Stoltz, Carrie R - DNR

From: Ken Shimko <kshimko.meridianenv@gmail.com>
Sent: Tuesday, April 30, 2019 7:34 AM
To: Stoltz, Carrie R - DNR
Subject: FW: Autostp Dougs lab costs
Attachments: Change Order - April 2019.xlsx; 2019 Budget - corrected mileage.pdf

Budget with corrected mileage ($0.58/mile)

From: Ken Shimko [mailto:kshimko.meridianenv@gmail.com]
Sent: Tuesday, April 30, 2019 7:28 AM
To: Stoltz, Carrie R - DNR <Carrie.Stoltz@wisconsin.gov>
Subject: Autostp Dougs lab costs

Kenneth Shimko, PG
Meridian Environmental Consulting, LLC
2711 North Elco Road
Fall Creek, Wisconsin 54742
(715)832-6608 (office)
(715)579-0723 (cell)
Email: kshimko.meridianenv@gmail.com

Meridian Environmental Consulting, LLC

April 25, 2019

Carrie Stoltz
Wisconsin Department of Natural Resources
107 Sutliff Avenue
Rhinelander, Wisconsin 54501

Subject: **Change Order: (Revision No. 2)**

- **SVE System Operation (2019)**
- **Ground Water Sampling**
- **Vapor Intrusion Air Sampling**
- **Report**

Autostop (former)
119 W. 9th Street North
Ladymith, Wisconsin 54848
BRRTS No. 03-55-282548
PECFA No. 54848-1295-19
Meridian No. 05F630

Doug's Tire (former)
811 Lake Ave W.
Ladysmith, Wisconsin 54848
BRRTS No. 03-55-000408
PECFA No. 54848-1215-11
Meridian No. 05F786

Dear Carrie:

This Change Order is for the following tasks:

- SVE System Operation (May – December 2019)
- Ground Water Sampling
- Vapor Intrusion Air Sampling
- Report

Please refer to our February 5, 2019 *Progress Report* for background information regarding this Change Order.

SVE System Operation: May – December 2019

The VOC discharge concentrations and/or removal rates have continually declined since system start-up (2015). The system has been pulsed and measured quarterly to ensure maximum VOC removal rates over the past 6 months.

LNAPL thicknesses have continually declined during system operation and appear to have reached equilibrium status.

We recommend the system be operated from May – December 2019 based on the continuous removal of VOCs from the subsurface by the SVE system. We anticipate this will be the last year of SVE operation. If VOC removal drops to negligible amounts before December, the system will be shut down sooner upon approval by DNR.

The following actions will maximize performance of the SVE system:

- The SVE system was shut off during the winter (except for heater). The system will be restarted in May 2019. System re-start will involve the Project Engineer who will calibrate the SVE system in response to current conditions (i.e., water levels, LNAPL, etc.). He will check VOC production from each vent to maximize the system performance using the VFD (variable frequency drive). This initial startup will rely on current LNAPL and ground water level measurements (see next bullet). Each SVE vent and piping will be checked for air flow.

- The SVE vents should be measured at least quarterly (May, August, November) for ground water levels and LNAPL thickness. This will be conducted during ground water sampling events (see below). During these quarterly checks, VOC concentrations and air flow from each SVE vent will be checked (measured with PID). The results will be discussed with the Project Engineer who will recommend system operation modifications (flow rate, vents, etc.) as needed to ensure maximum VOC removal rates during 2019.

Ground Water Sampling

The monitoring well network at Doug's and Autostop should be sampled four times (May, August, November, February).

Figure 1 is a diagram illustrating the well locations.

Autostop:	MW-100, -200, -300, -400, -500, -600, -700A, -700B, -700C, -800, -1000, -1100.
Doug's:	MW-1, -2, -3, -4, -5, -6,-7, MW-101, -102, -103, PZ-100

Because the plumes are comingled, the costs will be shared between the two sites using the current cost-sharing formula.

Routine monitoring well maintenance should be completed during the initial sampling event (e.g., cut-down any frost-heaved PVC riser pipes, repair/replace manways, etc.). This will require the monitoring well elevations to be re-checked (re-surveyed).

Vapor Intrusion Air Sampling

A Vapor Intrusion investigation should be completed at both sites. This will include installing vapor pins (Cox Colvin) in the floor of the buildings at Doug's and Autostop (now Verizon). This is subject to approval by the current occupants of each building. If access is not possible, several vapor probes (Geoprobes) should be installed around each building. This should be completed before the system restarts in May.

The work will be scheduled separately for each site.

Report

An annual report will be prepared in January 2020 summarizing the system operation, ground water sampling, vapor intrusion sampling, and recommendations to achieve Closure with GIS Registry for Soil and Ground Water. Closure will include structural impediment(s) (for Doug's remedial excavation) and Cap Maintenance Plans (at each site).

COST

The estimated cost for this Scope of Work is provided in the attached U&C Schedule.

Sincerely,
MERIDIAN ENVIRONMENTAL CONSULTING, LLC

Kenneth Shimko, PG
Project Manager

C: Gary Gilbert, P.E.– Project Engineer

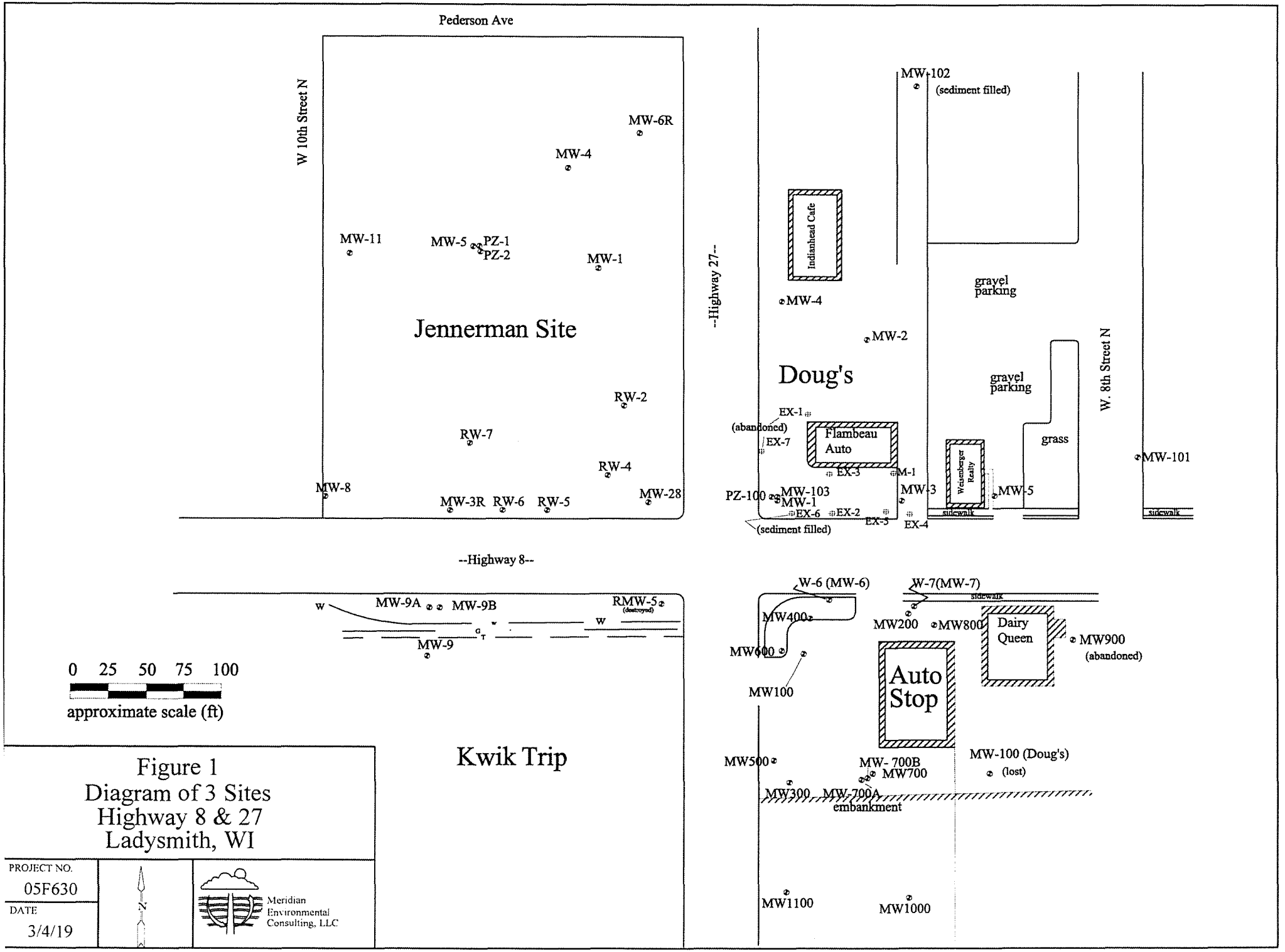

Figure 1
Diagram of 3 Sites
Highway 8 & 27
Ladysmith, WI

PROJECT NO.
05F630

DATE
3/4/19

N

Meridian Environmental Consulting, LLC

Usual and Customary Standardized Invoice #25
January 2019 - June 2019 (updated 2/25/19)

WISCONSIN DEPT. OF NATURAL RESOURCES

RR-107a

PECFA #: 54848-1295-19/54848-1215-11
BRRTS #: 03-55-282548/03-55-000408
Site Name: Doug's/Autostop
Site Address: Ladysmith

Vendor Name: Change Order
Invoice #: Change Order
Invoice Date: April 2019
Check #: Change Order

U&C Total $ 18,619.05
Variance to U&C Total $ 23,635.73
Grand Total $ 42,254.78

TASK	TASK DESCRIPTION	SERVICES	ACTIVITY CODE	ACTIVITY REFERENCE CODE DESCRIPTION	UNIT	MAX UNIT COST	UNITS	TOTAL MAX
Sample 23 wells (Autostop: 100,200,300,400,500,600,700A,700B,700C,800,1000,1100. Dougs: 1,2,3,4,5,6,7,101, 102,103, PZ-100) 4 times (qtrly)(PVOC+N)(23x4 = 92 samples).								
1	GW Sampling		GS05	Sample Collection	Well	$ 72.45	92	$ 6,665.40
1	GW Sampling		GS25	Primary Mob/Demob	Site	$ 690.92	4	$ 2,763.68
4	Waste Disposal	Commodity	WD10	GW Sample and/or Purge **(2 drums per sampling event plus 2 drums for SVE system condensate = 4x2+2=10))**	Drum	$ 42.11	10	$ 421.10
4	Waste Disposal	Commodity	WD25	Primary Mob/Demob	Site	$ 316.47	4	$ 1,265.88
31	Consultant Overnight Per Diem		COPD05	Overnight **(combine GW Sampling with System O&M - May, August, November)**	Night	$ 125.09	3	$ 375.27
33	Schedule Of Laboratory Maximums	Commodity		Laboratory (see task 33 total on Lab Schedule)	Lab Schedule	(see changes attached)		$ 2,215.46
34	Consultant Incremental Mob/Demob		IMD05	Incremental Mob/Demob - **For System O&M combined with GW Sampling (May, August, November)**	Site	$287.18	3	$ 861.54
36	Change Order Request		COR05	Change Order Request (cost cap exceedance requests)	Change Order	$ 381.78	1	$ 381.78
Vapor Intrusion Sampling at Dougs and Autostop. 2 points at Autostop. 2 points at Dougs. Sample one time.								
37	Vapor Point Installation & Sampling		VIS05	Installation & Sampling (up to 5 points) **(2 points at Autostop + 2 points at Dougs)**	Point	$ 510.26	4	$ 2,041.04
37	Vapor Point Installation & Sampling		VIS10	Mob/Demob (up to 5 points) **(Autostop - 1, Dougs - 1)**	Site	$ 813.95	2	$ 1,627.90
Variance				***O&M budget (attached)***	Budget	$ 23,635.73	1	$ 23,635.73

Usual and Customary Standardized Invoice #25
January 2019 - June 2019 (updated 2/25/19)

WISCONSIN DEPT. OF NATURAL RESOURCES

RR-107a

TOTAL LAB CHARGES	$ 2,215.46	TASK 33	64	$ 2,215.46	TASK 24	0	$ -

MATRIX	REF CODE	REIMBURSABLE ANALYTE	UNITS		MAX COST	SAMPLES		TOTAL	MAX COST	SAMPLES	TOTAL
AIR	A1	Benzene	SAMPLE	$	44.94	9	$	404.46	SVE monthly air sample		
AIR	A2	BETX	SAMPLE	$	49.46		$	-			
AIR	A3	GRO	SAMPLE	$	46.10	9	$	414.90	SVE monthly air sample		
AIR	A4	VOC's	SAMPLE	$	71.93		$	-			
WATER	W1	GRO/PVOC	SAMPLE	$	29.19		$	-			
WATER	W2	PVOC	SAMPLE	$	26.99		$	-			
WATER	W3	PVOC + 1,2 DCA	SAMPLE	$	43.79		$	-			
WATER	W4	PVOC + Naphthalene	SAMPLE	$	30.35	46	$	1,396.10			
WATER	W5	VOC	SAMPLE	$	71.93		$	-			
WATER	W6	PAH	SAMPLE	$	72.98		$	-			
WATER	W7	Lead	SAMPLE	$	12.39		$	-			
WATER	W8	Cadmium	SAMPLE	$	13.55		$	-			
WATER	W9	Hardness	SAMPLE	$	12.39		$	-			
WATER	W10	BOD, Total	SAMPLE	$	23.63		$	-			
WATER	W11	Nitrate	SAMPLE	$	11.24		$	-			
WATER	W12	Total Kjeldahl	SAMPLE	$	20.27		$	-			
WATER	W13	Ammonia	SAMPLE	$	16.91		$	-			
WATER	W14	Sulfate	SAMPLE	$	10.19		$	-			
WATER	W15	Iron	SAMPLE	$	10.19		$	-			
WATER	W16	Manganese	SAMPLE	$	10.19		$	-			
WATER	W17	Alkalinity	SAMPLE	$	10.19		$	-			
WATER	W18	methane	SAMPLE	$	46.10		$	-			
WATER	W19	Phosphorous	SAMPLE	$	18.06		$	-			
WATER	W20	VOC Method 524.2	SAMPLE	$	176.30		$	-			
WATER	W21	EDB Method 504	SAMPLE	$	95.45		$	-			
SOILS	S1	GRO	SAMPLE	$	24.78		$	-	$ 24.78		$ -
SOILS	S2	DRO	SAMPLE	$	30.35		$	-	$ 30.35		$ -
SOILS	S3	GRO/PVOC	SAMPLE	$	28.14		$	-	$ 28.14		$ -
SOILS	S4	PVOC	SAMPLE	$	25.83		$	-	$ 25.83		$ -
SOILS	S5	PVOC + 1,2 DCA + Naphthalene	SAMPLE	$	49.46		$	-	$ 49.46		$ -
SOILS	S6	PVOC + Naphthalene	SAMPLE	$	36.02		$	-	$ 36.02		$ -
SOILS	S7	VOC	SAMPLE	$	71.93		$	-	$ 71.93		$ -
SOILS	S8	SPLP Extraction VOC only	SAMPLE	$	50.61		$	-	$ 50.61		$ -
SOILS	S9	PAH	SAMPLE	$	72.98		$	-	$ 72.98		$ -
SOILS	S10	Lead	SAMPLE	$	12.39		$	-	$ 12.39		$ -
SOILS	S11	Cadmium	SAMPLE	$	14.60		$	-		TASK 24 TOTAL	$ -
SOILS	S12	Free Liquid	SAMPLE	$	11.24		$	-			
SOILS	S13	Flash Point	SAMPLE	$	25.83		$	-			
SOILS	S14	Grain Size - dry	SAMPLE	$	42.74		$	-			
SOILS	S15	Grain Size - wet	SAMPLE	$	57.33		$	-			
SOILS	S16	Bulk Density	SAMPLE	$	13.55		$	-			
SOILS	S17	Permeability	SAMPLE	$	41.58		$	-			
SOILS	S18	Nitrogen as Total Kjeldahl	SAMPLE	$	20.27		$	-			
SOILS	S19	Nitrogen as Ammonia	SAMPLE	$	16.91		$	-			
SOILS	S20	% Organic Matter	SAMPLE	$	29.19		$	-			
SOILS	S21	TOC as NPOC	SAMPLE	$	57.33		$	-			
SOILS	S22	Soil Moisture Content	SAMPLE	$	6.83		$	-			
SOILS	S23	Air Filled Porosity	SAMPLE	$	25.83		$	-			
SOILS	S24	% Total Solids	SAMPLE	$	6.83		$	-			
SOILS	S25	Field Capacity	SAMPLE	$	28.14		$	-			
SOILS	S26	TCLP Lead	SAMPLE	$	83.16		$	-			
SOILS	S27	Cation Exchange (Ca, MG, & K)	SAMPLE	$	26.99		$	-			
SOILS	S28	TCLP Cadmium	SAMPLE	$	83.16		$	-			
SOILS	S29	TCLP Benzene	SAMPLE	$	83.16		$	-			
LNAPL	LFPS01	Viscosity + Density Interfacial tension I (LNAPL/water [dyne/cm]) Interfacial tension II (LNAPL/air [dyne/cm]) Interfacial tension III (water/air) [dyne/cm])	SAMPLE	$	561.33		$	-			
							TASK 33 TOTAL	$ 2,215.46			

8 / 3 / 92 / 46

= Stolt2 charges - consultant was notified

SVE System Operation and Maintenance Costs: May - December 2019

AutoStop and Doug's Tire Combined System O&M
Ladysmith, Wisconsin
Meridian Nos. 05F630/786

Tasks:
- monthly site visits (system maintenance/air sampling)(8 months: May - December 2019)
- measure LNAPL/water levels quarterly (May, August, November) in SVE vents (R1 thru R5, E2, E4, E5, M-1)
- project management/data evaluation
- Progress report with recommendations (due January 2020)

Task	Units	#Units	Cost/Unit	Cost	Subtotal:	Cost Sharing		Check
Monthly System Maintenance/Air Sampling						Doug's	Autostop	
(May - December, 2019)(Use Incremental Mob (IMD05) + Per Diem when GW sampling (i.e., May, August, November)(see U&C)						3/8	5/8	
	Labor and Mileage Per Trip							
O&M system maintenance + Air Sample- Per Trip	hr	4	$94.13	$376.52				
Quarterly GW/LNAPL/Performance Checks of SVE Vents	hr	3	$94.13	$282.39				
Interface Probe	event	3	$40.00	$120.00				
			Monthly Subtotal:	$778.91				
			3 Month Subtotal:		**$2,336.73**			
June, July, September, October, December (includes mob)								
Prep/deprep	hr	1	$94.13	$94.13				
O&M system maintenance + Air Sample- Per Trip	hr	4	$94.13	$376.52				
travel to/from	hr	3	$94.13	$282.39				
mileage	mi	150	$0.58	~~$87.00~~				
			Monthly Subtotal:	$840.04				
	5 monthly trips + 1 contingency = 6 total				**$5,040.24**			
Initial System Re-Start with Project Engineer (May)								
Professional Engineer								
Travel to/from	hr	6	$112.96	$677.76				
Onsite	hr	4	$112.96	$451.84				
			Subtotal:	***$1,129.60***	**$1,129.60**			
				Total:	**$8,506.57**	$3,189.96	$5,316.61	$8,506.57
Miscellaneous Materials (PVC piping, valve repair, minor system components, etc.)				$250.00	**$250.00**	$93.75	$156.25	$250.00
Electricity (estimate $300/month (varies seasonally) - includes costs Jan - April 2019 (heater only))	month	12	$300.00	$3,600.00	**$3,600.00**	$1,350.00	$2,250.00	$3,600.00
Air Sampling (air sample)(1 per month x 8 months = 8 samples)								
Benzene *(U&C A1 - see U&C)*								
GRO *(U&C A3 - see U&C)*								
air pump rental (variance)(monthly)	event	8	$60.00	$480.00	**$480.00**	$180.00	$300.00	$480.00
Data Evaluation (Engineer)(5 hrs per month x 8 mos.)								
Engineer	hr	40	$112.96	$4,518.40	**$4,518.40**	$1,694.40	$2,824.00	$4,518.40
Project Mgmt (4 hrs per month x 8 mos.)								
PM	hr	32	$112.96	$3,614.72	**$3,614.72**	$1,355.52	$2,259.20	$3,614.72
Progress Report (PG/PE) (GW sampling, SVE, VI)	hr	24	$112.96	$2,711.04	**$2,711.04**	$1,016.64	$1,694.40	$2,711.04
				Total:	**$23,680.73**	**$8,880.27**	**$14,800.46**	**$23,680.73**

Originally had 53 ¢