

January 11, 2017

Remediation and Redevelopment Program  
Wisconsin Department of Natural Resources  
2984 Shawano Avenue  
P.O. Box 10448  
Green Bay, Wisconsin 54307-0448

Attn: Tauren R. Beggs

RE: WDNR BRRTS No. 02-36-544383  
Revised Change Order for Soil, Groundwater, Soil Gas Sample Collection, and  
Case Closure Document Submittal  
United Laundries and Dry Cleaners, Inc. 623 Reed Avenue, Manitowoc, Wisconsin

Dear Mr. Beggs:

Enclosed is our proposed scope of work and estimated costs for additional post-remediation monitoring at the United Dry Cleaners site. Revised estimated costs are summarized in Table 1.

The scope of work has been prepared in accordance with the Wisconsin Department of Natural Resources Case (WDNR) Closure Denial letter dated August 11<sup>th</sup>, 2016 and subsequent email dated December 22, 2016. The scope of work for this revised change order includes the following tasks:

- Additional groundwater sample collection at MW-10;
- Additional soil sample collection to define the extent of soil contamination;
- SVE confirmation soil and soil gas sample collection;
- Operation and Maintenance Plan preparation; and
- Resubmittal of Case Closure documents.

As you know, a groundwater sample was collected from MW-10 and soil gas samples were collected from vapor probes at the United and Piggly Wiggly buildings in November 2016. These samples were collected in accordance with the Change Order dated October 12<sup>th</sup>, 2016 (approved on October 19<sup>th</sup>). Based in results presented in the December 13<sup>th</sup>, 2016 Status Report, two additional rounds of soil gas samples will be collected. We recommend collection of two additional groundwater samples from concurrent with soil gas samples to be collected in February and May 2017. Additionally, we recommend that the October 12<sup>th</sup> change order be revised to include this additional sampling.

## SCOPE OF WORK

### ***Task 1 – November 2016 Soil Gas and Groundwater Sample Collection<sup>1</sup>***

Effluent air samples were collected quarterly while the soil vapor extraction (SVE) system was in operation. Results indicated a significant contaminant mass was removed. Operation of the three sub-floor depressurization systems (SSDS) likely contributed additional contaminant mass removal. To further evaluate the effectiveness of the SVE and SSDS Shannon & Wilson recommends collection of soil gas samples from sub-floor vapor probes (VP-1 through VP-4) at the United Dry Cleaners and Piggly Wiggly buildings. In accordance with procedures for soil gas sampling at the Parkview Haven property, soil gas samples will be collected after the SSDS system has been off for a minimum of 30 days (the SVE system was shut off in January 2015). Soil gas samples will be collected with 6-liter Summa canisters equipped with a laboratory-provided flow controller and particulate filter. These air samples will be analyzed for chlorinated VOCs (cis-1,2-dichloroethene, trans 1,2-dichloroethene, tetrachloroethene, trichloroethene, and vinyl chloride) using EPA Method TO-15 by a Wisconsin Certified laboratory.

Shannon & Wilson will also collect one groundwater sample from well MW-10. This sample will be submitted to a Wisconsin Certified laboratory and analyzed for volatile organic compounds (VOCs) by Method 8260. Results will be presented in a summary report.

### ***Task 2 – February and May 2017 Soil Gas and Groundwater Sample Collection***

Shannon & Wilson will collect two additional rounds of soil gas samples from sub-floor vapor probes VP-1 through VP-4 in February and May 2017. Each of the next two rounds of soil sampling will also include a background sample, an indoor air sample, and a duplicate sample. All soil gas samples will be collected in accordance with procedures described above in Task 1 above.

Shannon & Wilson will also collect additional groundwater sample from well MW-10 in February and May 2017. If PCE concentrations decline and indicate that the plume is stable (i.e. demonstrate compliance with Wisconsin Administrative Code NR 726 closure criteria) Shannon & Wilson will recommend abandonment of all wells prior to submittal of revised case closure documents (Task 4). If needed, results will also be used to prepare revised off-site notification letters as described in Task 4 below.

### ***Task 3 – Soil Boring and Soil Sample Collection***

Shannon & Wilson will collect soil samples from five soil borings advanced north-northeast, south, southeast, and east of the excavation area to further identify the lateral and vertical extent of soil contamination. Proposed borings are shown on Figure 1.

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<sup>1</sup> Task 1 was completed in accordance with the October 12<sup>th</sup> Change Order approved by WDNR on October 19<sup>th</sup>, 2016.

At each boring soil samples will be collected continuously to a maximum depth of 15 feet below ground surface. Soil samples will be collected at intervals 3 to 5, 8 to 10, and 13 to 15 feet below grade. All samples will be analyzed for VOCs by a Wisconsin certified laboratory. Subsurface soil units will be visually classified in accordance with the Unified Soil Classification system. Soil descriptions and other field observations will be recorded on field logs. Tabulated results and revised site maps will be included in the revised Case Closure submittal described below.

To further evaluate residual soil contamination, Shannon & Wilson recommends the collection of additional three soil samples as follows:

- Beneath the United Dry Cleaners building adjacent to borings A3 and A4. Soil samples will be collected at both borings at depths between 3 and 5 feet below grade;
- From the base of the excavation (between 13 and 14 feet below grade) adjacent to VE-1<sup>2</sup>, and
- From the base of the excavation (between 12 and 13 feet below grade) near the BS-1 sample.

All soil samples will be submitted to a Wisconsin Certified laboratory and analyzed for VOCs by Method 8260. Soil gas and soil sample results will be summarized and submitted to WDNR in a status report. If results confirm conditions are suitable for closure, a revised case closure document will be submitted as described in Task 4 below.

#### ***Task 4 – Revised Case Closure Document Submittal***

Revised Case Closure documents will be submitted to WDNR following submittal of the following:

- Preparation of Operation and Maintenance plans for each of the three vapor mitigation blowers installed as an interim response at the United Dry Cleaners and Piggly Wiggly buildings;
- Preparation of well abandonment documents;
- Re-submittal of off-site notification letters and case closure documents.

#### **SCHEDULE**

Shannon & Wilson is prepared to collect additional groundwater samples at MW-10 and soil gas samples in February and May 2017. Soil samples will be collected in February concurrent with groundwater and soil gas sampling. A status report summarizing results will be submitted to WDNR within three weeks following May sample collection. Assuming well abandonment is approved by WDNR, well abandonment will be recommended prior to submittal of revised case closure documents.

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<sup>2</sup> Verification soil sample BS-2 was collected from the VE-1 borings between 13.5 and 14 feet below grade.

Ms. Tauren R. Beggs  
Wisconsin Department of Natural Resources  
January 11, 2017  
Page 4 of 4

SHANNON & WILSON, INC.

If you have any questions please call me at (608) 442-5223, extension 8157.

Sincerely,

**SHANNON & WILSON, INC.**



Mark S. McColloch, P.G.  
Senior Associate

**Mark S.  
McColloch**

Digitally signed by Mark S.  
McColloch  
DN: cn=Mark S. McColloch,  
o=Shannon & Wilson, ou=Madison,  
email=msm@shanwil.com, c=US  
Date: 2017.01.11 11:01:13 -06'00'

cc: Mr. Steven Hamann, Zenith Properties, LLC

Attachments

- |           |   |
|-----------|---|
| Table 1   | Revised Estimated Costs                           |
| Figures 1 | Proposed Soil Confirmation Borings (0 - 5 feet)   |
| Figures 2 | Proposed Soil Confirmation Borings (8 - 10 feet)  |
| Figures 3 | Proposed Soil Confirmation Borings (13 - 15 feet) |

United\_Jan\_2017\_Change\_Order\_Ltr

**Table 1 – Revised Estimated Costs**  
**Change Order for Soil, Groundwater, Soil Gas Sample Collection, and**  
**Case Closure Document Submittal**  
**United Laundries and Dry Cleaners, Inc., 623 Reed Avenue, Manitowoc, Wisconsin**

Description	Quantity	Units	Unit Cost	Shannon & Wilson Cost	Subcontractor Cost
<b>Task 1 – November 2016 Groundwater Sample Collection<sup>1</sup></b>					
Field Manager (Groundwater and Soil Gas)	8	Per Hour	\$100	\$800	
Project Manager/Status Report	4	Per Hour	\$125	\$500	
Groundwater/Soil Gas Sampling	1	Per Day	\$150	\$150	
Admin/Accounting	1.6	Per Hour	\$65	\$104	
Laboratory Services (Vapor Probes)	4	Per Sample	\$218		\$872
Laboratory Services (Groundwater)	1	Per Sample	\$60		\$60
		Subtotal		\$1,554	\$932
<b>Task 2 - February and May 2017 Groundwater and Soil Gas Sample Collection</b>					
Field Manager (Groundwater and Soil Gas)	16	Per Hour	\$100	\$1,600	
Project Manager/Status Report	4	Per Hour	\$125	\$500	
Groundwater/Soil Gas Sampling	2	Per Day	\$300	\$300	
Expenses (Shipping)	1	Estimate	\$100	\$100	
Admin/Accounting	1.6	Per Hour	\$65	\$104	
Laboratory Services (Vapor Probes) <sup>2</sup>	14	Per Sample	\$218		\$3,052
Laboratory Services (Groundwater)	2	Per Sample	\$60		\$120
		Subtotal		\$2,604	\$3,172
<b>Task 3 – Soil Boring Soil Sample Collection</b>					
Field Manager (Soil Borings)	10	Per Hour	\$100	\$1,000	
Soil Sampling Expenses	1	Per Day	\$150	\$150	
Laboratory Services (Soil)	20	Per Sample	\$65		\$1,300
Drilling Services (Soil Borings)	1	Estimate	\$2,280		\$2,280
		Subtotal		\$1,150	\$3,580
<b>Task 4 – Revised Case Closure Documentation Submittal</b>					
Project Coordinator	2	Per Hour	\$135	\$270	
Project Manager – Case Closure	24	Per Hour	\$125	\$3,000	
Technical Illustrations	2	Per Hour	\$100	\$200	
Admin/Accounting	4	Per Hour	\$65	\$260	
Expenses	1	Estimate	\$100	\$100	\$0
		Subtotal		\$3,830	\$0
				<b>\$9,138</b>	<b>\$7,684</b>
					<b>\$16,822</b>

Notes:

- 1 Task 1 was completed in accordance with the October 12<sup>th</sup> Change Order approved by WDNR on October 19<sup>th</sup>, 2016.
- 2 Includes two round of Includes samples from VP-1 through VP-4, and a duplicate sample, a background sample, and indoor air sample for each round.



MW-3

MW-2

SB-1

SB-2

SB-3

MW-1

Former  
DMV

PIGGY  
WIGGLY

UNITED CLEANERS &  
LAUNDRIES

100 ug/kg  
1,000  
10,000  
13,000

A3 A3  
SW-9

A6 100  
A5 350 SW-8

146

100 ug/kg

MW-1

E2 E3 E4

SB-5

B7 650  
B8 73  
B9 98

C7 310  
C8 390

D6 362  
SW-6 180  
SW-5 193

SW-7 1,620

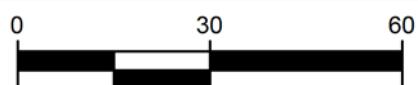
SW-4 328  
SW-3 61

SW-2 180  
SW-1 100

#### LEGEND

- ◆ SB-1 PROPOSED SOIL BORING (Sample interval 3'-5')
- ◆ A3 PROPOSED SOIL BORING for SVE confirmation (Sample interval 3'-5')
- ◆ A1 SOIL BORING (2010-2011)
- 490 PCE SOIL CONCENTRATION (ug/kg)
- PCE SOIL ISOCONTOUR (ug/kg)
- MW-1 MONITORING WELL
- EXCAVATED (2013)
- ✗ SW-1 EXCAVATION SIDE WALL SAMPLE

SOURCES: MANITOWOC COUNTY/CITY GIS, 2010 AERIAL PHOTOGRAPH, TERRACON (2006).



SCALE: 1" = 30'

UNITED DRY CLEANERS  
623 REED AVENUE  
MANITOWOC, WISCONSIN

Figure 1  
PROPOSED SOIL CONFIRMATION BORINGS &  
RESIDUAL SOIL CONTAMINATION (0-5 FEET)

FILE: 37409 United Dry Cleaners|Drafting\UDC-Site-2016.dwg [Fig 1 - Proposed]

DRAWN BY: DDZ, DAN  
DATE: 10/7/2016

**SHANNON & WILSON, INC.**  
GEOTECHNICAL AND ENVIRONMENTAL CONSULTANTS



MW-3

MW-2

SB-1

Former  
DMV

SB-2

PIGGY  
WIGGLY

UNITED CLEANERS &  
LAUNDRIES

A4

A6

A5<sup>42</sup>

B6

B5

B7

B8

B9

C7

C8

57

92

53

240

260

640

D5

73

32

100

<25

62

D6

510

E2

E3

E4

SB-3

MW-5

SB-4

SB-5

PARKVIEW HAVEN  
APARTMENTS

#### LEGEND

- ◆ SB-1 PROPOSED SOIL BORING (Sample interval 8-10')
- ◆ A1 SOIL BORING (2010-2011)
- 490 PCE SOIL CONCENTRATION (ug/kg)
- PCE SOIL ISOCONTOUR (ug/kg)
- MW-1 MONITORING WELL
- EXCAVATED (2013)
- ⊗ SW-1 EXCAVATION SIDE WALL SAMPLE

SOURCES: MANITOWOC COUNTY/CITY GIS, 2010 AERIAL PHOTOGRAPH, TERRACON (2006).



SCALE: 1" = 30'

UNITED DRY CLEANERS  
623 REED AVENUE  
MANITOWOC, WISCONSIN

Figure 2  
PROPOSED SOIL CONFIRMATION SAMPLING &  
RESIDUAL SOIL CONTAMINATION (5-10 FEET)

FILE:37409 United Dry Cleaners\Drafting\UDC-Site-2016.dwg [Fig 2 - Proposed]

DRAWN BY: DDZ, DAN  
DATE: 10/7/2016

**SHANNON & WILSON, INC.**  
GEOTECHNICAL AND ENVIRONMENTAL CONSULTANTS



MW-3

MW-2

SB-1

SB-2

SB-3

MW-5

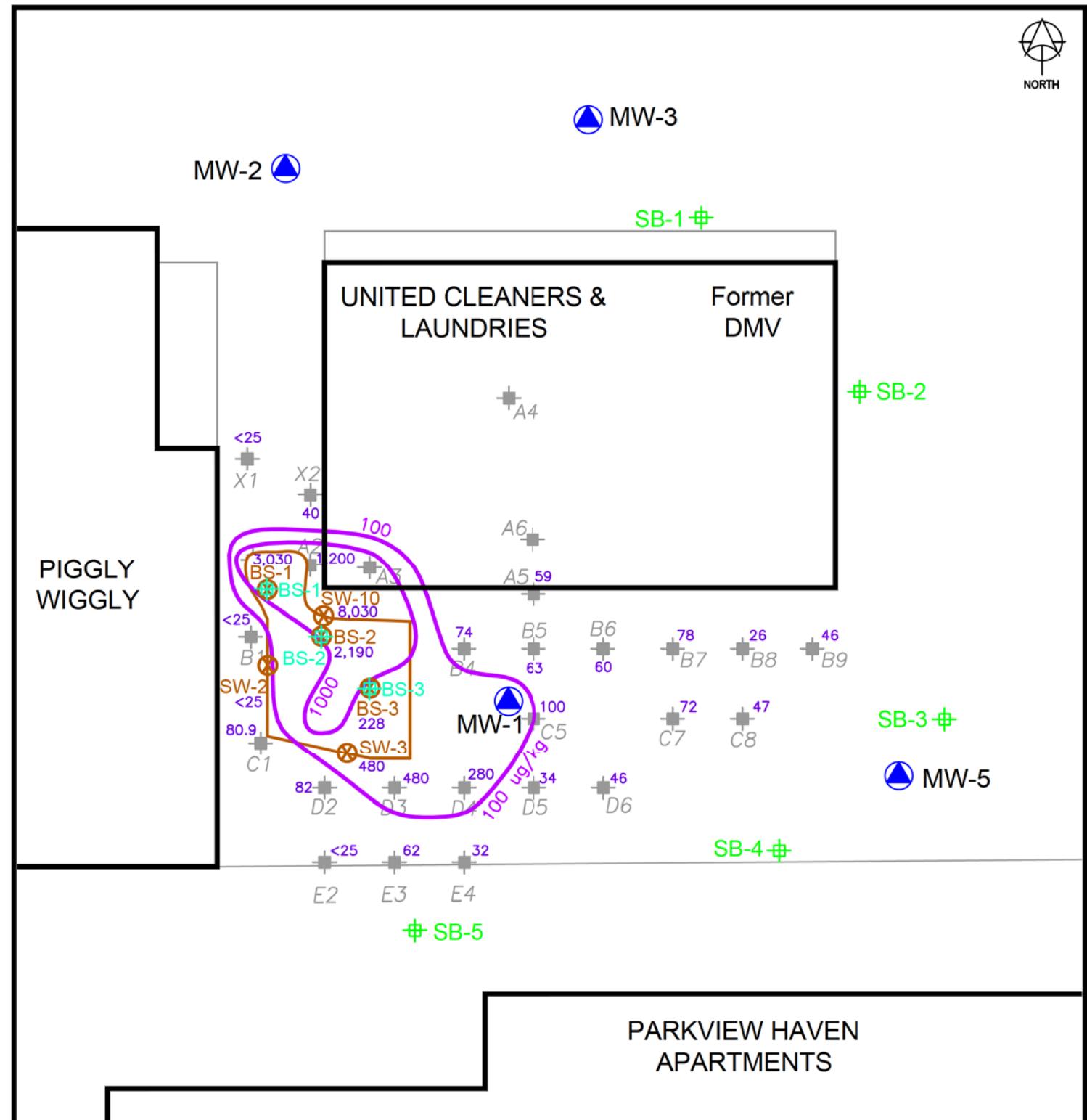
SB-4

SB-5

PIGGY  
WIGGLY

UNITED CLEANERS &  
LAUNDRIES

Former  
DMV



#### LEGEND

◆ SB-1 PROPOSED SOIL BORING (Sample interval 13-15')

◆ BS-1 PROPOSED SOIL BORING for SVE confirmation (Sample intervals: BS-1: 12.5-13'  
BS-2: 13.5-14'  
BS-3: 15' )

◆ A1 SOIL BORING (2010-2011)

◆ 490 PCE SOIL CONCENTRATION (ug/kg)

◆ PCE SOIL ISOCONTOUR (ug/kg)

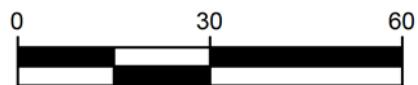
● MW-1 MONITORING WELL

■ EXCAVATED (2013)

⊗ SW-1 EXCAVATION SIDE WALL SAMPLE

⊗ BS-1 EXCAVATION BOTTOM SAMPLE

SOURCES: MANITOWOC COUNTY/CITY GIS, 2010 AERIAL PHOTOGRAPH, TERRACON (2006).



SCALE: 1" = 30'

UNITED DRY CLEANERS  
623 REED AVENUE  
MANITOWOC, WISCONSIN

Figure 3  
PROPOSED SOIL CONFIRMATION BORINGS &  
RESIDUAL SOIL CONTAMINATION (10-15 FEET)

FILE:37409 United Dry Cleaners\Drafting\UDC-Site-2016.dwg [Fig 3 - Proposed]

DRAWN BY: DDZ, DAN

DATE: 10/7/2016

**SHANNON & WILSON, INC.**  
GEOTECHNICAL AND ENVIRONMENTAL CONSULTANTS

Site Name: *United Laundries and Dry Cleaners*BRRTS #: *02-36-544383*Type of Action: *Remedial Action*
**Remediation Cost for 2013 through 2017  
(previously claimed cost shown in blue)**

TASKS	BUDGET				INVOICES													
	Bid / Budgeted Amount	INSERT	Total Approved Budget	Previous Claims (If applicable)	Shannon & Wilson Inv #28827 11/6/2013	Shannon & Wilson Inv #28884 12/11/2013	Shannon & Wilson Inv #28945 1/13/2014	Shannon & Wilson Inv #28991 2/5/2014	Shannon & Wilson Inv #29051 3/6/2014	Shannon & Wilson Inv #29079 4/8/2014	Shannon & Wilson Inv #229164 5/7/2014	Shannon & Wilson Inv #29251 6/10/2014	Shannon & Wilson Inv #29463 9/10/2014	Shannon & Wilson Inv #29526 10/7/2014	Shannon & Wilson Inv #29589 11/4/2014	Shannon & Wilson Inv #29662 12/10/2014	Shannon & Wilson Inv #29683 1/6/2015	
Consultant Costs																		
Task 1 - Work Plan Preparation	\$ 2,800.00		\$ 2,800.00	\$ 2,634.50	\$ 2,634.50													
Task 2 - Soil Excavation	\$ 9,400.00		\$ 9,400.00	\$ 8,389.50	\$ 2,750.00	\$ 5,577.00	\$ 62.50											
Task 2 - Soil Excavation (Expenses)	\$ 1,200.00		\$ 1,200.00	\$ 137.57		\$ 137.57												
Task 3 - Soil Vapor Extraction System	\$ 4,000.00		\$ 4,000.00	\$ 4,052.00		\$ 2,787.50	\$ 1,264.50											
Task 3 - Soil Vapor Extraction System (Expenses)	\$ 450.00		\$ 450.00	\$ -														
Task 4 - Construction Documentation Report	\$ 4,610.00		\$ 4,610.00	\$ 4,630.00			\$ 4,190.00	\$ 440.00										
Task 5 - Vapor Probe Sampling	\$ 400.00		\$ 400.00	\$ 400.00		\$ 200.00			\$ 200.00									
Task 6 - Groundwater Monitoring	\$ 4,000.00		\$ 4,000.00	\$ 4,000.00		\$ 1,000.00			\$ 1,000.00			\$ 1,000.00		\$ 1,000.00				
Task 6 - Groundwater / Air Monitoring (Expenses)	\$ 600.00		\$ 600.00	\$ 84.56			\$ 25.63		\$ 47.03							\$ 11.90		
Task 7 - Annual Report	\$ 4,800.00		\$ 4,800.00	\$ 5,073.50				\$ 239.50	\$ 489.50	\$ 114.50	\$ 177.00	\$ 114.50	\$ 52.00	\$ 2,114.50	\$ 1,772.00			
Groundwater Monitoring (second and third years)	\$ 6,000.00		\$ 6,000.00	\$ 1,000.00												\$ 1,000.00		
Well Installation	\$ 1,000.00		\$ 1,000.00	\$ -														
Groundwater Monitoring (Nov 2016)	\$ 400.00																	
Groundwater Monitoring (Feb and May 2017)	\$ 800.00			\$ -														
Groundwater Monitoring Expenses (year 2 and 3)	\$ 1,050.00		\$ 1,050.00	\$ -														
Groundwater Monitoring Expenses (Nov 2016)	\$ 150.00			\$ -														
Groundwater Monitoring Expenses (Feb/May 2017)	\$ 300.00																	
Vapor Probe Sampling (second and third years)	\$ 2,400.00		\$ 2,400.00	\$ -														
Vapor Probe Sampling (Nov 2016)	\$ 400.00			\$ -														
Vapor Probe Sampling (Feb/May 2017)	\$ 800.00																	
Soil Borings (fourth year)	\$ 1,000.00			\$ -														
Soil Boring Expenses (fourth year)	\$ 150.00			\$ -														
Report and Project Management (year 2 and 3)	\$ 7,490.00		\$ 7,490.00	\$ 291.50											\$ 239.50	\$ 52.00		
Case Closure	\$ 3,000.00		\$ 3,000.00	\$ -														
Report and Project Management (2016)	\$ 604.00			\$ -														
Report and Project Management (2017)	\$ 1,534.00																	
Revised Case Closure	\$ 3,000.00			\$ -														
Well Abandonment	\$ 2,000.00		\$ 2,000.00	\$ -														
Consultant Cost Total	\$ 64,338.00		\$ 55,200.00	\$ 30,693.13														
Sub-Contractor Costs																		



Site Name: *United Laundries and Dry Cleaners*BRRTS #: *02-36-544383*Type of Action: *Remedial Action*

**Remediation Cost for 2013 through 2017  
(previously claimed cost shown in blue)**

TASKS	BUDGET				REMEDIAL ACTION COSTS															
	Bid / Budgeted Amount	INSERT	Total Approved Budget	Previous Claims (If applicable)	Shannon & Wilson Inv #29775 2/11/2015	Shannon & Wilson Inv #29821 3/11/2015	Shannon & Wilson Inv #29866 4/7/2015	Shannon & Wilson Inv #29965 5/7/2015	Shannon & Wilson Inv #29989 6/10/2015	Shannon & Wilson Inv #30232 9/9/2015	Shannon & Wilson Inv #30281 10/6/2015	Shannon & Wilson Inv #30381 11/6/2015	Shannon & Wilson Inv #30448 12/10/2015	Shannon & Wilson Inv #30490 1/6/2016	Shannon & Wilson Inv #30637 3/9/2016	Shannon & Wilson Inv #30673 4/5/2016	Shannon & Wilson Inv #30787 5/10/2016	Shannon & Wilson Inv #30925 7/7/2017	INSERT	Total Invoiced Costs
<b>Consultant Costs</b>																				
Task 1 - Work Plan Preparation	\$ 2,800.00		\$ 2,800.00	\$ 2,634.50																
Task 2 - Soil Excavation	\$ 9,400.00		\$ 9,400.00	\$ 8,389.50																
Task 2 - Soil Excavation (Expenses)	\$ 1,200.00		\$ 1,200.00	\$ 137.57																
Task 3 - Soil Vapor Extraction System	\$ 4,000.00		\$ 4,000.00	\$ 4,052.00																
Task 3 - Soil Vapor Extraction System (Expenses)	\$ 450.00		\$ 450.00	\$ -																
Task 4 - Construction Documentation Report	\$ 4,610.00		\$ 4,610.00	\$ 4,630.00																
Task 5 - Vapor Probe Sampling	\$ 400.00		\$ 400.00	\$ 400.00																
Task 6 - Groundwater Monitoring	\$ 4,000.00		\$ 4,000.00	\$ 4,000.00																
Task 6 - Groundwater / Air Monitoring (Expenses)	\$ 600.00		\$ 600.00	\$ 84.56															\$ -	
Task 7 - Annual Report	\$ 4,800.00		\$ 4,800.00	\$ 5,073.50															\$ -	
Groundwater Monitoring (second and third years)	\$ 6,000.00		\$ 6,000.00	\$ 1,000.00		\$ 1,000.00													\$ 5,000.00	
Well Installation	\$ 1,000.00		\$ 1,000.00	\$ -															\$ 1,000.00	
Groundwater Monitoring (Nov 2016)	\$ 400.00																			
Groundwater Monitoring (Feb and May 2017)	\$ 800.00			\$ -																
Groundwater Monitoring Expenses (year 2 and 3)	\$ 1,050.00		\$ 1,050.00	\$ -	\$ 11.84														\$ 100.19	
Groundwater Monitoring Expenses (Nov 2016)	\$ 150.00			\$ -															\$ -	
Groundwater Monitoring Expenses (Feb/May 2017)	\$ 300.00																			
Vapor Probe Sampling (second and third years)	\$ 2,400.00		\$ 2,400.00	\$ -		\$ 1,200.00													\$ 2,400.00	
Vapor Probe Sampling (Nov 2016)	\$ 400.00			\$ -															\$ -	
Vapor Probe Sampling (Feb/May 2017)	\$ 800.00																			
Soil Borings (fourth year)	\$ 1,000.00			\$ -															\$ -	
Soil Boring Expenses (fourth year)	\$ 150.00			\$ -															\$ -	
Report and Project Management (year 2 and 3)	\$ 7,490.00		\$ 7,490.00	\$ 291.50	\$ 302.00	\$ 177.00	\$ 489.50	\$ 177.00	\$ 744.50	\$ 239.50	\$ 427.00	\$ 302.00	\$ 52.00	\$ 52.00	\$ 52.00	\$ 4,542.00	\$ 177.00	\$ 52.00	\$ 7,785.50	
Case Closure	\$ 3,000.00		\$ 3,000.00	\$ -														\$ 1,000.00	\$ 2,850.00	\$ 3,850.00
Report and Project Management (2016)	\$ 604.00			\$ -															\$ -	
Report and Project Management (2017)	\$ 1,534.00																			
Revised Case Closure	\$ 3,000.00			\$ -															\$ -	
Well Abandonment	\$ 2,000.00		\$ 2,000.00	\$ -															\$ -	
<b>Consultant Cost Total</b>	<b>\$ 64,338.00</b>		<b>\$ 55,200.00</b>	<b>\$ 30,693.13</b>															<b>\$ 20,135.69</b>	
<b>Sub-Contractor Costs</b>																				



Site Name: United Laundries and Dry Cleaners  
 BRRTS #: 02-36-544383  
 Type of Action: Remedial Action

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

TASKS	BUDGET		Total Approved Budget	DERF COST BREAKOUT (this claim)								Budget Remaining Use (-) to indicate cost over-run	% Task Complete, Remarks
	Bid / Budgeted Amount	INSERT		A Soil Investigation	B Soil Remediation	C Groundwater Investigation	D Groundwater Remediation	E Air/Vapor Investigation	F Air/Vapor Remediation	G Lab & Other Analysis	H Miscellaneous Costs		
<b>Consultant Costs</b>													
Task 1 - Work Plan Preparation	\$ 2,800.00		\$ 2,800.00	\$ 2,634.50								\$ 165.50	
Task 2 - Soil Excavation	\$ 9,400.00		\$ 9,400.00	\$ 8,389.50								\$ 1,010.50	
Task 2 - Soil Excavation (Expenses)	\$ 1,200.00		\$ 1,200.00	\$ 137.57								\$ 1,062.43	
Task 3 - Soil Vapor Extraction System	\$ 4,000.00		\$ 4,000.00	\$ 4,052.00								\$ (52.00)	
Task 3 - Soil Vapor Extraction System (Expenses)	\$ 450.00		\$ 450.00	\$ -								\$ 450.00	
Task 4 - Construction Documentation Report	\$ 4,610.00		\$ 4,610.00	\$ 4,630.00								\$ (20.00)	
Task 5 - Vapor Probe Sampling	\$ 400.00		\$ 400.00	\$ 400.00								\$ -	
Task 6 - Groundwater Monitoring	\$ 4,000.00		\$ 4,000.00	\$ 4,000.00								\$ -	
Task 6 - Groundwater / Air Monitoring (Expenses)	\$ 600.00		\$ 600.00	\$ 84.56								\$ 515.44	
Task 7 - Annual Report	\$ 4,800.00		\$ 4,800.00	\$ 5,073.50								\$ (273.50)	
Groundwater Monitoring (second and third years)	\$ 6,000.00		\$ 6,000.00	\$ 1,000.00	\$ 5,000.00							\$ -	
Well Installation	\$ 1,000.00		\$ 1,000.00	\$ -	\$ 1,000.00							\$ -	
Groundwater Monitoring (Nov 2016)	\$ 400.00												
Groundwater Monitoring (Feb and May 2017)	\$ 800.00			\$ -								\$ -	
Groundwater Monitoring Expenses (year 2 and 3)	\$ 1,050.00		\$ 1,050.00	\$ -	\$ 100.19							\$ 949.81	
Groundwater Monitoring Expenses (Nov 2016)	\$ 150.00			\$ -								\$ -	
Groundwater Monitoring Expenses (Feb/May 2017)	\$ 300.00												
Vapor Probe Sampling (second and third years)	\$ 2,400.00		\$ 2,400.00	\$ -	\$ 2,400.00							\$ -	
Vapor Probe Sampling (Nov 2016)	\$ 400.00			\$ -								\$ -	
Vapor Probe Sampling (Feb/May 2017)	\$ 800.00												
Soil Borings (fourth year)	\$ 1,000.00			\$ -									
Soil Boring Expenses (fourth year)	\$ 150.00			\$ -									
Report and Project Management (year 2 and 3)	\$ 7,490.00		\$ 7,490.00	\$ 291.50	\$ 7,785.50							\$ (587.00)	
Case Closure	\$ 3,000.00		\$ 3,000.00	\$ -	\$ 3,850.00							\$ (850.00)	
Report and Project Management (2016)	\$ 604.00			\$ -									
Report and Project Management (2017)	\$ 1,534.00												
Revised Case Closure	\$ 3,000.00			\$ -								\$ -	
Well Abandonment	\$ 2,000.00		\$ 2,000.00	\$ -								\$ 2,000.00	
<b>Consultant Cost Total</b>	<b>\$ 64,338.00</b>		<b>\$ 55,200.00</b>	<b>\$ 30,693.13</b>								<b>\$ 4,371.18</b>	
<b>Sub-Contractor Costs</b>													

Site Name: *United Laundries and Dry Cleaners*  
 BRRTS #: *02-36-544383*  
 Type of Action: *Remedial Action*

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

TASKS	BUDGET		Total Approved Budget (If applicable)	DERF COST BREAKOUT (this claim)								Budget Remaining Use (-) to indicate cost over-run	% Task Complete, Remarks
	Bid / Budgeted Amount	INSERT		A Soil Investigation	B Soil Remediation	C Groundwater Investigation	D Groundwater Remediation	E Air/Vapor Investigation	F Air/Vapor Remediation	G Lab & Other Analysis	H Miscellaneous Costs		
<b>Task 2 - Soil Excavation</b>													
Pace - Verification Soil Samples	\$ 975.00		\$ 975.00	\$ 900.00								\$ -	
Veolia - Mobilization	\$ 6,740.00		\$ 6,740.00	\$ 6,739.57								\$ 75.00	
Veolia - Asphalt Removal	\$ 2,888.00		\$ 2,888.00	\$ 2,888.00								\$ 0.43	
WPS - Gas line removal / temp service	\$ 4,000.00		\$ 4,000.00	\$ 1,021.46								\$ 2,978.54	
MPU - Power pole removal / temp service	\$ 4,000.00		\$ 4,000.00	\$ 3,565.41								\$ 434.59	
Veolia - Excavation	\$ 6,875.00		\$ 6,875.00	\$ 5,249.20								\$ 1,625.80	
Veolia - Transportation	\$ 24,000.00		\$ 24,000.00	\$ 18,657.24								\$ 5,342.76	
Advanced Disposal - soil disposal	\$ 62,000.00		\$ 62,000.00	\$ 39,723.26								\$ 22,276.74	
Veolia - linear pipe installation	\$ 1,600.00		\$ 1,600.00	\$ 1,493.79								\$ 106.21	
Veolia - Backfill	\$ 25,260.00		\$ 25,260.00	\$ 18,524.17								\$ 6,735.83	
Veolia - Surface Barrier (Asphalt Pavement)	\$ 12,350.00		\$ 12,350.00	\$ 15,826.98								\$ (3,476.98)	
<b>Task 3 - Soil Vapor Extraction System</b>													
Badger State Drilling - Well Installation	\$ 7,000.00		\$ 7,000.00	\$ 6,825.00								\$ 175.00	
Badger State Drilling - Drums for soil cuttings	\$ 600.00		\$ 600.00	\$ 600.00								\$ -	
SVE Building	\$ 2,000.00		\$ 2,000.00	\$ 2,500.00								\$ (500.00)	
SES-SVE Equipment	\$ 8,550.00		\$ 8,550.00	\$ 8,550.00								\$ -	
SVE - Blower Installation	\$ 1,250.00		\$ 1,250.00	\$ 1,300.00								\$ (50.00)	
Franz Elec - SVE blower electrical	\$ 5,000.00		\$ 5,000.00	\$ 3,371.00	\$ 570.00							\$ 1,059.00	
Pace - SVE effluent samples	\$ 836.00		\$ 836.00	\$ 1,062.00								\$ (226.00)	
Pace - SVE effluent samples (years 2 and 3)	\$ 218.00		\$ 218.00	\$ 218.00								\$ (1,308.00)	
Electric - MPU	\$ 6,000.00		\$ 6,000.00	\$ 7,624.68								\$ (1,624.68)	
Electric - MPU (second year)	\$ 2,925.00		\$ 2,925.00	\$ 1,629.18	\$ 1,505.08							\$ (209.26)	
SVE system expenses	\$ 1,200.00		\$ 1,200.00	\$ -								\$ 1,200.00	
<b>Task 5 - Vapor Probe Sampling</b>													
Pace - vapor probe samples	\$ 1,254.00		\$ 1,254.00	\$ 1,226.00								\$ 28.00	
Pace - vapor probe samples (year 2 and 3)	\$ 5,014.00		\$ 5,014.00	\$ -								\$ 1,335.00	
Pace - vapor probe samples (2016)	\$ 872.00												
Pace - vapor probe samples (2017)	\$ 3,052.00											\$ -	
<b>Task 6 - Groundwater Monitoring</b>													
Pace - Groundwater Samples	\$ 2,600.00		\$ 2,600.00	\$ 2,220.00								\$ 380.00	
Pace - Groundwater Samples (year 2 and 3)	\$ 4,030.00		\$ 4,030.00	\$ 3,660.00								\$ (2,690.00)	
Pace - Soil and Groundwater Samples (2016)	\$ 60.00												
Pace - Soil and Groundwater Samples	\$ 1,420.00			\$ -								\$ -	
Well Installation	\$ 2,550.00		\$ 2,550.00	\$ -	\$ 2,224.00							\$ 326.00	
Soil Borings - Drilling Services	\$ 2,280.00			\$ -								\$ -	
Well Abandonment	\$ 3,500.00		\$ 3,500.00	\$ -								\$ 3,500.00	
Sub-Contractor Cost Total	\$ 212,899.00		\$ 205,215.00	\$ 155,374.94								\$ 37,493.98	
<b>DERF ELIGIBLE SUB-TOTALS</b>	<b>\$ 277,237.00</b>		<b>\$ 260,415.00</b>	<b>\$ 186,068.07</b>	\$ -	<b>\$ 24,434.77</b>	\$ -	\$ -	\$ -	\$ -	<b>\$ 8,047.00</b>	\$ -	<b>\$ 41,865.16</b>

Non-DERF Eligible Expenses	
Task 2 - Soil Remediation (Expenses)	\$ 907.50
Task 3 - Soil Vapor Extraction System (Expenses)	\$ 583.69
Task 5 - Groundwater Monitoring (Expenses)	\$ 455.81
Non-DERF Cost Total	\$ 1,947.00
<b>INVOICE GRAND TOTAL</b>	<b>\$ 188,015.07</b>

Total DERF Eligible Costs This Claim	\$ 32,481.77	Costs Incurred January 2015 through July 2016 (Claim #6)
	\$ 5,500	Well abandonment (approved Oct 2013)
	\$ 16,822	Proposed Change Order No. 2
	\$ 22,322	Estimated Claim #7

**Check Numbers**