



TETRA TECH

PHIL-25769

August 26, 2014

Project Number 05426

Mr. Tim Cherry (DEP-SERO-ECP)
Solid Waste Supervisor
Pennsylvania Department of Environmental Protection
Hazardous Sites Cleanup Program
Southeast Regional Office
2 East Main Street
Norristown, Pennsylvania 19401

Reference: IRRSC-6
PADEP Contract SAP#4000014763

Subject: June/July 2014 Quarterly Groundwater Results
Havertown PCP Superfund Site
Second-Year Operation and Maintenance (O&M) Services
Task Order No. 6-1-277

Dear Mr. Cherry:

Enclosed please find the quarterly analytical results for groundwater samples collected in late June and early July 2014 at the subject site. A total of 14 wells were sampled and tested for volatile organic compounds (VOCs) and semi-volatile organic compounds (SVOCs). An electronic copy of this information will also be sent to you.

Tetra Tech is in the process of streamlining groundwater reporting for this site. With the exception of the annual groundwater monitoring report, which will compile all results generated on a quarterly basis (i.e., from scheduled March, June, September, and December monitoring events), the quarterly reports will only include the relevant analytical information for each respective quarter.

Copies of these results are being sent to EPA and Havertown Township. Please contact me if you have any questions or comments.

Sincerely,

Neil Teamerson
Project Manager

ANT/prg

Enclosure

c: Jamie Smathers (DEP Harrisburg Office) (without enclosure)
Josh Barber (EPA Region 3)
Lori Widdop (Havertown Township)
Harish Mital (Tetra Tech)
Mark Sladic (Tetra Tech) (without enclosure)

**TABLE 1
REMEDIAL GOAL OBJECTIVES FOR GROUNDWATER
HAVERTOWN PCP SITE
HAVERTOWN TOWNSHIP, PENNSYLVANIA**

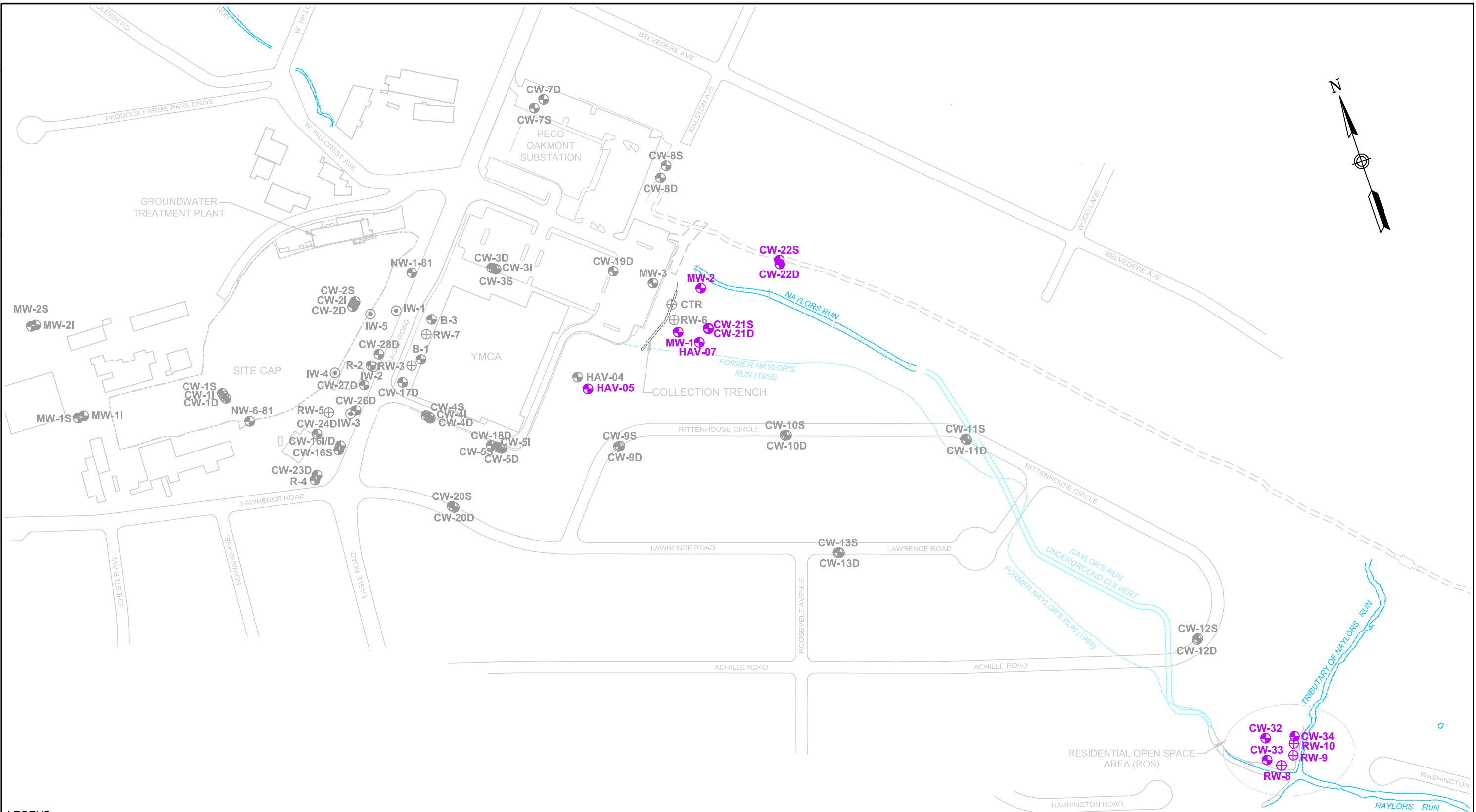
CHEMICAL	GOAL	UNIT	OU ⁽¹⁾ ⁽²⁾
Benzene	5 (MCL)	µg/L	2
Benzo(a)pyrene	0.2 (MCL)	µg/L	Both
Dieldrin	0.038 (Risk-Based)	µg/L	3
Bis (2-ethylhexyl) phthalate	6 (MCL)	µg/L	Both
Dibenzofuran	4 (Risk-Based)	µg/L	3
Ethylbenzene	700 (MCL)	µg/L	2
2-Methylnaphthalene	2 (Risk-Based)	µg/L	3
Naphthalene	3 (Risk-Based)	µg/L	3
Pentachlorophenol (PCP)	1 (MCL)	µg/L	Both
Phenanthrene	41 (Risk-Based)	µg/L	Both
Toluene	1,000 (MCL)	µg/L	2
Total 2,3,7,8-TCDD	0.00003 (MCL)	µg/L	Both
TCE	5 (MCL)	µg/L	2
1,2-Trichloroethylene	100 (MCLG)	µg/L	2
1,2,4-Trimethylbenzene	16 (Risk-Based)	µg/L	3
1,3,5-Trimethylbenzene	16 (Risk-Based)	µg/L	3
4,6-Dinitro-2-methylphenol	1.7 (Risk-Based)	µg/L	3
Vinyl chloride	5 (MCL)	µg/L	2
Xylene	10,000 (MCL)	µg/L	2
Aluminum	50-200 (SMCL)	µg/L	3
Arsenic	50 (MCL) (OU-2); 10 (MCL) (OU-3)	µg/L	Both
Chromium	100 (MCL)	µg/L	3
Barium	2,000 (MCL)	µg/L	3
Manganese	50 (SMCL)	µg/L	Both
Iron	300 (SMCL)	µg/L	3
Vanadium	3.1 (Risk-Based)	µg/L	3

References:

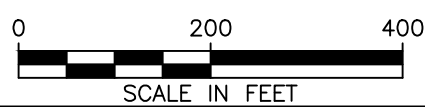
¹ Table 23 in OU-2 ROD, dated September 1991.


² Table 15 in OU-3 ROD, dated April 2008.

MCL = Maximum Contaminant Level
MCLG = Maximum Contaminant Level Goal
OU = Operable Unit
SMCL = Secondary Maximum Contaminant Level
µg/L = Micrograms per Liter



- LEGEND**
- ⊕ WELL LOCATION SAMPLED IN JUNE/JULY 2014
 - ⊕ WELL LOCATION
 - ⊕ RECOVERY WELL LOCATION SAMPLED IN JUNE/JULY 2014
 - ⊕ RECOVERY WELL LOCATION
 - INJECTION WELL LOCATION



 TETRA TECH	
FILE 112C05426GM01	SCALE AS NOTED
FIGURE NUMBER 1	REV DATE 0 08/22/14

WELL LOCATIONS
HAVERTOWN PCP SUPERFUND SITE
DELAWARE COUNTY
HAVERTOWN, PENNSYLVANIA

DATA SUMMARY OF ANALYTICAL RESULTS
 JUNE / JULY 2014 QUARTERLY GROUNDWATER SAMPLING
 HAVERTOWN PCP SITE, HAVERTOWN, PENNSYLVANIA

Sample ID:	CW-21D-20140701	DUP-01-20140701	CW-21S-20140701	CW-22D-201140630	CW-22S-20140630	CW32-20140630	CW33-20140630	CW34-20140630	HAV-05-20140701
Sample Date:	7/1/2014	7/1/2014	7/1/2014	6/30/2014	6/30/2014	6/30/2014	6/30/2014	6/30/2014	7/1/2014
Duplicate of:		CW-21D-20140701							
	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
SEMIVOLATILES									
1,2,4,5-Tetrachlorobenzen	2.9 U	28.6 U	2.8 U	2.9 U	2.8 U	2.8 U	2.9 U	2.8 U	2.8 U
2,3,4,6-Tetrachlorophenol	29.4	34.8 J	40.9	7.7 U	7.5 U	7.4 U	7.6 U	7.4 U	84.5
2,4,5-Trichlorophenol	16.5	21.2 J	17.9	7.7 U	7.5 U	7.4 U	7.6 U	7.4 U	3.8 J
2,4,6-Trichlorophenol	1.3 J	76.2 U	1.6 J	7.7 U	7.5 U	7.4 U	7.6 U	7.4 U	2.6 J
2,4-Dichlorophenol	7.6 U	76.2 U	0.5 J	7.7 U	7.5 U	7.4 U	7.6 U	7.4 U	7.5 U
2,4-Dimethylphenol	7.6 U	76.2 U	7.6 U	7.7 U	7.5 U	7.4 U	7.6 U	7.4 U	7.5 U
2,4-Dinitrophenol	15.2 U	152 U	15.2 U	15.3 U	15.1 U	14.8 U	15.2 U	14.8 U	15 U
2,4-Dinitrotoluene	2.9 U	28.6 U	2.8 U	2.9 U	2.8 U	2.8 U	2.9 U	2.8 U	2.8 U
2,6-Dinitrotoluene	2.9 U	28.6 U	2.8 U	2.9 U	2.8 U	2.8 U	2.9 U	2.8 U	2.8 U
2-Chloronaphthalene	2.9 U	28.6 U	2.8 U	2.9 U	2.8 U	2.8 U	2.9 U	2.8 U	2.8 U
2-Chlorophenol	7.6 U	76.2 U	7.6 U	7.7 U	7.5 U	7.4 U	7.6 U	7.4 U	7.5 U
2-Methyl-4,6-dinitrophenol	7.6 U	76.2 U	7.6 U	7.7 U	7.5 U	7.4 U	7.6 U	7.4 U	7.5 U
2-Methylnaphthalene	1.4 U	14.3 U	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U
2-Methylphenol	7.6 U	76.2 U	7.6 U	7.7 U	7.5 U	7.4 U	7.6 U	7.4 U	7.5 U
2-Nitroaniline	2.9 U	28.6 U	2.8 U	2.9 U	2.8 U	2.8 U	2.9 U	2.8 U	2.8 U
2-Nitrophenol	7.6 U	76.2 U	7.6 U	7.7 U	7.5 U	7.4 U	7.6 U	7.4 U	7.5 U
3,3-Dichlorobenzidine	15.2 U	152 U	15.2 U	15.3 U	15.1 U	14.8 U	15.2 U	14.8 U	15 U
3-Nitroaniline	2.9 U	28.6 U	2.8 U	2.9 U	2.8 U	2.8 U	2.9 U	2.8 U	2.8 U
4-Bromophenyl Phenyl Ether	2.9 U	28.6 U	2.8 U	2.9 U	2.8 U	2.8 U	2.9 U	2.8 U	2.8 U
4-Chloro-3-methylphenol	7.6 U	76.2 U	7.6 U	7.7 U	7.5 U	7.4 U	7.6 U	7.4 U	7.5 U
4-Chloroaniline	2.9 U	28.6 U	2.8 U	2.9 U	2.8 U	2.8 U	2.9 U	2.8 U	2.8 U
4-Chlorophenyl-phenylether	2.9 U	28.6 U	2.8 U	2.9 U	2.8 U	2.8 U	2.9 U	2.8 U	2.8 U
4-Nitroaniline	2.9 U	28.6 U	2.8 U	2.9 U	2.8 U	2.8 U	2.9 U	2.8 U	2.8 U
4-Nitrophenol	7.6 U	76.2 U	7.6 U	7.7 U	7.5 U	7.4 U	7.6 U	7.4 U	7.5 U
Acenaphthene	0.66 J	14.3 U	0.35 J	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	2.3
Acenaphthylene	1.4 U	14.3 U	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U
Acetophenone	1.7 J	76.2 U	7.6 U	7.7 U	7.5 U	7.4 U	7.6 U	7.4 U	7.5 U
Anthracene	1.4 U	14.3 U	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U
Atrazine	2.9 U	28.6 U	2.8 U	2.9 U	2.8 U	2.8 U	2.9 U	2.8 U	2.8 U
Benz(a)anthracene	1.4 U	14.3 U	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U
Benzaldehyde	7.6 U	76.2 U	7.6 U	7.7 U	7.5 U	7.4 U	7.6 U	7.4 U	7.5 U
Benzo(a)pyrene	1.4 U	14.3 U	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U
Benzo(b)fluoranthene	1.4 U	14.3 U	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U
Benzo(g,h,i)perylene	1.4 U	14.3 U	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U
Benzo(k)fluoranthene	1.4 U	14.3 U	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U
Biphenyl	2.2 J	76.2 U	2.8 J	7.7 U	7.5 U	7.4 U	7.6 U	7.4 U	7.5 U
Bis(2-chloroethoxy)methane	2.9 U	28.6 U	2.8 U	2.9 U	2.8 U	2.8 U	2.9 U	2.8 U	2.8 U
Bis(2-chloroethyl)ether	2.9 U	28.6 U	2.8 U	2.9 U	2.8 U	2.8 U	2.9 U	2.8 U	2.8 U
Bis(2-chloroisopropyl)eth	2.9 U	28.6 U	2.8 U	2.9 U	2.8 U	2.8 U	2.9 U	2.8 U	2.8 U
Bis(2-ethylhexyl)phthalat	2.9 U	28.6 U	2.8 U	2.9 U	2.8 U	2.8 U	2.9 U	2.8 U	2.8 U
Butylbenzylphthalate	2.9 U	28.6 U	2.8 U	2.9 U	2.8 U	2.8 U	2.9 U	2.8 U	2.8 U
Caprolactam	7.6 U	76.2 U	7.6 U	7.7 U	7.5 U	7.4 U	7.6 U	7.4 U	7.5 U
Carbazole	0.32 J	28.6 U	0.33 J	2.9 U	2.8 U	2.8 U	2.9 U	2.8 U	2.8 U
Chrysene	1.4 U	14.3 U	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U
Di-n-butylphthalate	2.9 U	28.6 U	2.8 U	2.9 U	2.8 U	2.8 U	2.9 U	2.8 U	2.8 U
Di-n-octylphthalate	7.6 U	76.2 U	7.6 U	7.7 U	7.5 U	7.4 U	7.6 U	7.4 U	7.5 U
Dibenz(a,h)anthracene	1.4 U	14.3 U	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U
Dibenzofuran	0.92 J	28.6 U	1.3 J	2.9 U	2.8 U	2.8 U	2.9 U	2.8 U	2.8 U

DATA SUMMARY OF ANALYTICAL RESULTS
 JUNE / JULY 2014 QUARTERLY GROUNDWATER SAMPLING
 HAVERTOWN PCP SITE, HAVERTOWN, PENNSYLVANIA

Sample ID:	CW-21D-20140701	DUP-01-20140701	CW-21S-20140701	CW-22D-201140630	CW-22S-20140630	CW32-20140630	CW33-20140630	CW34-20140630	HAV-05-20140701
Sample Date:	7/1/2014	7/1/2014	7/1/2014	6/30/2014	6/30/2014	6/30/2014	6/30/2014	6/30/2014	7/1/2014
Duplicate of:		CW-21D-20140701							
Diethylphthalate	7.6 U	76.2 U	7.6 U	0.49 J	7.5 U	7.4 U	7.6 U	7.4 U	7.5 U
Dimethylphthalate	7.6 U	76.2 U	7.6 U	7.7 U	7.5 U	7.4 U	7.6 U	7.4 U	7.5 U
Fluoranthene	1.4 U	14.3 U	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	0.27 J
Fluorene	2.7 U	14.3 U	3.8 U	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U
Hexachlorobenzene	2.9 U	28.6 U	2.8 U	2.9 U	2.8 U	2.8 U	2.9 U	2.8 U	2.8 U
Hexachlorobutadiene	2.9 U	28.6 U	2.8 U	2.9 U	2.8 U	2.8 U	2.9 U	2.8 U	2.8 U
Hexachlorocyclopentadiene	7.6 U	76.2 U	7.6 U	7.7 U	7.5 U	7.4 U	7.6 U	7.4 U	7.5 U
Hexachloroethane	2.9 U	28.6 U	2.8 U	2.9 U	2.8 U	2.8 U	2.9 U	2.8 U	2.8 U
Indeno(1,2,3-cd)pyrene	1.4 U	14.3 U	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U
Isophorone	2.9 U	28.6 U	2.8 U	2.9 U	2.8 U	2.8 U	2.9 U	2.8 U	2.8 U
Mp-cresol	7.6 U	76.2 U	7.6 U	7.7 U	7.5 U	7.4 U	7.6 U	7.4 U	7.5 U
N-Nitroso-di-n-propylamin	2.9 U	28.6 U	2.8 U	2.9 U	2.8 U	2.8 U	2.9 U	2.8 U	2.8 U
N-Nitrosodiphenylamine	2.9 U	28.6 U	2.8 U	2.9 U	2.8 U	2.8 U	2.9 U	2.8 U	2.8 U
Naphthalene	1.4 U	14.3 U	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	0.73 J
Nitrobenzene	2.9 U	28.6 U	2.8 U	2.9 U	2.8 U	2.8 U	2.9 U	2.8 U	2.8 U
Pentachlorophenol	759	932	985	15.3 U	15.1 U	14.8 U	15.2 U	14.8 U	1800
Phenanthrene	0.99 J	14.3 U	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U
Phenol	7.6 U	76.2 U	7.6 U	7.7 U	7.5 U	7.4 U	7.6 U	7.4 U	0.33 J
Pyrene	1.4 U	14.3 U	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	0.53 J
VOLATILES	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
1,1,1-Trichloroethane	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1,2,2-Tetrachloroethane	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
1,1,2-Trichloroethane	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1-Dichloroethane	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1-Dichloroethene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2,3-Trichlorobenzene	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
1,2,4-Trichlorobenzene	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
1,2-Dibromo-3-chloropropa	7 U	7 U	7 U	7 U	7 U	7 U	7 U	7 U	7 U
1,2-Dibromoethane	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dichlorobenzene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dichloroethane	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dichloroethene (cis)	2.4	2.2	3.1	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dichloroethene (trans)	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dichloropropane	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,3-Dichlorobenzene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,4-Dichlorobenzene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,4-Dioxane	320 U	320 U	320 U	320 U	320 U	320 U	320 U	320 U	320 U
2-Butanone	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2-Hexanone	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
4-Methyl-2-pentanone (MIBK)	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Acetone	10 U	10 U	10 U	10 U	3.2 J	5 J	10 U	3.8 J	6.3 J
Benzene	2.3	2.2	2.1	1 U	1 U	1 U	1 U	1 U	2.9
Bromochloromethane	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Bromodichloromethane	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Bromoform	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Bromomethane	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Carbon Disulfide	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Carbon Tetrachloride	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U

DATA SUMMARY OF ANALYTICAL RESULTS
 JUNE / JULY 2014 QUARTERLY GROUNDWATER SAMPLING
 HAVERTOWN PCP SITE, HAVERTOWN, PENNSYLVANIA

Sample ID:	CW-21D-20140701	DUP-01-20140701	CW-21S-20140701	CW-22D-201140630	CW-22S-20140630	CW32-20140630	CW33-20140630	CW34-20140630	HAV-05-20140701
Sample Date:	7/1/2014	7/1/2014	7/1/2014	6/30/2014	6/30/2014	6/30/2014	6/30/2014	6/30/2014	7/1/2014
Duplicate of:		CW-21D-20140701							
Chlorobenzene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chloroethane	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chloroform	1 U	1 U	1 U	0.55 J	0.42 J	0.38 J	0.36 J	1.1	0.83 J
Chloromethane	1 U	1 U	1 U	0.33 J	1 U	1 U	1 U	1 U	1 U
cis-1,3-Dichloropropene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Cyclohexane	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.57 J
Dibromochloromethane	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Dichlorodifluoromethane	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Ethylbenzene	1.2	1.1	0.7 J	1 U	1 U	1 U	1 U	1 U	15.1
Freon 113	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Isopropylbenzene	2.3	2.3	2.3	1 U	1 U	1 U	1 U	1 U	13.8
Methyl Acetate	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
Methyl Cyclohexane	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.86 J
Methyl T-butyl Ether	0.77 J	0.77 J	2.8	0.86 J	0.66 J	1 U	1 U	1 U	1 U
Methylene Chloride	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Mp-xylene	0.56 J	0.53 J	2 U	2 U	2 U	2 U	2 U	2 U	8.7
O-xylene	5	5.2	1.3	1 U	1 U	1 U	1 U	1 U	41.4
Styrene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.37 J
Tetrachloroethene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Toluene	0.25 J	0.27 J	1 U	1 U	0.26 J	1 U	1 U	1 U	0.51 J
trans-1,3-Dichloropropene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Trichloroethene	1.3	1.3	1.3	1 U	1 U	1 U	1 U	1 U	1.1
Trichlorofluoromethane	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Vinyl Chloride	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U

DATA SUMMARY OF ANALYTICAL RESULTS
 JUNE / JULY 2014 QUARTERLY GROUNDWATER SAMPLING
 HAVERTOWN PCP SITE, HAVERTOWN, PENNSYLVANIA

Sample ID:	HAV-07-20140701	MW-1-20140701	MW-2-20140701	RW-10-20140630	RW-8-20140630	RW-9-20140630	FB-20140701	FB-02-20140701	TB-20140630
Sample Date:	7/1/2014	7/1/2014	7/1/2014	6/30/2014	6/30/2014	6/30/2014	7/1/2014	7/1/2014	6/30/2014
Duplicate of:									
	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
SEMIVOLATILES									
1,2,4,5-Tetrachlorobenzene	2.8 U	2.8 U	2.8 U	2.8 U	2.8 U	2.8 U	2.9 U	3 U	2.8 U
2,3,4,6-Tetrachlorophenol	7.5 U	7.5 U	7.5 U	7.5 U	7.5 U	7.7 U	8.1 U	7.5 U	7.5 U
2,4,5-Trichlorophenol	7.5 U	7.5 U	7.5 U	7.5 U	7.5 U	7.7 U	8.1 U	7.5 U	7.5 U
2,4,6-Trichlorophenol	7.5 U	7.5 U	7.5 U	7.5 U	7.5 U	7.7 U	8.1 U	7.5 U	7.5 U
2,4-Dichlorophenol	7.5 U	7.5 U	7.5 U	7.5 U	7.5 U	7.7 U	8.1 U	7.5 U	7.5 U
2,4-Dimethylphenol	7.5 U	7.5 U	7.5 U	7.5 U	7.5 U	7.7 U	8.1 U	7.5 U	7.5 U
2,4-Dinitrophenol	15.1 U	15.1 U	15.1 U	15.1 U	15.1 U	15.5 U	16.2 U	15 U	15 U
2,4-Dinitrotoluene	2.8 U	2.8 U	2.8 U	2.8 U	2.8 U	2.9 U	3 U	2.8 U	2.8 U
2,6-Dinitrotoluene	2.8 U	2.8 U	2.8 U	2.8 U	2.8 U	2.9 U	3 U	2.8 U	2.8 U
2-Chloronaphthalene	2.8 U	2.8 U	2.8 U	2.8 U	2.8 U	2.9 U	3 U	2.8 U	2.8 U
2-Chlorophenol	7.5 U	7.5 U	7.5 U	7.5 U	7.5 U	7.7 U	8.1 U	7.5 U	7.5 U
2-Methyl-4,6-dinitrophenol	7.5 U	7.5 U	7.5 U	7.5 U	7.5 U	7.7 U	8.1 U	7.5 U	7.5 U
2-Methylnaphthalene	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	1.5 U	1.4 U	1.4 U
2-Methylphenol	7.5 U	7.5 U	7.5 U	7.5 U	7.5 U	7.7 U	8.1 U	7.5 U	7.5 U
2-Nitroaniline	2.8 U	2.8 U	2.8 U	2.8 U	2.8 U	2.9 U	3 U	2.8 U	2.8 U
2-Nitrophenol	7.5 U	7.5 U	7.5 U	7.5 U	7.5 U	7.7 U	8.1 U	7.5 U	7.5 U
3,3-Dichlorobenzidine	15.1 U	15.1 U	15.1 U	15.1 U	15.1 U	15.5 U	16.2 U	15 U	15 U
3-Nitroaniline	2.8 U	2.8 U	2.8 U	2.8 U	2.8 U	2.9 U	3 U	2.8 U	2.8 U
4-Bromophenyl Phenyl Ether	2.8 U	2.8 U	2.8 U	2.8 U	2.8 U	2.9 U	3 U	2.8 U	2.8 U
4-Chloro-3-methylphenol	7.5 U	7.5 U	7.5 U	7.5 U	7.5 U	7.7 U	8.1 U	7.5 U	7.5 U
4-Chloroaniline	2.8 U	2.8 U	2.8 U	2.8 U	2.8 U	2.9 U	3 U	2.8 U	2.8 U
4-Chlorophenyl-phenylether	2.8 U	2.8 U	2.8 U	2.8 U	2.8 U	2.9 U	3 U	2.8 U	2.8 U
4-Nitroaniline	2.8 U	2.8 U	2.8 U	2.8 U	2.8 U	2.9 U	3 U	2.8 U	2.8 U
4-Nitrophenol	7.5 U	7.5 U	7.5 U	7.5 U	7.5 U	7.7 U	8.1 U	7.5 U	7.5 U
Acenaphthene	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	1.5 U	1.4 U	1.4 U
Acenaphthylene	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	1.5 U	1.4 U	1.4 U
Acetophenone	7.5 U	7.5 U	7.5 U	7.5 U	7.5 U	7.7 U	8.1 U	7.5 U	7.5 U
Anthracene	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	1.5 U	1.4 U	1.4 U
Atrazine	2.8 U	2.8 U	2.8 U	2.8 U	0.46 J	2.9 U	3 U	2.8 U	2.8 U
Benz(a)anthracene	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	1.5 U	1.4 U	1.4 U
Benzaldehyde	7.5 U	7.5 U	7.5 U	7.5 U	7.5 U	7.7 U	8.1 U	7.5 U	7.5 U
Benzo(a)pyrene	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	1.5 U	1.4 U	1.4 U
Benzo(b)fluoranthene	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	1.5 U	1.4 U	1.4 U
Benzo(g,h,i)perylene	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	1.5 U	1.4 U	1.4 U
Benzo(k)fluoranthene	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	1.5 U	1.4 U	1.4 U
Biphenyl	7.5 U	7.5 U	7.5 U	7.5 U	7.5 U	7.7 U	8.1 U	7.5 U	7.5 U
Bis(2-chloroethoxy)methane	2.8 U	2.8 U	2.8 U	2.8 U	2.8 U	2.9 U	3 U	2.8 U	2.8 U
Bis(2-chloroethyl)ether	2.8 U	2.8 U	2.8 U	2.8 U	2.8 U	2.9 U	3 U	2.8 U	2.8 U
Bis(2-chloroisopropyl)eth	2.8 U	2.8 U	2.8 U	2.8 U	2.8 U	2.9 U	3 U	2.8 U	2.8 U
Bis(2-ethylhexyl)phthalat	2.8 U	2.8 U	2.8 U	2.8 U	2.2 J	2.9 U	3 U	2.8 U	2.8 U
Butylbenzylphthalate	2.8 U	2.8 U	2.8 U	2.8 U	2.8 U	2.9 U	3 U	2.8 U	2.8 U
Caprolactam	7.5 U	7.5 U	7.5 U	7.5 U	7.5 U	7.7 U	8.1 U	7.5 U	7.5 U
Carbazole	2.8 U	2.8 U	2.8 U	2.8 U	2.8 U	2.9 U	3 U	2.8 U	2.8 U
Chrysene	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	1.5 U	1.4 U	1.4 U
Di-n-butylphthalate	2.8 U	2.8 U	2.8 U	2.8 U	2.8 U	2.9 U	3 U	0.54 J	2.8 U
Di-n-octylphthalate	7.5 U	7.5 U	7.5 U	7.5 U	7.5 U	7.7 U	8.1 U	7.5 U	7.5 U
Dibenz(a,h)anthracene	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	1.5 U	1.4 U	1.4 U
Dibenzofuran	2.8 U	2.8 U	2.8 U	2.8 U	2.8 U	2.9 U	3 U	2.8 U	2.8 U

DATA SUMMARY OF ANALYTICAL RESULTS
 JUNE / JULY 2014 QUARTERLY GROUNDWATER SAMPLING
 HAVERTOWN PCP SITE, HAVERTOWN, PENNSYLVANIA

Sample ID:	HAV-07-20140701	MW-1-20140701	MW-2-20140701	RW-10-20140630	RW-8-20140630	RW-9-20140630	FB-20140701	FB-02-20140701	TB-20140630
Sample Date:	7/1/2014	7/1/2014	7/1/2014	6/30/2014	6/30/2014	6/30/2014	7/1/2014	7/1/2014	6/30/2014
Duplicate of:									
Diethylphthalate	7.5 U	7.5 U	7.5 U	7.5 U	7.5 U	7.7 U	8.1 U	0.89 J	NA
Dimethylphthalate	7.5 U	7.5 U	7.5 U	7.5 U	7.5 U	7.7 U	8.1 U	7.5 U	NA
Fluoranthene	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	1.5 U	1.4 U	NA
Fluorene	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	1.5 U	1.4 U	NA
Hexachlorobenzene	2.8 U	2.8 U	2.8 U	2.8 U	2.8 U	2.9 U	3 U	2.8 U	NA
Hexachlorobutadiene	2.8 U	2.8 U	2.8 U	2.8 U	2.8 U	2.9 U	3 U	2.8 U	NA
Hexachlorocyclopentadiene	7.5 U	7.5 U	7.5 U	7.5 U	7.5 U	7.7 U	8.1 U	7.5 U	NA
Hexachloroethane	2.8 U	2.8 U	2.8 U	2.8 U	2.8 U	2.9 U	3 U	2.8 U	NA
Indeno(1,2,3-cd)pyrene	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	1.5 U	1.4 U	NA
Isophorone	2.8 U	2.8 U	2.8 U	2.8 U	2.8 U	2.9 U	3 U	2.8 U	NA
Mp-cresol	7.5 U	7.5 U	7.5 U	7.5 U	7.5 U	7.7 U	8.1 U	7.5 U	NA
N-Nitroso-di-n-propylamin	2.8 U	2.8 U	2.8 U	2.8 U	2.8 U	2.9 U	3 U	2.8 U	NA
N-Nitrosodiphenylamine	2.8 U	2.8 U	2.8 U	2.8 U	2.8 U	2.9 U	3 U	2.8 U	NA
Naphthalene	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	1.5 U	1.4 U	NA
Nitrobenzene	2.8 U	2.8 U	2.8 U	2.8 U	2.8 U	2.9 U	3 U	2.8 U	NA
Pentachlorophenol	15.1 U	15.1 U	15.1 U	15.1 U	15.1 U	15.5 U	16.2 U	15 U	NA
Phenanthrene	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	1.5 U	1.4 U	NA
Phenol	7.5 U	7.5 U	7.5 U	7.5 U	7.5 U	7.7 U	8.1 U	7.5 U	NA
Pyrene	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	1.5 U	1.4 U	NA
VOLATILES	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
1,1,1-Trichloroethane	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1,2,2-Tetrachloroethane	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
1,1,2-Trichloroethane	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1-Dichloroethane	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1-Dichloroethene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2,3-Trichlorobenzene	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
1,2,4-Trichlorobenzene	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
1,2-Dibromo-3-chloropropa	7 U	7 U	7 U	7 U	7 U	7 U	7 U	7 U	7 U
1,2-Dibromoethane	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dichlorobenzene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dichloroethane	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dichloroethene (cis)	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dichloroethene (trans)	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dichloropropane	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,3-Dichlorobenzene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,4-Dichlorobenzene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,4-Dioxane	320 U	320 U	320 U	320 U	320 U	320 U	320 U	320 U	320 U
2-Butanone	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2-Hexanone	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
4-Methyl-2-pentanone (MIBK)	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Acetone	10 U	3.5 J	4 J	46.6	13.8	5.1 J	10 U	4.6 J	10.2
Benzene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Bromochloromethane	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Bromodichloromethane	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Bromoform	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Bromomethane	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.63 J	1 U
Carbon Disulfide	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Carbon Tetrachloride	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U

DATA SUMMARY OF ANALYTICAL RESULTS
 JUNE / JULY 2014 QUARTERLY GROUNDWATER SAMPLING
 HAVERTOWN PCP SITE, HAVERTOWN, PENNSYLVANIA

Sample ID:	HAV-07-20140701	MW-1-20140701	MW-2-20140701	RW-10-20140630	RW-8-20140630	RW-9-20140630	FB-20140701	FB-02-20140701	TB-20140630
Sample Date:	7/1/2014	7/1/2014	7/1/2014	6/30/2014	6/30/2014	6/30/2014	7/1/2014	7/1/2014	6/30/2014
Duplicate of:									
Chlorobenzene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chloroethane	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chloroform	1.2	1.2	0.32 J	1 U	1 U	1 U	1 U	1 U	1 U
Chloromethane	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.34 J	1 U
cis-1,3-Dichloropropene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Cyclohexane	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Dibromochloromethane	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Dichlorodifluoromethane	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Ethylbenzene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Freon 113	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Isopropylbenzene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Methyl Acetate	2 U	2 U	2 U	2 U	2 U	2 U	2 U	0.37 J	2 U
Methyl Cyclohexane	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Methyl T-butyl Ether	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Methylene Chloride	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Mp-xylene	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
O-xylene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Styrene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Tetrachloroethene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Toluene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.31 J
trans-1,3-Dichloropropene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Trichloroethene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Trichlorofluoromethane	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Vinyl Chloride	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U

DATA SUMMARY OF ANALYTICAL RESULTS
JUNE / JULY 2014 QUARTERLY GROUNDWATER SAMPLING
HAVERTOWN PCP SITE, HAVERTOWN, PENNSYLVANIA

Data Qualifiers:

J -- Value is considered estimated due to exceedance of technical quality control criteria or because result is less than the Contract Required Quantitation Limit (CRQL).

U -- Value is a non-detected result as reported by the laboratory.

NA -- No result is available/applicable for this parameter in this sample.

Shaded cells represent exceedances of groundwater remedial goal objectives

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