
	Coring Machine			\$ 200.00		
	Rotary Hammer Drill			\$ 170.00		
	Hand Drill			\$ 75.00		
	Tubing (Bonded) - Polyethylene (Teflon): 1/4" OD X 3/8" OD (per foot)	\$ 1.50				
	Tubing (Bonded) - Polyethylene (Teflon): 1/4" OD X 1/4" OD (per foot)	\$ 1.20				
	Tubing (Bonded) - Polyethylene (Teflon): 1/16" OD X 1/4" OD (per foot)	\$ 1.25				
	Tubing (Bonded) - Polyethylene: 1/4" OD X 3/8" OD (per foot)	\$ 1.10				
	Tubing - Polyethylene: 1/4" OD (per foot)	\$ 0.60				
	Tubing - Polyethylene: 1/2" OD (per foot)	\$ 0.85				
	Tubing - Tygon: 3/8" STD (per foot)	\$ 4.45				
	Tubing - Silicone: 3/8" STD (per foot)	\$ 4.50				
	PFA Tubing - 1/2-inch ID	\$ 5.00				
	55-Gallon Drum	\$ 55.00				
	Temporary Sampling Port	\$ 25.00				
	Soil Gas Sampling Port	\$ 75.00				
	Sub-Slab Cover (Stainless Steel)	\$ 40.00				
	Well Cover 8X12"	\$ 105.00				
Measuring Wheel			\$ 15.00			
Camera			\$ 25.00			
1L Tedlar Bag	\$ 20.00					
Radon Sampling Kit	\$ 30.00					
HAZMAT Exemption Shipper	\$ 40.00					
Manometers	\$ 105.00					
Westlaw	\$ 105.00					
CAD/drafting/graphics	\$ 90.00					
Safety	Cones, Baracades & Traffic Signs			\$ 10.00		
	Gloves (Chemical Resistant)	\$ 10.00				
	Level "B": Level "C1" plus SCBA			\$ 210.00		
	Level "C1": Level "C2" plus Polycoat Suit			\$ 85.00		
	Level "C2": Level "D" plus Respirator			\$ 40.00		
Production	Standby SCBA			\$ 130.00		
	Routine Field and Safety Equipment			\$ 50.00		
Production	1 Inch Binder	\$ 9.00				
	2 Inch Binder	\$ 12.00				
	3 Inch Binder	\$ 15.00				
	4 Inch Binder	\$ 22.00				
	Binder Tabs (Set of 8)	\$ 5.00				
	Color Copies	\$ 0.40	12			\$ 4.80
B/W Copies	\$ 0.25					
Document - Format/Sending	\$ 15.00					
Report CD Copy	\$ 5.00					
						\$ 4.80
<b>PHASE TOTAL</b>						<b>\$1,664.80</b>



Site Name: Dutch Cleaners  
 BRRTS #: 02-60-271527  
 Type of Action: Site Investigation / Interim RA

TASKS	BUDGET																	Total Invoiced Costs
	Original Bid plus CO Approved Amount	Change Order Interim RA, Jan 2012	Change Order Addl SI 1/30/2014	Change Order #4 Additional SI July 2017	Change Order #5 Additional SI November 2017	Change Order #6 Vapor Mitigation System, March 2018	Total Approved Budget	Previous Claims (If applicable)	EnviroForensics Invoice # 18348 June 2017	EnviroForensics Invoice # 18430 July 2017	EnviroForensics Invoice # 18550 August 2017	EnviroForensics Invoice # 18679 September 2017	EnviroForensics Invoice # 18804 October 2017	EnviroForensics Invoice # 18912 November 2017	EnviroForensics Invoice # 19014 December 2017	EnviroForensics Invoice # 19119 January 2018	EnviroForensics Invoice # 19287 February 2018	
Phase 1b: Site Investigation Field Work				\$ 5,327.00			\$ 5,327.00	\$ -	\$ -	\$ -	\$ 250.00	\$ 2,522.00						\$ 3,595.50
Phase 1c: Data Evaluation and Reporting				\$ 2,414.00			\$ 2,414.00	\$ -	\$ -	\$ -	\$ -	\$ 77.50	\$ 1,757.50					\$ 1,835.00
Phase 1d: Project Coordination & Management				\$ 1,563.00			\$ 1,563.00	\$ -	\$ -	\$ -	\$ 1,039.00	\$ 232.50	\$ 108.50	\$ 465.00				\$ 2,100.00
Phase 2a: Work Scope Development					\$ 3,287.00		\$ 3,287.00	\$ -						\$ 3,084.90				\$ 3,084.90
Phase 2b: Access					\$ 2,493.00		\$ 2,493.00	\$ -						\$ 1,632.25	\$ 349.50	\$ 846.25	\$ 62.00	\$ 2,890.00
Phase 2c: Investigative Work					\$ 9,778.00		\$ 9,778.00	\$ -							\$ 392.50	\$ 5,577.33	\$ 136.50	\$ 6,106.33
Phase 2d: Data Evaluation and Reporting					\$ 4,864.00		\$ 4,864.00	\$ -								\$ 153.00	\$ 3,780.75	\$ 3,933.75
Phase 2e: Project Coordination and Management					\$ 2,925.00		\$ 2,925.00	\$ -						\$ 186.00	\$ 356.50	\$ 403.25	\$ 274.00	\$ 1,219.75
Phase 3a: Work Scoping						\$ 1,257.00	\$ 1,257.00											
Phase 3b: VMS Installation						\$ 4,568.40	\$ 4,568.40											
Phase 3c: VMS Commissioning						\$ 5,447.40	\$ 5,447.40											
Phase 3d: VMS O&M Plan						\$ 943.00	\$ 943.00											
Phase 3e: PM						\$ 1,664.80	\$ 1,664.80											
<b>Consultant Cost Total</b>	\$ 26,703.00	\$ 23,679.80	\$ 5,121.00	\$ 12,624.00	\$ 23,347.00	\$ 13,880.60	\$ 105,355.40	\$ 51,398.79	\$ 419.50	\$ 710.00	\$ 1,845.50	\$ 2,832.00	\$ 1,866.00	\$ 5,368.15	\$ 1,098.50	\$ 6,979.83	\$ 4,253.25	\$ 30,059.23
<b>Sub-Contractor Costs</b>																		
Phase 1b: Site Investigation Field Work				\$ 2,874.00			\$ 2,874.00	\$ -	\$ -	\$ -	\$ -	\$ 1,380.00	\$ 170.00					\$ 1,621.93
Phase 2c: Investigative Work					\$ 11,070.00		\$ 11,070.00	\$ -									\$ 1,963.72	\$ 1,963.72
Phase 3: VMS Install & Commissioning						\$ 10,967.00	\$ 10,967.00											
<b>Sub-Contractor Cost Total</b>	\$ 19,335.00	\$ 3,755.00	\$ 4,955.00	\$ 2,874.00	\$ 11,070.00	\$ 10,967.00	\$ 52,956.00	\$ 24,133.95	\$ -	\$ -	\$ -	\$ 1,380.00	\$ 170.00	\$ -	\$ -	\$ -	\$ 1,963.72	\$ 3,985.65
<b>DERF ELIGIBLE SUB-TOTALS</b>	\$ 46,038.00	\$ 27,434.80	\$ 10,076.00	\$ 15,498.00	\$ 34,417.00	\$ 24,847.60	\$ 158,311.40	\$ 75,532.74	\$ 419.50	\$ 710.00	\$ 1,845.50	\$ 4,212.00	\$ 2,036.00	\$ 5,368.15	\$ 1,098.50	\$ 6,979.83	\$ 6,216.97	\$ 34,044.88
<b>Non-DERF Eligible Expenses</b>																		
Excess Bill Rate by \$10 per hour																		\$ -
<b>Non-DERF Cost Total</b>								\$ -	\$ -	\$ -	\$ -	\$ -						\$ -
<b>INVOICE GRAND TOTAL</b>								\$ 75,532.74	\$ 419.50	\$ 710.00	\$ 1,845.50	\$ 4,212.00						\$ 34,044.88

Check Numbers

Site Name: Dutch Cleaners  
 BRRTS #: 02-60-271527  
 Type of Action: Site Investigation / Interim RA

Dry Cleaner Environmental Response Program  
 Reimbursement Cost Detail Linking Spreadsheet Form 4400-214D (R 08/12)

TASKS	BUDGET							DERF COST BREAKOUT (this claim)								Budget Remaining Use (-) to indicate cost over-run	% Task Complete, Remarks	
	Original Bid plus CO Approved Amount	Change Order Interim RA, Jan 2012	Change Order Addl SI 1/30/2014	Change Order #4 Additional SI July 2017	Change Order #5 Additional SI November 2017	Change Order #6 Vapor Mitigation System, March 2018	Total Approved Budget	Previous Claims (if applicable)	A Soil Invn	B Soil Remn	C GW Invn	D GW Remn	E Air/Vapor Invn	F Air/Vapor Remn	G Lab & Other Analysis			H Misc Costs
Phase 1b: Site Investigation Field Work				\$ 5,327.00			\$ 5,327.00	\$ -					\$ 3,595.50				\$ 1,731.50	100%
Phase 1c: Data Evaluation and Reporting				\$ 2,414.00			\$ 2,414.00	\$ -					\$ 1,835.00				\$ 579.00	100%
Phase 1d: Project Coordination & Management				\$ 1,563.00			\$ 1,563.00	\$ -					\$ 2,100.00				\$ (537.00)	100%
Phase 2a: Work Scope Development					\$ 3,287.00		\$ 3,287.00	\$ -					\$ 3,084.90				\$ 202.10	100%
Phase 2b: Access					\$ 2,493.00		\$ 2,493.00	\$ -					\$ 2,890.00				\$ (397.00)	100%
Phase 2c: Investigative Work					\$ 9,778.00		\$ 9,778.00	\$ -					\$ 6,106.33				\$ 3,671.67	30%
Phase 2d: Data Evaluation and Reporting					\$ 4,864.00		\$ 4,864.00	\$ -					\$ 3,933.75				\$ 930.25	80%
Phase 2e: Project Coordination and Management					\$ 2,925.00		\$ 2,925.00	\$ -					\$ 1,219.75				\$ 1,705.25	80%
Phase 3a: Work Scoping						\$ 1,257.00	\$ 1,257.00											
Phase 3b: VMS Installation						\$ 4,568.40	\$ 4,568.40											
Phase 3c: VMS Commissioning						\$ 5,447.40	\$ 5,447.40											
Phase 3d: VMS O&M Plan						\$ 943.00	\$ 943.00											
Phase 3e: PM						\$ 1,664.80	\$ 1,664.80											
<b>Consultant Cost Total</b>	\$ 26,703.00	\$ 23,679.80	\$ 5,121.00	\$ 12,624.00	\$ 23,347.00	\$ 13,880.60	\$ 105,355.40	\$ 51,398.79									\$ 10,016.78	
<b>Sub-Contractor Costs</b>																		
Phase 1b: Site Investigation Field Work				\$ 2,874.00			\$ 2,874.00	\$ -							\$ 1,621.93			100%
Phase 2c: Investigative Work					\$ 11,070.00		\$ 11,070.00	\$ -							\$ 1,963.72			50%
Phase 3: VMS Install & Commissioning						\$ 10,967.00	\$ 10,967.00											
<b>Sub-Contractor Cost Total</b>	\$ 19,335.00	\$ 3,755.00	\$ 4,955.00	\$ 2,874.00	\$ 11,070.00	\$ 10,967.00	\$ 52,956.00	\$ 24,133.95									\$ 3,511.05	
<b>DERF ELIGIBLE SUB-TOTALS</b>	\$ 46,038.00	\$ 27,434.80	\$ 10,076.00	\$ 15,498.00	\$ 34,417.00	\$ 24,847.60	\$ 158,311.40	\$ 75,532.74	\$ -	\$ -	\$ -	\$ 1,565.00	\$ 28,494.23	\$ -	\$ 3,985.65	\$ -	\$ 13,527.83	
Non-DERF Eligible Expenses																		
Excess Bill Rate by \$10 per hour																		
<b>Non-DERF Cost Total</b>								\$ -										
<b>INVOICE GRAND TOTAL</b>								\$ 75,532.74										

Total DERF Eligible Costs This Claim \$ 34,044.88

Check Numbers