11190 Sunrise Valley Drive
Suite 300
Reston, VA 20191
Main: 703 709 6500
www.wspgroup.com/usa

January 28, 2015

Erich Weissbart, P.G.
Land and Chemicals Division
U.S. Environmental Protection Agency, Region III
701 Mapes Road
Fort Meade, MD 20755

Re: Quarterly Status Report No. 4
Kop-Flex Voluntary Cleanup Site #31, Hanover, Maryland

Dear Erich:

WSP USA Corp., on behalf of Emerson and Kop-Flex, Inc., is submitting this progress report describing the investigation and remediation activities conducted in the fourth quarter 2014 at the Kop-Flex VCP site in Hanover, Maryland. The report also describes the activities planned for the first quarter 2015. If you have any questions, please do not hesitate to contact us at 703-709-6500.

Sincerely yours,

Robert E. Johnson, PhD.
Senior Technical Manager

REJ:rlo
k:\emerson\kop-flex\reporting\status reports\mde reports\2014\3705_012815rejrep_kopflex_progress_rpt_4_fin.docx

cc: Mr. Stephen Clarke, Emerson Electric Co.
Ms. Richelle Hanson, Maryland Department of the Environment

Enclosures

Progress Report No. 4

Kop-Flex VCP Site #31

October 2014 through December 2014

Site Name:	Kop-Flex Facility
Site Address:	7565 Harmans Road Hanover, Maryland 21076
Consultant:	WSP USA Corp.
Address:	11190 Sunrise Valley Dr., Suite 300 Reston, Virginia 20191
Phone No.:	(703) 709-6500
Site Coordinator:	Eric Johnson
Alternate:	Jim Bulman

1.0 Onsite Activities

The following activities were conducted during the Fourth Quarter 2014.

- As part of the review process for renewal of State Discharge Permit 15-DP-3442 and National Pollutant Discharge Elimination System Permit MD0069094, WSP met onsite with representatives of the Maryland Department of Environment (MDE) Water Management Administration during inspections conducted the week of December 1, 2014. In conjunction with these site visits, information was reviewed with MDE concerning both previous and planned discharges to surface water under the aforementioned permits. A report of findings from the NPDES storm water compliance inspection was electronically forwarded to WSP on December 11, 2014. WSP prepared and submitted a response to the inspection report on December 30, 2014.

- On December 2, 2014, an application for a Water Appropriation and Use Permit was submitted to the Anne Arundel County Department of Environmental Health. The permit is for the planned extraction of groundwater from the affected portions of the aquifer system as part of the future remedial activities at the site.

- A Groundwater Response Action Plan (RAP) Addendum was submitted to MDE and U.S. Environmental Protection Agency (EPA), Region III on December 3, 2014. The Groundwater RAP Addendum described the proposed remedial alternative for addressing volatile organic compounds (VOCs) present in the multi-aquifer system on the Kop-Flex property.

- All onsite monitoring wells, together with offsite well MW-24D on the adjoining Williams-Scotsman property, were sampled the week of December 8, 2014. This sampling event was a continuation of the semi-annual groundwater monitoring activities at the former Kop-Flex site.

  A synoptic round of water level measurements was obtained from both the on and off-property wells at the beginning of the sampling activities. A contour map of the groundwater surface, or water table, for the Surficial Aquifer at the former Kop-Flex site is shown in Figure 1. The hydraulic head contours indicate a generally westward flow direction toward Stony Run, which is consistent with the evaluation of previous hydrologic data from this portion of the aquifer system. Figure 2 depicts the potentiometric surface contours for the Lower Patapsco Aquifer based on the contouring of water level data from both

on and off-property deep monitoring wells. Evaluation of the hydraulic head data indicates a generally south-southeast flow path for groundwater in this deeper semi-confined aquifer.

The on-property well analytical results for the December 2014 groundwater monitoring event are presented in Table 1. (Copies of the laboratory reports for these samples are provided in Enclosure A.) Historical data (2009 through 2014) for the on-property monitoring wells are summarized in Table 2. For wells located north and west of the building, the December 2014 analytical results were similar to data from previous sampling events (Figure 3). The shallow (MW-03) and intermediate-depth (MW-18 and MW-39) perimeter wells continue to show no VOCs at levels of concern. The sampling data indicate site-related COCs are not migrating offsite in the Surficial Aquifer. VOC concentrations in samples from Surficial Aquifer wells installed east of the building are also generally consistent with previous monitoring results (Figure 3). Samples from shallow wells MW-02 and MW-04 and intermediate wells MW-16 and MW-20 showed minor decreases in levels of 1,4-dioxane and selected chlorinated VOCs. The MW-12 sample had a slightly higher 1,4-dioxane concentration, although this level was similar to previous monitoring data for this intermediate-depth well. VOC concentrations were similar for samples collected from the deep wells screened in the Lower Patapsco Aquifer (Figure 4). The only notable exception is the sample collected from well MW-17D near the southeast corner of the main manufacturing building, where the concentrations of 1,1,1-trichloroethane and its degradation products, and 1,4-dioxane showed appreciable reduction compared to previous data (Table 2).

2.0 Off-Property Activities

2.1 Offsite Monitoring Wells

- The recently installed off-property monitoring wells were sampled the week of December 15, 2014. The sampling of these wells was performed in conjunction with the onsite semi-annual groundwater monitoring event.

- The analytical results for the off-property monitoring well samples are presented in Table 3. (A copy of the laboratory report for these samples is provided in Enclosure B.) Historical sampling data for the off-property wells are summarized in Table 4. No site-related VOCs were detected in the samples from the two Surficial Aquifer wells (MW-25-40 and MW-28-45) (Figure 5). For the wells completed in the Lower Patapsco Aquifer, VOC concentrations in the sample from well MW-25-130 are slightly lower than the results for offsite well MW-24-128, which is located on the Williams-Scotsman property north of Maryland Route 100. The lower concentrations of VOCs in the sample from the deeper well at the MW-25 location (MW-25-192) is consistent with the vertical distribution of constituents determined from groundwater profiling at other deep monitoring well locations at the site. The sampling data for the deep monitoring wells located further to the south and east of the MW-25 location contained trace to very low concentrations of the site-related VOCs (Figure 5). Additionally, 1,4-dioxane was not detected in the sample collected from the southeastern-most well (MW-35-298) in the investigation area (Table 3). (This compound was detected at a concentration of 36.7 micrograms per liter in the September 2014 sample.) The December 2014 monitoring data appears to delineate the downgradient extent of the VOC plume associated with historical releases at the former Kop-Flex facility.

2.2 Residential Well Sampling

- Based on the September 2014 groundwater quality data for the off-property monitoring wells, MDE requested, via a November 11, 2014 e-mail message, that Emerson sample potable water supply wells within a 0.5-mile radius of wells MW-33-295 and MW-35-298. A total of 49 properties were identified within the search area by MDE; the locations of these properties are shown in Figure 6. Those properties with potable wells that were included in the previous (Phases 1 and 2) well sampling were excluded from the new (Phase 3) sampling activities. MDE distributed a letter to the property owners in November 2014 indicating the potential presence of VOC-affected water in the area and their recommendation to work with Emerson and WSP to sample any potable well on their property.

- Emerson and WSP sent, via Federal Express, access request letters to the property owners on December 2, 2014. This correspondence requested information concerning the well and treatment equipment for the home water system, along with written approval from the owner to access the property to collect the necessary water sample(s).

- On December 8 and December 18, 2014, water samples were collected from five of the six residences with potable wells identified for continued monitoring by MDE. The residential well located at 1012 Minnetonka Road was not sampled due to the inability to schedule the sampling event with the homeowner during this time period.

  The analytical results for the residential wells sampled on December 8, 2014, were received on December 18th, and the data for the sample collected on December 18th was received on January 5, 2015. Copies of the laboratory reporting sheets for these samples are included in Enclosures C and D. No site-related VOCs were detected above the applicable groundwater comparative criteria in any of the well samples.

- WSP began sampling of the Phase 3 residential wells on December 10, 2014. To date, water samples have been collected from 12 residential wells and the non-potable well at the U.S. Post Office branch on Reece Road. Six homeowners indicated there was no potable well on the property or declined to provide Emerson access to collect a water sample. The locations of the properties where sampling has been conducted to date are shown in Figure 6.

  Table 5 summarizes the analytical results for the 13 wells sampled during December 2014. Copies of the certified laboratory reports for these well samples are included in Enclosure D. No site-related VOCs have been detected in any of the well samples collected to date from the private wells in the Phase 3 area.

3.0 Planned Activities for Next Reporting Period (January 2015 – March 2015)

3.1 Onsite Activities

- Participate with representatives from MDE in a public informational meeting on January 29, 2015, for the renewal of the State Discharge Permit and NPDES Permit for the site.

- Respond to any information requests and/or review comments from MDE and/or USEPA related to agency review of the Groundwater RAP Addendum, NPDES Permit renewal application and Water Appropriation and Use Permit application.

3.2 Off-Property Activities

- Continue with activities related to the collection of water samples from residential wells in the Phase 3 area, and transmittal of the sampling results to the property/well owners and MDE.

- Submittal of a letter report to MDE summarizing the results of the quarterly 2014 sampling of the six designated residential wells and recommendations, if any, for future collection of water quality samples from all or some of these wells.

4.0 Key Personnel Changes

- There were no changes to key project personnel during the reporting period.

Figures

LEGEND

- SHALLOW MONITORING WELL LOCATION
- INTERMEDIATE MONITORING WELL LOCATION
- DEEP MONITORING WELL LOCATION
- *115.63* GROUNDWATER SURFACE ELEVATION (FEET MSL)
- GROUNDWATER SURFACE CONTOUR (DASHED WHERE INFERRED)
- INERRED GROUNDWATER FLOW

Stony Run

MW-25D-113

PARKING AREA

MW-07-22
113.85

MW-23D-92

PARKING AREA

MW-19-56

109 110 111 112 113 114

MW-03-25.5
108.75

OFFICES

MW-10-27
114.56

MW-09-25
113.83

MW-11-60

MW-38-28
110.94

FORMER MANUFACTURING BUILDING

MW-15-40
112.46

MW-04-36
113.89

MW-20-60

MW-08-42
113.93

MW-16-50
113.35

MW-16D-101

MW-2D-138

MW-02-40
114.00

EQUIPMENT BUILDING

MW-18-56

MW-05-31
111.00

OVERHEAD DOOR

EXISTING STORM SEWER MANHOLE

OVERHEAD DOOR

FORGE SHOP

MW-12-48
115.05

MW-14-47

MW-26D-105

MW-17-52
113.53

MW-17D-97

MW-22D-114

MACADAM DRIVE

MW-06-36
112.74

MW-21D-102

MW-1D-112

MW-01-36
114.42

N

0 120 240

SCALE IN FEET

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Checked: KJW 12/22/2014
Approved:
DWG Name: 00003705-192

KOP-FLEX
HANOVER, MARYLAND
PREPARED FOR
EMERSON
ST. LOUIS, MISSOURI

Figure 1

GROUNDWATER SURFACE CONTOUR MAP
SURFICIAL AQUIFER
DECEMBER 2014

WSP
WSP USA Corp.
11190 Sunrise Valley Drive, Suite 300
Reston, Virginia 20191
(703) 709-6500
www.wspgroup.com/usa

B

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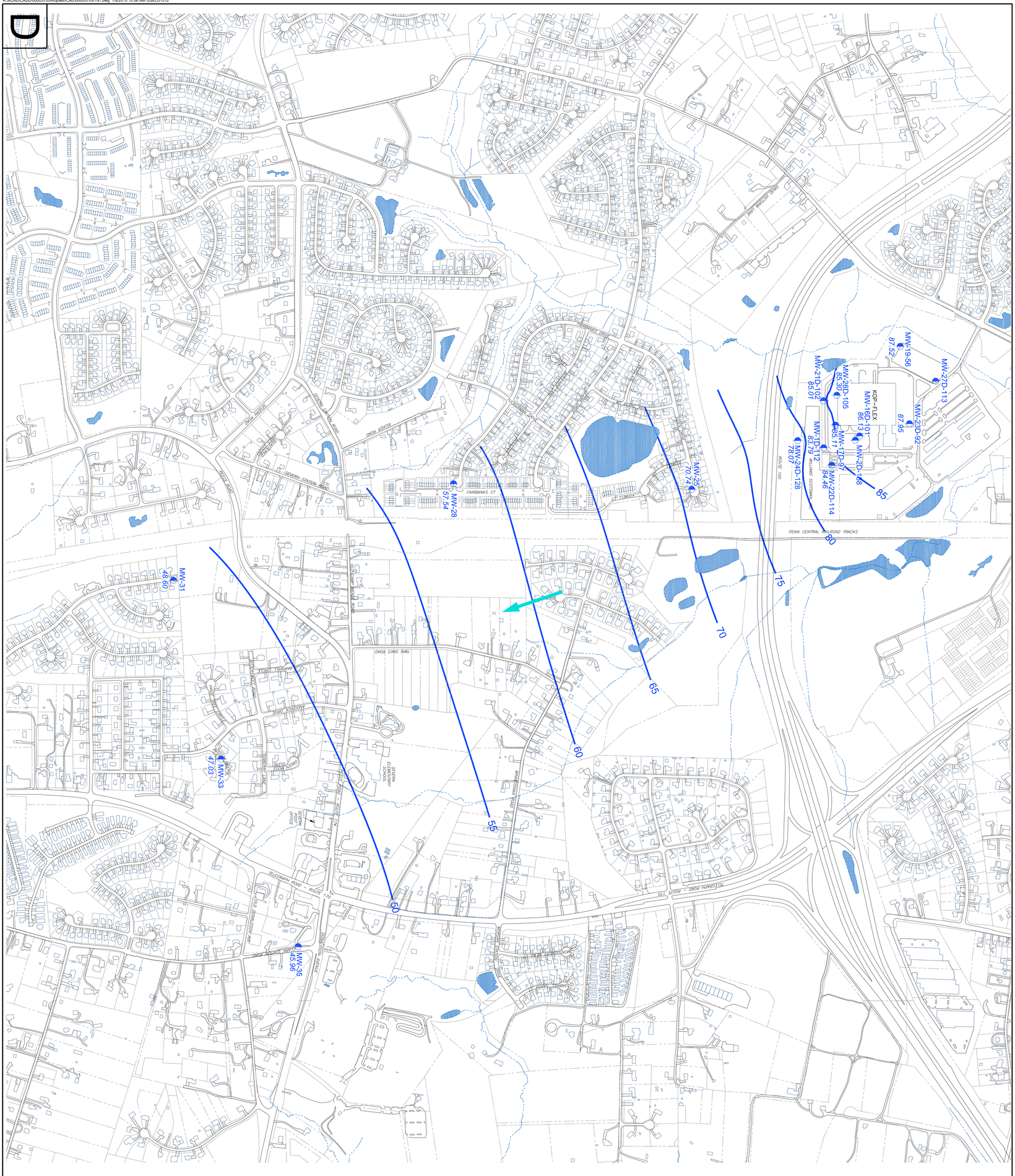

LEGEND

PROPERTY LINE

STREAM

WATER BODY

MONITORING WELL

45.96 GROUNDWATER SURFACE ELEVATION (FEET MSL)

GROUNDWATER SURFACE CONTOUR

INFERRED GROUNDWATER FLOW

0 400 800 1200

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Drawing Number

FIGURE 2

WSP USA Corp.
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Reston, Virginia 20191
(703) 709-6500
www.wspenvironmental.com/usa

POTENTIOMETRIC CONTOUR SURFACE MAP
LOWER PATAPSCO AQUIFER
DECEMBER 2014

KOP-FLEX VCP SITE
HANOVER, MARYLAND

PREPARED FOR

EMERSON
ST. LOUIS, MISSOURI

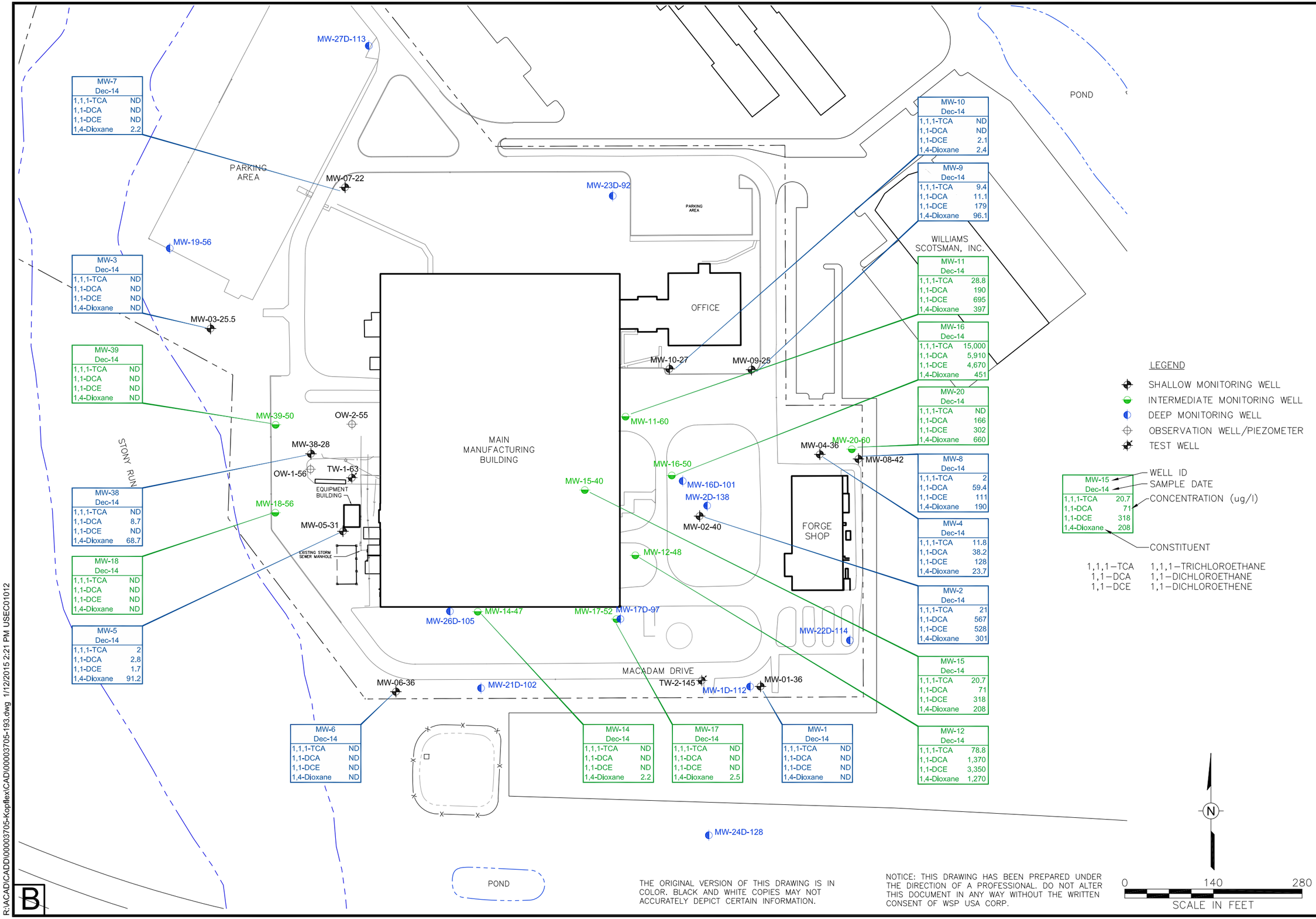
DRAWN BY	EGC
CHECKED	KJW 12/24/2014
APPROVED	

SEAL

DATE

REVISIONS

REV	DESCRIPTION		
1	Revised:	Chkd:	Appr.:
2	Revised:	Chkd:	Appr.:
3	Revised:	Chkd:	Appr.:



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Approved: RG
DWG Name: 00003705-193

KOP-FLEX
HANOVER, MARYLAND
PREPARED FOR
EMERSON
ST. LOUIS, MISSOURI

Figure 3

SURFICIAL AQUIFER MONITORING WELLS
GROUNDWATER SAMPLING DATA
DECEMBER 2014

WSP USA Corp.
11190 Sunrise Valley Drive, Suite 300
Reston, Virginia 20191
(703) 709-6500
www.wspgroup.com/usa

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B

MW-27D-113

MW-27D Dec-14	
1,1,1-TCA	ND
1,1-DCA	ND
1,1-DCE	ND
1,4-Dioxane	ND

MW-23D Dec-14	
1,1,1-TCA	26.5
1,1-DCA	28.3
1,1-DCE	157
1,4-Dioxane	151

POND

PARKING AREA

MW-07-22

MW-23D-92

PARKING AREA

MW-19 Dec-14	
1,1,1-TCA	ND
1,1-DCA	ND
1,1-DCE	4.0
1,4-Dioxane	4.2

MW-19-56

WILLIAMS SCOTSMAN, INC.

MW-03-25.5

OFFICE

MW-10-27

MW-09-25

MW-39-50

OW-2-55

MW-11-60

MW-38-28

MAIN MANUFACTURING BUILDING

MW-04-36

MW-20-60

MW-08-42

OW-1-56

TW-1-63

MW-16-50

MW-16D-101

MW-15-40

EQUIPMENT BUILDING

MW-18-56

MW-2D-138

MW-05-31

MW-02-40

FORGE SHOP

EXISTING STORM SEWER MANHOLE

MW-12-48

STONY RUN

MW-14-47

MW-17-52

MW-17D-97

MW-26D-105

MW-22D-114

MACADAM DRIVE

MW-06-36

MW-21D-102

TW-2-145

MW-01-36

MW-1D-112

MW-24D-128

POND

MW-16D Dec-14	
1,1,1-TCA	44.3
1,1-DCA	90
1,1-DCE	288
1,4-Dioxane	251

MW-2D Dec-14	
1,1,1-TCA	20.2
1,1-DCA	19.7
1,1-DCE	147
1,4-Dioxane	103

MW-22D Dec-14	
1,1,1-TCA	4.2
1,1-DCA	2
1,1-DCE	27
1,4-Dioxane	22.8

MW-26D Dec-14	
1,1,1-TCA	2.8
1,1-DCA	7.5
1,1-DCE	78
1,4-Dioxane	73

MW-21D Dec-14	
1,1,1-TCA	3.2
1,1-DCA	10.4
1,1-DCE	105
1,4-Dioxane	138

MW-17D Dec-14	
1,1,1-TCA	4.3
1,1-DCA	66.2
1,1-DCE	484
1,4-Dioxane	23.3

MW-1D Dec-14	
1,1,1-TCA	35.8
1,1-DCA	34
1,1-DCE	209
1,4-Dioxane	279

MW-24D Dec-14	
1,1,1-TCA	60.9
1,1-DCA	106
1,1-DCE	2,640
1,4-Dioxane	657

LEGEND

- SHALLOW MONITORING WELL
- INTERMEDIATE MONITORING WELL
- DEEP MONITORING WELL
- OBSERVATION WELL/PIEZOMETER
- TEST WELL

MW-2D Dec-14	
1,1,1-TCA	20.2
1,1-DCA	19.7
1,1-DCE	147
1,4-Dioxane	103

WELL ID
SAMPLE DATE
CONCENTRATION (ug/l)
CONSTITUENT

1,1,1-TCA 1,1,1-TRICHLOROETHANE
1,1-DCA 1,1-DICHLOROETHANE
1,1-DCE 1,1-DICHLOROETHENE

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Checked: ML 1/5/2015
Approved: RG
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KOP-FLEX
HANOVER, MARYLAND
PREPARED FOR
EMERSON
ST. LOUIS, MISSOURI

Figure 4

LOWER PATAPSCO AQUIFER MONITORING WELLS
GROUNDWATER SAMPLING DATA
DECEMBER 2014

WSP USA Corp.
11190 Sunrise Valley Drive, Suite 300
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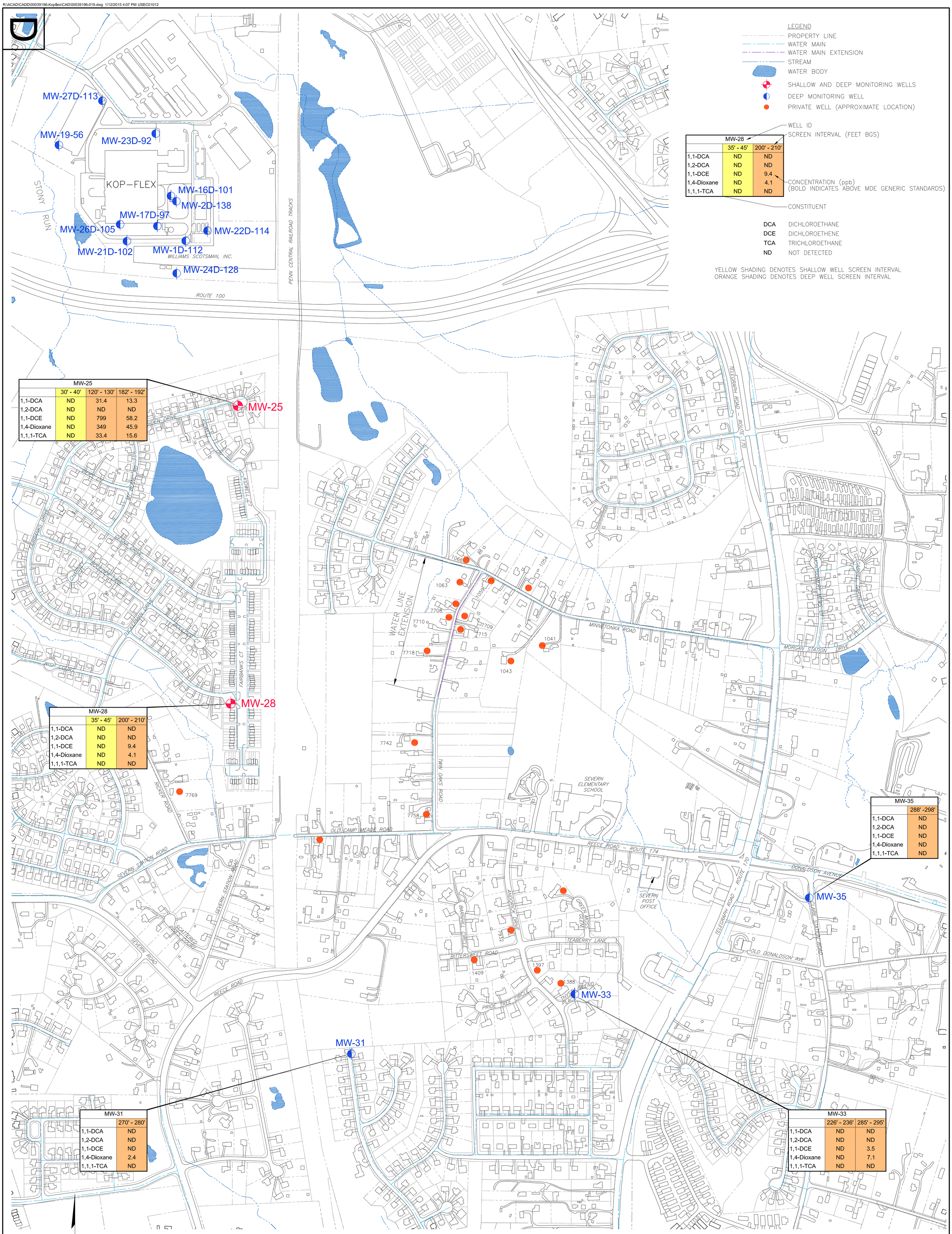

MW-28	35' - 45'	200' - 210'
1,1-DCA	ND	ND
1,2-DCA	ND	ND
1,1-DCE	ND	9.4
1,4-Dioxane	ND	4.1
1,1,1-TCA	ND	ND

MW-25	30' - 40'	120' - 130'	182' - 192'
1,1-DCA	ND	31.4	13.3
1,2-DCA	ND	ND	ND
1,1-DCE	ND	799	58.2
1,4-Dioxane	ND	349	45.9
1,1,1-TCA	ND	33.4	15.6

MW-28	35' - 45'	200' - 210'
1,1-DCA	ND	ND
1,2-DCA	ND	ND
1,1-DCE	ND	9.4
1,4-Dioxane	ND	4.1
1,1,1-TCA	ND	ND

MW-35	288' -298'
1,1-DCA	ND
1,2-DCA	ND
1,1-DCE	ND
1,4-Dioxane	ND
1,1,1-TCA	ND

MW-31	270' - 280'
1,1-DCA	ND
1,2-DCA	ND
1,1-DCE	ND
1,4-Dioxane	2.4
1,1,1-TCA	ND

MW-33	226' - 236'	285' - 295'
1,1-DCA	ND	ND
1,2-DCA	ND	ND
1,1-DCE	ND	3.5
1,4-Dioxane	ND	7.1
1,1,1-TCA	ND	ND

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FIGURE 5

WSP USA Corp.
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OFFSITE MONITORING WELL VOC CONCENTRATIONS DECEMBER 2014

KOP-FLEX VCP SITE
HANOVER, MARYLAND

PREPARED FOR

EMERSON
ST. LOUIS, MISSOURI

DRAWN BY	EGC	
CHECKED	MML	1/12/2015
APPROVED		

SEAL

DATE

REVISIONS

REV	DESCRIPTION		
1	Revised:	Chkd:	Appr.:
2	Revised:	Chkd:	Appr.:
3	Revised:	Chkd:	Appr.:

REFERENCE:
PARCEL INFORMATION OBTAINED FROM ANNE ARUNDEL COUNTY, DEPARTMENT OF PUBLIC WORKS
http://gis-world2.aacounty.org/DPWcounter/countermap.html

LOCATION MAP
SCALE: 1"=1200'

LEGEND
- PROPERTY LINE
- WATER MAIN
- WATER MAIN EXTENSION
- STREAM
- WATER BODY
- DEEP MONITORING WELL
- 7836 STREET NUMBER (FROM PROPERTY ADDRESS)
- MDE IDENTIFIED POTABLE WELL LOCATION
- SAMPLED WELL LOCATION
- NO WELL OR REFUSED SAMPLING

MW-31
MW-33
MW-35

N

0 250 500 750
SCALE IN FEET

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D

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REV	DESCRIPTION	Appr.
1	Revised: Chkd:	Appr.:
2	Revised: Chkd:	Appr.:
3	Revised: Chkd:	Appr.:

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DATE

PHASE 3 RESIDENTIAL
WELL SAMPLE LOCATIONS

KOP-FLEX VCP SITE
HANOVER, MARYLAND
PREPARED FOR
EMERSON
ST. LOUIS, MISSOURI

WSP USA Corp.
11190 Sunrise Valley Drive, Suite 300
Reston, Virginia 20191
(703) 709-6500
www.wspgroup.com/usa

FIGURE 6

Drawing Number
00003705-194

Tables

Table 1

Summary of Onsite Monitoring Well Results
December 2014 Sampling Event
Kop-Flex VCP Site
Hanover, Maryland

Analyte (b)	MDE Groundwater Quality Criteria (ug/L)	MW-01-36 12/3/2014	MW-01D-112 12/4/2014	MW-02-40 12/5/2014	MW-101 12/5/2014	MW-02D-138 12/5/2014	MW-03-25.5 12/2/2014	MW-04-36 12/4/2014	MW-05-31 12/4/2014
1,1,1-Trichloroethane	200	1 U	35.8	21.1	24.2	20.2	1 U	11.8	2.0
1,1-Dichloroethane	90	1 U	34.0	**567**	**740**	19.7	1 U	38.2	2.8
1,1-Dichloroethene	7	1 U	**209**	**528**	**657**	**147**	1 U	**128**	1.7
1,2-Dichloroethane	5	1 U	4.0	**7.1**	**8.3**	1.8	1 U	2 U	1 U
Trichloroethene	5	1 U	2.5 U	**5.8**	**6.5**	1 U	1 U	2 U	1 U
1,4-Dioxane	6.7	2 U	**279**	**301**	**310**	**103**	2 U	**23.7**	**91.2**
Tetrachloroethene	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U

a/ U = not detected at a concentration above the method detection limit.
Bolded number indicates concentration above the groundwater quality criteria.
b/ All concentrations in micrograms per liter (µg/l)
c/ Sample and Duplicate
The duplicate of MW-26D-105 is identified as MW-100.
The duplicate of MW-02-40 is identified as MW-101.
d/ MDE Groundwater Quality Criteria sources:
http://www.mde.maryland.gov/assets/document/Final%20Update%20No%202.1%20dated%205-20-08(1).pdf

Table 1

Summary of Onsite Monitoring Well Results
December 2014 Sampling Event
Kop-Flex VCP Site
Hanover, Maryland

Analyte (b)	MDE Groundwater Quality Criteria (ug/L)	MW-06-36 12/2/2014	MW-07-22 12/2/2014	MW-08-42 12/3/2014	MW-09-25 12/3/2014	MW-10-27 12/3/2014	MW-11-60 12/5/2014	MW-12-48 12/5/2014	MW-14-47 12/3/2014
1,1,1-Trichloroethane	200	1 U	1 U	2.0	9.4	1 U	28.8	78.8	1 U
1,1-Dichloroethane	90	1 U	1 U	59.4	11.1	1 U	**190**	**1,370**	1 U
1,1-Dichloroethene	7	1 U	1 U	**111**	**179**	2.1	**695**	**3,350**	1 U
1,2-Dichloroethane	5	1 U	1 U	1.6	1.4	1 U	**10** U	**37.5**	1 U
Trichloroethene	5	1 U	1 U	1.3	1 U	1 U	**10** U	**25** U	1 U
1,4-Dioxane	6.7	2 U	2.2	**190**	**96.1**	2.4	**397**	**1270**	2.2
Tetrachloroethene	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U

a/ U = not detected at a concentration above the method detection limit.
Bolded number indicates concentration above the groundwater quality criteria.
b/ All concentrations in micrograms per liter (µg/l)
c/ Sample and Duplicate
The duplicate of MW-26D-105 is identified as MW-100.
The duplicate of MW-02-40 is identified as MW-101.
d/ MDE Groundwater Quality Criteria sources:
http://www.mde.maryland.gov/assets/document/
Final%20Update%20No%202.1%20dated%205-20-08(1).pdf

Table 1

Summary of Onsite Monitoring Well Results
December 2014 Sampling Event
Kop-Flex VCP Site
Hanover, Maryland

Analyte (b)	MDE Groundwater Quality Criteria (ug/L)	MW-15-40 12/4/2014	MW-16-50 12/5/2014	MW-16D-101 12/5/2014	MW-17-52 12/5/2014	MW-17D-97 12/5/2014	MW-18-56 12/3/2014	MW-19-56 12/2/2014	MW-20-60 12/4/2014
1,1,1-Trichloroethane	200	20.7	**15,000**	44.3	1 U	4.3	1 U	1 U	4 U
1,1-Dichloroethane	90	71	**5,910**	90.0	1 U	66.2	1 U	1 U	**166**
1,1-Dichloroethene	7	**318**	**4,670**	**288**	1 U	**484**	1 U	4.0	**302**
1,2-Dichloroethane	5	4 U	**18.9**	4.1	1 U	4.6	1 U	1 U	**9.3**
Trichloroethene	5	4 U	**63.8**	1.8	1 U	2.9	1 U	1 U	4 U
1,4-Dioxane	6.7	**208**	**451**	**251**	2.5	**23.3**	2 U	4.2	**660**
Tetrachloroethene	5	1 U	30.7	1 U	1 U	1 U	1 U	1 U	1 U

a/ U = not detected at a concentration above the method detection limit.
Bolded number indicates concentration above the groundwater quality criteria.
b/ All concentrations in micrograms per liter (µg/l)
c/ Sample and Duplicate
The duplicate of MW-26D-105 is identified as MW-100.
The duplicate of MW-02-40 is identified as MW-101.
d/ MDE Groundwater Quality Criteria sources:
http://www.mde.maryland.gov/assets/document/Final%20Update%20No%202.1%20dated%205-20-08(1).pdf

Table 1

Summary of Onsite Monitoring Well Results
December 2014 Sampling Event
Kop-Flex VCP Site
Hanover, Maryland

Analyte (b)	MDE Groundwater Quality Criteria (ug/L)	MW-21D-102 12/3/2014	MW-22D-114 12/4/2014	MW-23D-92 12/2/2014	MW-26D-105 12/3/2014	MW-100 € 12/3/2014	MW-27D-113 12/2/2014	MW-38-28 12/4/2014	MW-39-50 12/2/2014
1,1,1-Trichloroethane	200	3.2	4.2	26.5	2.8	2.6	1 U	1 U	1 U
1,1-Dichloroethane	90	10.4	2.0	28.3	7.5	6.9	1 U	8.7	1 U
1,1-Dichloroethene	7	**105**	**27.0**	**157**	**78.1**	**72.9**	1 U	1 U	1 U
1,2-Dichloroethane	5	1 U	1 U	1.9	1 U	1 U	1 U	1 U	1 U
Trichloroethene	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,4-Dioxane	6.7	**138**	**22.8**	**151**	**73.0**	**70.5**	2 U	**68.7**	2 U
Tetrachloroethene	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U

a/ U = not detected at a concentration above the method detection limit.
Bolded number indicates concentration above the groundwater quality criteria.
b/ All concentrations in micrograms per liter (µg/l)
c/ Sample and Duplicate
The duplicate of MW-26D-105 is identified as MW-100.
The duplicate of MW-02-40 is identified as MW-101.
d/ MDE Groundwater Quality Criteria sources:
http://www.mde.maryland.gov/assets/document/
Final%20Update%20No%202.1%20dated%205-20-08(1).pdf

Table 2

Summary of COCs Detected in Groundwater Samples (2009 - 2014)
On-Property Monitoring Wells
Kop-Flex VCP Site
Hanover, Maryland (a)

Monitoring Well		Acetone	Benzene	Bromoform	2-Butanone (MEK)	Chloroethane	Chloroform	Chloromethane	1,2-Dichlorobenzene	1,3-Dichlorobenzene	1,1-Dichloroethane	1,2-Dichloroethane	1,1-Dichloroethene	1,2-Dichloroethene	cis-1,2-Dichloroethene	1,4- Dioxane
MW-01-36																
	May-09	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NR	NA
	Oct-09	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NR	NA
	May-10	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NR	NA
	Oct-10	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NR	NA
	Jun-11	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NR	NA
	Dec-11	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NR	ND	NA
	Jun-12	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NR	ND	NA
	Dec-12	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NR	ND	NA
	Jul-13	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NR	ND	ND
	Dec-13	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NR	ND	ND
	Jun-14	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NR	ND	11.6
	Dec-14	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NR	ND	ND
MW-01D-112																
	Jun-12	ND	ND	ND	ND	ND	ND	ND	ND	ND	63	ND	310	NR	ND	430
	Dec-12	ND	ND	ND	ND	ND	ND	ND	ND	ND	77	6.4	380	NR	ND	422
	Jul-13	ND	ND	ND	ND	ND	ND	ND	ND	ND	70.9	6.2	389	NR	ND	439.0
	Dec-13 (g)	ND	ND	ND	ND	ND	ND	ND	ND	ND	45.2	4.40	288	NR	ND	290.0
	Jun-14 (g)	ND	ND	ND	ND	ND	ND	ND	ND	ND	45.7	4.70	320	NR	ND	326.0
	Dec-14 (n)	ND	ND	ND	ND	ND	ND	ND	ND	ND	34.0	4.00	209	NR	ND	279.0
MW-02-40																
	May-09	ND	ND	ND	ND	120	ND	ND	ND	ND	1,200	9	600	7	NR	NA
	Oct-09	ND	ND	ND	17	240	ND	ND	ND	ND	2,900	12	1,200	12	NR	NA
	May-10	ND	ND	ND	ND	ND	ND	ND	ND	ND	3,200	16	1,800	15	NR	NA
	Oct-10	ND	ND	ND	ND	ND	ND	ND	ND	ND	3,400	15	2,000	13	NR	NA
	Jun-11	ND	ND	ND	ND	280	ND	ND	ND	ND	3,300	ND	2,200	ND	NR	NA
	Nov-11	ND	ND	ND	22	130	1	ND	ND	ND	1,600	15	1,800	NR	9	1140
	Jun-12 (d)	ND	ND	ND	ND	ND	ND	ND	ND	ND	1,900	ND	1,900	NR	ND	983
	Dec-12	ND	ND	ND	ND	62	ND	ND	ND	ND	880	10	820	NR	5.8	747
	Jul-13	ND	ND	ND	7	47.6	ND	ND	ND	ND	755	10.3	890	NR	5.6	933.0
	Dec-13 (h)	ND	ND	ND	ND	29	ND	ND	ND	ND	486.0	5.60	457	NR	ND	671.0
	Jun-14 (h)	ND	ND	ND	ND	28.7	ND	ND	ND	ND	643.0	8.50	678	NR	ND	629.0
	Dec-14 (h)	ND	ND	ND	ND	29	ND	ND	ND	ND	567	7	528	NR	ND	301
MW-02D-138																
	Jul-11	ND	ND	ND	ND	ND	ND	ND	ND	ND	16	2	120	ND	NR	NA
	Nov-11	ND	ND	ND	ND	ND	ND	ND	ND	ND	17	2	130	NR	ND	116
	Jun-12	ND	ND	ND	ND	ND	ND	ND	ND	ND	16	ND	130	NR	ND	118
	Dec-12	ND	ND	ND	ND	ND	ND	ND	ND	ND	17	2.0	130	NR	ND	101
	Jul-13	ND	ND	ND	ND	ND	ND	ND	ND	ND	18.5	2.1	170	NR	ND	130.0
	Dec-13	ND	ND	ND	ND	ND	ND	ND	ND	ND	13.0	1.50	118	NR	ND	109.0

Table 2

Summary of COCs Detected in Groundwater Samples (2009 - 2014)
On-Property Monitoring Wells
Kop-Flex VCP Site
Hanover, Maryland (a)

Monitoring Well		Acetone	Benzene	Bromoform	2-Butanone (MEK)	Chloroethane	Chloroform	Chloromethane	1,2-Dichlorobenzene	1,3-Dichlorobenzene	1,1-Dichloroethane	1,2-Dichloroethane	1,1-Dichloroethene	1,2-Dichloroethene	cis-1,2-Dichloroethene	1,4- Dioxane
	Jun-14	ND	ND	ND	ND	ND	ND	ND	ND	ND	19.7	1.80	166	NR	ND	121.0
	Dec-14	ND	ND	ND	ND	ND	ND	ND	ND	ND	19.7	1.80	147	NR	ND	103.0
MW-03-25.5																
	May-09	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NR	NA
	Oct-09	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NR	NA
	May-10	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NR	NA
	Oct-10	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NR	NA
	Jun-11	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NR	NA
	Nov-11	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NR	ND	ND
	Jun-12	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NR	ND	ND
	Dec-12	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NR	ND	ND
	Jul-13	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NR	ND	ND
	Dec-13	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NR	ND	ND
	Jun-14	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NR	ND	ND
	Dec-14	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NR	ND	ND
MW-04-36																
	May-09	ND	ND	ND	ND	ND	ND	ND	ND	ND	130	ND	350	ND	NR	NA
	Oct-09	ND	ND	ND	ND	ND	ND	ND	ND	ND	150	ND	410	3	NR	NA
	May-10	ND	ND	ND	ND	ND	ND	ND	ND	ND	290	8	1,100	ND	NR	NA
	Oct-10	ND	ND	ND	ND	ND	ND	ND	ND	ND	130	3	360	ND	NR	NA
	Jun-11	ND	ND	ND	ND	ND	ND	ND	ND	ND	81	2	200	ND	NR	NA
	Dec-11	ND	ND	ND	ND	ND	ND	ND	ND	ND	87	2	250	NR	ND	212
	Jun-12	ND	ND	ND	ND	ND	ND	ND	ND	ND	68	ND	180	NR	ND	158
	Dec-12	ND	ND	ND	ND	ND	ND	ND	ND	ND	100	2	210	NR	ND	188
	Jul-13	ND	ND	ND	ND	ND	ND	ND	ND	ND	108	2.3	233	NR	ND	232.0
	Dec-13	ND	ND	ND	ND	ND	ND	ND	ND	ND	67.0	1.40	188	NR	ND	178.0
	Jun-14	ND	ND	ND	ND	ND	1.3	ND	ND	ND	198.0 (c)	7.20	908 (c)	NR	ND	456.0
	Dec-14 (g)	ND	ND	ND	ND	ND	ND	ND	ND	ND	38.2	ND	128	NR	ND	23.7
MW-05-31																
	May-09	ND	ND	ND	ND	ND	ND	ND	ND	ND	9	ND	4	ND	NR	NA
	Oct-09	ND	ND	ND	ND	ND	ND	ND	ND	ND	11	ND	5	ND	NR	NA
	May-10	ND	ND	ND	ND	ND	ND	ND	ND	ND	12	ND	7	ND	NR	NA
	Oct-10	ND	ND	ND	ND	ND	ND	ND	ND	ND	8	ND	4	ND	NR	NA
	Jun-11	ND	ND	ND	ND	ND	ND	ND	ND	ND	7	ND	3	ND	NR	NA
	Dec-11	ND	ND	ND	ND	ND	ND	ND	ND	ND	4.1	ND	ND	NR	ND	246
	Jun-12	ND	ND	ND	ND	ND	ND	ND	ND	ND	7	ND	ND	NR	ND	211
	Dec-12	ND	ND	ND	ND	ND	ND	ND	ND	ND	3.4	ND	ND	NR	ND	245
	Jul-13	ND	ND	ND	ND	ND	ND	ND	ND	ND	3.3	ND	2.2	NR	ND	205.0
	Dec-13	ND	ND	ND	ND	ND	ND	ND	ND	ND	2.9	ND	1.5	NR	ND	137.0
	Jun-14	ND	ND	ND	ND	ND	ND	ND	ND	ND	3.0	ND	1.9	NR	ND	92.3

Table 2

Summary of COCs Detected in Groundwater Samples (2009 - 2014)
On-Property Monitoring Wells
Kop-Flex VCP Site
Hanover, Maryland (a)

Monitoring Well		Acetone	Benzene	Bromoform	2-Butanone (MEK)	Chloroethane	Chloroform	Chloromethane	1,2-Dichlorobenzene	1,3-Dichlorobenzene	1,1-Dichloroethane	1,2-Dichloroethane	1,1-Dichloroethene	1,2-Dichloroethene	cis-1,2-Dichloroethene	1,4- Dioxane
	Dec-14	ND	ND	ND	ND	ND	ND	ND	ND	ND	2.8	ND	1.7	NR	ND	91.2
MW-06-36																
	May-09	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NR	NA
	Oct-09	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NR	NA
	May-10	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NR	NA
	Oct-10	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NR	NA
	Jun-11	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NR	NA
	Dec-11	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NR	ND	ND
	Jun-12	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NR	ND	ND
	Dec-12	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NR	ND	ND
	Jul-13	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NR	ND	ND
	Dec-13	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NR	ND	ND
	Jun-14	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NR	ND	ND
	Dec-14	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NR	ND	ND
MW-07-22																
	May-09	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NR	NA
	Oct-09	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NR	NA
	May-10	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NR	NA
	Oct-10	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NR	NA
	Jun-11	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NR	NA
	Dec-11	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NR	ND	ND
	Jun-12	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NR	ND	ND
	Dec-12	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NR	ND	ND
	Jul-13	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NR	ND	ND
	Dec-13	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NR	ND	2.4
	Jun-14	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NR	ND	ND
	Dec-14	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NR	ND	2.2
MW-08-42																
	May-09	ND	ND	ND	ND	ND	ND	ND	ND	ND	210	5	250	1	NR	NA
	Oct-09	ND	ND	ND	ND	ND	ND	ND	ND	ND	260	5	310	1	NR	NA
	May-10	ND	ND	ND	ND	ND	ND	ND	ND	ND	249	5	240	1	NR	NA
	Oct-10	ND	ND	ND	ND	ND	ND	ND	ND	ND	170	3	200	ND	NR	NA
	Jun-11	ND	ND	ND	ND	ND	3	ND	ND	ND	300	6	350	1	NR	NA
	Dec-11	ND	ND	ND	ND	ND	2	ND	ND	ND	140	3	190	NR	ND	361
	Jun-12 (g)	ND	ND	ND	ND	ND	ND	ND	ND	ND	140	ND	150	NR	ND	445
	Dec-12	ND	ND	ND	ND	ND	ND	ND	ND	ND	180	4.1	210	NR	ND	418
	Jul-13	ND	ND	ND	ND	ND	1.1	ND	ND	ND	164	4.4	208	NR	1.2	456.0
	Dec-13	ND	ND	ND	ND	ND	1.2	ND	ND	ND	78.2	2.00	129	NR	ND	254.0
	Jun-14	ND	ND	ND	ND	ND	ND	ND	ND	ND	89.9	1.90	142	NR	ND	219.0
	Dec-14	ND	ND	ND	ND	ND	ND	ND	ND	ND	59.4	1.60	111	NR	ND	190.0

Table 2

Summary of COCs Detected in Groundwater Samples (2009 - 2014)
On-Property Monitoring Wells
Kop-Flex VCP Site
Hanover, Maryland (a)

Monitoring Well		Acetone	Benzene	Bromoform	2-Butanone (MEK)	Chloroethane	Chloroform	Chloromethane	1,2-Dichlorobenzene	1,3-Dichlorobenzene	1,1-Dichloroethane	1,2-Dichloroethane	1,1-Dichloroethene	1,2-Dichloroethene	cis-1,2-Dichloroethene	1,4- Dioxane
MW-09-25																
	May-09	ND	ND	ND	ND	ND	1	ND	ND	ND	17	2	250	ND	NR	NA
	Oct-09	ND	ND	ND	ND	ND	1	ND	ND	ND	18	ND	300	ND	NR	NA
	May-10	ND	ND	ND	ND	ND	ND	ND	ND	ND	16	2	240	ND	NR	NA
	Jun-11	ND	ND	ND	ND	ND	ND	ND	ND	ND	16	2	290	ND	NR	NA
	Nov-11	ND	ND	ND	ND	ND	ND	ND	ND	ND	14	1	220	NR	ND	86
	Jun-12	ND	ND	ND	ND	ND	ND	ND	ND	ND	8	ND	160	NR	ND	71.3
	Dec-12	ND	ND	ND	ND	ND	ND	ND	ND	ND	12	1.2	150	NR	ND	69.2
	Jul-13	ND	ND	ND	ND	ND	ND	ND	ND	ND	10.9	1.2	170	NR	ND	69.5
	Dec-13	ND	ND	ND	ND	ND	ND	ND	ND	ND	10.5	1.30	181	NR	ND	97.7
	Jun-14	ND	ND	ND	ND	ND	ND	ND	ND	ND	8.5	1.20	193	NR	ND	53.9
	Dec-14	ND	ND	ND	ND	ND	ND	ND	ND	ND	11.1	1.40	179	NR	ND	96.1
MW-10-27																
	May-09	ND	ND	ND	ND	ND	6	ND	ND	ND	ND	ND	4	ND	NR	NA
	Oct-09	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	3	ND	NR	NA
	May-10	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	4	ND	NR	NA
	Oct-10	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	3	ND	NR	NA
	Jun-11	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	4	ND	NR	NA
	Nov-11	ND	ND	ND	ND	ND	4	ND	ND	ND	ND	ND	4	NR	ND	ND
	Jun-12	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NR	ND	3.3
	Dec-12	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	2.4	NR	ND	ND
	Jul-13	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	2.9	NR	ND	ND
	Dec-13	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.9	NR	ND	3.4
	Jun-14	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	2.3	NR	ND	13.1
	Dec-14	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	2.1	NR	ND	2.4
MW-11-60																
	May-09	ND	ND	ND	ND	ND	ND	ND	ND	ND	67	9	740	2	NR	NA
	Oct-09	ND	ND	ND	ND	38	2	ND	ND	ND	620	16	2,100	8	NR	NA
	May-10	ND	ND	ND	ND	ND	ND	ND	ND	ND	130	10	750	3	NR	NA
	Oct-10	ND	ND	ND	ND	ND	ND	ND	ND	ND	110	9	540	2	NR	NA
	Jun-11	ND	ND	ND	ND	ND	ND	ND	ND	ND	94	8	720	2	NR	NA
	Dec-11	ND	ND	ND	ND	ND	ND	ND	ND	ND	60	7	430	NR	ND	575
	Jun-12 (h)	ND	ND	ND	ND	ND	ND	ND	ND	ND	130	ND	730	NR	ND	487
	Dec-12	ND	ND	ND	ND	40	1.9	ND	ND	ND	1,000	20	1,800	NR	12	1,160
	Jul-13	ND	ND	ND	ND	11.6	1.4	ND	ND	ND	403	13	1,360	NR	7.2	787.0
	Dec-13 (c)	ND	ND	ND	ND	38.1	ND	ND	ND	ND	742.0	12.80	1,520	NR	10.5	1,000.0
	Jun-14 (m)	ND	ND	ND	ND	ND	ND	ND	ND	ND	75.2	4.90	442	NR	ND	372.0
	Dec-14 (c)	ND	ND	ND	ND	ND	ND	ND	ND	ND	190.0	ND	695	NR	ND	397.0
MW-12-48																
	May-09	ND	ND	ND	ND	7	2	ND	ND	ND	840	29	2,200	22	NR	NA

Table 2

Summary of COCs Detected in Groundwater Samples (2009 - 2014)
On-Property Monitoring Wells
Kop-Flex VCP Site
Hanover, Maryland (a)

Monitoring Well		Acetone	Benzene	Bromoform	2-Butanone (MEK)	Chloroethane	Chloroform	Chloromethane	1,2-Dichlorobenzene	1,3-Dichlorobenzene	1,1-Dichloroethane	1,2-Dichloroethane	1,1-Dichloroethene	1,2-Dichloroethene	cis-1,2-Dichloroethene	1,4- Dioxane
	Oct-09	ND	ND	ND	ND	5	1	ND	ND	ND	680	21	1,900	16	NR	NA
	May-10	ND	ND	ND	ND	ND	ND	ND	ND	ND	1,100	20	2,300	25	NR	NA
	Oct-10	ND	ND	ND	ND	ND	ND	ND	ND	ND	610	26	2,200	19	NR	NA
	Jun-11	ND	ND	ND	ND	11	2	ND	ND	ND	750	34	2,800	24	NR	NA
	Nov-11	ND	ND	ND	ND	6	3	ND	ND	ND	440	39	2,400	NR	22	1,550
	Jun-12 (c)	ND	ND	ND	ND	ND	ND	ND	ND	ND	430	ND	1,700	NR	ND	1,130
	Dec-12	ND	ND	ND	ND	30	2.0	ND	ND	ND	460	31	1,600	NR	19	1,240
	Jul-13	ND	ND	ND	ND	152	2.1	ND	ND	ND	869	39.2	2,840	NR	35.2	1,530.0
	Dec-13 (l)	ND	ND	ND	ND	52	ND	ND	ND	ND	439.0	26.20	1,530	NR	ND	1,720.0
	Jun-14 (c)	ND	ND	ND	ND	83.6	ND	ND	ND	ND	1,210.0	43.50	3,510	NR	33.2	182.0
	Dec-14 (i)	ND	ND	ND	ND	145.0	ND	ND	ND	ND	1,370.0	37.50	3,350	NR	34.8	1,270.0
MW-14-47																
	May-09	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NR	NA
	Oct-09	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	3	ND	NR	NA
	May-10	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	5	ND	NR	NA
	Oct-10	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	3	ND	NR	NA
	Jun-11	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	5	ND	NR	NA
	Nov-11	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	5.8	NR	ND	6.9
	Jun-12	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	5	NR	ND	7.4
	Dec-12	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NR	ND	3.6
	Jul-13	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	2.6	NR	ND	3.0
	Dec-13	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NR	ND	ND
	Jun-14	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	2.2	NR	ND	3.3
	Dec-14	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NR	ND	2.2
MW-15-40																
	Sep-10	ND	ND	ND	ND	4	1	ND	ND	ND	370	16	1,300	9	NR	NA
	Oct-10	ND	ND	ND	ND	ND	ND	ND	ND	ND	180	9	670	5	NR	NA
	Jun-11	ND	ND	ND	ND	8	ND	ND	ND	ND	210	3	300	2	NR	NA
	Dec-11	ND	ND	ND	ND	4	ND	ND	ND	ND	190	7	530	NR	3	345
	Jun-12 (h)	ND	ND	ND	ND	ND	ND	ND	ND	ND	200	ND	500	NR	ND	575
	Dec-12	ND	ND	ND	ND	11	ND	ND	ND	ND	320	5.2	540	NR	4.2	272
	Jul-13	ND	ND	ND	ND	ND	ND	ND	ND	ND	153	ND	465	NR	5.5	2,530.0
	Dec-13 (g)	ND	ND	ND	ND	3	ND	ND	ND	ND	181.0	3.00	289	NR	2.8	228.0
	Jun-14 (n)	ND	ND	ND	ND	ND	ND	ND	ND	ND	57.0	4.40	433 (c)	NR	5.8	92.8
	Dec-14 (m)	ND	ND	ND	ND	ND	ND	ND	ND	ND	71.0	ND	318	NR	ND	208.0
MW-16-50																
	Sep-10	ND	ND	ND	23	480	13	6	3	ND	8,300	57	16,000	67	NR	NA
	Oct-10	ND	ND	ND				ND	ND	ND	4,900	42	12,000	52	NR	NA
	Jun-11	ND	ND	ND	ND	660	ND	ND	ND	ND	3,400	ND	19,000	ND	NR	NA
	Dec-11	ND	ND	ND	23	560	7	ND	1.7	ND	8,200	53	18,000	NR	59	1,930

Table 2

Summary of COCs Detected in Groundwater Samples (2009 - 2014)
On-Property Monitoring Wells
Kop-Flex VCP Site
Hanover, Maryland (a)

Monitoring Well		Acetone	Benzene	Bromoform	2-Butanone (MEK)	Chloroethane	Chloroform	Chloromethane	1,2-Dichlorobenzene	1,3-Dichlorobenzene	1,1-Dichloroethane	1,2-Dichloroethane	1,1-Dichloroethene	1,2-Dichloroethene	cis-1,2-Dichloroethene	1,4- Dioxane
	Jun-12 (f)	ND	ND	ND	ND	ND	ND	ND	ND	ND	4,300	ND	11,000	NR	ND	2,050
	Dec-12	ND	ND	ND	18	460	5.8	ND	1.3	1.1	14,000	52	14,000	NR	56	1,740
	Jul-13	46.5	ND	1.8	ND	1,290	7.2	2.7	1.4	ND	3,600	61.3	17,900	NR	59.1	2,260.0
	Dec-13 (k)	ND	ND	ND	ND	266	ND	ND	ND	ND	2,050.0	ND	19,400	NR	ND	2,840.0
	Jun-14 (k)	ND	ND	ND	ND	278	ND	ND	ND	ND	3,850.0	ND	16,400	NR	ND	1,570.0
	Dec-14	ND	ND	ND	17	ND	2.2	ND	ND	ND	5,910.0 (p)	18.90	4,670 (p)	NR	32.6	451.0
MW-16D-101																
	Jan-11	ND	ND	ND	ND	3	4	ND	ND	ND	110	4	330	ND	NR	NA
	Jun-11	ND	ND	ND	ND	ND	ND	ND	ND	ND	100	4	400	ND	NR	NA
	Dec-11	ND	2	ND	ND	ND	ND	ND	ND	ND	72	4	240	NR	ND	267
	Jun-12	ND	ND	ND	ND	ND	ND	ND	ND	ND	49	ND	150	NR	ND	215
	Dec-12	ND	1.3	ND	ND	ND	ND	ND	ND	ND	55	3	130	NR	ND	189
	Jul-13	ND	ND	ND	ND	ND	ND	ND	ND	ND	54.3	3	193	NR	ND	246.0
	Dec-13	ND	ND	ND	ND	ND	ND	ND	ND	ND	43.2	2.20	155	NR	ND	218.0
	Jun-14	ND	ND	ND	ND	ND	ND	ND	ND	ND	57.6	3.50	191	NR	ND	232.0
	Dec-14	ND	ND	ND	ND	ND	ND	ND	ND	ND	90.0	4.10 (n)	288	NR	ND	251.0
MW-17-52																
	Sep-10	ND	ND	ND	ND	ND	ND	ND	ND	ND	10	ND	7	ND	NR	NA
	Oct-10	ND	ND	ND	ND	ND	ND	ND	ND	ND	3	ND	5	ND	NR	NA
	Jun-11	ND	ND	ND	ND	ND	ND	ND	ND	ND	2	ND	2	ND	NR	NA
	Nov-11	ND	ND	ND	ND	1	ND	ND	ND	ND	46	ND	41	NR	ND	22
	Jun-12 (c)	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NR	ND	10.2
	Dec-12	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NR	ND	4.4
	Jul-13	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.6	NR	ND	4.3
	Dec-13	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NR	ND	ND
	Jun-14	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	2.4	NR	ND	34.3
	Dec-14	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NR	ND	2.5
MW-17D-97																
	Sep-10	ND	ND	ND	ND	4	1	ND	ND	ND	150	12	940	7	NR	NA
	Oct-10	ND	ND	ND	ND	ND	ND	ND	ND	ND	190	13	1,300	9	NR	NA
	Jun-11	ND	ND	ND	ND	ND	ND	ND	ND	ND	290	ND	2,100	ND	NR	NA
	Nov-11	ND	ND	ND	ND	15	1	ND	ND	ND	270	14	1,900	NR	14	575
	Jun-12 (c)	ND	ND	ND	ND	ND	ND	ND	ND	ND	290	ND	1,000	NR	ND	618
	Dec-12	ND	ND	ND	ND	41	1.3	ND	ND	ND	470	17	1,800	NR	19	669
	Jul-13	ND	ND	ND	ND	68.4	1.3	ND	ND	ND	496	17	2,310	NR	22.3	612.0
	Dec-13 (m)	ND	ND	ND	ND	37	ND	ND	ND	ND	326.0	13.60	2,100	NR	16.8	592.0
	Jun-14 (c)	ND	ND	ND	ND	ND	ND	ND	ND	ND	143.0	10.20	1,260	NR	ND	435.0
	Dec-14	ND	ND	ND	ND	2	ND	ND	ND	ND	66.2	4.60	484	NR	3.8	23.3
MW-18-56																
	Dec-11	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NR	ND	13.6

Table 2

Summary of COCs Detected in Groundwater Samples (2009 - 2014)
On-Property Monitoring Wells
Kop-Flex VCP Site
Hanover, Maryland (a)

Monitoring Well		Acetone	Benzene	Bromoform	2-Butanone (MEK)	Chloroethane	Chloroform	Chloromethane	1,2-Dichlorobenzene	1,3-Dichlorobenzene	1,1-Dichloroethane	1,2-Dichloroethane	1,1-Dichloroethene	1,2-Dichloroethene	cis-1,2-Dichloroethene	1,4- Dioxane
	Jun-12	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NR	ND	ND
	Dec-12	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NR	ND	ND
	Jul-13	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NR	ND	ND
	Dec-13	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NR	ND	ND
	Jun-14	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NR	ND	4.6
	Dec-14	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NR	ND	ND
MW-19-56																
	Dec-11	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	8	NR	ND	5.9
	Jun-12	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NR	ND	4.0
	Dec-12	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NR	ND	3.6
	Jul-13	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	6	NR	ND	5.5
	Dec-13	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	3.5	NR	ND	4.1
	Jun-14	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	3.7	NR	ND	6.3
	Dec-14	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	105.0	NR	ND	4.2
MW-20-60																
	Dec-11	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NR	ND	11.9
	Jun-12	ND	ND	ND	ND	ND	ND	ND	ND	ND	8.5	ND	51	NR	ND	272
	Dec-12	ND	ND	ND	ND	ND	ND	ND	ND	ND	30	3.1	120	NR	ND	506
	Jul-13	ND	ND	ND	ND	ND	ND	ND	ND	ND	83.8	6.2	255	NR	1.5	845.0
	Dec-13 (g)	ND	ND	ND	ND	ND	ND	ND	ND	ND	121.0	7.00	333	NR	ND	1,230.0
	Jun-14 (g)	ND	ND	ND	ND	ND	ND	ND	ND	ND	173.0	8.80	359	NR	2.1	1,010.0
	Dec-14 (m)	ND	ND	ND	ND	ND	ND	ND	ND	ND	166.0	9.30	302	NR	ND	660.0
MW-21D-102																
	Jun-12	ND	ND	ND	ND	ND	ND	ND	ND	ND	12	ND	90	NR	ND	84.2
	Dec-12	ND	ND	ND	ND	ND	ND	ND	ND	ND	14	ND	90	NR	ND	81.8
	Jul-13	ND	ND	ND	ND	ND	ND	ND	ND	ND	11.9	ND	102	NR	ND	80.1
	Dec-13	ND	ND	ND	ND	ND	ND	ND	ND	ND	10.1	ND	82.4	NR	ND	70.0
	Jun-14	ND	ND	ND	ND	ND	ND	ND	ND	ND	8.3	ND	76.5	NR	ND	77.0
	Dec-14	ND	ND	ND	ND	ND	ND	ND	ND	ND	10.4	ND	105.0	NR	ND	138.0
MW-22D-114																
	Jun-12	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	27	NR	ND	29
	Dec-12	ND	ND	ND	ND	ND	ND	ND	ND	ND	4.5	ND	38	NR	ND	41
	Jul-13	ND	ND	ND	ND	ND	ND	ND	ND	ND	2.7	ND	34.2	NR	ND	31.8
	Dec-13	ND	ND	ND	ND	ND	ND	ND	ND	ND	3.7	ND	43.5	NR	ND	35.3
	Jun-14	ND	ND	ND	ND	ND	ND	ND	ND	ND	3.5	ND	44.2	NR	ND	39.3
	Dec-14	ND	ND	ND	ND	ND	ND	ND	ND	ND	2.0	ND	27.0	NR	ND	22.8
MW-23D-92																
	Jun-12	ND	ND	ND	ND	ND	ND	ND	ND	ND	29	ND	120	NR	ND	149
	Aug-12	ND	ND	ND	ND	ND	ND	ND	ND	ND	39	2.2	130	NR	ND	NA
	Dec-12	ND	ND	ND	ND	ND	ND	ND	ND	ND	32	2.0	110	NR	ND	130

Table 2

Summary of COCs Detected in Groundwater Samples (2009 - 2014)
On-Property Monitoring Wells
Kop-Flex VCP Site
Hanover, Maryland (a)

Monitoring Well		Acetone	Benzene	Bromoform	2-Butanone (MEK)	Chloroethane	Chloroform	Chloromethane	1,2-Dichlorobenzene	1,3-Dichlorobenzene	1,1-Dichloroethane	1,2-Dichloroethane	1,1-Dichloroethene	1,2-Dichloroethene	cis-1,2-Dichloroethene	1,4- Dioxane
	Jul-13	ND	ND	ND	ND	ND	ND	1.5	ND	ND	32.7	2.3	131	NR	ND	186.0
	Dec-13	ND	ND	ND	ND	ND	ND	ND	ND	ND	25.6	1.7	101	NR	ND	165.0
	Jun-14	ND	1.2	ND	ND	ND	ND	ND	ND	ND	29.1	2.3	101	NR	ND	132.0
	Dec-14	ND	ND	ND	ND	ND	ND	ND	ND	ND	28.3	1.90	157.0	NR	ND	151.0
MW-27D-113																
	Sep-13	ND	ND	ND	ND	ND	2.1	ND	ND	ND	ND	0.17 J	ND	NR	ND	0.9
	Dec-13	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NR	ND	ND
	Jun-14	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NR	ND	ND
	Dec-14	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NR	ND	ND
MW-26D-105																
	Mar-13	ND	ND	ND	ND	ND	ND	ND	ND	ND	12.4	ND	98.2	NR	ND	118.0
	Jul-13	ND	ND	ND	ND	ND	ND	ND	ND	ND	13.5	ND	120	NR	ND	99.2
	Dec-13	ND	ND	ND	ND	ND	ND	ND	ND	ND	6.9	ND	51.5	NR	ND	60.7
	Jun-14	ND	ND	ND	ND	ND	ND	ND	ND	ND	5.2	ND	42.4	NR	ND	39.8
	Dec-14	ND	ND	ND	ND	ND	ND	ND	ND	ND	7.5	ND	78	NR	ND	73.0
MW-38-28																
	Jun-14	ND	ND	ND	ND	ND	ND	ND	ND	ND	9.5	ND	ND	NR	ND	51.8
	Dec-14	ND	ND	ND	ND	ND	ND	ND	ND	ND	8.7	ND	ND	NR	ND	68.7
MW-39-50																
	Jun-14	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	3.2	NR	ND	6.3
	Dec-14	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NR	ND	ND

Table 2

Summary of COCs Detected in Groundwater Samples (2009 - 2014)
On-Property Monitoring Wells
Kop-Flex VCP Site
Hanover, Maryland (a)

Monitoring Well			Ethylbenzene	Isopropylbenzene	p-Isopropyltoluene	Methylene Chloride	Methyl-tert-butyl Ether	Naphthalene	Tetrachloroethene	Toluene	1,1,1-Trichloroethane	1,1,2-Trichloroethane	Trichloroethene	Vinyl Chloride	Xylene (total)	Total Detected VOCs
MW-01-36																
	May-09		ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	---
	Oct-09		ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	---
	May-10		ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	---
	Oct-10		ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	---
	Jun-11		ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	---
	Dec-11		ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	---
	Jun-12		ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	---
	Dec-12		ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	---
	Jul-13		ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	---
	Dec-13		ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	---
	Jun-14		ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	12
	Dec-14		ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	---
MW-01D-112																
	Jun-12		ND	ND	NA	ND	ND	ND	ND	ND	96	ND	ND	ND	ND	899
	Dec-12		ND	ND	NA	ND	ND	ND	ND	ND	120	1.6	1.7	ND	ND	1,009
	Jul-13		ND	NA	ND	ND	ND	ND	ND	ND	98.8	1.5	1.8	ND	ND	1,007
	Dec-13 (g)	(l)	ND	NA	ND	ND	ND	ND	ND	ND	62.4	ND	ND	ND	ND	690
	Jun-14 (g)	(c)	ND	NA	ND	ND	ND	ND	ND	ND	62.4	ND	ND	ND	ND	759
	Dec-14 (n)	(c)	ND	NA	ND	ND	ND	ND	ND	ND	35.8	ND	ND	ND	ND	562
MW-02-40																
	May-09		ND	ND	NA	3	ND	ND	3	ND	150	ND	8	2	ND	2,102
	Oct-09		ND	ND	NA	5	ND	ND	7	ND	380	ND	17	4	3	4,797
	May-10		ND	ND	NA	ND	ND	ND	11	ND	520	ND	22	5	ND	5,589
	Oct-10		ND	ND	NA	ND	ND	ND	11	ND	2,700	ND	23	4	ND	8,166
	Jun-11		ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	5,780
	Nov-11		ND	ND	NA	4.4	ND	ND	8	ND	2,800	1	22	6	3.3	7,561
	Jun-12 (d)		ND	ND	NA	ND	ND	ND	ND	ND	6,100	ND	ND	ND	ND	10,883
	Dec-12		ND	ND	NA	ND	ND	ND	3.6	ND	350	ND	11	ND	ND	2,889
	Jul-13		ND	NA	ND	ND	ND	ND	4	ND	541	ND	11.7	2.8	ND	3,208
	Dec-13 (h)	(i)	ND	NA	ND	ND	ND	ND	ND	ND	228.0	ND	5.7	ND	ND	1,882
	Jun-14 (h)	(c)	ND	NA	ND	16.3	ND	ND	ND	ND	599.0	ND	11.2	ND	ND	2,614
	Dec-14 (h)	(c)	ND	NA	ND	ND	ND	ND	ND	ND	21	ND	6	ND	ND	1,459
MW-02D-138																
	Jul-11		ND	ND	NA	ND	ND	ND	ND	ND	28	ND	ND	ND	ND	166
	Nov-11		ND	ND	NA	ND	ND	ND	ND	ND	27	ND	ND	ND	ND	292
	Jun-12		ND	ND	NA	ND	ND	ND	ND	ND	28	ND	ND	ND	ND	292
	Dec-12		ND	ND	NA	ND	ND	ND	ND	ND	23	ND	ND	ND	ND	273
	Jul-13		ND	NA	ND	ND	ND	ND	ND	ND	23	ND	ND	ND	ND	344
	Dec-13	(h)	ND	NA	ND	ND	ND	ND	ND	ND	15.9	ND	ND	ND	ND	257

Table 2

Summary of COCs Detected in Groundwater Samples (2009 - 2014)
On-Property Monitoring Wells
Kop-Flex VCP Site
Hanover, Maryland (a)

Monitoring Well			Ethylbenzene	Isopropylbenzene	p-Isopropyltoluene	Methylene Chloride	Methyl-tert-butyl Ether	Naphthalene	Tetrachloroethene	Toluene	1,1,1-Trichloroethane	1,1,2-Trichloroethane	Trichloroethene	Vinyl Chloride	Xylene (total)	Total Detected VOCs
	Jun-14	(n)	ND	NA	ND	ND	ND	ND	ND	ND	26.9	ND	ND	ND	ND	335
	Dec-14	(n)	ND	NA	ND	ND	ND	ND	ND	ND	20.2	ND	ND	ND	ND	292
MW-03-25.5																
	May-09		ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	---
	Oct-09		ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	---
	May-10		ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	---
	Oct-10		ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	---
	Jun-11		ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	---
	Nov-11		ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	---
	Jun-12		ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	---
	Dec-12		ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	---
	Jul-13		ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	---
	Dec-13		ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	---
	Jun-14		ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	---
	Dec-14		ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	---
MW-04-36																
	May-09		ND	ND	NA	ND	ND	ND	1	ND	100	ND	3	ND	ND	584
	Oct-09		ND	ND	NA	ND	ND	ND	1	ND	100	ND	3	ND	ND	667
	May-10		ND	ND	NA	ND	ND	ND	5	ND	180	ND	8	ND	ND	1,591
	Oct-10		ND	ND	NA	ND	ND	ND	2	ND	75	ND	3	ND	ND	573
	Jun-11		ND	ND	NA	ND	ND	ND	ND	ND	32	ND	2	ND	ND	317
	Dec-11		ND	ND	NA	ND	ND	ND	ND	ND	47	ND	2	ND	ND	600
	Jun-12		ND	ND	NA	ND	ND	ND	ND	ND	25	ND	ND	ND	ND	431
	Dec-12		ND	ND	NA	ND	ND	ND	ND	ND	26	ND	2	ND	ND	528
	Jul-13		ND	ND	ND	ND	ND	ND	ND	ND	27.9	ND	2.3	ND	ND	606
	Dec-13	(h)	ND	NA	ND	ND	ND	ND	ND	ND	21.3	ND	1.7	ND	ND	457
	Jun-14	(h)	ND	NA	ND	ND	ND	ND	3.2	ND	104.0	ND	8.0	ND	ND	1,686
	Dec-14	(g)	ND	NA	ND	ND	ND	ND	ND	ND	11.8	ND	ND	ND	ND	202
MW-05-31																
	May-09		ND	ND	NA	ND	ND	ND	ND	ND	6	ND	ND	ND	ND	19
	Oct-09		ND	ND	NA	ND	ND	ND	ND	ND	6	ND	ND	ND	ND	22
	May-10		ND	ND	NA	ND	ND	ND	ND	ND	6	ND	ND	ND	ND	25
	Oct-10		ND	ND	NA	ND	ND	ND	ND	ND	5	ND	ND	ND	ND	17
	Jun-11		ND	ND	NA	ND	ND	ND	ND	ND	5	ND	ND	ND	ND	15
	Dec-11		ND	ND	NA	ND	ND	ND	ND	ND	4	ND	ND	ND	ND	255
	Jun-12		ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	218
	Dec-12		ND	ND	NA	ND	ND	ND	ND	ND	2.2	ND	ND	ND	ND	251
	Jul-13		ND	NA	ND	ND	ND	ND	ND	ND	2.4	ND	ND	ND	ND	213
	Dec-13	(h)	ND	NA	ND	ND	ND	ND	ND	ND	1.8	ND	ND	ND	ND	143
	Jun-14		ND	NA	ND	ND	ND	ND	ND	ND	2.5	ND	ND	ND	ND	100

Table 2

Summary of COCs Detected in Groundwater Samples (2009 - 2014)
On-Property Monitoring Wells
Kop-Flex VCP Site
Hanover, Maryland (a)

Monitoring Well			Ethylbenzene	Isopropylbenzene	p-Isopropyltoluene	Methylene Chloride	Methyl-tert-butyl Ether	Naphthalene	Tetrachloroethene	Toluene	1,1,1-Trichloroethane	1,1,2-Trichloroethane	Trichloroethene	Vinyl Chloride	Xylene (total)	Total Detected VOCs
MW-06-36	Dec-14		ND	NA	ND	ND	ND	ND	ND	ND	2.0	ND	ND	ND	ND	98
	May-09		ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	---
	Oct-09		ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	---
	May-10		ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	---
	Oct-10		ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	---
	Jun-11		ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	---
	Dec-11		ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	---
	Jun-12		ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	---
	Dec-12		ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	---
	Jul-13		ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	---
	Dec-13		ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	---
	Jun-14		ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	---
	Dec-14		ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	---
MW-07-22																
	May-09		ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	---
	Oct-09		ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	---
	May-10		ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	---
	Oct-10		ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	---
	Jun-11		ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	---
	Dec-11		ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	---
	Jun-12		ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	---
	Dec-12		ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	---
	Jul-13		ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	---
	Dec-13		ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	2
	Jun-14		ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	---
	Dec-14		ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	2
MW-08-42																
	May-09		ND	ND	NA	ND	ND	ND	1	ND	100	ND	4	ND	ND	571
	Oct-09		ND	ND	NA	ND	ND	ND	1	ND	70	ND	4	ND	ND	651
	May-10		ND	ND	NA	ND	ND	ND	2	ND	65	ND	4	ND	ND	566
	Oct-10		ND	ND	NA	ND	ND	ND	ND	ND	25	ND	3	ND	ND	401
	Jun-11		ND	ND	NA	ND	ND	ND	1	ND	23	ND	4	ND	ND	688
	Dec-11		ND	ND	NA	ND	ND	ND	ND	ND	13	ND	2	ND	ND	711
	Jun-12	(g)	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	735
	Dec-12		ND	ND	NA	ND	ND	ND	ND	ND	9.0	ND	3.1	ND	ND	824
	Jul-13		ND	ND	ND	ND	ND	ND	1.1	ND	6.4	ND	3.6	ND	ND	846
	Dec-13	(h)	ND	NA	ND	ND	ND	ND	ND	ND	4.7	ND	1.8	ND	ND	471
	Jun-14	(h)	ND	NA	ND	ND	ND	ND	ND	ND	3.3	ND	1.6	ND	ND	458
	Dec-14		ND	NA	ND	ND	ND	ND	ND	ND	2.0	ND	1.3	ND	ND	365

Table 2

Summary of COCs Detected in Groundwater Samples (2009 - 2014)
On-Property Monitoring Wells
Kop-Flex VCP Site
Hanover, Maryland (a)

Monitoring Well			Ethylbenzene	Isopropylbenzene	p-Isopropyltoluene	Methylene Chloride	Methyl-tert-butyl Ether	Naphthalene	Tetrachloroethene	Toluene	1,1,1-Trichloroethane	1,1,2-Trichloroethane	Trichloroethene	Vinyl Chloride	Xylene (total)	Total Detected VOCs
MW-09-25																
	May-09		ND	ND	NA	ND	ND	ND	ND	ND	16	ND	ND	ND	ND	286
	Oct-09		ND	ND	NA	ND	ND	ND	ND	ND	13	ND	ND	ND	ND	332
	May-10		ND	ND	NA	ND	ND	ND	ND	ND	10	ND	ND	ND	ND	268
	Jun-11		ND	ND	NA	ND	ND	ND	ND	ND	10	ND	ND	ND	ND	318
	Nov-11		ND	ND	NA	ND	ND	ND	ND	ND	8	ND	ND	ND	ND	330
	Jun-12		ND	ND	NA	ND	ND	ND	ND	ND	6	ND	ND	ND	ND	245
	Dec-12		ND	ND	NA	ND	ND	ND	ND	ND	5.5	ND	ND	ND	ND	238
	Jul-13		ND	NA	ND	ND	ND	ND	ND	ND	6.4	ND	ND	ND	ND	258
	Dec-13	(h)	ND	NA	ND	ND	ND	ND	ND	ND	4.6	ND	ND	ND	ND	295
	Jun-14	(h)	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	257
	Dec-14		ND	NA	ND	ND	ND	ND	ND	ND	9.4	ND	ND	ND	ND	297
MW-10-27																
	May-09		ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	10
	Oct-09		ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	3
	May-10		ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	4
	Oct-10		ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	3
	Jun-11		ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	4
	Nov-11		ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	8
	Jun-12		ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	3
	Dec-12		ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	2
	Jul-13		ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	3
	Dec-13		ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	5
	Jun-14		ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	15
	Dec-14		ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	5
MW-11-60																
	May-09		ND	ND	NA	ND	ND	ND	ND	ND	47	ND	4	ND	ND	869
	Oct-09		ND	ND	NA	4	ND	ND	3	ND	230	2	13	1	ND	3,037
	May-10		ND	ND	NA	ND	ND	ND	ND	ND	67	ND	5	ND	ND	965
	Oct-10		ND	ND	NA	ND	ND	ND	ND	ND	52	ND	5	ND	ND	718
	Jun-11		ND	ND	NA	ND	ND	ND	ND	ND	29	ND	3	ND	ND	856
	Dec-11		ND	ND	NA	ND	ND	ND	ND	ND	16	ND	ND	ND	ND	1,088
	Jun-12	(h)	ND	ND	NA	ND	ND	ND	ND	ND	35	ND	ND	ND	ND	1,382
	Dec-12		ND	ND	NA	6.7	ND	ND	4	ND	300	2.9	13	ND	ND	4,360
	Jul-13		ND	NA	ND	ND	ND	ND	1.6	ND	103	1	8.8	1.6	ND	2,699
	Dec-13	(c)	ND	NA	ND	ND	ND	ND	ND	ND	343.0	ND	10.3	ND	ND	3,677
	Jun-14	(m) (c)	ND	NA	ND	9	ND	ND	ND	ND	21.7	ND	ND	ND	ND	925
	Dec-14	(c) (c)	ND	NA	ND	ND	ND	ND	ND	ND	28.8	ND	ND	ND	ND	1,311
MW-12-48																
	May-09		ND	ND	NA	3	ND	ND	4	ND	120	3	16	2	ND	3,248

Table 2

Summary of COCs Detected in Groundwater Samples (2009 - 2014)
On-Property Monitoring Wells
Kop-Flex VCP Site
Hanover, Maryland (a)

Monitoring Well			Ethylbenzene	Isopropylbenzene	p-Isopropyltoluene	Methylene Chloride	Methyl-tert-butyl Ether	Naphthalene	Tetrachloroethene	Toluene	1,1,1-Trichloroethane	1,1,2-Trichloroethane	Trichloroethene	Vinyl Chloride	Xylene (total)	Total Detected VOCs
	Oct-09		ND	ND	NA	2	ND	ND	3	ND	87	2	13	2	ND	2,732
	May-10		ND	ND	NA	ND	ND	ND	4	ND	160	ND	9	3	ND	3,621
	Oct-10		ND	ND	NA		ND	ND	3	ND	110	2	13	2	ND	2,985
	Jun-11		ND	ND	NA	3	ND	ND	3	ND	110	3	16	2	ND	3,758
	Nov-11		ND	ND	NA	2	ND	ND	3	ND	85	4	17	2	ND	4,573
	Jun-12 (c)		ND	ND	NA	ND	ND	ND	ND	ND	63	ND	ND	ND	ND	3,323
	Dec-12		ND	ND	NA	ND	ND	ND	2.0	ND	48	3.3	13	ND	ND	3,448
	Jul-13		ND	NA	ND	6.6	ND	ND	4	ND	77.2	3.2	16.7	2.6	ND	5,578
	Dec-13 (l)	(i)	ND	NA	ND	ND	ND	ND	ND	ND	41.8	ND	ND	ND	ND	3,809
	Jun-14 (c)	(n)	ND	NA	ND	ND	ND	ND	ND	ND	125.0	ND	17.8	ND	ND	5,205
	Dec-14 (i)	(n)	ND	NA	ND	ND	ND	ND	ND	ND	78.8	ND	ND	ND	ND	6,286
MW-14-47																
	May-09		ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	---
	Oct-09		ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	3
	May-10		ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	5
	Oct-10		ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	3
	Jun-11		ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	5
	Nov-11		ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	13
	Jun-12		ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	12
	Dec-12		ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	4
	Jul-13		ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	6
	Dec-13		ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	---
	Jun-14		ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	6
	Dec-14		ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	2
MW-15-40																
	Sep-10		ND	ND	NA	ND	ND	ND	4	ND	27	2	15	1	ND	1,749
	Oct-10		ND	ND	NA	ND	ND	ND	2	ND	22	2	7	ND	ND	897
	Jun-11		ND	ND	NA	ND	ND	ND	ND	ND	51	ND	2	ND	ND	576
	Dec-11		ND	ND	NA	ND	ND	ND	1	ND	48	ND	4.7	ND	ND	1,133
	Jun-12 (h)		ND	ND	NA	ND	ND	ND	ND	ND	47	ND	ND	ND	ND	1,322
	Dec-12		ND	ND	NA	ND	ND	ND	1.2	ND	150	ND	5.2	ND	ND	1,309
	Jul-13		ND	NA	ND	ND	ND	ND	ND	ND	43.2	ND	ND	ND	ND	3,197
	Dec-13 (g)	(h)	ND	NA	ND	ND	ND	ND	ND	ND	107.0	ND	2.4	ND	ND	817
	Jun-14 (n)	(g)	ND	NA	ND	10.2	ND	ND	ND	ND	13.7	ND	ND	ND	ND	617
	Dec-14 (m)	(n)	ND	NA	ND	ND	ND	ND	ND	ND	20.7	ND	ND	ND	ND	618
MW-16-50																
	Sep-10		22	10	NA	28	ND	17	250	7	160,000	4	370	ND	101	185,758
	Oct-10		ND	ND	NA	ND	ND	ND	140	ND	71,000	3	190	6	ND	88,333
	Jun-11		ND	ND	NA	ND	ND	ND	ND	ND	21,000	ND	130	ND	ND	44,190
	Dec-11		12	4.6	NA	30	ND	7.1	110	4.2	100,000	3	220	14	57	129,295

Table 2

Summary of COCs Detected in Groundwater Samples (2009 - 2014)
On-Property Monitoring Wells
Kop-Flex VCP Site
Hanover, Maryland (a)

Monitoring Well			Ethylbenzene	Isopropylbenzene	p-Isopropyltoluene	Methylene Chloride	Methyl-tert-butyl Ether	Naphthalene	Tetrachloroethene	Toluene	1,1,1-Trichloroethane	1,1,2-Trichloroethane	Trichloroethene	Vinyl Chloride	Xylene (total)	Total Detected VOCs
	Jun-12 (f)		ND	ND	NA	ND	ND	ND	ND	ND	41,000	ND	ND	ND	ND	58,350
	Dec-12		7.6	3.3	NA	30	ND	4.5	69	3.4	30,000	3.5	160	9.2	36	60,661
	Jul-13		9.9	NA	ND	29.5	ND	6	83.8	4.4	29,400	4.3	ND	17.7	46.2	54,832
	Dec-13 (k)	(d)	ND	NA	ND	ND	ND	ND	ND	ND	12,000.0	ND	ND	ND	ND	36,556
	Jun-14 (k)	(i)	ND	NA	ND	ND	ND	ND	ND	ND	30,500.0	ND	213.0	ND	ND	52,811
	Dec-14	(h)	4	NA	2	7	ND	3	30.7	1.6	15,000.0 (p)	ND	63.8	5.1	17	26,236
MW-16D-101																
	Jan-11		ND	ND	NA	8	ND	2	ND	ND	82	ND	2	ND	3	548
	Jun-11		ND	ND	NA	ND	ND	ND	ND	ND	75	ND	2	ND	ND	581
	Dec-11		ND	ND	NA	ND	ND	ND	ND	ND	64	ND	1	ND	ND	650
	Jun-12		ND	ND	NA	ND	ND	ND	ND	ND	33	ND	ND	ND	ND	447
	Dec-12		ND	ND	NA	ND	ND	ND	ND	ND	29	ND	ND	ND	ND	407
	Jul-13		ND	NA	ND	ND	ND	ND	ND	ND	23.8	ND	ND	ND	ND	520
	Dec-13	(h)	ND	NA	ND	ND	ND	ND	ND	ND	21.3	ND	ND	ND	ND	440
	Jun-14	(h)	ND	NA	ND	ND	ND	ND	ND	ND	28.9	ND	ND	ND	ND	513
	Dec-14	(h)	ND	NA	ND	ND	ND	ND	ND	ND	44.3	ND	1.8	ND	ND	679
MW-17-52																
	Sep-10		ND	ND	NA	ND	ND	ND	ND	ND	7	ND	ND	ND	ND	24
	Oct-10		ND	ND	NA	ND	ND	ND	ND	ND	2	ND	ND	ND	ND	10
	Jun-11		ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	4
	Nov-11		ND	ND	NA	ND	ND	ND	ND	ND	22	ND	ND	ND	ND	132
	Jun-12 (c)		ND	ND	NA	ND	ND	ND	ND	ND	23	ND	ND	ND	ND	33
	Dec-12		ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	4
	Jul-13		ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	6
	Dec-13		ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	---
	Jun-14		ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	37
	Dec-14		ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	3
MW-17D-97																
	Sep-10		ND	ND	NA	5	ND	ND	1	ND	26	ND	9	1	ND	1,156
	Oct-10		ND	ND	NA	ND	ND	ND	2	ND	42	ND	10	ND	ND	1,566
	Jun-11		ND	ND	NA	ND	ND	ND	ND	ND	29	ND	ND	ND	ND	2,419
	Nov-11		ND	ND	NA	3	ND	ND	3	ND	38	2	12	ND	ND	2,847
	Jun-12 (c)		ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1,908
	Dec-12		ND	ND	NA	4.7	ND	ND	1.5	ND	36.0	ND	11	ND	ND	3,071
	Jul-13		ND	NA	ND	6.6	ND	ND	2	ND	36.2	ND	10.9	1.5	ND	3,584
	Dec-13 (m)	(l)	ND	NA	ND	ND	ND	ND	ND	ND	22.6	ND	7.9	ND	ND	3,116
	Jun-14 (c)		ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1,848
	Dec-14		ND	NA	ND	ND	ND	ND	ND	ND	4.3	ND	2.9	ND	ND	591
MW-18-56																
	Dec-11		ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	14

Table 2

Summary of COCs Detected in Groundwater Samples (2009 - 2014)
On-Property Monitoring Wells
Kop-Flex VCP Site
Hanover, Maryland (a)

Monitoring Well			Ethylbenzene	Isopropylbenzene	p-Isopropyltoluene	Methylene Chloride	Methyl-tert-butyl Ether	Naphthalene	Tetrachloroethene	Toluene	1,1,1-Trichloroethane	1,1,2-Trichloroethane	Trichloroethene	Vinyl Chloride	Xylene (total)	Total Detected VOCs
	Jun-12		ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	---
	Dec-12		ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	---
	Jul-13		ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	---
	Dec-13		ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	---
	Jun-14		ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	5
	Dec-14		ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	---
MW-19-56																
	Dec-11		ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	14
	Jun-12		ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	4
	Dec-12		ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	4
	Jul-13		ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	12
	Dec-13		ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	8
	Jun-14		ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	10
	Dec-14		ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	109
MW-20-60																
	Dec-11		ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	12
	Jun-12		ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	332
	Dec-12		ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	659
	Jul-13		ND	NA	ND	ND	ND	ND	ND	ND	ND	2	ND	ND	ND	1,194
	Dec-13	(g) (i)	ND	NA	ND	ND	ND	ND	ND	ND	ND	2.5	ND	ND	ND	1,694
	Jun-14	(g) (i)	ND	NA	ND	5.6	ND	ND	ND	ND	ND	3.3	2.1	ND	ND	1,564
	Dec-14	(m) (i)	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1,137
MW-21D-102																
	Jun-12		ND	ND	NA	ND	ND	ND	ND	ND	8	ND	ND	ND	ND	194
	Dec-12		ND	ND	NA	ND	ND	ND	ND	ND	5.7	ND	ND	ND	ND	192
	Jul-13		ND	NA	ND	ND	ND	ND	ND	ND	5	ND	ND	ND	ND	199
	Dec-13		ND	NA	ND	ND	ND	ND	ND	ND	4.1	ND	ND	ND	ND	167
	Jun-14	(g)	ND	NA	ND	ND	ND	ND	ND	ND	2.8	ND	ND	ND	ND	165
	Dec-14		ND	NA	ND	ND	ND	ND	ND	ND	3.2	ND	ND	ND	ND	257
MW-22D-114																
	Jun-12		ND	ND	NA	ND	ND	ND	ND	ND	8	ND	ND	ND	ND	64
	Dec-12		ND	ND	NA	ND	ND	ND	ND	ND	10	ND	ND	ND	ND	94
	Jul-13		ND	NA	ND	ND	ND	ND	ND	ND	6.5	ND	ND	ND	ND	75
	Dec-13	(g)	ND	NA	ND	ND	ND	ND	ND	ND	8.4	ND	ND	ND	ND	91
	Jun-14		ND	NA	ND	ND	ND	ND	ND	ND	9.0	ND	ND	ND	ND	96
	Dec-14		ND	NA	ND	ND	ND	ND	ND	ND	4.2	ND	ND	ND	ND	56
MW-23D-92																
	Jun-12		ND	ND	NA	ND	ND	ND	ND	ND	36	ND	ND	ND	ND	334
	Aug-12		ND	ND	NA	ND	ND	ND	ND	ND	35	ND	ND	ND	ND	206
	Dec-12		ND	ND	NA	ND	ND	ND	ND	ND	31	ND	ND	ND	ND	305

Table 2

Summary of COCs Detected in Groundwater Samples (2009 - 2014)
On-Property Monitoring Wells
Kop-Flex VCP Site
Hanover, Maryland (a)

Monitoring Well			Ethylbenzene	Isopropylbenzene	p-Isopropyltoluene	Methylene Chloride	Methyl-tert-butyl Ether	Naphthalene	Tetrachloroethene	Toluene	1,1,1-Trichloroethane	1,1,2-Trichloroethane	Trichloroethene	Vinyl Chloride	Xylene (total)	Total Detected VOCs
	Jul-13		ND	NA	ND	ND	ND	ND	ND	ND	28.6	ND	ND	ND	ND	382
	Dec-13	(h)	ND	ND	ND	ND	ND	ND	ND	ND	21.3	ND	ND	ND	ND	315
	Jun-14	(g)	ND	NA	ND	ND	ND	ND	ND	ND	24.7	ND	ND	ND	ND	290
	Dec-14		ND	NA	ND	ND	ND	ND	ND	ND	26.5	ND	ND	ND	ND	365
MW-27D-113																
	Sep-13	J	ND	NA	ND	ND	1.3	ND	ND	ND	ND	ND	ND	ND	ND	4
	Dec-13		ND	NA	ND	ND	1.4	ND	ND	ND	ND	ND	ND	ND	ND	1
	Jun-14		ND	NA	ND	ND	1.6	ND	ND	ND	ND	ND	ND	ND	ND	2
	Dec-14		ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	---
MW-26D-105																
	Mar-13		ND	NA	ND	ND	ND	ND	ND	5.6	6.3	ND	ND	ND	ND	241
	Jul-13		ND	NA	ND	ND	ND	ND	ND	ND	6.6	ND	ND	ND	ND	239
	Dec-13		ND	NA	ND	ND	ND	ND	ND	ND	2.7	ND	ND	ND	ND	122
	Jun-14		ND	NA	ND	ND	ND	ND	ND	ND	1.8	ND	ND	ND	ND	89
	Dec-14		ND	NA	ND	ND	ND	ND	ND	ND	2.8	ND	ND	ND	ND	161
MW-38-28																
	Jun-14		ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	61
	Dec-14		ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	77
MW-39-50																
	Jun-14		ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	10
	Dec-14		ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	---

a/ all samples measured in ppb (ug/L);
E = result exceeds calibration range
ND = not detected; NA = Not analyzed
NR = not reported
b/suspected laboratory contaminant
c/ sample run at a 10x dilution
d/ sample run at 50x dilution
e/ estimated below the detection limit;
f/sample run at a 250x dilution
g/sample run at a 2x dilution
h/sample run at a 5x dilution
i/sample run at a 25x dilution
k/sample run at 200x dilution
l/sample run at 20x dilution
m/sample run at 4x dilution
n/sample run at 2.5x dilution
p/sample run at 400x dilution

Table 3

Summary of Off-Property Monitoring Well Sample Results
December 2014 Sampling Event
Kop-Flex VCP Site
Hanover, Maryland

Analyte (b)	Groundwater Quality Criteria (ug/L)	MW-24D-128 12/5/2014	MW-25-40 12/9/2014	MW-25-130 12/9/2014	MW-25-190 12/9/2014	MW-28-45 12/10/2014	MW-28-210 12/10/2014	MW-31-280 12/9/2014	MW-33-235 12/10/2014	MW-33-295 12/10/2014	MW-35-298 12/11/2014
1,1,1-Trichloroethane	200	60.9	1 U	33.4	15.6	1 U	1 U	1 U	1 U	1 U	1 U
1,1-Dichloroethane	90	**106**	1 U	31.4	13.3	1 U	1 U	1 U	1 U	1 U	1 U
1,1-Dichloroethene	7	**2,640**	1 U	**799**	**58.2**	1 U	**9.4**	1 U	1 U	3.5	1 U
1,2-Dichloroethane	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Trichloroethene	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,4-Dioxane	6.7	**657**	2 U	**349**	**45.9**	2 U	4.1	2.4	2 U	**7.1**	2 U
Tetrachloroethene	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U

a/ U = not detected at a concentration above the method detection limit
Bolded number indicates concentration above the groundwater quality criteria
b/ All concentrations in micrograms per liter (µg/l)
c/ Groundwater Quality Criteria sources:
RSLs: http://www.mde.maryland.gov/assets/document/Final%20Update%20No%202.1%20dated%205-20-08(1).pdf

Table 4

Summary of COCs Detected in Groundwater Samples (2012 - 2014)
Off-Property Monitoring Wells
Kop-Flex VCP Site
Hanover, Maryland (a)

Monitoring Well	Chloroform	1,1-Dichloroethane	1,2-Dichloroethane	1,1-Dichloroethene	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	1,4- Dioxane	Methylene Chloride	Methyl-tert-butyl Ether	Tetrachloroethene	1,1,1-Trichloroethane	1,1,2-Trichloroethane	Trichloroethene	Total VOCs
MW-24D-128														
Jun-12 (c)	ND	ND	ND	1,300	ND	ND	342	ND	ND	ND	53	ND	ND	1,695
Aug-12	ND	72	13	1,600	6	ND	NA	ND	ND	1.7	60	1.5	13	1,767
Dec-12	1.3	61	12	1,500	6.7	ND	393	ND	ND	1.8	62	1.5	16	2,055
Jul-13	1.2	57.7	10.8	1,520	6.2	1.1	470.0	ND	ND	1.4	48.7	1.3	12.4	2,131
Dec-13 (c)	ND	47.4	ND	1,190	ND	ND	433.0	ND	ND	ND	34.1	ND	10.1	1,715
Jun-14 (c)	ND	57.3	11.3	1,510	ND	ND	488.0	ND	ND	ND	43.4	ND	14.2	2,124
Dec-14 (l)	ND	106.0	ND	2,640	ND	ND	657.0 (c)	ND	ND	ND	60.9	ND	ND	3,464
MW-25-40														
Sep-14	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	---
Dec-14	ND	ND	ND	ND	ND	ND	ND	ND	2	ND	ND	ND	ND	2
MW-25-130														
Sep-14	1.5	47.0	12.30	1,140.0	6.1	ND	492.0	ND	ND	1.1	64.2	2.0	11.2	1,777
Dec-14 (c)	ND	31.4	ND	799.0	ND	ND	349.0	26	ND	ND	33.4	ND	ND	1,238
MW-25-190														
Sep-14	ND	10.8	ND	52.2	ND	ND	65.1	ND	ND	ND	14.0	ND	ND	142
Dec-14	ND	13.3	ND	58.2	ND	ND	45.9	ND	ND	ND	15.6	ND	ND	133
MW-28-45														
Sep-14	ND	ND	ND	ND	ND	ND	6.5	ND	ND	ND	ND	ND	ND	7
Dec-14	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	---
MW-28-210														
Sep-14	ND	ND	ND	6.8	ND	ND	5.1	ND	ND	ND	ND	ND	ND	12
Dec-14	ND	ND	ND	9.4	ND	ND	4.1	ND	ND	ND	ND	ND	ND	14
MW-31-280														
Sep-14	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	---
Dec-14	ND	ND	ND	ND	ND	ND	2.4	ND	ND	ND	ND	ND	ND	2
MW-33-235														
Sep-14	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	---
Dec-14	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	---
MW-33-295														
Sep-14	ND	ND	ND	3.3	ND	ND	7.2	ND	ND	ND	ND	ND	ND	11
Dec-14	ND	ND	ND	3.5	ND	ND	7.1	ND	ND	ND	ND	ND	ND	11
MW-35-298														
Sep-14	ND	ND	ND	ND	ND	ND	36.7	ND	ND	ND	ND	ND	ND	37
Dec-14	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	---

a/ all samples measured in ppb (ug/L);
all samples collected using low-flow purging techniques
e = as estimated below the detection limit;
E = result exceeds calibration range
ND = not detected; NA = Not analyzed
b/suspected laboratory contaminant
c/ sample run at a 10x dilution
d/ sample run at 50x dilution
f/sample run at a 250x dilution
g/sample run at a 2x dilution
h/sample run at a 5x dilution
i/sample run at a 25x dilution
k/sample run at 200x dilution
l/sample run at 20x dilution
m/sample run at 4x dilution
n/sample run at 2.5x dilution
p/sample run at 400x dilution

Table 5

Phase 3 Residential Well Sampling Results
December 2014
Kop-Flex VCP Site
Hanover, Maryland

	Sample ID:	RW-7815-FN-121014	RW-7815-FN-121014F	RW-7831A-CS-121014	RW-7833A-CS-121014	RW-753-DNS-121214	RW-819-REE-121214	RW-845-REE-121214	RW-7834TEL-121814	RW-7834TEL-121814F
	Sample Type:	Pre-Treatment	Post Treatment	Pre-Treatment	Pre-Treatment	Pre-Treatment	Pre-Treatment	Pre-Treatment	Pre-Treatment	Post Treatment
	Sample Date:	12/10/2014	12/10/2014	12/10/2014	12/10/2014	12/12/2014	12/12/2014	12/12/2014	12/18/2014	12/18/2014
Parameters (ug/L)	**MCL**									
Benzene	5	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
Chloroform	80 (a)	0.50 U	0.50 U	0.17 J	0.50 U	0.26 J	0.50 U	0.50 U	0.50 U	0.50 U
1,1-Dichloroethane	90 (a)	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
1,1-Dichloroethylene	7	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
Methyl Tert Butyl Ether	20 (a)	0.50	0.46 J	1.2	0.50 U	1.1	0.50 U	1.7	0.50 U	0.50 U
Styrene	100	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.17 J
1,1,1-Trichloroethane	200	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
Tetrachloroethylene	5	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
Trichloroethylene	5	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
1,4-Dioxane	6.7 (b)	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U

(a) Maryland Department of Environment Action Level
(b) Maryland Risk Based Level

Notes:
MCL - US Environmental Protection Agency (EPA)
Maximum Contaminant Level
U - Undetected, value reported is quantification limit

Table 5

Phase 3 Residential Well Sampling Results
December 2014
Kop-Flex VCP Site
Hanover, Maryland

Parameters (ug/L)	MCL	Sample ID: RW-7835CS-121814 Sample Type: Pre-Treatment Sample Date: 12/18/2014	RW-7849CS-121714 Pre-Treatment 12/17/2014	RW-837REE-121714 Pre-Treatment 12/17/2014	RW-837REE-121714F Post Treatment 12/17/2014	RW-7090DA-122214 Pre-Treatment 12/22/2014	RW-7820TELE 123014 Pre-Treatment 12/30/2014	RW-7827CS 123014 Pre-Treatment 12/30/2014
Benzene	5	0.18 J	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
Chloroform	80 (a)	0.11 J	0.19 J	0.50 U	0.50 U	0.19 J	0.14 J	0.50 U
1,1-Dichloroethane	90 (a)	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
1,1-Dichloroethylene	7	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
Methyl Tert Butyl Ether	20 (a)	4.7	0.37 J	0.80	0.83	0.30 J	0.34 J	1.4
Styrene	100	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
1,1,1-Trichloroethane	200	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
Tetrachloroethylene	5	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
Trichloroethylene	5	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
1,4-Dioxane	6.7 (b)	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U

(a) Maryland Department of Environment Action Level
(b) Maryland Risk Based Level

Notes:
MCL - US Environmental Protection Agency (EPA)
Maximum Contaminant Level
U - Undetected, value reported is quantification limit

Enclosure A – Laboratory Report for December 2014 Onsite Monitoring Well Samples

Enclosure B – Laboratory Report for December 2014 Offsite Monitoring Well Samples

Enclosure C – Laboratory Report for December 2014 Quarterly Residential Well Samples

Enclosure D – Laboratory Reports for Phase 3 Residential Well Sampling Events