



September 27, 2019

John Hnat  
Wisconsin Department of Natural Resources  
2300 North Dr. Martin Luther King Jr. Dr.  
Milwaukee, WI 53202

**Re: DERF Change Order Request  
One Hour Martinizing  
2262 South 108<sup>th</sup> Street  
West Allis, Wisconsin  
BRRTS#: 02-41-246246**

Dear Mr. Hnat:

EnviroForensics, LLC is requesting your approval for a change order to perform some additional assessment work for the One Hour Martinizing (OHM) facility located at 2262 South 108<sup>th</sup> Street in West Allis, Wisconsin.

The work is being performed per your email request of September 18, 2019 and pertains to assessing the current sub-slab depressurization system (SSDS) that was installed at the neighboring mixed-use property located at 2248 S. 108<sup>th</sup> Street. You have also requested that we assess the current concentrations of chlorinated solvents in the basement foundation sump water and vapor concentrations emanating from that water to determine additional actions needed.

During our last SSDS inspection event in July 2019, high water levels were observed in the granular sub-base of the basement slab which resulted in two (2) of three (3) sub-slab sampling ports to have negligible negative pressure. However, during this inspection, it was discovered that a flexible rubber connector located outside the building and just below the SSDS fan had been displaced. This caused a gap between the connector and the ridged poly-vinyl (PVC) piping and allowed outside air to enter the system. This "short circuiting" of the system would have reduced the venting efficiency of the SSDS. The act of applying a vacuum to the subsurface has a drying effect on the granular sub-slab fill because moisture is removed (vented) along with the volatile contaminants. If the SSDS was not operating efficiently due to the loose coupler, then it would not be as effective in venting soil moisture. It is possible that this was the reason for the higher water levels than previously measured and consequent lack of negative pressures across the basement slab. During our July 2019 inspection, the coupler was reattached more securely and optimal venting was again established.

It has been two (2) months since the coupler was reattached and drying of the sub-grade fill should have occurred due to more efficient operation of the SSDS. Therefore, as part of our scope, we should again test the subsurface for adequate negative pressure.

We will also need to sample the sump water to determine if the discharge from the sump needs to be re-routed to the sanitary sewer system under permit to the Milwaukee Metropolitan Sewerage District (MMSD). If that is required, then we will need to consult with a plumber to determine how that

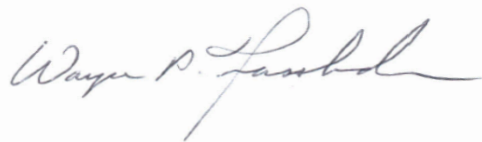
connection can best be achieved. The basement drainage sump was fitted with a vapor tight lid during construction of the SSDS. We will drill a small hole in the sump to allow tubing to be inserted for the purpose of collecting a water sample with a peristaltic pump and for collecting a vapor sample with a Summa canister. The small hole will be sealed with an expandable and removable rubber grommet. If concentrations of contaminants in water or vapor within the sump are at levels that could pose a vapor risk, then additional maintenance requirements for the sump seal will be added to the SSDS Operations Monitoring & Maintenance (OM&M) Plan.

We have attached detailed cost breakdown sheets that cover the cost to prepare this work scope and perform the initial assessment work. The cost to perform the initial assessment is anticipated at \$4,395.00 and becomes EnviroForensics change order #4.

Additional work may need to be performed following this assessment which could include permitting of sump discharge to the MMSD, plumbing to re-route discharge to the sanitary sewer, and modifications to the SSDS and/or modifications to the SSDS OM&M Plan. A request for additional funds, if needed, will be submitted along with the results of our initial assessment.

Please respond to provide your approval. We anticipate 2-3 weeks to complete the initial assessment provided that access does not become an issue. You can contact me with any questions 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*

Attachment



**TABLE 1**  
**CHANGE ORDER #4 COST ESTIMATE**

One Hour Martinizing  
West Allis, WI

<b>TASK</b>	<b>LABOR COSTS</b>	<b>SUB-CONTRACTOR COSTS</b>	<b>DIRECT COSTS</b>	<b>PHASE COST</b>
<b>Phase 6a</b>				
Work Scope Preparation	\$930	\$0	\$19	<b>\$949</b>
<b>Phase 6b</b>				
Access, SSDS Inspections, and Sump Sampling	\$1,055	\$267	\$295	<b>\$1,617</b>
<b>Phase 6c</b>				
Results Reporting & Project Management	\$1,810	\$0	\$19	<b>\$1,829</b>
<b>TOTAL</b>	<b>\$3,795</b>	<b>\$267</b>	<b>\$333</b>	<b>\$4,395</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)	\$ 0.56				
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	10			\$ 4.00
	B/W Copies	\$ 0.25				
Document - Format/Sending	\$ 15.00	1			\$ 15.00	
Report CD Copy	\$ 5.00					
						\$19.00
<b>PHASE TOTAL</b>						<b>\$949.00</b>



	Direct Costs - Chargeable Equipment Expense	Rate (hr/unit)	# Hrs/Units	Rate (day/use)	# days/use	Subtotal
Vehicles	Field Vehicle - Full Day	\$ 20.00	\$ 5.00	\$ 130.00		\$ 100.00
	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			\$ 30.00	\$ 1.00	\$ 30.00
	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				
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	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	\$ 0.50	\$ 37.50
	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				
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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	0.5			\$ 52.50	
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		
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<b>PHASE TOTAL</b>						<b>\$295.00</b>
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