

LETTER OF TRANSMITTAL

To: **Mr. Greg Michael**  
 Wisconsin Department of Natural Resources  
 Remediation & Redevelopment Program  
 141 NW Barstow Street  
 Waukesha, WI 53188

From: Stacy Oszuscik & Robert Peschel  
 The Sigma Group, Inc.  
 1300 W. Canal St.  
 Milwaukee, WI 53233  
 (414) 643-4200

REC'D SEP 04 2015

Please check the type(s) of documents you have enclosed. Submittals will be tracked and filed based on the information you provide. Include the FID and BRRTS numbers which have been assigned to this site, and identify the intent of the document(s) you are submitting in order to speed processing. Please attach any required fees to this checklist.

Date: September 2, 2015  
 Site Name: Parking Lots 4 & 7 at Clement J. Zablocki  
 VA Medical Center  
 Address: 5000 W. National Avenue, Milwaukee, WI  
 FID# 341041470  
 BRRTS # 02-41-563846

IS THIS RELEASE PECFA-ELIGIBLE?

YES  NO  UNKNOWN AT THIS TIME

Type of Submittal:

LUST  ERP  VPLE  OTHER

CHECK	TYPE OF DOCUMENT / REPORT	FEE	DNR CODE (office use only)
	Notification of Release	none	01
	Tank Closure/Site Assessment <i>where release(s) have been detected*</i>	none	33
	Site Investigation Workplan	\$500 if review is requested ~	35, 135~
///	Site Investigation Report <u>Please Provide the Following Information</u>	\$750 if review is requested ~	37, 137~
	<input checked="" type="checkbox"/> petroleum constituents detected		96~
	<input checked="" type="checkbox"/> non-petroleum constituents detected		(if SI is incomplete)
	<input type="checkbox"/> groundwater impacts <input type="checkbox"/> above PAL <input type="checkbox"/> above ES		
	<input type="checkbox"/> free product		
	<input type="checkbox"/> contamination in fractured bedrock or within 1 meter of fractured bedrock		
	<input type="checkbox"/> PAL exceedance in potable well		
	<input type="checkbox"/> groundwater impacts >ES, within <input type="checkbox"/> 100' of private well or <input type="checkbox"/> 1,000' of public well		
	Request to Transfer Case to Department of Commerce	none	76
	Off-Site Determination Request	\$500 mandatory	638~
	Remedial Action Options Plan	\$750 if review is requested	39, 143~
	NR 720.19 Site Specific Clean-Up Goal Proposed	\$750 if review is requested	67, 68~
	NR 718 Landspreading Request	\$500 mandatory	61~
	Copy of Notification to Treat or Dispose of Contamination Soil or Water	none	99
	Injection/Infiltration Request	\$500 mandatory	63~
	Quarterly Report or Update	\$500 if review is requested	43~
	O&M Form 4400-194	\$300 if review is requested	92, 192~
	Remedial Action Options Report	\$750 if review is requested	41, 41~
	Closure Review Request	\$1,050 mandatory	79~
	<input type="checkbox"/> Closure Form (Mandatory For Review)		
	<input type="checkbox"/> Soil GIS Registry	\$300 mandatory	700
	Request for No Further Action Letter, under ch. NR 708	\$250 mandatory	68, 67~
	Copy of Draft Deed Affidavit, Well Abandonment Form Restriction	none	99
	Simple Site Process Submittal Under NR 700.11	none	90~
	Remedial Design Report	\$750 if review is requested	147, 148~
	Construction Documentation Reports	\$250 if review is requested	151, 152~
	Long Term Monitoring Plan	\$300 if review is requested	24, 25~
	Voluntary Party Liability Exemption (VPLE) Application	\$250 mandatory	662~
	VPLE Phase I/II Assessments or Additional Reports	Computed hourly	99
	Tax Cancellation Agreement	\$500 mandatory	654~
	Negotiated Agreement	\$1,000 mandatory	630~
	Lender Assessment	\$500 mandatory	686~
	Negotiation and Cost Recovery (municipalities only) Fee for each service	mandatory	90~
	General Liability Clarification Request	\$500 mandatory	684
	Lease Letter Request - Single Property	\$500 mandatory	646
	Lease Letter Request - Multiple Properties	\$1,000 mandatory	646
	Request for Other Technical Assistance	\$700 mandatory	97~
	Other (please describe): Soil GIS registry fee		

\* Closure reports for sites where no releases have been detected should be sent directly to "Clean Closures" c/o DNR Remediation & Redevelopment Program, P.O. Box 7921, Madison, WI 53707

Remarks: **Review not requested - no fee included.**

September 2, 2015

Project #14776/15233

Mr. Greg Michael  
Wisconsin Department of Natural Resources  
Remediation & Redevelopment Program  
141 NW Barstow Street  
Waukesha, WI 53188

**Subject:       Parking Lots 4 & 7 at Clement J. Zablocki VA Medical Center  
                  5000 W. National Avenue, Milwaukee, WI  
                  FID #341041470  
                  BRRTS #02-41-563846**

Dear Mr. Michael:

On behalf of Dept. of Veterans Affairs (VA), The Sigma Group, Inc. (Sigma) is submitting this letter and attachment to satisfy the requirements laid out in the Responsible Party (RP) letter dated July 2, 2015 establishing BRRTS #02-41-563846.

The VA intends to replace surface Parking Lots 4 & 7 with multi-story parking structures. In preparation for construction, Sigma was hired to complete Phase II Environmental Site Assessments (ESAs) in each Lot to aid in soil management practices during construction. The Phase II ESA activities completed in Lot 4 are described and documented in the attached report dated June 30, 2014. The Phase II ESA report for Lot 7 is currently being reviewed and will be submitted once finalized along with a Vapor Pathway Analysis and Soil Management Plan.

If you have any questions or comments, please contact us at (414) 643-4200.

Sincerely,

**THE SIGMA GROUP, INC.**



Stacy L. Oszuscik, E.I.T.  
Staff Engineer



Robert F. Peschel, P.E.  
Senior Project Manager

Attachments

Cc:   Ms. Casey Schimek – Dept. of Veterans Affairs (email)  
      Mr. Jim Beier – Dept. of Veterans Affairs (email)  
      Mr. Kyle Cyr – Guidon Design (email)

June 30, 2014

Project Reference #14776

Mr. Scott Noyer, PE, NCEES  
Director - Structural Division  
Guidon Design  
905 N. Capitol Avenue, Suite 100  
Indianapolis, IN 46204

**Re: Phase II Environmental Site Assessment  
Renovate Parking for New Structure-Lot 4 at VAMC Milwaukee, Wisconsin  
VA Project No: 695-324**

Dear Mr. Noyer:

The Sigma Group, Inc. (Sigma) has prepared this report to document and discuss the Phase II Environmental Assessment activities completed at the Clement J. Zablocki VA Medical Center within Parking Lot 4 located at 5000 W. National Avenue, Milwaukee, Wisconsin (hereinafter the "site"). The Phase II activities presented below were conducted in accordance with Sigma's June 6, 2014 proposal to team with Guidon Design in completing the VA's Scope of Work-A/E Services through Revision 5 dated April 25, 2014.

## **BACKGROUND**

Subsurface soil quality in the area of the proposed parking structure, current Lot 4 (**Figure 1**), was unknown and thought to possibly contain hazardous substances from historic undocumented fill. The following environmental subsurface investigation activities were conducted to assess if historical soil placement and/or land usage negatively impacted the property in the area of the proposed parking structure.

## **SITE INVESTIGATION ACTIVITIES**

Site Description. The Clement J. Zablocki VA Medical Center (VAMC) is located on 125 acres on the western edge of Milwaukee. The facility is used to deliver primary, secondary, and tertiary medical care.

Utility Clearance. Sigma contacted Digger's Hotline on May 23, 2014 to locate public utility lines at and around Parking Lot 4 of the VAMC. All Lines Utility Services, LLC was contracted to mark private utility lines on May 29, 2014 prior to drilling activities.

Drilling Activities. On May 30, 2014, Sigma oversaw the installation of five direct-push (Geoprobe®) soil borings (GP-1 through GP-5) at the locations depicted in **Figure 2**. Soil borings were proposed to be installed to a completion depth of 25 feet below ground surface (bgs); however, refusal was met between 14 and 23 feet bgs at each boring location. Soil borings were completed with a truck-mounted Geoprobe® hydraulic drill rig. Soil samples were continuously collected at each soil boring location with a 2.5-inch diameter by 4-foot long Macro-Core® sampler and described on the basis of color, texture, grain size, and plasticity, and were classified in general accordance with the Unified Soil

Classification System. A split portion of each soil sample was also screened with a calibrated organic vapor monitor (OVM) to measure for the presence of volatile organic vapors. Soil classifications, descriptions, specific sampling intervals, and OVM readings are presented on the soil boring logs in **Attachment A**.

One composite soil sample from each soil boring was collected and submitted for laboratory analysis of gasoline range organics (GRO), diesel range organics (DRO), petroleum volatile organic compounds (PVOCs), semi-volatile organic compounds (SVOCs), RCRA metals, and polychlorinated biphenyls (PCBs). One composite soil sample was collected from all five soil borings for laboratory analysis of landfill disposal parameters (Protocol B) to facilitate the disposal of mud rotary drill cuttings produced during the geotechnical investigation that followed the environmental subsurface investigation. Representative quantities of soil were placed in the laboratory-supplied containers and stored on ice in a cooler for the duration of field activities. A completed chain of custody document accompanied the soil samples until receipt by the laboratory.

Upon completion, Geoprobe® boreholes GP-1 through GP-5 were abandoned with bentonite chips in accordance with NR 141 regulations from the bottom of the borehole up to four inches bgs. Each borehole location was capped with asphalt or concrete patch to restore the existing grade. Soil borehole abandonment forms are included in **Attachment B**.

Survey. Following completion of the environmental soil borings by Sigma and geotechnical mud rotary soil borings overseen by Terracon, Sigma conducted survey activities to document the boring locations and marked utilities at the site.

## **SITE INVESTIGATION RESULTS**

Geology and Groundwater. Based on information obtained during the environmental soil borings, the geology beneath the site generally consists of reworked silty clay and clayey silt with few sandy silt layers with minor amounts of non-soil inclusions (e.g., wood, concrete, and brick pieces in GP-2 and brick debris in GP-4 and GP-5) to a maximum depth of approximately 14 feet bgs. Native brown silty clay was encountered in each soil boring except GP-5. Gravelly sand base course was present beneath the asphalt pavement. Wet soil conditions were observed at a depth of approximately 20 feet bgs within soil boring GP-1; refusal was encountered prior to observation of saturated soil conditions at the other soil boring locations. Specific soil characteristics and depths encountered during drilling activities are shown on the soil boring logs in **Attachment A**. The geotechnical boring logs from Terracon showed subsurface conditions consistent with the environmental borings.

Soil Quality Results. Laboratory analytical soil quality results from borings GP-1 through GP-5 indicate that the analyzed compounds were reported below the laboratory detection limits, with the following exceptions:

- GRO/ DRO/ PVOCs
  - One or more PVOCs were identified in the soil samples collected from soil borings GP-2 and GP-3; however, only the concentrations of benzene were reported above applicable WDNR soil quality standards for protection of groundwater. Detectable concentrations of DRO were reported within soil

samples collected from GP-2, GP-3, GP-4, and GP-5; however, the laboratory noted that oil contamination was indicated outside the DRO window in each of these samples.

- SVOCs
  - Multiple SVOC constituents were identified in soil samples from soil borings GP-1, GP-2, GP-3, GP-4, and GP-5. The concentrations of benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, chrysene, dibenzo(a,h)anthracene, and indeno(1,2,3-cd)pyrene were reported above applicable WDNR soil quality standards for protection of the direct contact pathway (non-industrial land use setting) and/or protection of groundwater. Other SVOCs were also detected but below applicable soil quality standards.
- RCRA Metals
  - RCRA metals concentrations were reported below WDNR soil quality standards with the exception of arsenic and lead from soil borings GP-2 and GP-4, respectively. However, the detected concentration of arsenic is below 8 mg/kg, which was established<sup>1</sup> as the statewide soil-arsenic background threshold value. The lead concentration reported for the GP-4 sample is above the WDNR soil quality standard for the protection of groundwater but below the standard for protection of the direct contact pathway.
- PCBs
  - All PCB Aroclors were reported below the laboratory limits of detection.
- Protocol B
  - Laboratory results indicate that the soil collected from GP-1 through GP-5 is characteristically non-hazardous.

Soil quality data, and further descriptions of WDNR soil standards, are summarized in **Tables 1 and 2**. The soil laboratory analytical reports are included as **Attachment C**.

## CLOSING

Based on impacts identified at the site, Sigma recommends we share these environmental findings with the VAMC to discuss WDNR reporting obligations as the land owner, including reporting a release as required by Wisconsin Statute s. 292.11, and develop a WDNR closure strategy that meets the project goals.

The shallow reworked soil with non-soil inclusions reported concentrations of SVOC constituents that will have to be managed appropriately through disposal at a landfill facility or a site accepting low-level impacted material through a ch. NR 718.12 approval. Furthermore, the WDNR may require that subsurface barriers (e.g., concrete slab, asphalt pavement, etc.) be maintained to prevent direct contact with underlying soils following the completion of the parking garage.

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<sup>1</sup> "Wisconsin Statewide Soil-Arsenic Background Threshold Value" WDNR RR Publication 940 (dated July 2013)

Phase II Rpt – Lot 4 at VAMC  
June 30, 2014  
Page 4

We appreciate this opportunity to work with Guidon Design and the VAMC. If you have any questions about the completed subsurface investigation activities or results, please contact us at (414) 643-4200.

Sincerely,

**THE SIGMA GROUP, INC.**



Stacy Oszusick, E.I.T.  
Staff Engineer



Robert F. Peschel, P.E.  
Senior Project Manager

## TABLES

Table 1  
Soil Analytical Data  
VAMC Lot 4 - 5000 W. National Ave, Milwaukee, WI 53295  
Sigma Project No. 14776

Soil Sample Location:	Fill GP-1	Fill GP-2	Fill GP-3	Fill GP-4	Fill GP-5	Groundwater Pathway RCL <sup>4</sup>	Non-Industrial Direct Contact RCL <sup>5</sup>	Industrial Direct Contact RCL <sup>6</sup>	
Sample Depth (feet bgs):	0 - 23	0 - 20	0 - 16	0 - 16	0 - 14				
Sample Collection Date:	5/30/14								
Depth to Groundwater (feet bgs):	20	UNK	UNK	UNK	UNK				
Unsaturated/Smear Zone (U) or Saturated (S):	U	U	U	U	U				
Organic Vapor Monitor	ppm	0.8	32	2.5	0.7	0.2	NS	NS	NS
Gasoline Range Organics	mg/kg	<10	<10	<10	<10	<10	NS	NS	NS
Diesel Range Organics	mg/kg	<10	32.2 <sup>43</sup>	13.6 <sup>43</sup>	12.8 <sup>43</sup>	41.5 <sup>43</sup>	NS	NS	NS
<b>PVOCs &amp; Detected VOCs</b>									
Benzene	µg/kg	<25	<b>44</b>	<b>38</b>	<25	<25	5.1	1,490	7,410
Ethylbenzene	µg/kg	<25	36	<25	<25	<25	1,570	7,470	37,000
Methyl-tert-butyl-ether	µg/kg	<25	<25	<25	<25	<25	27	59,400	293,000
Toluene	µg/kg	<25	<25	<25	<25	<25	1,107.2	818,000	818,000
1,2,4-Trimethylbenzene	µg/kg	<25	31.3 "J"	<25	<25	<25	1,379.3	89,800	219,000
1,3,5-Trimethylbenzene	µg/kg	<25	<25	<25	<25	<25		182,000	182,000
Xylenes (total)	µg/kg	<50	30.8 "J"	<50	<50	<50	3,940	258,000	258,000
<b>SVOCs</b>									
Acetophenone	µg/kg	<11	<11	<11	<11	<110	NS	NS	NS
Acenaphthene	µg/kg	<9.1	430	73	119	820	NS	3,440,000	33,000,000
Acenaphthylene	µg/kg	13.9 "J"	243	49	89	330	NS	487,000	487,000
Anthracene	µg/kg	17.6 "J"	480	88	163	5,000	196,744.2	17,200,000	100,000,000
Benzo(a)anthracene	µg/kg	47	<b>670</b>	125	<b>292</b>	<b>7,300</b>	NS	148	2,110
Benzo(a)pyrene	µg/kg	34	<b>440</b>	153	<b>350</b>	<b>3,600</b>	470	15	211
Benzo(b)fluoranthene	µg/kg	55	<b>680</b>	166	<b>430</b>	<b>9,900</b>	480	148	2,110
Benzo(ghi)perylene	µg/kg	35	350	82	195	3,500	NS	NS	NS
Benzo(k)fluoranthene	µg/kg	28.6 "J"	185	58	178	1,260	NS	1,480	21,100
Benzyl Alcohol	µg/kg	<38	<38	<38	<38	<380	NS	6,110,000	61,600,000
Butyl benzyl phthalate	µg/kg	<55	<55	<55	<55	<550	NS	NS	NS
Bis(2-chloroethoxy)methane	µg/kg	<10	<10	<10	<10	<100	NS	183,000	1,850,000
Bis(2-chloroethyl)ether	µg/kg	<12	<12	<12	<12	<120	NS	265	1,260
Bis(2-chloroisopropyl)ether	µg/kg	<9.4	<9.4	<9.4	<9.4	<94	NS	NS	NS
Bis(2-ethylhexyl)phthalate	µg/kg	24.1 "J"	41	26.5 "J"	23.9 "J"	<96	NS	34,700	123,000
4-Bromophenylphenyl ether	µg/kg	<7.5	<7.5	<7.5	<7.5	<75	NS	NS	NS
4-Chloro-3-methylphenol	µg/kg	<11	<11	<11	<11	<110	NS	NS	NS
2-Chloronaphthalene	µg/kg	<9.5	<9.5	<9.5	<9.5	<95	NS	NS	NS
2-Chlorophenol	µg/kg	<11	<11	<11	<11	<110	NS	391,000	5,110,000
4-Chlorophenylphenyl ether	µg/kg	<10	<10	<10	<10	<100	NS	NS	NS
Chrysene	µg/kg	59	<b>730</b>	<b>126</b>	<b>340</b>	<b>6,900</b>	145.1	14,800	211,000
o-Cresol	µg/kg	<16	<16	<16	<16	<160	NS	3,060,000	30,800,000
m&p-Cresol	µg/kg	<25	<25	<25	<25	<250	NS	6,110,000	61,600,000
Dibenzofuran	µg/kg	<9.7	34	27.7 "J"	53	1,330	NS	78,200	1,020,000
Dibenzo(a,h)anthracene	µg/kg	11 "J"	100	23.3	59	1,040	NS	15	211
1,4-Dichlorobenzene	µg/kg	<8.7	<8.7	<8.7	<8.7	<87	144	3,480	17,500
1,3-Dichlorobenzene	µg/kg	<8.9	<8.9	<8.9	<8.9	<89	1,152.2	297,000	297,000
1,2-Dichlorobenzene	µg/kg	<9.3	<9.3	<9.3	<9.3	<93	1,168	376,000	376,000
3,3'-Dichlorobenzidine	µg/kg	<8.1	<8.1	<8.1	<8.1	<81	NS	1,080	3,830
2,4-Dichlorophenol	µg/kg	<11	<11	<11	<11	<110	NS	183,000	1,850,000
Diethyl phthalate	µg/kg	<11	<11	<11	<11	<110	NS	48,900,000	100,000,000
Dimethyl phthalate	µg/kg	<13	<13	<13	<13	<130	NS	NS	NS
2,4-Dimethylphenol	µg/kg	<11	<11	<11	<11	<110	NS	1,220,000	12,300,000
Di-n-butyl phthalate	µg/kg	<24	<24	<24	<24	<240	5,037.5	6,110,000	61,600,000
2,4-Dinitrophenol	µg/kg	<7.1	<7.1	<7.1	<7.1	<71	NS	122,000	1,230,000
2,6-Dinitrotoluene	µg/kg	<10	<10	<10	<10	<100	0.1	325	1,150
2,4-Dinitrotoluene	µg/kg	<19	<19	<19	<19	<190	0.1	1,560	5,520
Di-n-octyl phthalate	µg/kg	<8.1	<8.1	<8.1	<8.1	<81	NS	611,000	6,160,000
Diphenylamine	µg/kg	<9.9	38	10.4 "J"	33	<99	NS	1,530,000	15,400,000
Fluoranthene	µg/kg	106	1,260	229	670	16,600	88,817.9	2,290,000	22,000,000
Fluorene	µg/kg	<8.6	400	44	103	1,950	14,814.8	2,290,000	22,000,000
Hexachlorobenzene	µg/kg	<8	<8	<8	<8	<80	25.2	304	1,080
Hexachlorobutadiene	µg/kg	<12	<12	<12	<12	<120	NS	6,230	22,100
Hexachlorocyclopentadiene	µg/kg	<8.8	<8.8	<8.8	<8.8	<88	NS	366,000	3,680,000
Hexachloroethane	µg/kg	<9.6	<9.6	<9.6	<9.6	<96	NS	12,200	43,100
Indeno(1,2,3-cd)pyrene	µg/kg	30.2	<b>308</b>	69	<b>180</b>	<b>330</b>	NS	148	2,110
Isophorone	µg/kg	<11	<11	<11	<11	<110	NS	512,000	1,810,000
1-Methyl naphthalene	µg/kg	<11	251	27.7 "J"	59	206 "J"	NS	15,600	53,100
2-Methyl naphthalene	µg/kg	<11	64	<11	44	162 "J"	NS	229,000	368,000
2-Methyl-4,6-dinitrophenol	µg/kg	<6.9	<6.9	<6.9	<6.9	<69	NS	NS	NS
Naphthalene	µg/kg	<8.4	99	21.7 "J"	84	170 "J"	658.7	2,150	26,000
2-Nitroaniline	µg/kg	<9.1	<9.1	<9.1	<9.1	<91	NS	606,000	6,050,000
3-Nitroaniline	µg/kg	<10	<10	<10	<10	<100	NS	NS	NS
4-Nitroaniline	µg/kg	<8.2	<8.2	<8.2	<8.2	<82	NS	24,300	86,200
Nitrobenzene	µg/kg	<11	<11	<11	<11	<110	NS	6,920	34,900
2-Nitrophenol	µg/kg	<11	<11	<11	<11	<110	NS	NS	NS
4-Nitrophenol	µg/kg	<13.5	<13.5	<13.5	<13.5	<135	NS	NS	NS
n-Nitrosodimethylamine	µg/kg	<12	<12	<12	<12	<120	NS	2	34
n-Nitrosodi-n-propylamine	µg/kg	<14	<14	<14	<14	<140	NS	70	246
Pentachlorophenol (PCP)	µg/kg	<11	<11	<11	<11	<110	20.2	894	2,700
Phenanthrene	µg/kg	44	1,340	139	530	15,000	NS	115,000	115,000
Phenol	µg/kg	<10	<10	<10	<10	<100	2,299.80	18,300,000	100,000,000
Pyrene	µg/kg	81	1,570	275	640	13,600	54,472.5	1,720,000	16,500,000
Pyridine	µg/kg	<7	<7	<7	<7	<70	6.9	78,200	1,020,000
2,3,4,6-Tetrachlorophenol	µg/kg	<11	<11	<11	<11	<110	NS	1,830,000	18,500,000
1,2,4-Trichlorobenzene	µg/kg	<11	<11	<11	<11	<110	408	22,100	98,700
2,4,5-Trichlorophenol	µg/kg	<11	<11	<11	<11	<110	NS	6,110,000	61,600,000
2,4,6-Trichlorophenol	µg/kg	<11	<11	<11	<11	<110	NS	44,200	157,000
<b>RCRA Metals</b>									
Arsenic	mg/kg	<1.44	<b>3.42 "J"</b>	<1.44	<1.44	<1.44	0.584	0.614	2.39
Barium	mg/kg	53.0	66.8	31.7	48.7	40.3	164.8	15,300	100,000
Cadmium	mg/kg	<0.16	<0.16	<0.16	<0.16	<0.16	0.752	70.2	803
Chromium	mg/kg	22.1	26.8	12.2	18.6	19.4	360,000	NS	NS
Lead	mg/kg	12.7	18.2	10.8	<b>44.5</b>	18.2	27	400	800
Mercury	mg/kg	0.028	0.055	0.081	0.146	0.081	0.208	3.13	3.13
Selenium	mg/kg	<1.4	<1.4	<1.4	<1.4	<1.4	0.52	391	5,110
Silver	mg/kg	<0.68	<0.68	<0.68	<0.68	<0.68	0.8497	391	5,110
<b>PCBs</b>									
PCB-1016	mg/kg	<0.0065	<0.0065	<0.0065	<0.0065	<0.0065	0.0094	3.93	21.2
PCB-1221	mg/kg	<0.0054	<0.0054	<0.0054	<0.0054	<0.0054		0.159	0.589
PCB-1232	mg/kg	<0.0042	<0.0042	<0.0042	<0.0042	<0.0042		0.159	0.589
PCB-1242	mg/kg	<0.0032	<0.0032	<0.0032	<0.0032	<0.0032		0.222	0.744
PCB-1248	mg/kg	<0.0032	<0.0032	<0.0032	<0.0032	<0.0032		0.222	0.744
PCB-1254	mg/kg	<0.0047	<0.0047	<0.0047	<0.0047	<0.0047		0.222	0.744
PCB-1260	mg/kg	<0.0049	<0.0049	<0.0049	<0.0049	<0.0049		0.222	0.744

Notes:

- Unsaturated/smear zone versus saturated soil conditions based on: (1) measured water levels in adjacent/nearby monitoring wells, (2) soil moisture conditions recorded on soil boring logs, and/or (3) soil moisture contents reported on laboratory analytical reports.
- Analytical units:  
µg/kg = micrograms per kilogram (equivalent to parts per billion, ppb)  
mg/kg = milligrams per kilogram (equivalent to parts per million, ppm)
- NA = not analyzed
- Groundwater Pathway RCL = Residual Contaminant Level for protection of groundwater as presented on the WDNR's RCL Spreadsheet (dated December 2013) referenced in WDNR guidance document PUB-RR-890 "Soil Residual Contaminant Level Determinations Using the US EPA Regional Screening Level Web Calculator", dated January 23, 2014
- Non-Industrial Direct Contact RCL = Residual Contaminant Level for protection of direct contact at a non-industrial property as presented on the WDNR's RCL Spreadsheet (dated December 2013) with default input parameters as referenced in WDNR guidance document PUB-RR-890 "Soil Residual Contaminant Level Determinations Using the US EPA Regional Screening Level Web Calculator", dated January 23, 2014
- Industrial Direct Contact RCL = Residual Contaminant Level for protection of direct contact at an industrial property as presented on the WDNR's RCL Spreadsheet (dated December 2013) with default input parameters as referenced in WDNR guidance document PUB-RR-890 "Soil Residual Contaminant Level Determinations Using the US EPA Regional Screening Level Web Calculator", dated January 23, 2014
- NS = no standard established
- Laboratory flags:  
"J" = Analyte detected between Limit of Detection and Limit of Quantitation  
43 = Oil contamination indicated outside DRO window.
- Exceedances:  
**BOLD** = Concentration exceeds Groundwater Pathway RCL (unsaturated soil samples only)  
*ITALICS* = Concentration exceeds Non-Industrial Direct Contact RCL (unsaturated soil samples only)

**Table 2**  
**Protocol B Soil Waste Disposal Parameters**  
**VAMC Lot 4 - 5000 W. National Ave, Milwaukee, WI 53295**  
**Sigma Project No. 14776**

Soil Sample Location:		Comp Fill 05/30/14	Landfill Acceptance Limits (as special waste)
Parameter	Units		
Chloride	Percent	0.0680	<1.0%
Flashpoint	°F	>170	≥ 140
Free Liquids	---	none	0% free liquids
pH	pH units	6.9	2.0 ≤ pH ≤ 12.5
Cyanide, Total	mg/kg	<0.125	200 (reactive)
Sulfide	mg/kg	<25	200 (reactive)
Total Solids	% by weight	82.90	no limit
Specific Gravity	g/cm <sup>3</sup>	1.90	no limit
<b>TCLP Metals</b>			
Arsenic	mg/L	<0.45	<5.0
Barium	mg/L	<1.4	<100.0
Cadmium	mg/L	<0.45	<1.0
Chromium	mg/L	<0.45	<5.0
Copper	mg/L	<0.45	<100.0
Lead	mg/L	<0.45	<5.0
Mercury	mg/L	<0.001	<0.2
Nickel	mg/L	<0.45	<35.0
Selenium	mg/L	<0.45	<1.0
Silver	mg/L	<0.45	<5.0
Zinc	mg/L	<0.45	<200.0
<b>PCBs</b>			
PCB-1016	mg/kg	<0.0065	<50 (total)
PCB-1221	mg/kg	<0.0054	
PCB-1232	mg/kg	<0.0042	
PCB-1242	mg/kg	<0.0032	
PCB-1248	mg/kg	<0.0032	
PCB-1254	mg/kg	<0.0047	
PCB-1260	mg/kg	<0.0049	
<b>TCLP SVOCs</b>			
2-Methylphenol (o-Cresol)	mg/L	<0.1	<200.0
4-Methylphenol (m & p-Cresol)	mg/L	<0.1	<200.0
Pentachlorophenol	mg/L	<0.1	<100.0
Phenol	mg/L	<0.1	<2,000
2,4,5-Trichlorophenol	mg/L	<0.1	<400.0
2,4,6-Trichlorophenol	mg/L	<0.1	<2.0
Hexachloroethane	mg/L	<0.1	<3.0
Nitrobenzene	mg/L	<0.1	<2.0
Hexachlorobutadiene	mg/L	<0.1	<0.5
1,4-Dichlorobenzene	mg/L	<0.1	<7.5
2,4-Dinitrotoluene	mg/L	<0.1	<0.13
Hexachlorobenzene	mg/L	<0.1	<0.13
Pyridine	mg/L	<0.1	<5.0
<b>TCLP VOCs</b>			
Benzene	mg/L	<0.05	<0.5
Carbon Tetrachloride	mg/L	<0.05	<0.5
Chlorobenzene	mg/L	<0.05	<100.0
Chloroform	mg/L	<0.25	<6.0
1,2-Dichloroethane	mg/L	<0.05	<0.5
1,1-Dichloroethene	mg/L	<0.05	<0.7
Methyl Ethyl Ketone	mg/L	<0.5	<200.0
Tetrachloroethene	mg/L	<0.05	<0.7
Trichloroethene	mg/L	<0.05	<0.5
Vinyl Chloride	mg/L	<0.05	<0.2

Notes:

1. °F = degrees Fahrenheit
2. mg/kg = milligrams per kilogram (equivalent to parts per million, ppm)
3. g/cm<sup>3</sup> = grams per cubic centimeter
4. mg/L = milligrams per liter (equivalent to parts per million, ppm)

## FIGURES



WORK AREA



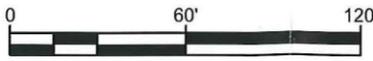
THE **SIGMA** GROUP  
Single Source. Sound Solutions.

**SITE MAP  
PARKING LOT 4 AT VAMC**

5000 W. NATIONAL AVENUE  
MILWAUKEE, WISCONSIN

FIGURE

1



<b>VAMC PARKING MILWAUKEE, WISCONSIN</b>		 <small>Single Source. Sound Solutions.</small>	<small>www.thesigmagroup.com 1300 West Canal Street Milwaukee, WI 53233 Phone: 414-643-4200 Fax: 414-643-4210</small>
DATE: 6-23-2014	DRW: AEK		
<b>SOIL BORING LOCATION MAP</b>		<b>FIGURE 2</b>	

**ATTACHMENT A**

**Soil Boring Logs**



Route To: Watershed/Wastewater  Waste Management   
Remediation/Redevelopment  Other

Facility/Project Name <b>Guidon Design - Milwaukee VA Hospital</b>		License/Permit/Monitoring Number		Boring Number <b>GP-2</b>	
Boring Drilled By: Name of crew chief (first, last) and Firm <b>Josh Bartolomey Sigma</b>		Date Drilling Started <b>5/29/2014</b>		Date Drilling Completed <b>5/29/2014</b>	
Drilling Method <b>Geoprobe</b>		WI Unique Well No.		DNR Well ID No.	
Common Well Name		Final Static Water Level Feet MSL		Surface Elevation Feet MSL	
Local Grid Origin <input type="checkbox"/> (estimated: <input type="checkbox"/> ) or Boring Location <input type="checkbox"/>		State Plane <b>N, E S/C/N</b>		Local Grid Location <input type="checkbox"/> N <input type="checkbox"/> E <input type="checkbox"/> S <input type="checkbox"/> W	
NW 1/4 of SE 1/4 of Section 35, T 7 N, R 21 E		Lat _____ "		Long _____ "	
Facility ID		County <b>Milwaukee</b>		County Code <b>41</b>	
		Civil Town/City/ or Village <b>Milwaukee</b>			

Sample Number and Type	Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties					RQD/ Comments
									Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	
1 GP	48	PUSH	1.5	ASPHALT	SP			0.0						
	48		3.0	GRAVELLY SAND, brown, v stiff, little gravel, dry	CL-MI									
2 GP	48	PUSH	4.5	SILTY CLAY, brown, v stiff, little gravel, dry	CL-MI			0.2						
	48		6.0	CLAYEY SILT, dk brown/black, stiff, some wood and gravel, little sand, dry, slight petrol odor	CL-MI									
3 GP	48	PUSH	7.5	SILTY CLAY, brown, stiff, little gray mottling, moist	CL-MI			1.8						
	48		9.0	SANDY SILT, dk brown/black, some concrete and brick debris, some clay, petrol odor, moist	SP-SM									
4 GP	48	PUSH	12.0	SILTY CLAY, brown, stiff, little gray mottling, moist	CL-MI			0.6						
	48		13.5		CL-MI									
5 GP	48	PUSH	15.0		CL-MI			0.4						
	48		16.5	Dark brownish gray, med soft, some gray mottling	CL-MI									
			18.0					0.3						
			19.5					0.1						
			20.0	Refusal at 20'. Abandoned with bentonite chips and concrete patch.				0.0						

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature: Firm: The Sigma Group, Inc.  
1300 W. Canal St Milwaukee, WI 53233  
Tel: 414-643-4200 Fax: 414-643-4210

Route To: Watershed/Wastewater  Waste Management   
Remediation/Redevelopment  Other

Facility/Project Name <b>Guidon Design - Milwaukee VA Hospital</b>			License/Permit/Monitoring Number		Boring Number <b>GP-3</b>	
Boring Drilled By: Name of crew chief (first, last) and Firm <b>Josh Bartolomey Sigma</b>			Date Drilling Started <b>5/29/2014</b>		Date Drilling Completed <b>5/29/2014</b>	Drilling Method <b>Geoprobe</b>
WI Unique Well No.	DNR Well ID No.	Common Well Name	Final Static Water Level <b>Feet MSL</b>		Surface Elevation <b>Feet MSL</b>	Borehole Diameter <b>2.0 inches</b>
Local Grid Origin <input type="checkbox"/> (estimated: <input type="checkbox"/> ) or Boring Location <input type="checkbox"/> State Plane <b>N, E S/C/N</b>			Lat <b>° ' "</b>		Local Grid Location <input type="checkbox"/> N <input type="checkbox"/> E <input type="checkbox"/> S <input type="checkbox"/> W	
NW 1/4 of SE 1/4 of Section <b>35, T 7 N, R 21 E</b>			Long <b>° ' "</b>		Feet <input type="checkbox"/> S <input type="checkbox"/> W	
Facility ID		County <b>Milwaukee</b>	County Code <b>41</b>	Civil Town/City/ or Village <b>Milwaukee</b>		

Sample Number and Type	Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties					RQD/ Comments
									Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	
1 GP	48 36	P U S H	1.5	ASPHALT	SP			0.0						
				GRAVELLY SAND, black and lt gray, coarse, dense, moist										
2 GP	48 48	P U S H	4.5	CLAY, brown/dk brown, v stiff, little gray mottling, trace sand, moist	CL			0.0						
3 GP	48 36	P U S H	9.0	SILTY CLAY, dk brown, med soft, few black sand at 10', moist/wet	CL-MI			0.1						
4 GP	48 36	P U S H	12.0	CLAY, brown/dk brown, v stiff, little gray mottling, few black sand, damp	CL			0.0						
			13.5	SILTY CLAY, dk brown, med stiff, trace black/yellow sand, trace gravel, moist	CL-MI			0.2						
			15.0					0.1						
				Refusal at 16'. Abandoned with bentonite chips and concrete patch.									PVOC+GRO, DRO, SVOC, PCB, and RCRA Metals composite sample (0-16)	

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature	Firm <b>The Sigma Group, Inc.</b> 1300 W. Canal St Milwaukee, WI 53233	Tel: 414-643-4200 Fax: 414-643-4210
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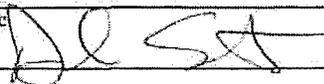
This form is authorized by Chapters 281, 283, 289, 291, 292, 293, 295, and 299, Wis. Stats. Completion of this form is mandatory. Failure to file this form may result in forfeiture of between \$10 and \$25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on this form is not intended to be used for any other purpose. NOTE: See instructions for more information, including where the completed form should be sent.

Route To: Watershed/Wastewater  Waste Management   
Remediation/Redevelopment  Other

Facility/Project Name <b>Guidon Design - Milwaukee VA Hospital</b>			License/Permit/Monitoring Number		Boring Number <b>GP-4</b>		
Boring Drilled By: Name of crew chief (first, last) and Firm <b>Josh Bartolomey Sigma</b>			Date Drilling Started <b>5/29/2014</b>		Date Drilling Completed <b>5/29/2014</b>		
WI Unique Well No.		DNR Well ID No.	Common Well Name		Final Static Water Level Feet MSL		
Local Grid Origin <input type="checkbox"/> (estimated: <input type="checkbox"/> ) or Boring Location <input type="checkbox"/>		State Plane <b>N, E S/C/N</b>		Lat _____ "		Local Grid Location <input type="checkbox"/> N <input type="checkbox"/> E <input type="checkbox"/> S <input type="checkbox"/> W	
NW 1/4 of SE 1/4 of Section 35, T 7 N, R 21 E		Long _____ "		Surface Elevation Feet MSL		Borehole Diameter <b>2.0 inches</b>	
Facility ID		County <b>Milwaukee</b>		County Code <b>41</b>		Civil Town/City/ or Village <b>Milwaukee</b>	

Sample Number and Type	Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties					RQD/Comments
									Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	
1 GP	48 36	P U S H	1.5	ASPHALT	SP			0.0						
				GRAVELLY SAND, black/whitish gray, coarse, dense, dry CLAY, brown, v stiff, few gray mottling, damp										
2 GP	48 48	P U S H	4.5		CL			0.0						
3 GP	48 36	P U S H	9.0	SANDY SILT, dk brown/dk gray/black, some sand and gravel, trace brick debris, moist	SP-SM			0.5						
				CLAY, dk blackish gray, v stiff, little gravel, damp	CL					0.7				
4 GP	48 36	P U S H	12.0	SILTY CLAY, grayish brown, stiff, some coarse sand and gravel, moist	CL-MI			0.1						
										0.0				
			15.0	Refusal at 16'. Abandoned with benontite chips and concrete patch.										

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature:  Firm: **The Sigma Group, Inc.**  
1300 W. Canal St Milwaukee, WI 53233  
Tel: 414-643-4200 Fax: 414-643-4210

Route To: Watershed/Wastewater  Waste Management   
Remediation/Redevelopment  Other

Facility/Project Name <b>Guidon Design - Milwaukee VA Hospital</b>		License/Permit/Monitoring Number		Boring Number <b>GP-5</b>	
Boring Drilled By: Name of crew chief (first, last) and Firm <b>Josh Bartolomey Sigma</b>		Date Drilling Started <b>5/29/2014</b>		Date Drilling Completed <b>5/29/2014</b>	
WI Unique Well No.		DNR Well ID No.		Common Well Name	
Final Static Water Level Feet MSL		Surface Elevation Feet MSL		Borehole Diameter 2.0 inches	
Local Grid Origin <input type="checkbox"/> (estimated: <input type="checkbox"/> ) or Boring Location <input type="checkbox"/> State Plane <b>N, E S/C/N</b>				Local Grid Location <input type="checkbox"/> N <input type="checkbox"/> E <input type="checkbox"/> S <input type="checkbox"/> W	
NW 1/4 of SE 1/4 of Section 35, T 7 N, R 21 E				Lat _____" Long _____"	
Facility ID		County <b>Milwaukee</b>		County Code <b>41</b>	
Civil Town/City/ or Village <b>Milwaukee</b>					

Sample Number and Type	Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties					RQD/ Comments
									Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	
1 GP	48 36	P U S H	1	ASPHALT	SP									
			2	GRAVELLY SAND, lt gray, coarse, dense, dry CLAY, brown, v stiff, trace gray mottling, trace gravel, dry				0.0						
2 GP	48 48	P U S H	4	Olive brown, trace black sand										
			5				0.1							
3 GP	48 36	P U S H	7		CL									
			8	Orange/red brick debris, moist			0.1							
4 GP	48 36	P U S H	12											
			13	Refusal at 14'. Abandoned with bentonite chips and concrete patch.			0.1							

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature Firm **The Sigma Group, Inc.** Tel: 414-643-4200  
1300 W. Canal St Milwaukee, WI 53233 Fax: 414-643-4210

This form is authorized by Chapters 281, 283, 289, 291, 292, 293, 295, and 299, Wis. Stats. Completion of this form is mandatory. Failure to file this form may result in forfeiture of between \$10 and \$25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on this form is not intended to be used for any other purpose. NOTE: See instructions for more information, including where the completed form should be sent.

**ATTACHMENT B**

**Borehole Abandonment Forms**

Notice: Please complete Form 3300-5 and return it to the appropriate DNR office and bureau. Completion of this report is required by chs. 160, 281, 283, 289, 291, 292, 293, 295, and 299, Wis. Stats., and ch. NR 141, Wis. Adm. Code. In accordance with chs. 281, 289, 291, 292, 293, 295, and 299, Wis. Stats., failure to file this form may result in a forfeiture of between \$10 and \$25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on this form is not intended to be used for any other purpose. NOTE: See the instructions for more information.

Route to:  Drinking Water  Watershed/Wastewater  Waste Management  Remediation/Redevelopment  Other \_\_\_\_\_

(1) GENERAL INFORMATION			(2) FACILITY /OWNER INFORMATION	
WI Unique Well No.	DNR Well ID No.	County Milwaukee	Facility Name Guidon Design - Milwaukee VA Hospital	
Common Well Name GP-1		Gov't Lot (if applicable)	Facility ID	License/Permit/Monitoring No.
Grid Location NW 1/4 of SE 1/4 of Sec. 35 ; T. 7 N; R. 21 E <input checked="" type="checkbox"/> E <input type="checkbox"/> W _____ ft. <input type="checkbox"/> N. <input type="checkbox"/> S, _____ ft. <input type="checkbox"/> E. <input type="checkbox"/> W.			Street Address of Well	
Local Grid Origin <input type="checkbox"/> (estimated: <input type="checkbox"/> ) or Well Location <input type="checkbox"/>			City, Village, or Town Milwaukee	
Lat _____ ° _____ ' _____ " Long _____ ° _____ ' _____ " or State Plane _____ ft. N, _____ ft. E. <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> Zone			Present Well Owner	
Reason For Abandonment			Original Owner	
WI Unique Well No. of Replacement Well			Street Address or Route of Owner	
			City, State, Zip Code	

(3) WELL/DRILLHOLE/BOREHOLE INFORMATION		(4) PUMP, LINER, SCREEN, CASING, & SEALING MATERIAL			
Original Construction Date 5/29/2014		Pump & Piping Removed? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Applicable			
<input type="checkbox"/> Monitoring Well <input type="checkbox"/> Water Well <input checked="" type="checkbox"/> Drillhole / Borehole		Liner(s) Removed? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Applicable			
Construction Type: <input checked="" type="checkbox"/> Drilled <input type="checkbox"/> Driven (Sandpoint) <input type="checkbox"/> Dug <input type="checkbox"/> Other (Specify) _____		Screen Removed? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Applicable			
Formation Type: <input checked="" type="checkbox"/> Unconsolidated Formation <input type="checkbox"/> Bedrock		Casing Left in Place? <input type="checkbox"/> Yes <input type="checkbox"/> No			
Total Well Depth (ft.) _____ Casing Diameter (in.) _____ (From ground surface) Casing Depth (ft.) _____		Was Casing Cut Off Below Surface? <input type="checkbox"/> Yes <input type="checkbox"/> No			
Lower Drillhole Diameter (in.) 2.3		Did Sealing Material Rise to Surface? <input type="checkbox"/> Yes <input type="checkbox"/> No			
Was Well Annular Space Grouted? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown		Did Material Settle After 24 Hours? <input type="checkbox"/> Yes <input type="checkbox"/> No			
If Yes, To What Depth? _____ feet		If Yes, Was Hole Retopped? <input type="checkbox"/> Yes <input type="checkbox"/> No			
Depth to Water (Feet) _____		Required Method of Placing Sealing Material <input type="checkbox"/> Conductor Pipe - Gravity <input type="checkbox"/> Conductor Pipe - Pumped <input checked="" type="checkbox"/> Screened & Poured <input type="checkbox"/> Other (Explain) (Bentonite Chips)			
		Sealing Materials For monitoring wells and monitoring well boreholes only			
		<input type="checkbox"/> Neat Cement Grout <input type="checkbox"/> Bentonite Chips			
		<input type="checkbox"/> Sand-Cement (Concrete) Grout <input type="checkbox"/> Granular Bentonite			
		<input type="checkbox"/> Concrete <input type="checkbox"/> Bentonite-Cement Grout			
		<input type="checkbox"/> Clay-Sand Slurry <input type="checkbox"/> Bentonite - Sand Slurry			
		<input type="checkbox"/> Bentonite-Sand Slurry <input type="checkbox"/> Chipped Bentonite			

(5)	Sealing Material Used	From (Ft.)	To (Ft.)	Mix Ratio or Mud Weight
	Concrete Patch	Surface	0.5	
	Bentonite	0.5	22.0	

(6) Comments \_\_\_\_\_

(7) Name of Person or Firm Doing Sealing Work The Sigma Group		Date of Abandonment 5/29/14
Signature of Person Doing Work 		Date Signed 6/23/14
Street or Route 1300 W Canal Street		Telephone Number (414) 643-4200
City, State, Zip Code Milwaukee, WI 53233		

FOR DNR OR COUNTY USE ONLY	
Date Received	Noted By
Comments	

Notice: Please complete Form 3300-5 and return it to the appropriate DNR office and bureau. Completion of this report is required by chs. 160, 281, 283, 289, 291, 292, 293, 295, and 299, Wis. Stats., and ch. NR 141, Wis. Adm. Code. In accordance with chs. 281, 289, 291, 292, 293, 295, and 299, Wis. Stats., failure to file this form may result in a forfeiture of between \$10 and \$25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on this form is not intended to be used for any other purpose. NOTE: See the instructions for more information.

Route to:  Drinking Water  Watershed/Wastewater  Waste Management  Remediation/Redevelopment  Other \_\_\_\_\_

(1) GENERAL INFORMATION		(2) FACILITY / OWNER INFORMATION	
WI Unique Well No.	DNR Well ID No.	County	Facility Name
		Milwaukee	Guidon Design - Milwaukee VA Hospital
Common Well Name <u>GP-2</u> Gov't Lot (if applicable)		Facility ID	License/Permit/Monitoring No.
<u>NW</u> 1/4 of <u>SE</u> 1/4 of Sec. <u>35</u> ; T. <u>7</u> N; R. <u>21</u> <input checked="" type="checkbox"/> E <input type="checkbox"/> W _____ ft. <input type="checkbox"/> N. <input type="checkbox"/> S., _____ ft. <input type="checkbox"/> E. <input type="checkbox"/> W. Local Grid Origin <input type="checkbox"/> (estimated; <input type="checkbox"/> ) or Well Location <input type="checkbox"/> Lat _____ ° ' " Long _____ ° ' " or _____ ° ' " or _____ ° ' " Zone _____ State Plane _____ ft. N. _____ ft. E. <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> Zone _____		Street Address of Well	
Reason For Abandonment		City, Village, or Town	
WI Unique Well No. of Replacement Well		Milwaukee	
		Present Well Owner	Original Owner
		Street Address or Route of Owner	
		City, State, Zip Code	

(3) WELL/DRILLHOLE/BOREHOLE INFORMATION		(4) PUMP, LINER, SCREEN, CASING, & SEALING MATERIAL	
Original Construction Date <u>5/29/2014</u>	If a Well Construction Report is available, please attach.	Pump & Piping Removed?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Applicable
<input type="checkbox"/> Monitoring Well <input type="checkbox"/> Water Well <input checked="" type="checkbox"/> Drillhole / Borehole		Liner(s) Removed?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Applicable
Construction Type:		Screen Removed?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Applicable
<input checked="" type="checkbox"/> Drilled <input type="checkbox"/> Driven (Sandpoint) <input type="checkbox"/> Dug		Casing Left in Place?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Formation Type:		Was Casing Cut Off Below Surface?	<input type="checkbox"/> Yes <input type="checkbox"/> No
<input checked="" type="checkbox"/> Unconsolidated Formation <input type="checkbox"/> Bedrock		Did Sealing Material Rise to Surface?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Total Well Depth (ft) _____ Casing Diameter (in.) _____		Did Material Settle After 24 Hours?	<input type="checkbox"/> Yes <input type="checkbox"/> No
(From ground surface) Casing Depth (ft.) _____		If Yes, Was Hole Retopped?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Lower Drillhole Diameter (in.) <u>2.3</u>		Required Method of Placing Sealing Material	
Was Well Annular Space Grouted? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown		<input type="checkbox"/> Conductor Pipe - Gravity <input type="checkbox"/> Conductor Pipe - Pumped	
If Yes, To What Depth? _____ Feet		<input checked="" type="checkbox"/> Screened & Poured <input type="checkbox"/> Other (Explain)	
Depth to Water (Feet) _____		(Bentonite Chips)	
		Sealing Materials	For monitoring wells and monitoring well boreholes only
		<input type="checkbox"/> Neat Cement Grout	<input type="checkbox"/> Bentonite Chips
		<input type="checkbox"/> Sand-Cement (Concrete) Grout	<input type="checkbox"/> Granular Bentonite
		<input type="checkbox"/> Concrete	<input type="checkbox"/> Bentonite-Cement Grout
		<input type="checkbox"/> Clay-Sand Slurry	<input type="checkbox"/> Bentonite - Sand Slurry
		<input type="checkbox"/> Bentonite-Sand Slurry	
		<input checked="" type="checkbox"/> Chipped Bentonite	

(5) Sealing Material Used	From (Ft.)	To (Ft.)	Mix Ratio or Mud Weight
Concrete Patch	Surface	0.5	
Bentonite	0.5	20.0	

(6) Comments \_\_\_\_\_

(7) Name of Person or Firm Doing Sealing Work <u>The Sigma Group</u>	Date of Abandonment <u>5/29/14</u>
Signature of Person Doing Work <u>[Signature]</u>	Date Signed <u>6/23/14</u>
Street or Route <u>1300 W Canal Street</u>	Telephone Number <u>(414) 643-4200</u>
City, State, Zip Code <u>Milwaukee, WI 53233</u>	

FOR DNR OR COUNTY USE ONLY	
Date Received	Noted By
Comments	

Notice: Please complete Form 3300-5 and return it to the appropriate DNR office and bureau. Completion of this report is required by chs. 160, 281, 283, 289, 291, 292, 293, 295, and 299, Wis. Stats., and ch. NR 141, Wis. Adm. Code. In accordance with chs. 281, 289, 291, 292, 293, 295, and 299, Wis. Stats., failure to file this form may result in a forfeiture of between \$10 and \$25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on this form is not intended to be used for any other purpose. NOTE: See the instructions for more information.

Route to:  Drinking Water  Watershed/Wastewater  Waste Management  Remediation/Redevelopment  Other

<b>(1) GENERAL INFORMATION</b>			<b>(2) FACILITY /OWNER INFORMATION</b>	
WI Unique Well No.	DNR Well ID No.	County Milwaukee	Facility Name Guidon Design - Milwaukee VA Hospital	
Common Well Name GP-3		Gov't Lot (if applicable)	Facility ID	License/Permit/Monitoring No.
Grid Location NW 1/4 of SE 1/4 of Sec. 35 ; T. 7 N; R. 21 E <input checked="" type="checkbox"/> E <input type="checkbox"/> W			Street Address of Well	
ft. <input type="checkbox"/> N. <input type="checkbox"/> S., ft. <input type="checkbox"/> E. <input type="checkbox"/> W.			City, Village, or Town Milwaukee	
Local Grid Origin <input type="checkbox"/> (estimated: <input type="checkbox"/> ) or Well Location <input type="checkbox"/>			Present Well Owner	
Lat _____ ' _____ " Long _____ ' _____ " or			Original Owner	
State Plane _____ ft. N. _____ ft. E. <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> Zone			Street Address or Route of Owner	
Reason For Abandonment		WI Unique Well No. of Replacement Well	City, State, Zip Code	

<b>(3) WELL/DRILLHOLE/BOREHOLE INFORMATION</b>		<b>(4) PUMP, LINER, SCREEN, CASING, &amp; SEALING MATERIAL</b>	
Original Construction Date <u>5/29/2014</u>		Pump & Piping Removed? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Applicable	
<input type="checkbox"/> Monitoring Well		Liner(s) Removed? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Applicable	
<input type="checkbox"/> Water Well		Screen Removed? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Applicable	
<input checked="" type="checkbox"/> Drillhole / Borehole		Casing Left in Place? <input type="checkbox"/> Yes <input type="checkbox"/> No	
Construction Type:		Was Casing Cut Off Below Surface? <input type="checkbox"/> Yes <input type="checkbox"/> No	
<input checked="" type="checkbox"/> Drilled <input type="checkbox"/> Driven (Sandpoint) <input type="checkbox"/> Dug		Did Sealing Material Rise to Surface? <input type="checkbox"/> Yes <input type="checkbox"/> No	
<input type="checkbox"/> Other (Specify) _____		Did Material Settle After 24 Hours? <input type="checkbox"/> Yes <input type="checkbox"/> No	
Formation Type:		If Yes, Was Hole Retopped? <input type="checkbox"/> Yes <input type="checkbox"/> No	
<input checked="" type="checkbox"/> Unconsolidated Formation <input type="checkbox"/> Bedrock		Required Method of Placing Sealing Material	
Total Well Depth (ft) _____ Casing Diameter (in.) _____		<input type="checkbox"/> Conductor Pipe - Gravity <input type="checkbox"/> Conductor Pipe - Pumped	
(From ground surface) Casing Depth (ft.) _____		<input checked="" type="checkbox"/> Screened & Poured <input type="checkbox"/> Other (Explain)	
Lower Drillhole Diameter (in.) <u>2.3</u>		(Bentonite Chips)	
Was Well Annular Space Grouted? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown		Sealing Materials	
If Yes, To What Depth? _____ Feet		<input type="checkbox"/> Neat Cement Grout	
Depth to Water (Feet) _____		<input type="checkbox"/> Sand-Cement (Concrete) Grout	
		<input type="checkbox"/> Concrete	
		<input type="checkbox"/> Clay-Sand Slurry	
		<input type="checkbox"/> Bentonite-Sand Slurry	
		<input checked="" type="checkbox"/> Chipped Bentonite	
		For monitoring wells and monitoring well boreholes only	
		<input type="checkbox"/> Bentonite Chips	
		<input type="checkbox"/> Granular Bentonite	
		<input type="checkbox"/> Bentonite-Cement Grout	
		<input type="checkbox"/> Bentonite - Sand Slurry	

(5) Sealing Material Used	From (Ft.)	To (Ft.)	Mix Ratio or Mud Weight
Asphalt Patch	Surface	0.5	
Bentonite	0.5	16.0	

(6) Comments \_\_\_\_\_

(7) Name of Person or Firm Doing Sealing Work The Sigma Group		Date of Abandonment 5/29/14
Signature of Person Doing Work <i>[Signature]</i>		Date Signed 6/23/14
Street or Route 1300 W Canal Street		Telephone Number (414) 643-4200
City, State, Zip Code Milwaukee, WI 53233		

FOR DNR OR COUNTY USE ONLY	
Date Received	Noted By
Comments	

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Route to:  Drinking Water  Watershed/Wastewater  Waste Management  Remediation/Redevelopment  Other \_\_\_\_\_

**(1) GENERAL INFORMATION** **(2) FACILITY /OWNER INFORMATION**

WI Unique Well No.	DNR Well ID No.	County Milwaukee	Facility Name Guidon Design - Milwaukee VA Hospital
Common Well Name GP-4		Gov't Lot (if applicable)	Facility ID
NW 1/4 of SE 1/4 of Sec. 35 ; T. 7 N; R. 21 <input checked="" type="checkbox"/> E Grid Location <input type="checkbox"/> W _____ ft. <input type="checkbox"/> N. <input type="checkbox"/> S., _____ ft. <input type="checkbox"/> E. <input type="checkbox"/> W. Local Grid Origin <input type="checkbox"/> (estimated: <input type="checkbox"/> ) or Well Location <input type="checkbox"/>		License/Permit/Monitoring No.	
Lat _____ ° _____ ' _____ " Long _____ ° _____ ' _____ " or State Plane _____ ft. N. _____ ft. E. <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> Zone		Street Address of Well	
Reason For Abandonment		WI Unique Well No. of Replacement Well	City, Village, or Town Milwaukee
			Present Well Owner
			Original Owner
			Street Address or Route of Owner
			City, State, Zip Code

**(3) WELL/DRILLHOLE/BOREHOLE INFORMATION** **(4) PUMP, LINER, SCREEN, CASING, & SEALING MATERIAL**

Original Construction Date 5/29/2014	If a Well Construction Report is available, please attach.	Pump & Piping Removed? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Applicable
<input type="checkbox"/> Monitoring Well <input type="checkbox"/> Water Well <input checked="" type="checkbox"/> Drillhole / Borehole		Liner(s) Removed? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Applicable
Construction Type:		Screen Removed? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Applicable
<input checked="" type="checkbox"/> Drilled <input type="checkbox"/> Driven (Sandpoint) <input type="checkbox"/> Dug <input type="checkbox"/> Other (Specify) _____		Casing Left in Place? <input type="checkbox"/> Yes <input type="checkbox"/> No
Formation Type:		Was Casing Cut Off Below Surface? <input type="checkbox"/> Yes <input type="checkbox"/> No
<input checked="" type="checkbox"/> Unconsolidated Formation <input type="checkbox"/> Bedrock		Did Sealing Material Rise to Surface? <input type="checkbox"/> Yes <input type="checkbox"/> No
Total Well Depth (ft) (From ground surface)	Casing Diameter (in.)	Did Material Settle After 24 Hours? If Yes, Was Hole Retopped? <input type="checkbox"/> Yes <input type="checkbox"/> No
	Casing Depth (ft.)	Required Method of Placing Sealing Material
Lower Drillhole Diameter (in.) 2.3		<input type="checkbox"/> Conductor Pipe - Gravity <input type="checkbox"/> Conductor Pipe - Pumped <input checked="" type="checkbox"/> Screened & Poured <input type="checkbox"/> Other (Explain) (Bentonite Chips)
Was Well Annular Space Grouted? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown		Sealing Materials
If Yes, To What Depth? _____ Feet		<input type="checkbox"/> Neat Cement Grout <input type="checkbox"/> Sand-Cement (Concrete) Grout <input type="checkbox"/> Concrete <input type="checkbox"/> Clay-Sand Slurry <input type="checkbox"/> Bentonite-Sand Slurry <input checked="" type="checkbox"/> Chipped Bentonite
Depth to Water (Feet)		For monitoring wells and monitoring well boreholes only
		<input type="checkbox"/> Bentonite Chips <input type="checkbox"/> Granular Bentonite <input type="checkbox"/> Bentonite-Cement Grout <input type="checkbox"/> Bentonite - Sand Slurry

(5) Sealing Material Used	From (Ft.)	To (Ft.)	Mix Ratio or Mud Weight
Concrete Patch	Surface	0.5	
Bentonite	0.5	16.0	

(6) Comments \_\_\_\_\_

(7) Name of Person or Firm Doing Sealing Work The Sigma Group	Date of Abandonment 5/29/14
Signature of Person Doing Work 	Date Signed 6/23/14
Street or Route 1300 W Canal Street	Telephone Number (414) 643-4200
City, State, Zip Code Milwaukee, WI 53233	

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Date Received	Noted By
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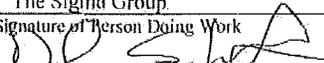
Route to:  Drinking Water  Watershed/Wastewater  Waste Management  Remediation/Redevelopment  Other

(1) GENERAL INFORMATION		(2) FACILITY /OWNER INFORMATION	
WI Unique Well No.	DNR Well ID No.	County	Facility Name
		Milwaukee	Guidon Design - Milwaukee VA Hospital
Common Well Name <u>GP-5</u> Gov't Lot (if applicable)		Facility ID	License/Permit/Monitoring No.
<u>NW</u> 1/4 of <u>SE</u> 1/4 of Sec. <u>35</u> ; T. <u>7</u> N; R. <u>21</u> <input checked="" type="checkbox"/> E <input type="checkbox"/> W _____ ft. <input type="checkbox"/> N. <input type="checkbox"/> S., _____ ft. <input type="checkbox"/> E. <input type="checkbox"/> W. Local Grid Origin <input type="checkbox"/> (estimated: <input type="checkbox"/> ) or Well Location <input type="checkbox"/> Lat _____ ° _____ ' _____ " Long _____ ° _____ ' _____ " or State Plane _____ ft. N. _____ ft. E. <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> Zone		Street Address of Well	
Reason For Abandonment		City, Village, or Town	
WI Unique Well No. _____ of Replacement Well _____		Milwaukee	
		Present Well Owner	Original Owner
		Street Address or Route of Owner	
		City, State, Zip Code	

(3) WELL/DRILLHOLE/BOREHOLE INFORMATION	(4) PUMP, LINER, SCREEN, CASING, & SEALING MATERIAL
Original Construction Date <u>5/29/2014</u>	Pump & Piping Removed? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Applicable
<input type="checkbox"/> Monitoring Well <input type="checkbox"/> Water Well <input checked="" type="checkbox"/> Drillhole / Borehole	Liner(s) Removed? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Applicable
Construction Type: <input checked="" type="checkbox"/> Drilled <input type="checkbox"/> Driven (Sandpoint) <input type="checkbox"/> Dug <input type="checkbox"/> Other (Specify) _____	Screen Removed? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Applicable
Formation Type: <input checked="" type="checkbox"/> Unconsolidated Formation <input type="checkbox"/> Bedrock	Casing Left in Place? <input type="checkbox"/> Yes <input type="checkbox"/> No
Total Well Depth (ft) _____ Casing Diameter (in.) _____ (From ground surface) Casing Depth (ft.) _____ Lower Drillhole Diameter (in.) <u>2.3</u>	Was Casing Cut Off Below Surface? <input type="checkbox"/> Yes <input type="checkbox"/> No
Was Well Annular Space Grouted? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown If Yes, To What Depth? _____ Feet	Did Sealing Material Rise to Surface? <input type="checkbox"/> Yes <input type="checkbox"/> No
Depth to Water (Feet) _____	Did Material Settle After 24 Hours? <input type="checkbox"/> Yes <input type="checkbox"/> No
	If Yes, Was Hole Retopped? <input type="checkbox"/> Yes <input type="checkbox"/> No
	Required Method of Placing Sealing Material
	<input type="checkbox"/> Conductor Pipe - Gravity <input type="checkbox"/> Conductor Pipe - Pumped <input checked="" type="checkbox"/> Screened & Poured <input type="checkbox"/> Other (Explain) (Bentonite Chips)
	Sealing Materials
	<input type="checkbox"/> Neat Cement Grout <input type="checkbox"/> Sand-Cement (Concrete) Grout <input type="checkbox"/> Concrete <input type="checkbox"/> Clay-Sand Slurry <input type="checkbox"/> Bentonite-Sand Slurry <input checked="" type="checkbox"/> Chipped Bentonite
	For monitoring wells and monitoring well boreholes only
	<input type="checkbox"/> Bentonite Chips <input type="checkbox"/> Granular Bentonite <input type="checkbox"/> Bentonite-Cement Grout <input type="checkbox"/> Bentonite - Sand Slurry

(5) Sealing Material Used	From (Ft.)	To (Ft.)	Mix Ratio or Mud Weight
Concrete Patch	Surface	0.5	
Bentonite	0.5	14.0	

(6) Comments \_\_\_\_\_

(7) Name of Person or Firm Doing Sealing Work <u>The Sigma Group</u>		Date of Abandonment <u>5/29/14</u>	
Signature of Person Doing Work 		Date Signed <u>6/23/14</u>	
Street or Route <u>1300 W Canal Street</u>		Telephone Number <u>(414) 643-4200</u>	
City, State, Zip Code <u>Milwaukee, WI 53233</u>			

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Date Received	Noted By
Comments	

**ATTACHMENT C**

**Soil Laboratory Analytical Reports**

# Synergy Environmental Lab, INC.

1990 Prospect Ct., Appleton, WI 54914 \*P 920-830-2455 \* F 920-733-0631

STACY OSZUSCIK  
 THE SIGMA GROUP, INC.  
 1300 W. CANAL STREET  
 MILWAUKEE, WI 53233

Report Date 18-Jun-14

Project Name VA PARKING STRUCTURE  
 Project # 14776-002

Invoice # E27071

Lab Code 5027071A  
 Sample ID FILL GP-1  
 Sample Matrix Soil  
 Sample Date 5/30/2014

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
General										
General										
Solids Percent	81.9	%			1	5021		6/3/2014	RKM	1
Inorganic										
Metals										
Arsenic, Total	< 1.44	mg/Kg	1.44	4.6	2	6010B		6/10/2014	CWT	149
Barium, Total	53.0	mg/Kg	0.36	1.16	2	6010B		6/10/2014	CWT	149
Cadmium, Total	< 0.16	mg/Kg	0.16	0.5	2	6010B		6/10/2014	CWT	149
Chromium, Total	22.1	mg/Kg	0.26	0.82	2	6010B		6/10/2014	CWT	149
Lead, Total	12.7	mg/Kg	0.6	1.92	2	6010B		6/10/2014	CWT	149
Mercury, Total	0.028	mg/kg	0.0031	0.0098	1	7471		6/9/2014	CWT	1
Selenium, Total	< 1.4	mg/Kg	1.4	4.46	2	6010B		6/10/2014	CWT	149
Silver, Total	< 0.68	mg/Kg	0.68	2.18	2	6010B		6/10/2014	CWT	149
Organic										
General										
Diesel Range Organics	< 10	mg/kg	0.83	2.63	1	DRO95		6/10/2014	MJR	1
GRO/PVOC										
Gasoline Range Organics	< 10	mg/kg	2.3	7.3	1	GRO95/8021		6/9/2014	CJR	1
Benzene	< 25	ug/kg	7.9	25	1	GRO95/8021		6/9/2014	CJR	1
Ethylbenzene	< 25	ug/kg	7.7	25	1	GRO95/8021		6/9/2014	CJR	1
Methyl tert-butyl ether (MTBE)	< 25	ug/kg	8.1	26	1	GRO95/8021		6/9/2014	CJR	1
Toluene	< 25	ug/kg	8.4	27	1	GRO95/8021		6/9/2014	CJR	1
1,2,4-Trimethylbenzene	< 25	ug/kg	10	33	1	GRO95/8021		6/9/2014	CJR	1
1,3,5-Trimethylbenzene	< 25	ug/kg	9.3	30	1	GRO95/8021		6/9/2014	CJR	1
m&p-Xylene	< 50	ug/kg	16	50	1	GRO95/8021		6/9/2014	CJR	1
o-Xylene	< 25	ug/kg	10	32	1	GRO95/8021		6/9/2014	CJR	1
PCB'S										
PCB-1016	< 0.0065	mg/kg	0.0065	0.02	1	EPA 8082A		6/6/2014	ESC	1
PCB-1221	< 0.0054	mg/kg	0.0054	0.02	1	EPA 8082A		6/6/2014	ESC	1
PCB-1232	< 0.0042	mg/kg	0.0042	0.02	1	EPA 8082A		6/6/2014	ESC	1
PCB-1242	< 0.0032	mg/kg	0.0032	0.02	1	EPA 8082A		6/6/2014	ESC	1
PCB-1248	< 0.0032	mg/kg	0.0032	0.02	1	EPA 8082A		6/6/2014	ESC	1

Project Name VA PARKING STRUCTURE  
 Project # 14776-002

Invoice # E27071

Lab Code 5027071A  
 Sample ID FILL GP-1  
 Sample Matrix Soil  
 Sample Date 5/30/2014

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
PCB-1254	< 0.0047	mg/kg	0.0047	0.02	1	EPA 8082A	6/6/2014	6/6/2014	ESC	1
PCB-1260	< 0.0049	mg/kg	0.0049	0.02	1	EPA 8082A	6/6/2014	6/6/2014	ESC	1
Semi Volatiles										
Acetophenone	< 11	ug/kg	11	34	1	8270C	6/4/2014	6/4/2014	MDK	1
Acenaphthene	< 9.1	ug/kg	9.1	29	1	8270C	6/4/2014	6/4/2014	MDK	1
Acenaphthylene	13.9 "J"	ug/kg	9	29	1	8270C	6/4/2014	6/4/2014	MDK	1
Anthracene	17.6 "J"	ug/kg	13	40	1	8270C	6/4/2014	6/4/2014	MDK	1
Benzo(a)anthracene	47	ug/kg	7.6	24	1	8270C	6/4/2014	6/4/2014	MDK	1
Benzo(a)pyrene	34	ug/kg	6.8	22	1	8270C	6/4/2014	6/4/2014	MDK	1
Benzo(b)fluoranthene	55	ug/kg	7.8	25	1	8270C	6/4/2014	6/4/2014	MDK	1
Benzo(g,h,i)perylene	35	ug/kg	7	22	1	8270C	6/4/2014	6/4/2014	MDK	1
Benzo(k)fluoranthene	28.6 "J"	ug/kg	9.6	31	1	8270C	6/4/2014	6/4/2014	MDK	1
Benzyl Alcohol	< 38	ug/kg	38	121	1	8270C	6/4/2014	6/4/2014	MDK	1
Butyl benzyl phthalate	< 55	ug/kg	55	176	1	8270C	6/4/2014	6/4/2014	MDK	1
Bis(2-chloroethoxy)methane	< 10	ug/kg	10	31	1	8270C	6/4/2014	6/4/2014	MDK	1
Bis(2-chloroethyl)ether	< 12	ug/kg	12	38	1	8270C	6/4/2014	6/4/2014	MDK	1
Bis(2-chloroisopropyl)ether	< 9.4	ug/kg	9.4	30	1	8270C	6/4/2014	6/4/2014	MDK	1
Bis(2-ethylhexyl)phthalate	24.1 "J"	ug/kg	9.6	30	1	8270C	6/4/2014	6/4/2014	MDK	1
4-Bromophenylphenyl ether	< 7.5	ug/kg	7.5	24	1	8270C	6/4/2014	6/4/2014	MDK	1
4-Chloro-3-methylphenol	< 11	ug/kg	11	38	1	8270C	6/4/2014	6/4/2014	MDK	1
2-Chloronaphthalene	< 9.5	ug/kg	9.5	30	1	8270C	6/4/2014	6/4/2014	MDK	1
2-Chlorophenol	< 11	ug/kg	11	33.4	1	8270C	6/4/2014	6/4/2014	MDK	1
4-Chlorophenylphenyl ether	< 10	ug/kg	10	32	1	8270C	6/4/2014	6/4/2014	MDK	1
Chrysene	59	ug/kg	7.2	30	1	8270C	6/4/2014	6/4/2014	MDK	1
o-Cresol	< 16	ug/kg	16	50	1	8270C	6/4/2014	6/4/2014	MDK	1
m & p-Cresol	< 25	ug/kg	25	79	1	8270C	6/4/2014	6/4/2014	MDK	1
Dibenzofuran	< 9.7	ug/kg	9.7	31	1	8270C	6/4/2014	6/4/2014	MDK	1
Dibenzo(a,h)anthracene	11 "J"	ug/kg	6.01	19	1	8270C	6/4/2014	6/4/2014	MDK	1
1,4-Dichlorobenzene	< 8.7	ug/kg	8.7	28	1	8270C	6/4/2014	6/4/2014	MDK	1
1,3-Dichlorobenzene	< 8.9	ug/kg	8.9	28	1	8270C	6/4/2014	6/4/2014	MDK	1
1,2-Dichlorobenzene	< 9.3	ug/kg	9.3	30	1	8270C	6/4/2014	6/4/2014	MDK	1
3,3'-Dichlorobenzidine	< 8.1	ug/kg	8.1	26	1	8270C	6/4/2014	6/4/2014	MDK	1
2,4-Dichlorophenol	< 11	ug/kg	11	36	1	8270C	6/4/2014	6/4/2014	MDK	1
Diethyl phthalate	< 11	ug/kg	11	35	1	8270C	6/4/2014	6/4/2014	MDK	1
Dimethyl phthalate	< 13	ug/kg	13	42	1	8270C	6/4/2014	6/4/2014	MDK	1
2,4-Dimethylphenol	< 11	ug/kg	11	35	1	8270C	6/4/2014	6/4/2014	MDK	1
Di-n-butyl phthalate	< 24	ug/kg	24	76	1	8270C	6/4/2014	6/4/2014	MDK	1
2,4-Dinitrophenol	< 7.1	ug/kg	7.1	23	1	8270C	6/4/2014	6/4/2014	MDK	8
2,6-Dinitrotoluene	< 10	ug/kg	10	33	1	8270C	6/4/2014	6/4/2014	MDK	1
2,4-Dinitrotoluene	< 19	ug/kg	19	60	1	8270C	6/4/2014	6/4/2014	MDK	1
Di-n-octyl phthalate	< 8.1	ug/kg	8.1	26	1	8270C	6/4/2014	6/4/2014	MDK	1
Diphenylamine	< 9.9	ug/kg	9.9	32	1	8270C	6/4/2014	6/4/2014	MDK	1
Fluoranthene	106	ug/kg	7.4	24	1	8270C	6/4/2014	6/4/2014	MDK	1
Fluorene	< 8.6	ug/kg	8.6	28	1	8270C	6/4/2014	6/4/2014	MDK	1
Hexachlorobenzene	< 8	ug/kg	8	26	1	8270C	6/4/2014	6/4/2014	MDK	1
Hexachlorobutadiene	< 12	ug/kg	12	40	1	8270C	6/4/2014	6/4/2014	MDK	8
Hexachlorocyclopentadiene	< 8.8	ug/kg	8.8	28	1	8270C	6/4/2014	6/4/2014	MDK	8
Hexachloroethane	< 9.6	ug/kg	9.6	30	1	8270C	6/4/2014	6/4/2014	MDK	1
Indeno(1,2,3-cd)pyrene	30.2	ug/kg	6.4	20	1	8270C	6/4/2014	6/4/2014	MDK	1
Isophorone	< 11	ug/kg	11	36	1	8270C	6/4/2014	6/4/2014	MDK	1
1-Methyl naphthalene	< 11	ug/kg	11	35	1	8270C	6/4/2014	6/4/2014	MDK	1
2-Methyl naphthalene	< 11	ug/kg	11	34	1	8270C	6/4/2014	6/4/2014	MDK	1
2-Methyl-4,6-dinitrophenol	< 6.9	ug/kg	6.9	22	1	8270C	6/4/2014	6/4/2014	MDK	8
Naphthalene	< 8.4	ug/kg	8.4	27	1	8270C	6/4/2014	6/4/2014	MDK	1
2-Nitroaniline	< 9.1	ug/kg	9.1	29	1	8270C	6/4/2014	6/4/2014	MDK	1
3-Nitroaniline	< 10	ug/kg	10	33	1	8270C	6/4/2014	6/4/2014	MDK	1
4-Nitroaniline	< 8.2	ug/kg	8.2	26	1	8270C	6/4/2014	6/4/2014	MDK	1
Nitrobenzene	< 11	ug/kg	11	37	1	8270C	6/4/2014	6/4/2014	MDK	1
2-Nitrophenol	< 11	ug/kg	11	37	1	8270C	6/4/2014	6/4/2014	MDK	1
4-Nitrophenol	< 13.5	ug/kg	13.5	43	1	8270C	6/4/2014	6/4/2014	MDK	1

Project Name VA PARKING STRUCTURE  
Project # 14776-002

Invoice # E27071

Lab Code 5027071A  
Sample ID FILL GP-1  
Sample Matrix Soil  
Sample Date 5/30/2014

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
n-Nitrosodimethylamine	< 12	ug/kg	12	38	1	8270C	6/4/2014	6/4/2014	MDK	1
n-Nitrosodi-n-propylamine	< 14	ug/kg	15	45	1	8270C	6/4/2014	6/4/2014	MDK	1
Pentachlorophenol (PCP)	< 11	ug/kg	11	36	1	8270C	6/4/2014	6/4/2014	MDK	1
Phenanthrene	44	ug/kg	12.6	40	1	8270C	6/4/2014	6/4/2014	MDK	1
Phenol	< 10	ug/kg	10	33	1	8270C	6/4/2014	6/4/2014	MDK	8
Pyrene	81	ug/kg	6.9	22	1	8270C	6/4/2014	6/4/2014	MDK	1
Pyridine	< 7	ug/kg	7	22	1	8270C	6/4/2014	6/4/2014	MDK	1
2,3,4,6-Tetrachlorophenol	< 11	ug/kg	11	36	1	8270C	6/4/2014	6/4/2014	MDK	1
1,2,4-Trichlorobenzene	< 11	ug/kg	11	35	1	8270C	6/4/2014	6/4/2014	MDK	1
2,4,5-Trichlorophenol	< 11	ug/kg	11	36	1	8270C	6/4/2014	6/4/2014	MDK	1
2,4,6-Trichlorophenol	< 11	ug/kg	11	37	1	8270C	6/4/2014	6/4/2014	MDK	1
2-Fluorobiphenyl-surrogate	66	REC %			1	8270C	6/4/2014	6/4/2014	MDK	1
2-Fluorophenol-surrogate	49	REC %			1	8270C	6/4/2014	6/4/2014	MDK	1
Nitrobenzene-d5-surrogate	54	REC %			1	8270C	6/4/2014	6/4/2014	MDK	1
Phenol-d6-surrogate	46	REC %			1	8270C	6/4/2014	6/4/2014	MDK	1
p-Terphenyl-d14-surrogate	75	REC %			1	8270C	6/4/2014	6/4/2014	MDK	1
2,4,6-Tribromophenol-surrogate	72	REC %			1	8270C	6/4/2014	6/4/2014	MDK	1

Project Name VA PARKING STRUCTURE  
 Project # 14776-002

Invoice # E27071

Lab Code 5027071B  
 Sample ID FILL GP-2  
 Sample Matrix Soil  
 Sample Date 5/30/2014

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
General										
General										
Solids Percent	81.4	%			1	5021		6/3/2014	RKM	1
Inorganic										
Metals										
Arsenic, Total	3.42 "J"	mg/Kg	1.44	4.6	2	6010B		6/10/2014	CWT	1 49
Barium, Total	66.8	mg/Kg	0.36	1.16	2	6010B		6/10/2014	CWT	1 49
Cadmium, Total	< 0.16	mg/Kg	0.16	0.5	2	6010B		6/10/2014	CWT	1 49
Chromium, Total	26.8	mg/Kg	0.26	0.82	2	6010B		6/10/2014	CWT	1 49
Lead, Total	18.2	mg/Kg	0.6	1.92	2	6010B		6/10/2014	CWT	1 49
Mercury, Total	0.055	mg/kg	0.0031	0.0098	1	7471		6/9/2014	CWT	1
Selenium, Total	< 1.4	mg/Kg	1.4	4.46	2	6010B		6/10/2014	CWT	1 49
Silver, Total	< 0.68	mg/Kg	0.68	2.18	2	6010B		6/10/2014	CWT	1 49
Organic										
General										
Diesel Range Organics	32.2	mg/kg	0.83	2.63	1	DRO95		6/10/2014	MJR	1 43
GRO/PVOC										
Gasoline Range Organics	< 10	mg/kg	2.3	7.3	1	GRO95/8021		6/9/2014	CJR	1
Benzene	44	ug/kg	7.9	25	1	GRO95/8021		6/9/2014	CJR	1
Ethylbenzene	36	ug/kg	7.7	25	1	GRO95/8021		6/9/2014	CJR	1
Methyl tert-butyl ether (MTBE)	< 25	ug/kg	8.1	26	1	GRO95/8021		6/9/2014	CJR	1
Toluene	< 25	ug/kg	8.4	27	1	GRO95/8021		6/9/2014	CJR	1
1,2,4-Trimethylbenzene	31.3 "J"	ug/kg	10	33	1	GRO95/8021		6/9/2014	CJR	1
1,3,5-Trimethylbenzene	< 25	ug/kg	9.3	30	1	GRO95/8021		6/9/2014	CJR	1
m&p-Xylene	< 50	ug/kg	16	50	1	GRO95/8021		6/9/2014	CJR	1
o-Xylene	30.8 "J"	ug/kg	10	32	1	GRO95/8021		6/9/2014	CJR	1
PCB'S										
PCB-1016	< 0.0065	mg/kg	0.0065	0.02	1	EPA 8082A		6/6/2014	ESC	1
PCB-1221	< 0.0054	mg/kg	0.0054	0.02	1	EPA 8082A		6/6/2014	ESC	1
PCB-1232	< 0.0042	mg/kg	0.0042	0.02	1	EPA 8082A		6/6/2014	ESC	1
PCB-1242	< 0.0032	mg/kg	0.0032	0.02	1	EPA 8082A		6/6/2014	ESC	1
PCB-1248	< 0.0032	mg/kg	0.0032	0.02	1	EPA 8082A		6/6/2014	ESC	1
PCB-1254	< 0.0047	mg/kg	0.0047	0.02	1	EPA 8082A		6/6/2014	ESC	1
PCB-1260	< 0.0049	mg/kg	0.0049	0.02	1	EPA 8082A		6/6/2014	ESC	1
Semi Volatiles										
Acetophenone	< 11	ug/kg	11	34	1	8270C	6/4/2014	6/4/2014	MDK	1
Acenaphthene	430	ug/kg	9.1	29	1	8270C	6/4/2014	6/4/2014	MDK	1
Acenaphthylene	243	ug/kg	9	29	1	8270C	6/4/2014	6/4/2014	MDK	1
Anthracene	480	ug/kg	13	40	1	8270C	6/4/2014	6/4/2014	MDK	1
Benzo(a)anthracene	670	ug/kg	7.6	24	1	8270C	6/4/2014	6/4/2014	MDK	1
Benzo(a)pyrene	440	ug/kg	6.8	22	1	8270C	6/4/2014	6/4/2014	MDK	1
Benzo(b)fluoranthene	680	ug/kg	7.8	25	1	8270C	6/4/2014	6/4/2014	MDK	1
Benzo(g,h,i)perylene	350	ug/kg	7	22	1	8270C	6/4/2014	6/4/2014	MDK	1
Benzo(k)fluoranthene	185	ug/kg	9.6	31	1	8270C	6/4/2014	6/4/2014	MDK	1
Benzyl Alcohol	< 38	ug/kg	38	121	1	8270C	6/4/2014	6/4/2014	MDK	1
Butyl benzyl phthalate	< 55	ug/kg	55	176	1	8270C	6/4/2014	6/4/2014	MDK	1
Bis(2-chloroethoxy)methane	< 10	ug/kg	10	31	1	8270C	6/4/2014	6/4/2014	MDK	1
Bis(2-chloroethyl)ether	< 12	ug/kg	12	38	1	8270C	6/4/2014	6/4/2014	MDK	1
Bis(2-chloroisopropyl)ether	< 9.4	ug/kg	9.4	30	1	8270C	6/4/2014	6/4/2014	MDK	1
Bis(2-ethylhexyl)phthalate	41	ug/kg	9.6	30	1	8270C	6/4/2014	6/4/2014	MDK	1
4-Bromophenylphenyl ether	< 7.5	ug/kg	7.5	24	1	8270C	6/4/2014	6/4/2014	MDK	1
4-Chloro-3-methylphenol	< 11	ug/kg	11	38	1	8270C	6/4/2014	6/4/2014	MDK	1
2-Chloronaphthalene	< 9.5	ug/kg	9.5	30	1	8270C	6/4/2014	6/4/2014	MDK	1
2-Chlorophenol	< 11	ug/kg	11	33.4	1	8270C	6/4/2014	6/4/2014	MDK	1
4-Chlorophenylphenyl ether	< 10	ug/kg	10	32	1	8270C	6/4/2014	6/4/2014	MDK	1
Chrysene	730	ug/kg	7.2	30	1	8270C	6/4/2014	6/4/2014	MDK	1

Project Name VA PARKING STRUCTURE  
 Project # 14776-002

Invoice # E27071

Lab Code 5027071B  
 Sample ID FILL GP-2  
 Sample Matrix Soil  
 Sample Date 5/30/2014

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
o-Cresol	< 16	ug/kg	16	50	1	8270C	6/4/2014	6/4/2014	MDK	1
m & p-Cresol	< 25	ug/kg	25	79	1	8270C	6/4/2014	6/4/2014	MDK	1
Dibenzofuran	34	ug/kg	9.7	31	1	8270C	6/4/2014	6/4/2014	MDK	1
Dibenzo(a,h)anthracene	100	ug/kg	6.01	19	1	8270C	6/4/2014	6/4/2014	MDK	1
1,4-Dichlorobenzene	< 8.7	ug/kg	8.7	28	1	8270C	6/4/2014	6/4/2014	MDK	1
1,3-Dichlorobenzene	< 8.9	ug/kg	8.9	28	1	8270C	6/4/2014	6/4/2014	MDK	1
1,2-Dichlorobenzene	< 9.3	ug/kg	9.3	30	1	8270C	6/4/2014	6/4/2014	MDK	1
3,3'-Dichlorobenzidine	< 8.1	ug/kg	8.1	26	1	8270C	6/4/2014	6/4/2014	MDK	1
2,4-Dichlorophenol	< 11	ug/kg	11	36	1	8270C	6/4/2014	6/4/2014	MDK	1
Diethyl phthalate	< 11	ug/kg	11	35	1	8270C	6/4/2014	6/4/2014	MDK	1
Dimethyl phthalate	< 13	ug/kg	13	42	1	8270C	6/4/2014	6/4/2014	MDK	1
2,4-Dimethylphenol	< 11	ug/kg	11	35	1	8270C	6/4/2014	6/4/2014	MDK	1
Di-n-butyl phthalate	< 24	ug/kg	24	76	1	8270C	6/4/2014	6/4/2014	MDK	1
2,4-Dinitrophenol	< 7.1	ug/kg	7.1	23	1	8270C	6/4/2014	6/4/2014	MDK	8
2,6-Dinitrotoluene	< 10	ug/kg	10	33	1	8270C	6/4/2014	6/4/2014	MDK	1
2,4-Dinitrotoluene	< 19	ug/kg	19	60	1	8270C	6/4/2014	6/4/2014	MDK	1
Di-n-octyl phthalate	< 8.1	ug/kg	8.1	26	1	8270C	6/4/2014	6/4/2014	MDK	1
Diphenylamine	38	ug/kg	9.9	32	1	8270C	6/4/2014	6/4/2014	MDK	1
Fluoranthene	1260	ug/kg	7.4	24	1	8270C	6/4/2014	6/4/2014	MDK	1
Fluorene	400	ug/kg	8.6	28	1	8270C	6/4/2014	6/4/2014	MDK	1
Hexachlorobenzene	< 8	ug/kg	8	26	1	8270C	6/4/2014	6/4/2014	MDK	1
Hexachlorobutadiene	< 12	ug/kg	12	40	1	8270C	6/4/2014	6/4/2014	MDK	8
Hexachlorocyclopentadiene	< 8.8	ug/kg	8.8	28	1	8270C	6/4/2014	6/4/2014	MDK	8
Hexachloroethane	< 9.6	ug/kg	9.6	30	1	8270C	6/4/2014	6/4/2014	MDK	1
Indeno(1,2,3-cd)pyrene	308	ug/kg	6.4	20	1	8270C	6/4/2014	6/4/2014	MDK	1
Isophorone	< 11	ug/kg	11	36	1	8270C	6/4/2014	6/4/2014	MDK	1
1-Methyl naphthalene	251	ug/kg	11	35	1	8270C	6/4/2014	6/4/2014	MDK	1
2-Methyl naphthalene	64	ug/kg	11	34	1	8270C	6/4/2014	6/4/2014	MDK	1
2-Methyl-4,6-dinitrophenol	< 6.9	ug/kg	6.9	22	1	8270C	6/4/2014	6/4/2014	MDK	8
Naphthalene	99	ug/kg	8.4	27	1	8270C	6/4/2014	6/4/2014	MDK	1
2-Nitroaniline	< 9.1	ug/kg	9.1	29	1	8270C	6/4/2014	6/4/2014	MDK	1
3-Nitroaniline	< 10	ug/kg	10	33	1	8270C	6/4/2014	6/4/2014	MDK	1
4-Nitroaniline	< 8.2	ug/kg	8.2	26	1	8270C	6/4/2014	6/4/2014	MDK	1
Nitrobenzene	< 11	ug/kg	11	37	1	8270C	6/4/2014	6/4/2014	MDK	1
2-Nitrophenol	< 11	ug/kg	11	37	1	8270C	6/4/2014	6/4/2014	MDK	1
4-Nitrophenol	< 13.5	ug/kg	13.5	43	1	8270C	6/4/2014	6/4/2014	MDK	1
n-Nitrosodimethylamine	< 12	ug/kg	12	38	1	8270C	6/4/2014	6/4/2014	MDK	1
n-Nitrosodi-n-propylamine	< 14	ug/kg	15	45	1	8270C	6/4/2014	6/4/2014	MDK	1
Pentachlorophenol (PCP)	< 11	ug/kg	11	36	1	8270C	6/4/2014	6/4/2014	MDK	1
Phenanthrene	1340	ug/kg	12.6	40	1	8270C	6/4/2014	6/4/2014	MDK	1
Phenol	< 10	ug/kg	10	33	1	8270C	6/4/2014	6/4/2014	MDK	8
Pyrene	1570	ug/kg	6.9	22	1	8270C	6/4/2014	6/4/2014	MDK	1
Pyridine	< 7	ug/kg	7	22	1	8270C	6/4/2014	6/4/2014	MDK	1
2,3,4,6-Tetrachlorophenol	< 11	ug/kg	11	36	1	8270C	6/4/2014	6/4/2014	MDK	1
1,2,4-Trichlorobenzene	< 11	ug/kg	11	35	1	8270C	6/4/2014	6/4/2014	MDK	1
2,4,5-Trichlorophenol	< 11	ug/kg	11	36	1	8270C	6/4/2014	6/4/2014	MDK	1
2,4,6-Trichlorophenol	< 11	ug/kg	11	37	1	8270C	6/4/2014	6/4/2014	MDK	1
2-Fluorobiphenyl-surrogate	52	REC %			1	8270C	6/4/2014	6/4/2014	MDK	1
2-Fluorophenol-surrogate	34	REC %			1	8270C	6/4/2014	6/4/2014	MDK	1
Nitrobenzene-d5-surrogate	39	REC %			1	8270C	6/4/2014	6/4/2014	MDK	1
Phenol-d6-surrogate	35	REC %			1	8270C	6/4/2014	6/4/2014	MDK	1
p-Terphenyl-d14-surrogate	68	REC %			1	8270C	6/4/2014	6/4/2014	MDK	1
2,4,6-Tribromophenol-surrogate	71	REC %			1	8270C	6/4/2014	6/4/2014	MDK	1

Project Name VA PARKING STRUCTURE  
 Project # 14776-002

Invoice # E27071

Lab Code 5027071C  
 Sample ID FILL GP-3  
 Sample Matrix Soil  
 Sample Date 5/30/2014

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
General										
General										
Solids Percent	84.3	%			1	5021		6/3/2014	RKM	1
Inorganic										
Metals										
Arsenic, Total	< 1.44	mg/Kg	1.44	4.6	2	6010B		6/10/2014	CWT	1 49
Barium, Total	31.7	mg/Kg	0.36	1.16	2	6010B		6/10/2014	CWT	1 49
Cadmium, Total	< 0.16	mg/Kg	0.16	0.5	2	6010B		6/10/2014	CWT	1 49
Chromium, Total	12.2	mg/Kg	0.26	0.82	2	6010B		6/10/2014	CWT	1 49
Lead, Total	10.8	mg/Kg	0.6	1.92	2	6010B		6/10/2014	CWT	1 49
Mercury, Total	0.081	mg/kg	0.0031	0.0098	1	7471		6/9/2014	CWT	1
Selenium, Total	< 1.4	mg/Kg	1.4	4.46	2	6010B		6/10/2014	CWT	1 49
Silver, Total	< 0.68	mg/Kg	0.68	2.18	2	6010B		6/10/2014	CWT	1 49
Organic										
General										
Diesel Range Organics	13.6	mg/kg	0.83	2.63	1	DRO95		6/10/2014	MJR	1 43
GRO/PVOC										
Gasoline Range Organics	< 10	mg/kg	2.3	7.3	1	GRO95/8021		6/17/2014	CJR	1
Benzene	38	ug/kg	7.9	25	1	GRO95/8021		6/17/2014	CJR	1
Ethylbenzene	< 25	ug/kg	7.7	25	1	GRO95/8021		6/17/2014	CJR	1
Methyl tert-butyl ether (MTBE)	< 25	ug/kg	8.1	26	1	GRO95/8021		6/17/2014	CJR	1
Toluene	< 25	ug/kg	8.4	27	1	GRO95/8021		6/17/2014	CJR	1
1,2,4-Trimethylbenzene	< 25	ug/kg	10	33	1	GRO95/8021		6/17/2014	CJR	1
1,3,5-Trimethylbenzene	< 25	ug/kg	9.3	30	1	GRO95/8021		6/17/2014	CJR	1
m&p-Xylene	< 50	ug/kg	16	50	1	GRO95/8021		6/17/2014	CJR	1
o-Xylene	< 25	ug/kg	10	32	1	GRO95/8021		6/17/2014	CJR	1
PCB'S										
PCB-1016	< 0.0065	mg/kg	0.0065	0.02	1	EPA 8082A		6/6/2014	ESC	1
PCB-1221	< 0.0054	mg/kg	0.0054	0.02	1	EPA 8082A		6/6/2014	ESC	1
PCB-1232	< 0.0042	mg/kg	0.0042	0.02	1	EPA 8082A		6/6/2014	ESC	1
PCB-1242	< 0.0032	mg/kg	0.0032	0.02	1	EPA 8082A		6/6/2014	ESC	1
PCB-1248	< 0.0032	mg/kg	0.0032	0.02	1	EPA 8082A		6/6/2014	ESC	1
PCB-1254	< 0.0047	mg/kg	0.0047	0.02	1	EPA 8082A		6/6/2014	ESC	1
PCB-1260	< 0.0049	mg/kg	0.0049	0.02	1	EPA 8082A		6/6/2014	ESC	1
Semi Volatiles										
Acetophenone	< 11	ug/kg	11	34	1	8270C	6/4/2014	6/4/2014	MDK	1
Acenaphthene	73	ug/kg	9.1	29	1	8270C	6/4/2014	6/4/2014	MDK	2
Acenaphthylene	49	ug/kg	9	29	1	8270C	6/4/2014	6/4/2014	MDK	1
Anthracene	88	ug/kg	13	40	1	8270C	6/4/2014	6/4/2014	MDK	2
Benzo(a)anthracene	125	ug/kg	7.6	24	1	8270C	6/4/2014	6/4/2014	MDK	2
Benzo(a)pyrene	153	ug/kg	6.8	22	1	8270C	6/4/2014	6/4/2014	MDK	2 3
Benzo(b)fluoranthene	166	ug/kg	7.8	25	1	8270C	6/4/2014	6/4/2014	MDK	2
Benzo(g,h,i)perylene	82	ug/kg	7	22	1	8270C	6/4/2014	6/4/2014	MDK	1
Benzo(k)fluoranthene	58	ug/kg	9.6	31	1	8270C	6/4/2014	6/4/2014	MDK	2
Benzyl Alcohol	< 38	ug/kg	38	121	1	8270C	6/4/2014	6/4/2014	MDK	1
Butyl benzyl phthalate	< 55	ug/kg	55	176	1	8270C	6/4/2014	6/4/2014	MDK	1
Bis(2-chloroethoxy)methane	< 10	ug/kg	10	31	1	8270C	6/4/2014	6/4/2014	MDK	3
Bis(2-chloroethyl)ether	< 12	ug/kg	12	38	1	8270C	6/4/2014	6/4/2014	MDK	2
Bis(2-chloroisopropyl)ether	< 9.4	ug/kg	9.4	30	1	8270C	6/4/2014	6/4/2014	MDK	1
Bis(2-ethylhexyl)phthalate	26.5 "J"	ug/kg	9.6	30	1	8270C	6/4/2014	6/4/2014	MDK	1
4-Bromophenylphenyl ether	< 7.5	ug/kg	7.5	24	1	8270C	6/4/2014	6/4/2014	MDK	1
4-Chloro-3-methylphenol	< 11	ug/kg	11	38	1	8270C	6/4/2014	6/4/2014	MDK	2
2-Chloronaphthalene	< 9.5	ug/kg	9.5	30	1	8270C	6/4/2014	6/4/2014	MDK	1
2-Chlorophenol	< 11	ug/kg	11	33.4	1	8270C	6/4/2014	6/4/2014	MDK	2
4-Chlorophenylphenyl ether	< 10	ug/kg	10	32	1	8270C	6/4/2014	6/4/2014	MDK	1
Chrysene	126	ug/kg	7.2	30	1	8270C	6/4/2014	6/4/2014	MDK	2

Project Name VA PARKING STRUCTURE  
 Project # 14776-002

Invoice # E27071

Lab Code 5027071C  
 Sample ID FILL GP-3  
 Sample Matrix Soil  
 Sample Date 5/30/2014

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
o-Cresol	< 16	ug/kg	16	50	1	8270C	6/4/2014	6/4/2014	MDK	2
m & p-Cresol	< 25	ug/kg	25	79	1	8270C	6/4/2014	6/4/2014	MDK	1
Dibenzofuran	27.7 "J"	ug/kg	9.7	31	1	8270C	6/4/2014	6/4/2014	MDK	1
Dibenzo(a,h)anthracene	23.3	ug/kg	6.01	19	1	8270C	6/4/2014	6/4/2014	MDK	1
1,4-Dichlorobenzene	< 8.7	ug/kg	8.7	28	1	8270C	6/4/2014	6/4/2014	MDK	1
1,3-Dichlorobenzene	< 8.9	ug/kg	8.9	28	1	8270C	6/4/2014	6/4/2014	MDK	1
1,2-Dichlorobenzene	< 9.3	ug/kg	9.3	30	1	8270C	6/4/2014	6/4/2014	MDK	1
3,3'-Dichlorobenzidine	< 8.1	ug/kg	8.1	26	1	8270C	6/4/2014	6/4/2014	MDK	1
2,4-Dichlorophenol	< 11	ug/kg	11	36	1	8270C	6/4/2014	6/4/2014	MDK	1
Diethyl phthalate	< 11	ug/kg	11	35	1	8270C	6/4/2014	6/4/2014	MDK	1
Dimethyl phthalate	< 13	ug/kg	13	42	1	8270C	6/4/2014	6/4/2014	MDK	1
2,4-Dimethylphenol	< 11	ug/kg	11	35	1	8270C	6/4/2014	6/4/2014	MDK	2
Di-n-butyl phthalate	< 24	ug/kg	24	76	1	8270C	6/4/2014	6/4/2014	MDK	1
2,4-Dinitrophenol	< 7.1	ug/kg	7.1	23	1	8270C	6/4/2014	6/4/2014	MDK	8
2,6-Dinitrotoluene	< 10	ug/kg	10	33	1	8270C	6/4/2014	6/4/2014	MDK	1
2,4-Dinitrotoluene	< 19	ug/kg	19	60	1	8270C	6/4/2014	6/4/2014	MDK	1
Di-n-octyl phthalate	< 8.1	ug/kg	8.1	26	1	8270C	6/4/2014	6/4/2014	MDK	1
Diphenylamine	10.4 "J"	ug/kg	9.9	32	1	8270C	6/4/2014	6/4/2014	MDK	1
Fluoranthene	22.9	ug/kg	7.4	24	1	8270C	6/4/2014	6/4/2014	MDK	2
Fluorene	44	ug/kg	8.6	28	1	8270C	6/4/2014	6/4/2014	MDK	1
Hexachlorobenzene	< 8	ug/kg	8	26	1	8270C	6/4/2014	6/4/2014	MDK	1
Hexachlorobutadiene	< 12	ug/kg	12	40	1	8270C	6/4/2014	6/4/2014	MDK	8
Hexachlorocyclopentadiene	< 8.8	ug/kg	8.8	28	1	8270C	6/4/2014	6/4/2014	MDK	2 8
Hexachloroethane	< 9.6	ug/kg	9.6	30	1	8270C	6/4/2014	6/4/2014	MDK	1
Indeno(1,2,3-cd)pyrene	69	ug/kg	6.4	20	1	8270C	6/4/2014	6/4/2014	MDK	1
Isophorone	< 11	ug/kg	11	36	1	8270C	6/4/2014	6/4/2014	MDK	2
1-Methyl naphthalene	27.7 "J"	ug/kg	11	35	1	8270C	6/4/2014	6/4/2014	MDK	2
2-Methyl naphthalene	< 11	ug/kg	11	34	1	8270C	6/4/2014	6/4/2014	MDK	1
2-Methyl-4,6-dinitrophenol	< 6.9	ug/kg	6.9	22	1	8270C	6/4/2014	6/4/2014	MDK	8
Naphthalene	21.7 "J"	ug/kg	8.4	27	1	8270C	6/4/2014	6/4/2014	MDK	2
2-Nitroaniline	< 9.1	ug/kg	9.1	29	1	8270C	6/4/2014	6/4/2014	MDK	1
3-Nitroaniline	< 10	ug/kg	10	33	1	8270C	6/4/2014	6/4/2014	MDK	1
4-Nitroaniline	< 8.2	ug/kg	8.2	26	1	8270C	6/4/2014	6/4/2014	MDK	1
Nitrobenzene	< 11	ug/kg	11	37	1	8270C	6/4/2014	6/4/2014	MDK	1
2-Nitrophenol	< 11	ug/kg	11	37	1	8270C	6/4/2014	6/4/2014	MDK	2
4-Nitrophenol	< 13.5	ug/kg	13.5	43	1	8270C	6/4/2014	6/4/2014	MDK	2
n-Nitrosodimethylamine	< 12	ug/kg	12	38	1	8270C	6/4/2014	6/4/2014	MDK	1
n-Nitrosodi-n-propylamine	< 14	ug/kg	15	45	1	8270C	6/4/2014	6/4/2014	MDK	1
Pentachlorophenol (PCP)	< 11	ug/kg	11	36	1	8270C	6/4/2014	6/4/2014	MDK	1
Phenanthrene	139	ug/kg	12.6	40	1	8270C	6/4/2014	6/4/2014	MDK	2
Phenol	< 10	ug/kg	10	33	1	8270C	6/4/2014	6/4/2014	MDK	8
Pyrene	275	ug/kg	6.9	22	1	8270C	6/4/2014	6/4/2014	MDK	2
Pyridine	< 7	ug/kg	7	22	1	8270C	6/4/2014	6/4/2014	MDK	2
2,3,4,6-Tetrachlorophenol	< 11	ug/kg	11	36	1	8270C	6/4/2014	6/4/2014	MDK	1
1,2,4-Trichlorobenzene	< 11	ug/kg	11	35	1	8270C	6/4/2014	6/4/2014	MDK	1
2,4,5-Trichlorophenol	< 11	ug/kg	11	36	1	8270C	6/4/2014	6/4/2014	MDK	1
2,4,6-Trichlorophenol	< 11	ug/kg	11	37	1	8270C	6/4/2014	6/4/2014	MDK	1
2-Fluorobiphenyl-surrogate	61	REC %			1	8270C	6/4/2014	6/4/2014	MDK	1
2-Fluorophenol-surrogate	47	REC %			1	8270C	6/4/2014	6/4/2014	MDK	1
Nitrobenzene-d5-surrogate	51	REC %			1	8270C	6/4/2014	6/4/2014	MDK	1
Phenol-d6-surrogate	50	REC %			1	8270C	6/4/2014	6/4/2014	MDK	1
p-Terphenyl-d14-surrogate	75	REC %			1	8270C	6/4/2014	6/4/2014	MDK	1
2,4,6-Tribromophenol-surrogate	73	REC %			1	8270C	6/4/2014	6/4/2014	MDK	1

Project Name VA PARKING STRUCTURE  
 Project # 14776-002

Invoice # E27071

Lab Code 5027071D  
 Sample ID FILL GP-4  
 Sample Matrix Soil  
 Sample Date 5/30/2014

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
General										
General										
Solids Percent	87.5	%			1	5021		6/3/2014	RKM	1
Inorganic										
Metals										
Arsenic, Total	< 1.44	mg/Kg	1.44	4.6	2	6010B		6/10/2014	CWT	149
Barium, Total	48.7	mg/Kg	0.36	1.16	2	6010B		6/10/2014	CWT	149
Cadmium, Total	< 0.16	mg/Kg	0.16	0.5	2	6010B		6/10/2014	CWT	149
Chromium, Total	18.6	mg/Kg	0.26	0.82	2	6010B		6/10/2014	CWT	149
Lead, Total	44.5	mg/Kg	0.6	1.92	2	6010B		6/10/2014	CWT	149
Mercury, Total	0.146	mg/kg	0.0031	0.0098	1	7471		6/9/2014	CWT	1
Selenium, Total	< 1.4	mg/Kg	1.4	4.46	2	6010B		6/10/2014	CWT	149
Silver, Total	< 0.68	mg/Kg	0.68	2.18	2	6010B		6/10/2014	CWT	149
Organic										
General										
Diesel Range Organics	12.8	mg/kg	0.83	2.63	1	DRO95		6/10/2014	MJR	143
GRO/PVOC										
Gasoline Range Organics	< 10	mg/kg	2.3	7.3	1	GRO95/8021		6/11/2014	CJR	1
Benzene	< 25	ug/kg	7.9	25	1	GRO95/8021		6/11/2014	CJR	1
Ethylbenzene	< 25	ug/kg	7.7	25	1	GRO95/8021		6/11/2014	CJR	1
Methyl tert-butyl ether (MTBE)	< 25	ug/kg	8.1	26	1	GRO95/8021		6/11/2014	CJR	1
Toluene	< 25	ug/kg	8.4	27	1	GRO95/8021		6/11/2014	CJR	1
1,2,4-Trimethylbenzene	< 25	ug/kg	10	33	1	GRO95/8021		6/11/2014	CJR	1
1,3,5-Trimethylbenzene	< 25	ug/kg	9.3	30	1	GRO95/8021		6/11/2014	CJR	1
m&p-Xylene	< 50	ug/kg	16	50	1	GRO95/8021		6/11/2014	CJR	1
o-Xylene	< 25	ug/kg	10	32	1	GRO95/8021		6/11/2014	CJR	1
PCB'S										
PCB-1016	< 0.0065	mg/kg	0.0065	0.02	1	EPA 8082A		6/6/2014	ESC	1
PCB-1221	< 0.0054	mg/kg	0.0054	0.02	1	EPA 8082A		6/6/2014	ESC	1
PCB-1232	< 0.0042	mg/kg	0.0042	0.02	1	EPA 8082A		6/6/2014	ESC	1
PCB-1242	< 0.0032	mg/kg	0.0032	0.02	1	EPA 8082A		6/6/2014	ESC	1
PCB-1248	< 0.0032	mg/kg	0.0032	0.02	1	EPA 8082A		6/6/2014	ESC	1
PCB-1254	< 0.0047	mg/kg	0.0047	0.02	1	EPA 8082A		6/6/2014	ESC	1
PCB-1260	< 0.0049	mg/kg	0.0049	0.02	1	EPA 8082A		6/6/2014	ESC	1
Semi Volatiles										
Acetophenone	< 11	ug/kg	11	34	1	8270C	6/4/2014	6/4/2014	MDK	1
Acenaphthene	119	ug/kg	9.1	29	1	8270C	6/4/2014	6/4/2014	MDK	1
Acenaphthylene	89	ug/kg	9	29	1	8270C	6/4/2014	6/4/2014	MDK	1
Anthracene	163	ug/kg	13	40	1	8270C	6/4/2014	6/4/2014	MDK	1
Benzo(a)anthracene	292	ug/kg	7.6	24	1	8270C	6/4/2014	6/4/2014	MDK	1
Benzo(a)pyrene	350	ug/kg	6.8	22	1	8270C	6/4/2014	6/4/2014	MDK	1
Benzo(b)fluoranthene	430	ug/kg	7.8	25	1	8270C	6/4/2014	6/4/2014	MDK	1
Benzo(g,h,i)perylene	195	ug/kg	7	22	1	8270C	6/4/2014	6/4/2014	MDK	1
Benzo(k)fluoranthene	178	ug/kg	9.6	31	1	8270C	6/4/2014	6/4/2014	MDK	1
Benzyl Alcohol	< 38	ug/kg	38	121	1	8270C	6/4/2014	6/4/2014	MDK	1
Butyl benzyl phthalate	< 55	ug/kg	55	176	1	8270C	6/4/2014	6/4/2014	MDK	1
Bis(2-chloroethoxy)methane	< 10	ug/kg	10	31	1	8270C	6/4/2014	6/4/2014	MDK	1
Bis(2-chloroethyl)ether	< 12	ug/kg	12	38	1	8270C	6/4/2014	6/4/2014	MDK	1
Bis(2-chloroisopropyl)ether	< 9.4	ug/kg	9.4	30	1	8270C	6/4/2014	6/4/2014	MDK	1
Bis(2-ethylhexyl)phthalate	23.9 "J"	ug/kg	9.6	30	1	8270C	6/4/2014	6/4/2014	MDK	1
4-Bromophenylphenyl ether	< 7.5	ug/kg	7.5	24	1	8270C	6/4/2014	6/4/2014	MDK	1
4-Chloro-3-methylphenol	< 11	ug/kg	11	38	1	8270C	6/4/2014	6/4/2014	MDK	1
2-Chloronaphthalene	< 9.5	ug/kg	9.5	30	1	8270C	6/4/2014	6/4/2014	MDK	1
2-Chlorophenol	< 11	ug/kg	11	33.4	1	8270C	6/4/2014	6/4/2014	MDK	1
4-Chlorophenylphenyl ether	< 10	ug/kg	10	32	1	8270C	6/4/2014	6/4/2014	MDK	1
Chrysene	340	ug/kg	7.2	30	1	8270C	6/4/2014	6/4/2014	MDK	1

Project Name VA PARKING STRUCTURE  
 Project # 14776-002

Invoice # E27071

Lab Code 5027071D  
 Sample ID FILL GP-4  
 Sample Matrix Soil  
 Sample Date 5/30/2014

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
o-Cresol	< 16	ug/kg	16	50	1	8270C	6/4/2014	6/4/2014	MDK	1
m & p-Cresol	< 25	ug/kg	25	79	1	8270C	6/4/2014	6/4/2014	MDK	1
Dibenzofuran	53	ug/kg	9.7	31	1	8270C	6/4/2014	6/4/2014	MDK	1
Dibenzo(a,h)anthracene	59	ug/kg	6.01	19	1	8270C	6/4/2014	6/4/2014	MDK	1
1,4-Dichlorobenzene	< 8.7	ug/kg	8.7	28	1	8270C	6/4/2014	6/4/2014	MDK	1
1,3-Dichlorobenzene	< 8.9	ug/kg	8.9	28	1	8270C	6/4/2014	6/4/2014	MDK	1
1,2-Dichlorobenzene	< 9.3	ug/kg	9.3	30	1	8270C	6/4/2014	6/4/2014	MDK	1
3,3'-Dichlorobenzidine	< 8.1	ug/kg	8.1	26	1	8270C	6/4/2014	6/4/2014	MDK	1
2,4-Dichlorophenol	< 11	ug/kg	11	36	1	8270C	6/4/2014	6/4/2014	MDK	1
Diethyl phthalate	< 11	ug/kg	11	35	1	8270C	6/4/2014	6/4/2014	MDK	1
Dimethyl phthalate	< 13	ug/kg	13	42	1	8270C	6/4/2014	6/4/2014	MDK	1
2,4-Dimethylphenol	< 11	ug/kg	11	35	1	8270C	6/4/2014	6/4/2014	MDK	1
Di-n-butyl phthalate	< 24	ug/kg	24	76	1	8270C	6/4/2014	6/4/2014	MDK	1
2,4-Dinitrophenol	< 7.1	ug/kg	7.1	23	1	8270C	6/4/2014	6/4/2014	MDK	8
2,6-Dinitrotoluene	< 10	ug/kg	10	33	1	8270C	6/4/2014	6/4/2014	MDK	1
2,4-Dinitrotoluene	< 19	ug/kg	19	60	1	8270C	6/4/2014	6/4/2014	MDK	1
Di-n-octyl phthalate	< 8.1	ug/kg	8.1	26	1	8270C	6/4/2014	6/4/2014	MDK	1
Diphenylamine	33	ug/kg	9.9	32	1	8270C	6/4/2014	6/4/2014	MDK	1
Fluoranthene	670	ug/kg	7.4	24	1	8270C	6/4/2014	6/4/2014	MDK	1
Fluorene	103	ug/kg	8.6	28	1	8270C	6/4/2014	6/4/2014	MDK	1
Hexachlorobenzene	< 8	ug/kg	8	26	1	8270C	6/4/2014	6/4/2014	MDK	1
Hexachlorobutadiene	< 12	ug/kg	12	40	1	8270C	6/4/2014	6/4/2014	MDK	8
Hexachlorocyclopentadiene	< 8.8	ug/kg	8.8	28	1	8270C	6/4/2014	6/4/2014	MDK	8
Hexachloroethane	< 9.6	ug/kg	9.6	30	1	8270C	6/4/2014	6/4/2014	MDK	1
Indeno(1,2,3-cd)pyrene	180	ug/kg	6.4	20	1	8270C	6/4/2014	6/4/2014	MDK	1
Isophorone	< 11	ug/kg	11	36	1	8270C	6/4/2014	6/4/2014	MDK	1
1-Methyl naphthalene	59	ug/kg	11	35	1	8270C	6/4/2014	6/4/2014	MDK	1
2-Methyl naphthalene	44	ug/kg	11	34	1	8270C	6/4/2014	6/4/2014	MDK	1
2-Methyl-4,6-dinitrophenol	< 6.9	ug/kg	6.9	22	1	8270C	6/4/2014	6/4/2014	MDK	8
Naphthalene	84	ug/kg	8.4	27	1	8270C	6/4/2014	6/4/2014	MDK	1
2-Nitroaniline	< 9.1	ug/kg	9.1	29	1	8270C	6/4/2014	6/4/2014	MDK	1
3-Nitroaniline	< 10	ug/kg	10	33	1	8270C	6/4/2014	6/4/2014	MDK	1
4-Nitroaniline	< 8.2	ug/kg	8.2	26	1	8270C	6/4/2014	6/4/2014	MDK	1
Nitrobenzene	< 11	ug/kg	11	37	1	8270C	6/4/2014	6/4/2014	MDK	1
2-Nitrophenol	< 11	ug/kg	11	37	1	8270C	6/4/2014	6/4/2014	MDK	1
4-Nitrophenol	< 13.5	ug/kg	13.5	43	1	8270C	6/4/2014	6/4/2014	MDK	1
n-Nitrosodimethylamine	< 12	ug/kg	12	38	1	8270C	6/4/2014	6/4/2014	MDK	1
n-Nitrosodi-n-propylamine	< 14	ug/kg	15	45	1	8270C	6/4/2014	6/4/2014	MDK	1
Pentachlorophenol (PCP)	< 11	ug/kg	11	36	1	8270C	6/4/2014	6/4/2014	MDK	1
Phenanthrene	530	ug/kg	12.6	40	1	8270C	6/4/2014	6/4/2014	MDK	1
Phenol	< 10	ug/kg	10	33	1	8270C	6/4/2014	6/4/2014	MDK	8
Pyrene	640	ug/kg	6.9	22	1	8270C	6/4/2014	6/4/2014	MDK	1
Pyridine	< 7	ug/kg	7	22	1	8270C	6/4/2014	6/4/2014	MDK	1
2,3,4,6-Tetrachlorophenol	< 11	ug/kg	11	36	1	8270C	6/4/2014	6/4/2014	MDK	1
1,2,4-Trichlorobenzene	< 11	ug/kg	11	35	1	8270C	6/4/2014	6/4/2014	MDK	1
2,4,5-Trichlorophenol	< 11	ug/kg	11	36	1	8270C	6/4/2014	6/4/2014	MDK	1
2,4,6-Trichlorophenol	< 11	ug/kg	11	37	1	8270C	6/4/2014	6/4/2014	MDK	1
2-Fluorobiphenyl-surrogate	50	REC %			1	8270C	6/4/2014	6/4/2014	MDK	1
2-Fluorophenol-surrogate	31	REC %			1	8270C	6/4/2014	6/4/2014	MDK	1
Nitrobenzene-d5-surrogate	37	REC %			1	8270C	6/4/2014	6/4/2014	MDK	1
Phenol-d6-surrogate	32	REC %			1	8270C	6/4/2014	6/4/2014	MDK	1
p-Terphenyl-d14-surrogate	66	REC %			1	8270C	6/4/2014	6/4/2014	MDK	1
2,4,6-Tribromophenol-surrogate	66	REC %			1	8270C	6/4/2014	6/4/2014	MDK	1

Project Name VA PARKING STRUCTURE  
 Project # 14776-002

Invoice # E27071

Lab Code 5027071E  
 Sample ID FILL GP-5  
 Sample Matrix Soil  
 Sample Date 5/30/2014

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
General										
General										
Solids Percent	83.7	%			1	5021		6/3/2014	RKM	1
Inorganic										
Metals										
Arsenic, Total	< 1.44	mg/Kg	1.44	4.6	2	6010B		6/10/2014	CWT	1 49
Barium, Total	40.3	mg/Kg	0.36	1.16	2	6010B		6/10/2014	CWT	1 49
Cadmium, Total	< 0.16	mg/Kg	0.16	0.5	2	6010B		6/10/2014	CWT	1 49
Chromium, Total	19.4	mg/Kg	0.26	0.82	2	6010B		6/10/2014	CWT	1 49
Lead, Total	18.2	mg/Kg	0.6	1.92	2	6010B		6/10/2014	CWT	1 49
Mercury, Total	0.081	mg/kg	0.0031	0.0098	1	7471		6/9/2014	CWT	1
Selenium, Total	< 1.4	mg/Kg	1.4	4.46	2	6010B		6/10/2014	CWT	1 49
Silver, Total	< 0.68	mg/Kg	0.68	2.18	2	6010B		6/10/2014	CWT	1 49
Organic										
General										
Diesel Range Organics	41.5	mg/kg	0.83	2.63	1	DRO95		6/10/2014	MJR	1 43
GRO/PVOC										
Gasoline Range Organics	< 10	mg/kg	2.3	7.3	1	GRO95/8021		6/11/2014	CJR	1
Benzene	< 25	ug/kg	7.9	25	1	GRO95/8021		6/11/2014	CJR	1
Ethylbenzene	< 25	ug/kg	7.7	25	1	GRO95/8021		6/11/2014	CJR	1
Methyl tert-butyl ether (MTBE)	< 25	ug/kg	8.1	26	1	GRO95/8021		6/11/2014	CJR	1
Toluene	< 25	ug/kg	8.4	27	1	GRO95/8021		6/11/2014	CJR	1
1,2,4-Trimethylbenzene	< 25	ug/kg	10	33	1	GRO95/8021		6/11/2014	CJR	1
1,3,5-Trimethylbenzene	< 25	ug/kg	9.3	30	1	GRO95/8021		6/11/2014	CJR	1
m&p-Xylene	< 50	ug/kg	16	50	1	GRO95/8021		6/11/2014	CJR	1
o-Xylene	< 25	ug/kg	10	32	1	GRO95/8021		6/11/2014	CJR	1
PCB'S										
PCB-1016	< 0.0065	mg/kg	0.0065	0.02	1	EPA 8082A		6/6/2014	ESC	1
PCB-1221	< 0.0054	mg/kg	0.0054	0.02	1	EPA 8082A		6/6/2014	ESC	1
PCB-1232	< 0.0042	mg/kg	0.0042	0.02	1	EPA 8082A		6/6/2014	ESC	1
PCB-1242	< 0.0032	mg/kg	0.0032	0.02	1	EPA 8082A		6/6/2014	ESC	1
PCB-1248	< 0.0032	mg/kg	0.0032	0.02	1	EPA 8082A		6/6/2014	ESC	1
PCB-1254	< 0.0047	mg/kg	0.0047	0.02	1	EPA 8082A		6/6/2014	ESC	1
PCB-1260	< 0.0049	mg/kg	0.0049	0.02	1	EPA 8082A		6/6/2014	ESC	1
Semi Volatiles										
Acetophenone	< 110	ug/kg	110	340	10	8270C	6/4/2014	6/5/2014	MDK	1
Acenaphthene	820	ug/kg	91	290	10	8270C	6/4/2014	6/5/2014	MDK	1
Acenaphthylene	330	ug/kg	90	290	10	8270C	6/4/2014	6/5/2014	MDK	1
Anthracene	5000	ug/kg	130	400	10	8270C	6/4/2014	6/5/2014	MDK	1
Benzo(a)anthracene	7300	ug/kg	76	240	10	8270C	6/4/2014	6/5/2014	MDK	1
Benzo(a)pyrene	3600	ug/kg	68	220	10	8270C	6/4/2014	6/5/2014	MDK	1
Benzo(b)fluoranthene	9900	ug/kg	78	250	10	8270C	6/4/2014	6/5/2014	MDK	1
Benzo(g,h,i)perylene	3500	ug/kg	70	220	10	8270C	6/4/2014	6/5/2014	MDK	1
Benzo(k)fluoranthene	1260	ug/kg	96	310	10	8270C	6/4/2014	6/5/2014	MDK	1
Benzyl Alcohol	< 380	ug/kg	380	1210	10	8270C	6/4/2014	6/5/2014	MDK	1
Butyl benzyl phthalate	< 550	ug/kg	550	1760	10	8270C	6/4/2014	6/5/2014	MDK	1
Bis(2-chloroethoxy)methane	< 100	ug/kg	100	310	10	8270C	6/4/2014	6/5/2014	MDK	1
Bis(2-chloroethyl)ether	< 120	ug/kg	120	380	10	8270C	6/4/2014	6/5/2014	MDK	1
Bis(2-chloroisopropyl)ether	< 94	ug/kg	94	300	10	8270C	6/4/2014	6/5/2014	MDK	1
Bis(2-ethylhexyl)phthalate	< 96	ug/kg	96	300	10	8270C	6/4/2014	6/5/2014	MDK	1
4-Bromophenylphenyl ether	< 75	ug/kg	75	240	10	8270C	6/4/2014	6/5/2014	MDK	1
4-Chloro-3-methylphenol	< 110	ug/kg	110	380	10	8270C	6/4/2014	6/5/2014	MDK	1
2-Chloronaphthalene	< 95	ug/kg	95	300	10	8270C	6/4/2014	6/5/2014	MDK	1
2-Chlorophenol	< 110	ug/kg	110	334	10	8270C	6/4/2014	6/5/2014	MDK	1
4-Chlorophenylphenyl ether	< 100	ug/kg	100	320	10	8270C	6/4/2014	6/5/2014	MDK	1
Chrysene	6900	ug/kg	72	300	10	8270C	6/4/2014	6/5/2014	MDK	1

Project Name VA PARKING STRUCTURE  
 Project # 14776-002

Invoice # E27071

Lab Code 5027071E  
 Sample ID FILL GP-5  
 Sample Matrix Soil  
 Sample Date 5/30/2014

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
o-Cresol	< 160	ug/kg	160	500	10	8270C	6/4/2014	6/5/2014	MDK	1
m & p-Cresol	< 250	ug/kg	250	790	10	8270C	6/4/2014	6/5/2014	MDK	1
Dibenzofuran	1330	ug/kg	97	310	10	8270C	6/4/2014	6/5/2014	MDK	1
Dibenzo(a,h)anthracene	1040	ug/kg	60.1	190	10	8270C	6/4/2014	6/5/2014	MDK	1
1,4-Dichlorobenzene	< 87	ug/kg	87	280	10	8270C	6/4/2014	6/5/2014	MDK	1
1,3-Dichlorobenzene	< 89	ug/kg	89	280	10	8270C	6/4/2014	6/5/2014	MDK	1
1,2-Dichlorobenzene	< 93	ug/kg	93	300	10	8270C	6/4/2014	6/5/2014	MDK	1
3,3'-Dichlorobenzidine	< 81	ug/kg	81	260	10	8270C	6/4/2014	6/5/2014	MDK	1
2,4-Dichlorophenol	< 110	ug/kg	110	360	10	8270C	6/4/2014	6/5/2014	MDK	1
Diethyl phthalate	< 110	ug/kg	110	350	10	8270C	6/4/2014	6/5/2014	MDK	1
Dimethyl phthalate	< 130	ug/kg	130	420	10	8270C	6/4/2014	6/5/2014	MDK	1
2,4-Dimethylphenol	< 110	ug/kg	110	350	10	8270C	6/4/2014	6/5/2014	MDK	1
Di-n-butyl phthalate	< 240	ug/kg	240	760	10	8270C	6/4/2014	6/5/2014	MDK	1
2,4-Dinitrophenol	< 71	ug/kg	71	230	10	8270C	6/4/2014	6/5/2014	MDK	1
2,6-Dinitrotoluene	< 100	ug/kg	100	330	10	8270C	6/4/2014	6/5/2014	MDK	1
2,4-Dinitrotoluene	< 190	ug/kg	190	600	10	8270C	6/4/2014	6/5/2014	MDK	1
Di-n-octyl phthalate	< 81	ug/kg	81	260	10	8270C	6/4/2014	6/5/2014	MDK	1
Diphenylamine	< 99	ug/kg	99	320	10	8270C	6/4/2014	6/5/2014	MDK	1
Fluoranthene	16600	ug/kg	74	240	10	8270C	6/4/2014	6/5/2014	MDK	1
Fluorene	1950	ug/kg	86	280	10	8270C	6/4/2014	6/5/2014	MDK	1
Hexachlorobenzene	< 80	ug/kg	80	260	10	8270C	6/4/2014	6/5/2014	MDK	1
Hexachlorobutadiene	< 120	ug/kg	120	400	10	8270C	6/4/2014	6/5/2014	MDK	8
Hexachlorocyclopentadiene	< 88	ug/kg	88	280	10	8270C	6/4/2014	6/5/2014	MDK	1
Hexachloroethane	< 96	ug/kg	96	300	10	8270C	6/4/2014	6/5/2014	MDK	1
Indeno(1,2,3-cd)pyrene	3300	ug/kg	64	200	10	8270C	6/4/2014	6/5/2014	MDK	1
Isophorone	< 110	ug/kg	110	360	10	8270C	6/4/2014	6/5/2014	MDK	1
1-Methyl naphthalene	206 "J"	ug/kg	110	350	10	8270C	6/4/2014	6/5/2014	MDK	1
2-Methyl naphthalene	162 "J"	ug/kg	110	340	10	8270C	6/4/2014	6/5/2014	MDK	1
2-Methyl-4,6-dinitrophenol	< 69	ug/kg	69	220	10	8270C	6/4/2014	6/5/2014	MDK	1
Naphthalene	170 "J"	ug/kg	84	270	10	8270C	6/4/2014	6/5/2014	MDK	1
2-Nitroaniline	< 91	ug/kg	91	290	10	8270C	6/4/2014	6/5/2014	MDK	1
3-Nitroaniline	< 100	ug/kg	100	330	10	8270C	6/4/2014	6/5/2014	MDK	1
4-Nitroaniline	< 82	ug/kg	82	260	10	8270C	6/4/2014	6/5/2014	MDK	1
Nitrobenzene	< 110	ug/kg	110	370	10	8270C	6/4/2014	6/5/2014	MDK	1
2-Nitrophenol	< 110	ug/kg	110	370	10	8270C	6/4/2014	6/5/2014	MDK	1
4-Nitrophenol	< 135	ug/kg	135	430	10	8270C	6/4/2014	6/5/2014	MDK	1
n-Nitrosodimethylamine	< 120	ug/kg	120	380	10	8270C	6/4/2014	6/5/2014	MDK	1
n-Nitrosodi-n-propylamine	< 140	ug/kg	150	450	10	8270C	6/4/2014	6/5/2014	MDK	1
Pentachlorophenol (PCP)	< 110	ug/kg	110	360	10	8270C	6/4/2014	6/5/2014	MDK	1
Phenanthrene	15000	ug/kg	126	400	10	8270C	6/4/2014	6/5/2014	MDK	1
Phenol	< 100	ug/kg	100	330	10	8270C	6/4/2014	6/5/2014	MDK	1
Pyrene	13600	ug/kg	69	220	10	8270C	6/4/2014	6/5/2014	MDK	1
Pyridine	< 70	ug/kg	70	220	10	8270C	6/4/2014	6/5/2014	MDK	1
2,3,4,6-Tetrachlorophenol	< 110	ug/kg	110	360	10	8270C	6/4/2014	6/5/2014	MDK	1
1,2,4-Trichlorobenzene	< 110	ug/kg	110	350	10	8270C	6/4/2014	6/5/2014	MDK	1
2,4,5-Trichlorophenol	< 110	ug/kg	110	360	10	8270C	6/4/2014	6/5/2014	MDK	1
2,4,6-Trichlorophenol	< 110	ug/kg	110	370	10	8270C	6/4/2014	6/5/2014	MDK	1
2-Fluorobiphenyl-surrogate	42	REC %			10	8270C	6/4/2014	6/5/2014	MDK	1
2-Fluorophenol-surrogate	22	REC %			10	8270C	6/4/2014	6/5/2014	MDK	1
Nitrobenzene-d5-surrogate	37	REC %			10	8270C	6/4/2014	6/5/2014	MDK	1
Phenol-d6-surrogate	12	REC %			10	8270C	6/4/2014	6/5/2014	MDK	1
p-Terphenyl-d14-surrogate	66	REC %			10	8270C	6/4/2014	6/5/2014	MDK	1
2,4,6-Tribromophenol-surrogate	52	REC %			10	8270C	6/4/2014	6/5/2014	MDK	1

Project Name VA PARKING STRUCTURE  
Project # 14776-002

Invoice # E27071

Lab Code 5027071F  
Sample ID METH BLANK  
Sample Matrix Soil  
Sample Date 5/30/2014

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Organic										
PVOC										
Benzene	< 25	ug/kg	7.9	25	1	GRO95/8021		6/11/2014	CJR	1
Ethylbenzene	< 25	ug/kg	7.7	25	1	GRO95/8021		6/11/2014	CJR	1
Methyl tert-butyl ether (MTBE)	< 25	ug/kg	8.1	26	1	GRO95/8021		6/11/2014	CJR	1
Toluene	< 25	ug/kg	8.4	27	1	GRO95/8021		6/11/2014	CJR	1
1,2,4-Trimethylbenzene	< 25	ug/kg	10	33	1	GRO95/8021		6/11/2014	CJR	1
1,3,5-Trimethylbenzene	< 25	ug/kg	9.3	30	1	GRO95/8021		6/11/2014	CJR	1
m&p-Xylene	< 50	ug/kg	16	50	1	GRO95/8021		6/11/2014	CJR	1
o-Xylene	< 25	ug/kg	10	32	1	GRO95/8021		6/11/2014	CJR	1

Project Name VA PARKING STRUCTURE  
 Project # 14776-002

Invoice # E27071

Lab Code 5027071G  
 Sample ID COMP FILL  
 Sample Matrix Soil  
 Sample Date 5/30/2014

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
<b>Inorganic</b>										
<b>Metals</b>										
TCLP Arsenic	< 0.45	mg/l	0.45		1	6010B		6/10/2014	ESC	1
TCLP Barium	< 1.4	mg/l	1.4		1	6010B		6/10/2014	ESC	1
TCLP Cadmium	< 0.45	mg/l	0.45		1	6010B		6/10/2014	ESC	1
TCLP Chromium	< 0.45	mg/l	0.45		1	6010B		6/10/2014	ESC	1
TCLP Copper	< 0.45	mg/l	0.45		1	6010B		6/10/2014	ESC	1
TCLP Lead	< 0.45	mg/l	0.45		1	6010B		6/10/2014	ESC	1
TCLP Mercury	< 0.001	mg/l	0.001		1	7470A		6/11/2014	ESC	1
TCLP Nickel	< 0.45	mg/l	0.45		1	6010B		6/10/2014	ESC	1
TCLP Selenium	< 0.45	mg/l	0.45		1	6010B		6/10/2014	ESC	1
TCLP Silver	< 0.45	mg/l	0.45		1	6010B		6/10/2014	ESC	1
TCLP Zinc	< 0.45	mg/l	0.45		1	6010B		6/10/2014	ESC	1
<b>Organic</b>										
<b>PCB'S</b>										
PCB-1016	< 0.0065	mg/kg	0.0065	0.02	1	EPA 8082A		6/6/2014	ESC	1
PCB-1221	< 0.0054	mg/kg	0.0054	0.02	1	EPA 8082A		6/6/2014	ESC	1
PCB-1232	< 0.0042	mg/kg	0.0042	0.02	1	EPA 8082A		6/6/2014	ESC	1
PCB-1242	< 0.0032	mg/kg	0.0032	0.02	1	EPA 8082A		6/6/2014	ESC	1
PCB-1248	< 0.0032	mg/kg	0.0032	0.02	1	EPA 8082A		6/6/2014	ESC	1
PCB-1254	< 0.0047	mg/kg	0.0047	0.02	1	EPA 8082A		6/6/2014	ESC	1
PCB-1260	< 0.0049	mg/kg	0.0049	0.02	1	EPA 8082A		6/6/2014	ESC	1
<b>TCLP SVOC's</b>										
TCLP o-Cresol	< 0.1	mg/l	0.1		1	8270C		6/11/2014	ESC	1
TCLP m & p-Cresol	< 0.1	mg/l	0.1		1	8270C		6/11/2014	ESC	1
TCLP 1,4-Dichlorobenzene	< 0.1	mg/l	0.1		1	8270C		6/11/2014	ESC	1
TCLP 2,4-Dinitrotoluene	< 0.1	mg/l	0.1		1	8270C		6/11/2014	ESC	1
TCLP Hexachlorobenzene	< 0.1	mg/l	0.1		1	8270C		6/11/2014	ESC	1
TCLP Hexachlorobutadiene	< 0.1	mg/l	0.1		1	8270C		6/11/2014	ESC	1
TCLP Hexachloroethane	< 0.1	mg/l	0.1		1	8270C		6/11/2014	ESC	1
TCLP Nitrobenzene	< 0.1	mg/l	0.1		1	8270C		6/11/2014	ESC	1
TCLP Pentachlorophenol	< 0.1	mg/l	0.1		1	8270C		6/11/2014	ESC	1
TCLP Phenol	< 0.1	mg/l	0.1		1	8270C		6/11/2014	ESC	1
TCLP Pyridine	< 0.1	mg/l	0.1		1	8270C		6/11/2014	ESC	1
TCLP 2,4,6-Trichlorophenol	< 0.1	mg/l	0.1		1	8270C		6/11/2014	ESC	1
TCLP 2,4,5-Trichlorophenol	< 0.1	mg/l	0.1		1	8270C		6/11/2014	ESC	1
<b>TCLP VOC's</b>										
TCLP Benzene	< 0.05	mg/l	0.05		1	8260B		6/10/2014	ESC	1
TCLP Carbon Tetrachloride	< 0.05	mg/l	0.05		1	8260B		6/10/2014	ESC	1
TCLP Chlorobenzene	< 0.05	mg/l	0.05		1	8260B		6/10/2014	ESC	1
TCLP Chloroform	< 0.25	mg/l	0.25		1	8260B		6/10/2014	ESC	1
TCLP 1,2-Dichloroethane	< 0.05	mg/l	0.05		1	8260B		6/10/2014	ESC	1
TCLP 1,1-Dichloroethene	< 0.05	mg/l	0.05		1	8260B		6/10/2014	ESC	1
TCLP Methyl Ethyl Ketone	< 0.5	mg/l	0.5		1	8260B		6/10/2014	ESC	1
TCLP Tetrachloroethene	< 0.05	mg/l	0.05		1	8260B		6/10/2014	ESC	1
TCLP Trichloroethene	< 0.05	mg/l	0.05		1	8260B		6/10/2014	ESC	1
TCLP Vinyl Chloride	< 0.05	mg/l	0.05		1	8260B		6/10/2014	ESC	1
<b>Wet Chemistry</b>										
<b>General</b>										
Specific Gravity	1.9	g/cm3			1	2710F		6/6/2014	ESC	1
Reactive Sulfide	< 25	mg/kg	25	25	1	EPA 9034		6/6/2014	ESC	1
Free Liquid	none				1	9095A		6/11/2014	ESC	1
Reactive Cyanide	< 0.125	mg/kg	0.125	0.125	1	9012B		6/10/2014	ESC	1
Solids, Total %	82.9	%			1	2540G		6/7/2014	ESC	1
pH	6.9	su			1	EPA 9045D		6/6/2014	ESC	1
Chlorides, Unfiltered	680	mg/kg	0.8	12	1	9056		6/7/2014	ESC	1
Flash Point	> 170	Deg. F			1	D93		6/13/2014	ESC	1

**Project Name** VA PARKING STRUCTURE  
**Project #** 14776-002

**Invoice #** E27071

"J" Flag: Analyte detected between LOD and LOQ                      LOD Limit of Detection                      LOQ Limit of Quantitation

<i>Code</i>	<i>Comment</i>
1	Laboratory QC within limits.
2	Relative percent difference failed for laboratory spiked samples.
3	The matrix spike not within established limits.
8	Closing calibration standard not within established limits.
43	Oil contamination indicated outside DRO window.
49	Sample diluted to compensate for matrix interference.
	CWT denotes sub contract lab - Certification #445126660
	ESC denotes sub contract lab - Certification #998093910

All solid sample results reported on a dry weight basis unless otherwise indicated. All LOD's and LOQ's are adjusted for dilutions but not dry weight. Subcontracted results are denoted by SUB in the analyst field.

**Authorized Signature**

