

## Meridian Environmental Consulting, LLC

January 31, 2018

Carrie Stoltz Wisconsin Department of Natural Resources 107 Sutliff Ave Rhinelander, WI 54501-3349

Subject:

Change Order:

- **Quarterly Ground Water Sampling**
- **Hydraulic Conductivity Tests**
- Letter Report

Bob's Auto (former)(currently owned by CWI)

Tony, Wisconsin 54563

DNR BRRTS No. 03-55-000774 PECFA No. 54563-9667-08 Meridian No. 05F660

Dear Carrie:

Per your discussions with Senior DNR Staff, enclosed is Change Order for the following tasks:

Ground Water Monitoring

We will sample the monitoring well network and two private wells (Tony Depot, Tony Lumber) quarterly four times (March, June, September, December). The samples will be analyzed for PVOC+Naphthalene.

Hydraulic Conductivity Tests

We will conduct hydraulic conductivity tests ("slug tests") in selected wells across the site: MW-1, MW-8, MW-13A, MW-13B, and MW-14. The results will be used to estimate ground water flow velocity and contaminant travel times

Letter Report

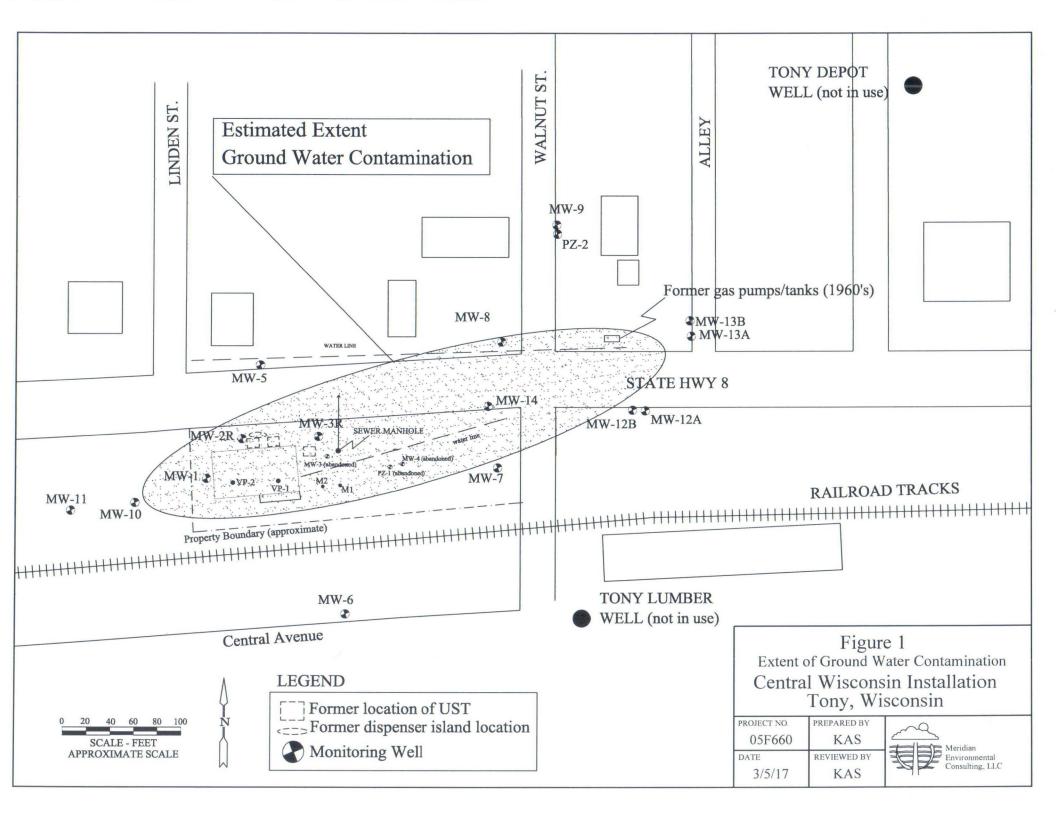
A report will be prepared which summarizes the results of the ground water sampling and the hydraulic conductivity testing. We will include our evaluation of the ground water flow velocity and potential travel time to the private wells.

Sincerely,

MERIDIAN ENVIRONMENTAL CONSULTING, LLC

Kenneth Shimko, PG

Project Manager



## Usual and Customary Standardized Invoice #22 July 2017 - December 2017

**ACTIVITY** 

**SERVICES** 



**MAX UNIT** 



TOTAL

PECFA #:	54563-9667-08	Vendor Name:	Change Order		
BRRT's #:	03-55-000774	Invoice #:	Change Order	U&C Total \$	13,737.22
Site Name:	Bob's Auto	Invoice Date:	January 31, 2018	Variance to U&C Total \$	-
Site Address:	Tony	Check #:	Change Order	Grand Total \$	13,737.22

**ACTIVITY REFERENCE CODE DESCRIPTION** 

Sample MW network (MW-1, -2R, -3R, -5, -6, -7, -8, -9, -10, -11, -12A, -12B, -13A, -13B, -14, P-2) & 2 PWs (Tony Depot, Tony Lumber)(Total = 18/event x four qtrs = 72). PVOC+Naph. Dispose purge water (1 drum per event). Letter Report with evaluation of Ground Water Flow velocity and travel time estimates (especially with respect to PWs).

				(				
1	GW Sampling		GS05	Sample Collection	Well	\$ 72.45	72 \$	5,216.40
1	GW Sampling		GS25	Primary Mob/Demob	Site	\$ 628.11	4 \$	2,512.44
4	Waste Disposal	Consultant	WD05	Consultant Coordination	Site	\$ 137.13	1 \$	137.13
4	Waste Disposal	Commodity	WD10	GW Sample and/or Purge	Drum	\$ 42.11	4 \$	168.44
4	Waste Disposal	Commodity	WD25	Primary Mob/Demob	Site	\$ 287.70	4 \$	1,150.80
6	Letter Report/Addendum		LRA05	Letter Report/Addendum	Letter	\$ 1,039.29	1 \$	1,039.29

## Conduct Hydraulic Conductivity Tests (slug tests) in MW-1, MW-8, MW-13A, MW-13B, MW-14. Data will be used to estimate GW Flow Velocity/travel times especially with respect to PWs

19	Hydraulic Conductivity Testing		HCT05	Hydraulic Conductivity Testing	Well	\$ 58.59	5 \$	292.95
19	Hydraulic Conductivity Testing		HCT10	Primary Mob/Demob	Site	\$ 652.79	1 \$	652.79
33	Schedule Of Laboratory Maximums	Commodity		Laboratory (see task 33 total on Lab Schedule)	Lab Schedule		72 \$	2,185.20
36	Change Order Request		COR05	Change Order Request (cost cap exceedance requests)	Change Order	\$ 381.78	1 5	381.78

Variance Variance

TASK

TASK DESCRIPTION

## Usual and Customary Standardized Invoice #22 July 2017 - December 2017





		TOTAL LAB CHARGE	S #####		TASK 33	72	######	TASK 24		0 \$	
MATRIX	REF CODE	REIMBURSABLE ANALYTE	UNITS		MAX COST	SAMPLES	TOTAL	MAX COST	SAMPLES	s T	OTAL
			10.120.2								
AIR AIR	A1 A2	Benzene BETX	SAMPLE SAMPLE	\$	44.94 49.46		\$ - \$ -				
AIR	A3	GRO		\$	46.10		\$ -				
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	7:	2 \$ 2,185.20				
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		\$ -		0440 5	0 7	OTAL
WATER	W21 S1	EDB Method 504	SAMPLE	\$	95.45		\$ -	MAX COST	SAMPLES		OTAL
SOILS	S2	GRO DRO	SAMPLE	\$	24.78 30.35		\$ - \$ -	\$ 24.78 \$ 30.35		\$	-
SOILS	S3	GRO/PVOC	SAMPLE	\$	28.14		\$ -	\$ 28.14		\$	-
SOILS	S4	PVOC	SAMPLE	\$	25.83		\$ -	\$ 25.83		\$	_
SOILS	\$5	PVOC + 1,2 DCA + Naphthalene	SAMPLE	\$	49.46		\$ -	\$ 49.46		\$	_
SOILS	\$6	PVOC + Naphthalene	SAMPLE	\$	36.02		\$ -	\$ 36.02		\$	_
SOILS	<b>S7</b>	VOC	SAMPLE	\$	71.93		\$ -	\$ 71.93		S	-
SOILS	S8	SPLP Extraction VOC only	SAMPLE	\$	50.61		\$ -	\$ 50.61		\$	54
SOILS	S9	PAH	SAMPLE	\$	72.98		\$ -	\$ 72.98		\$	-
SOILS	S10	Lead	SAMPLE	\$	12.39		\$ -	\$ 12.39		\$	-
SOILS	S11	Cadmium	SAMPLE	\$	14.60		\$ -	TA	SK 24 TOTA	AL \$	
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 SOILS	S17 S18	Permeability Nitrogen as Total Kjeldahl	SAMPLE	\$	41.58		\$ - \$ -				
SOILS	S19	Nitrogen as Ammonia	SAMPLE	\$	20.27 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 Viscosity + Density	SAMPLE	\$	83.16		\$ -				
LNAPL	LFPS01	Interfacial tension I (LNAPL/water [dyne/cm]) Interfacial tension II (LNAPL/air [dyne/cm]) Interfacial tension III (water/air) [dyne/cm])	SAMPLE	\$	561.33		\$ -				
		monasa (maonan (aynoron))		illand.	TAS	SK 33 TOTA	\$ 2,185.20				