

Stoltz, Carrie R - DNR

From: Ken Shimko <kshimko.meridianenv@gmail.com>
Sent: Tuesday, May 01, 2018 2:45 PM
To: Stoltz, Carrie R - DNR
Subject: Jims Bar - Jump River - Change Order - 4in SVE vents, Pilot Test, addtl MW
Attachments: Change Order Pilot Test - 4in - well.pdf

Hi Carrie.

As you know, I stopped by Jump River site last Thursday with my engineer (Gary) to discuss remediation options. We agreed that because of the coarse soils this would be an ideal site for SVE.

We are installing test wells week of May 14 and will be installing SVE vents in some of the soil borings. I want to also do a Pilot Test (actually Gary will do since he is the PE). The purpose is to determine whether SVE technology will work (it should). If it will, how big a blower will be needed (5 hp? 10 hp?). The pilot test will also be used to estimate radius of influence so we can space the vents properly.

Our thinking is SVE will address both vadose zone and ground water concentrations.

Attached is Change Order to:

- Conduct Pilot Test
- Increase SVE vents diameter to 4 inch (for better air flow)

I also included costs for an additional MW on the north side of Jims Bar...the reason is because I think this will be of interest to the Closure Committee...i.e., defining the north side of the ground water plume.

Attached is the Change Order. Please contact me with questions.

Thanks

Kenneth Shimko, PG
Meridian Environmental Consulting, LLC
2711 North Elco Road
Fall Creek, Wisconsin 54742
(715)832-6608 (office)
(715)579-0723 (cell)
(715)832-6797 (Fax)
Email: kshimko.meridianenv@gmail.com



Meridian Environmental Consulting, LLC

May 1, 2018

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

Subject: Change Order:

- **Increase SVE vents diameter to 4-inch**
- **Conduct Pilot Test of SVE vents to determine spacing and equipment sizing**
- **Install monitoring well on north side of onsite building**

Site: Jim's Bar
Jump River, Wisconsin
PECFA No. 54433-9769-64
DNR BRRTS No. 03-61-000116
Meridian No. 05F781

Please recall that we are planning to install monitoring wells and soil borings at this site. Attached are two diagrams which show the proposed location of the wells and soil borings.

I had my remediation engineer do a site visit last week and based on that visit and subsequent discussions with the equipment supplier (REI), we recommend the following changes to the upcoming work.

Increase SVE vent diameter to 4-inch diameter wells

I had proposed that we install SVE vents in the soil borings where we find impacted soil (probably around the remedial excavation). We recommend the vents be 4-inch diameter (instead of the 2-inch diameter proposed and approved in initial Change Order). This is an increased cost of \$10/foot x 6 vents x 20 ft/vent = \$1200.

Conduct Pilot Test to determine spacing of SVE vents and SVE equipment size

I plan to install three SVE vents and then conduct a Pilot Test. This will allow us to determine whether the SVE technology will work and, assuming it will, the optimum spacing of vents to maximize remediation. The Pilot Test will be completed while we are drilling the monitoring wells.

Install monitoring well on north side of building

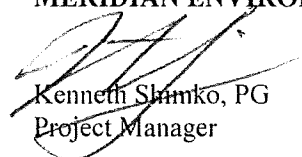
I recommend we install a monitoring well (25 ft deep) on the north side of the building. Although we do not expect ground water impacts on the north side, a clean well would be useful when we take the site to the Closure Committee.

Jim's Bar – Jump River
Page 2

Cost

Attached is a summary of the costs to complete the above work.

Sincerely,
MERIDIAN ENVIRONMENTAL CONSULTING, LLC



Kenneth Slanko, PG
Project Manager

Usual and Customary Standardized Invoice #23

January 2018- June 2018



RR-092a

PECFA #: 54433-9769-64
 BRRTS #: 03-61-000116
 Site Name: Jims Bar
 Site Address: Jump River

Vendor Name: Change Order
 Invoice #: Change Order
 Invoice Date: May 2018
 Check #: Change Order

U&C Total \$ 2,115.06
 Variance to U&C Total \$ 5,025.10
 Grand Total \$ 7,140.16

TASK	TASK DESCRIPTION	SERVICES	ACTIVITY CODE	ACTIVITY REFERENCE CODE DESCRIPTION	UNIT	MAX UNIT COST	UNITS	TOTAL MAX
Install 25 ft MW on north side of onsite building. Add two GW samples (one per qtr), well develop, survey, etc.								
1	GW Sampling		GS05	Sample Collection	Well	\$ 72.45	2	\$ 144.90
10	Initial Site Survey	Consultant	IS10	Subsequent Surveys	Well	\$ 110.15	1	\$ 110.15
13.a	Drilling In Unconsolidated Soils - With Soil Sampling	Consultant	DR05	0 - 25 ft bgs	Ft	\$ 5.40	25	\$ 135.00
13.d	Drilling In Unconsolidated Soils - With Soil Sampling	Commodity	DR45	0 - 25 ft bgs	Ft	\$ 16.70	25	\$ 417.50
14	Monitoring Well Installation	Consultant	MWI05	0 - 25 ft bgs	Ft	\$ 3.89	25	\$ 97.25
14	Monitoring Well Installation	Commodity	MWI15	2 inch PVC Casing	Ft	\$ 16.70	25	\$ 417.50
14	Monitoring Well Installation	Commodity	MWI20	Well Development	Well	\$ 147.63	1	\$ 147.63
15	Misc. Drilling Activities & Supplies		MDT10	Well Cover/flushmount	Each	\$ 202.65	1	\$ 202.65
33	Schedule Of Laboratory Maximurr	Commodity		Laboratory (see task 33 total on Lab Schedule)	Lab Schedule		2	60.70
36	Change Order Request		COR05	Change Order Request (cost cap exceedance requests)	Change Order	\$ 381.78	1	\$ 381.78
Variance	Increase Vent Diameter to 4-inch (6 vents x 20 ft/vent = 120 ft x \$10/ft = \$1200)							
Variance		Driller		Addtl cost for 4-inch vent (includes larger augers, more sand, larger pipe size, etc.)	ft	\$ 10.00	120	\$ 1,200.00
SVE Pilot Test								
		Consultant		Engineer (PE) to conduct Pilot Test (includes travel to/from, site time for Pilot Test, prep/deprep, data eval, field report)	hr	\$ 109.67	30	\$ 3,290.10
		Consultant		SVE Pilot Test equipment (incl. blower, piping, flow meter, magnehilic gauges, etc.)	day	\$ 450.00	1	\$ 450.00
		Consultant		Generator	day	\$85	1	\$ 85.00

Usual and Customary Standardized Invoice #23

January 2018- July 2018

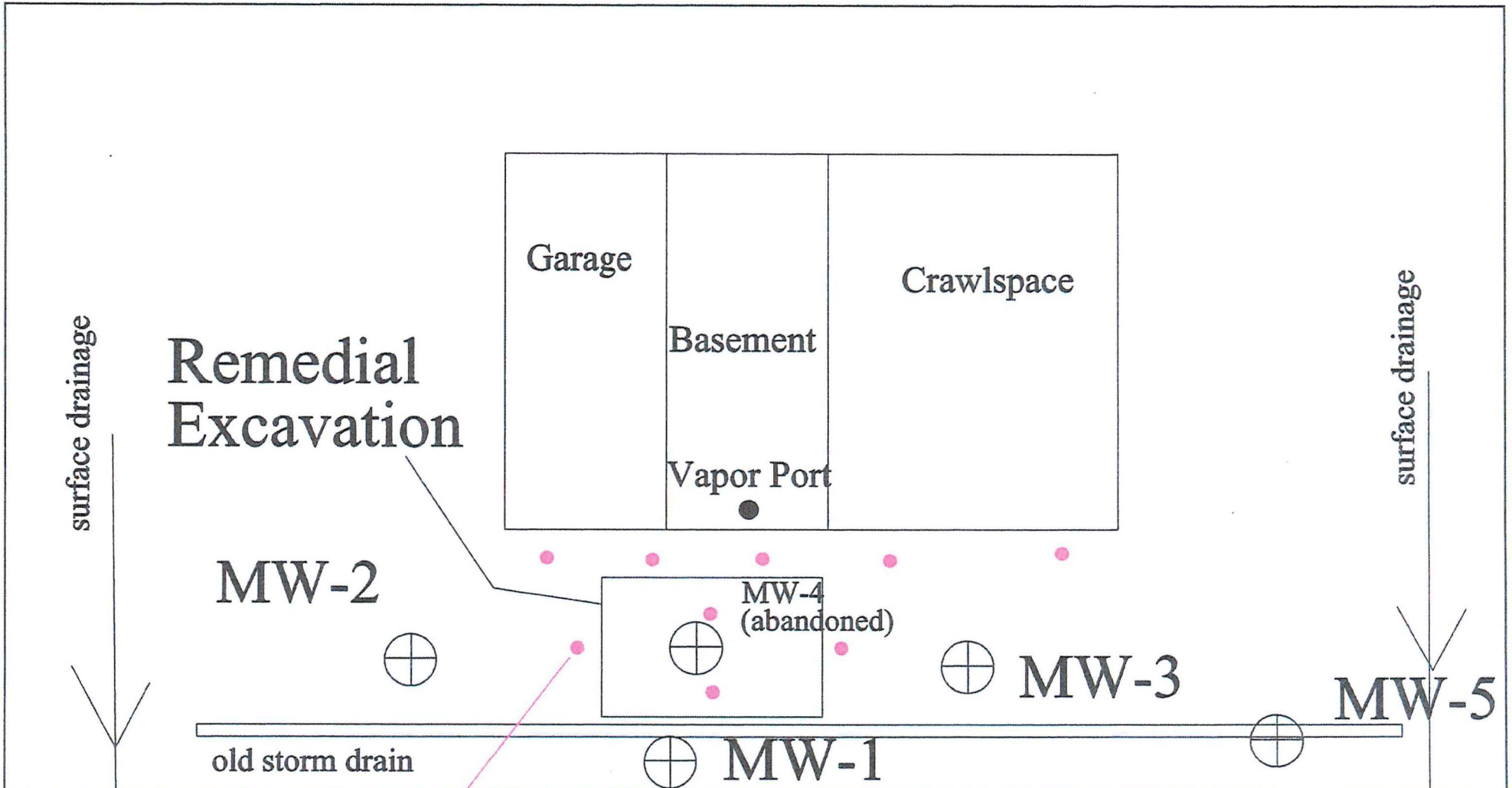


RR-092A

TOTAL LAB CHARGES \$ 60.70 TASK 33 2 \$60.70 TASK 24 0 \$ -

MATRIX	REF CODE	REIMBURSABLE ANALYTE	UNITS	MAX COST	SAMPLES	TOTAL	MAX COST	SAMPLES	TOTAL
AIR	A1	Benzene	SAMPLE	\$ 44.94		\$ -			
AIR	A2	BETX	SAMPLE	\$ 49.46		\$ -			
AIR	A3	GRO	SAMPLE	\$ 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	2	\$ 60.70			
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		\$ -			
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		\$ -			
		Viscosity + Density							
LNAPL	LFPS01	Interfacial tension I (LNAPL/water [dyne/cm])	SAMPLE	\$ 561.33		\$ -			
		Interfacial tension II (LNAPL/air [dyne/cm])							
		Interfacial tension III (water/air) [dyne/cm])							
						TASK 33 TOTAL	\$	60.70	

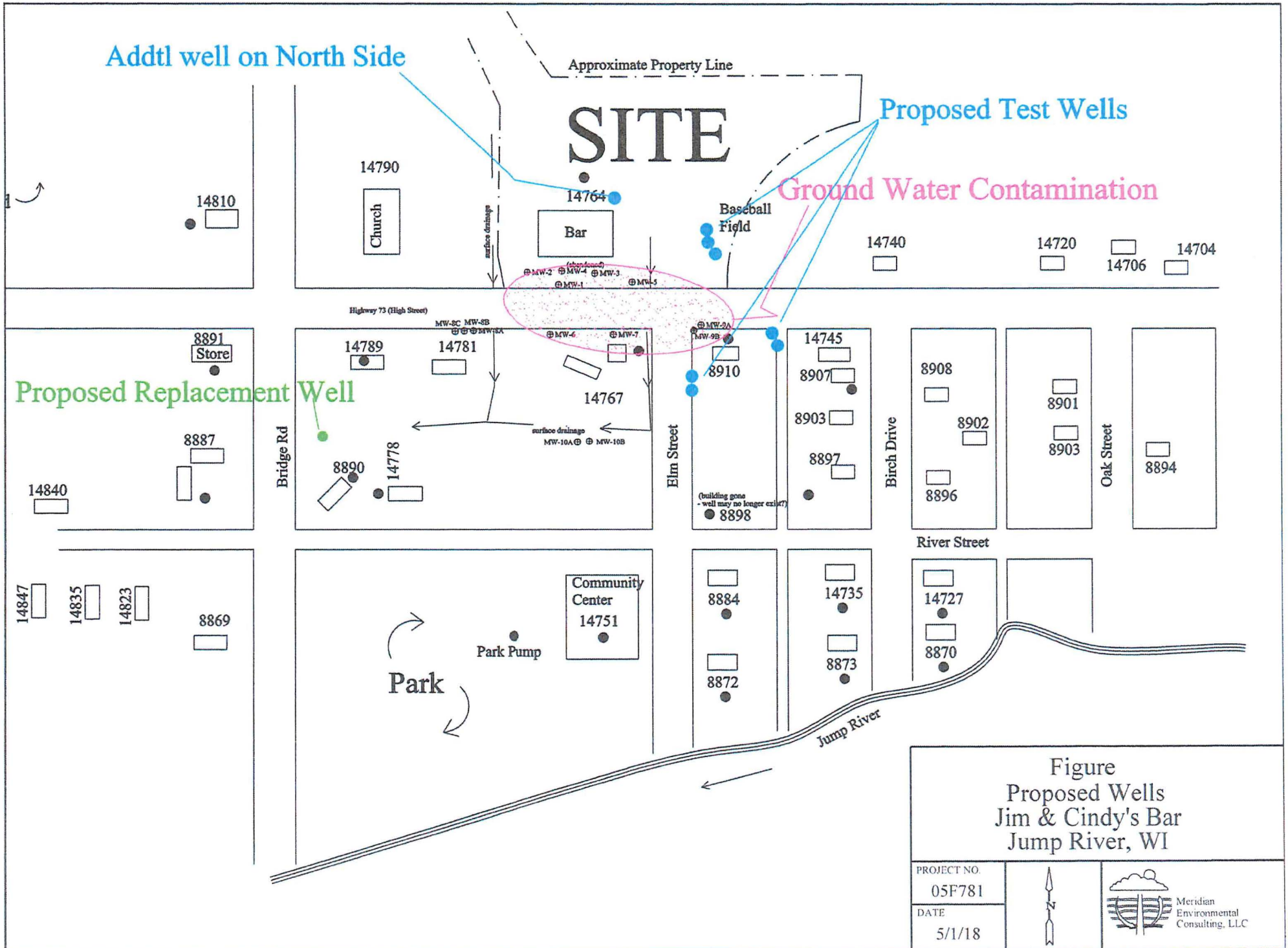
MAX COST	SAMPLES	TOTAL
\$ 24.78		\$ -
\$ 30.35		\$ -
\$ 28.14		\$ -
\$ 25.83		\$ -
\$ 49.46		\$ -
\$ 36.02		\$ -
\$ 71.93		\$ -
\$ 50.61		\$ -
\$ 72.98		\$ -
\$ 12.39		\$ -
TASK 24 TOTAL \$ -		



Proposed Soil Borings

Figure
Proposed Soil Borings
Jim & Cindy's Bar
Jump River, WI

PROJECT NO. 05F781		
DATE 5/1/18		



Addtl well on North Side

Approximate Property Line

SITE

Proposed Test Wells

Ground Water Contamination

14790

Church

14810

14764

Bar

Baseball Field

14740

14720

14706

14704

surface drainage

MW-2 MW-4 MW-3 MW-1 MW-5

Highway 73 (High Street)

MW-8C MW-8B

MW-6 MW-7

MW-2A MW-9B

Proposed Replacement Well

8891 Store

14789

14781

14767

14745

8908

8901

Oak Street

8894

14840

8887

Bridge Rd

8890

14778

surface drainage MW-10A MW-10B

Elm Street

(building gone - well may no longer exist?) 8898

8907

8903

Birch Drive

8896

8902

8903

River Street

14847

14835

14823

8869

Park

Park Pump

Community Center 14751

8884

8872

14735

8873

14727

8870

Jump River

Ken Shimko

From: Jeffrey Manninen <jeffrey.manninen@psiusa.com>
Sent: Monday, April 30, 2018 10:26 AM
To: Ken Shimko
Subject: RE: Preliminary Work Plan for Jump River job

Hi Ken,

* Figure \$10 more per foot for 4-inch wells. ←

Thanks,

Jeff Manninen

Office 715.738.2770
Email jeffrey.manninen@psiusa.com
www.intertek.com/building

intertek

Intertek-PSI, 12839 30th Avenue, Chippewa Falls, WI 54729

From: Ken Shimko <kshimko.meridianenv@gmail.com>
Sent: Monday, April 30, 2018 10:18 AM
To: Jeffrey Manninen <jeffrey.manninen@psiusa.com>
Subject: RE: Preliminary Work Plan for Jump River job

Will you be able to get me cost for 4-inch diameter well (20 slot, assume 10 ft screens) at Jump River? Remember that we are collecting soil samples first (split spoon)...and the putting in well.

* Not sure how many wells we will put in ...right now plan on 6. I got approval for 2-inch wells ... what is the additional cost for 4-inch?

From: Jeffrey Manninen [<mailto:jeffrey.manninen@psiusa.com>]
Sent: Friday, April 27, 2018 11:34 AM
To: Ken Shimko <kshimko.meridianenv@gmail.com>
Subject: RE: Preliminary Work Plan for Jump River job

Hi Ken,

This morning I sent my supplier a list of the 4 inch material that we'll need. I just now updated that with continuous wrapped screen. Depending on what's available, we may have to have the screen made for us, which could take some time. I'll let you know ASAP.

Thanks,