UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 6
1445 Ross Avenue, Suite 1200
Dallas, Texas 75202-2733

September 29, 2017

Memorandum

RE: Note to Reader regarding United Creosoting Company data from the Portable High-Throughput Integrated Laboratory Identification System (PHILIS)

Dear Reader,

The data package attached includes information related to multiple sites. For ease of review, the data pages related to the United Creosoting Company site have been copied and provided at the front of the data package. The final data package is included in full as Attachment 1.

Ground water samples were taken and are denoted as UCC-GW-001 and UCC-GW-002.

Sample ID: UCC-GW-001
Labratory ID: C17I005-03 (Water)
Laboratory: PHILIS
Instrument ID: GC/MS #5
Method: Semivolatile Organic Compounds by EPA Method 8270D

Analyte	Result	Rpt Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Phenol	ND	25.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	
Bis(2-chloroethyl)ether	ND	25.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	
2-Chlorophenol	ND	25.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	
2-Methylphenol	ND	25.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	
2,2'-Oxybis(1-chloropropane)	ND	25.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	
N-Nitroso-di-n-propylamine	ND	25.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	
Hexachloroethane	ND	25.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	
Nitrobenzene	ND	25.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	
Isophorone	ND	25.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	
2-Nitrophenol	ND	25.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	
2,4-Dimethylphenol	ND	25.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	
Bis(2-chloroethoxy)methane	ND	25.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	
2,4-Dichlorophenol	ND	25.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	
Naphthalene	ND	25.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	
4-Chloroaniline	ND	25.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	
Hexachlorobutadiene	ND	25.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	
4-Chloro-3-methylphenol	ND	25.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	
2-Methylnaphthalene	ND	25.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	
Hexachlorocyclopentadiene	ND	25.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	
2,4,6-Trichlorophenol	ND	25.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	
2,4,5-Trichlorophenol	ND	25.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	
2-Chloronaphthalene	ND	25.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	
2-Nitroaniline	ND	25.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	
Dimethylphthalate	ND	50.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	
2,6-Dinitrotoluene	ND	25.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	A-01
Acenaphthylene	ND	25.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	
Acenaphthene	ND	25.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	
3-Nitroaniline	ND	25.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	
2,4-Dinitrophenol	ND	100	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	
4-Nitrophenol	ND	50.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	
Dibenzofuran	ND	25.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	
2,4-Dinitrotoluene	ND	25.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	A-01
Diethylphthalate	ND	50.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	A-01
4-Chlorophenyl-phenylether	ND	25.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	
Fluorene	ND	25.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	
4-Nitroaniline	ND	50.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	
4,6-Dinitro-2-methylphenol	ND	50.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	A-01
4-Bromophenyl-phenylether	ND	25.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	
Hexachlorobenzene	ND	25.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	
Pentachlorophenol	ND	50.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	
Phenanthrene	ND	25.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	

Sample ID: UCC-GW-001
Labratory ID: C17I005-03 (Water)
Laboratory: PHILIS
Instrument ID: GC/MS #5
Method: Semivolatile Organic Compounds by EPA Method 8270D

Analyte	Result	Rpt Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Anthracene	ND	25.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	
Carbazole	ND	25.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	A-01
Di-n-butylphthalate	ND	50.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	
Fluoranthene	ND	25.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	
Pyrene	ND	25.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	
Butylbenzylphthalate	ND	50.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	
Benzo(a)anthracene	ND	25.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	
Bis(2-ethylhexyl)phthalate	ND	50.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	
Chrysene	ND	25.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	
Di-n-octylphthalate	ND	50.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	
Benzo(b)fluoranthene	ND	25.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	
Benzo(k)fluoranthene	ND	25.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	
Benzo(a)pyrene	ND	25.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	
Indeno(1,2,3-cd)pyrene	ND	25.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	
Dibenzo(a,h)anthracene	ND	25.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	
Benzo(g,h,i)perylene	ND	25.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	

Surrogate: 2-Fluorophenol	*29.2 %*	*0-120*	*C7I1202*	*09/12/17*	*09/12/17*	*8270D*
Surrogate: Phenol-d6	*18.2 %*	*1.78-120*	*C7I1202*	*09/12/17*	*09/12/17*	*8270D*
Surrogate: Nitrobenzene-d5	*55.0 %*	*4.97-120*	*C7I1202*	*09/12/17*	*09/12/17*	*8270D*
Surrogate: 2-Fluorobiphenyl	*58.8 %*	*6.08-120*	*C7I1202*	*09/12/17*	*09/12/17*	*8270D*
Surrogate: 2,4,6-Tribromophenol	*53.6 %*	*1.77-120*	*C7I1202*	*09/12/17*	*09/12/17*	*8270D*
Surrogate: Terphenyl-d14	*82.5 %*	*21.1-160*	*C7I1202*	*09/12/17*	*09/12/17*	*8270D*

Instrument ID: GC/MS #4
Method: Volatile Organic Compounds by EPA Method 8260C

Analyte	Result	Rpt Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Dichlorodifluoromethane	ND	2.00	ug/L	1	C7I1201	09/11/17	09/11/17	8260C	U
Chloromethane	ND	2.00	ug/L	1	C7I1201	09/11/17	09/11/17	8260C	U
Vinyl chloride	ND	2.00	ug/L	1	C7I1201	09/11/17	09/11/17	8260C	U
Bromomethane	ND	2.00	ug/L	1	C7I1201	09/11/17	09/11/17	8260C	U
Chloroethane	ND	2.00	ug/L	1	C7I1201	09/11/17	09/11/17	8260C	U
Trichlorofluoromethane	ND	2.00	ug/L	1	C7I1201	09/11/17	09/11/17	8260C	U
1,1-Dichloroethene	ND	2.00	ug/L	1	C7I1201	09/11/17	09/11/17	8260C	U
Methylene chloride	ND	5.00	ug/L	1	C7I1201	09/11/17	09/11/17	8260C	U
Methyl tert-butyl ether	ND	2.00	ug/L	1	C7I1201	09/11/17	09/11/17	8260C	U
Acetone	ND	10.0	ug/L	1	C7I1201	09/11/17	09/11/17	8260C	U
trans-1,2-Dichloroethene	ND	2.00	ug/L	1	C7I1201	09/11/17	09/11/17	8260C	U
1,1-Dichloroethane	ND	2.00	ug/L	1	C7I1201	09/11/17	09/11/17	8260C	U
cis-1,2-Dichloroethene	ND	2.00	ug/L	1	C7I1201	09/11/17	09/11/17	8260C	U
Bromochloromethane	ND	2.00	ug/L	1	C7I1201	09/11/17	09/11/17	8260C	U
Chloroform	ND	2.00	ug/L	1	C7I1201	09/11/17	09/11/17	8260C	U

Sample ID: UCC-GW-001
Labratory ID: C17I005-03 (Water)
Laboratory: PHILIS
Instrument ID: GC/MS #4
Method: Volatile Organic Compounds by EPA Method 8260C

Analyte	Result	Rpt Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Carbon tetrachloride	ND	2.00	ug/L	1	C7I1201	09/11/17	09/11/17	8260C	U
1,1,1-Trichloroethane	ND	2.00	ug/L	1	C7I1201	09/11/17	09/11/17	8260C	U
2-Butanone	ND	10.0	ug/L	1	C7I1201	09/11/17	09/11/17	8260C	U
Benzene	ND	2.00	ug/L	1	C7I1201	09/11/17	09/11/17	8260C	U
1,2-Dichloroethane	ND	2.00	ug/L	1	C7I1201	09/11/17	09/11/17	8260C	U
Trichloroethene	ND	2.00	ug/L	1	C7I1201	09/11/17	09/11/17	8260C	U
1,2-Dichloropropane	ND	2.00	ug/L	1	C7I1201	09/11/17	09/11/17	8260C	U
Bromodichloromethane	ND	2.00	ug/L	1	C7I1201	09/11/17	09/11/17	8260C	U
cis-1,3-Dichloropropene	ND	2.00	ug/L	1	C7I1201	09/11/17	09/11/17	8260C	U
Toluene	ND	2.00	ug/L	1	C7I1201	09/11/17	09/11/17	8260C	U
Tetrachloroethene	ND	2.00	ug/L	1	C7I1201	09/11/17	09/11/17	8260C	U
trans-1,3-Dichloropropene	ND	2.00	ug/L	1	C7I1201	09/11/17	09/11/17	8260C	U
4-Methyl-2-pentanone	ND	10.0	ug/L	1	C7I1201	09/11/17	09/11/17	8260C	U
1,1,2-Trichloroethane	ND	2.00	ug/L	1	C7I1201	09/11/17	09/11/17	8260C	U
Dibromochloromethane	ND	2.00	ug/L	1	C7I1201	09/11/17	09/11/17	8260C	U
1,2-Dibromoethane	ND	2.00	ug/L	1	C7I1201	09/11/17	09/11/17	8260C	U
2-Hexanone	ND	10.0	ug/L	1	C7I1201	09/11/17	09/11/17	8260C	U
Chlorobenzene	ND	2.00	ug/L	1	C7I1201	09/11/17	09/11/17	8260C	U
Ethylbenzene	ND	2.00	ug/L	1	C7I1201	09/11/17	09/11/17	8260C	U
m,p-Xylene	ND	6.00	ug/L	1	C7I1201	09/11/17	09/11/17	8260C	U
o-Xylene	ND	2.00	ug/L	1	C7I1201	09/11/17	09/11/17	8260C	U
Xylene (total)	ND	6.00	ug/L	1	C7I1201	09/11/17	09/11/17	8260C	U
Bromoform	ND	2.00	ug/L	1	C7I1201	09/11/17	09/11/17	8260C	U
Styrene	ND	2.00	ug/L	1	C7I1201	09/11/17	09/11/17	8260C	U
Isopropylbenzene	ND	2.00	ug/L	1	C7I1201	09/11/17	09/11/17	8260C	U
1,1,2,2-Tetrachloroethane	ND	2.00	ug/L	1	C7I1201	09/11/17	09/11/17	8260C	U
1,3-Dichlorobenzene	ND	2.00	ug/L	1	C7I1201	09/11/17	09/11/17	8260C	U
1,4-Dichlorobenzene	ND	2.00	ug/L	1	C7I1201	09/11/17	09/11/17	8260C	U
1,2-Dichlorobenzene	ND	2.00	ug/L	1	C7I1201	09/11/17	09/11/17	8260C	U
1,2-Dibromo-3-chloropropane	ND	5.00	ug/L	1	C7I1201	09/11/17	09/11/17	8260C	U
1,2,4-Trichlorobenzene	ND	2.00	ug/L	1	C7I1201	09/11/17	09/11/17	8260C	U
1,2,3-Trichlorobenzene	ND	2.00	ug/L	1	C7I1201	09/11/17	09/11/17	8260C	U

Surrogate: 1,2-Dichloroethane-d4	*109 %*	*80-120*	*C7I1201*	*09/11/17*	*09/11/17*	*8260C*
Surrogate: Toluene-d8	*98.7 %*	*80-120*	*C7I1201*	*09/11/17*	*09/11/17*	*8260C*
Surrogate: 4-Bromofluorobenzene	*106 %*	*80-120*	*C7I1201*	*09/11/17*	*09/11/17*	*8260C*

Sample ID: UCC-GW-002
Labratory ID: C17I005-04 (Water)
Laboratory: PHILIS
Instrument ID: GC/MS #5
Method: Semivolatile Organic Compounds by EPA Method 8270D

Analyte	Result	Rpt Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Phenol	ND	25.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	
Bis(2-chloroethyl)ether	ND	25.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	
2-Chlorophenol	ND	25.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	
2-Methylphenol	ND	25.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	
2,2'-Oxybis(1-chloropropane)	ND	25.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	
N-Nitroso-di-n-propylamine	ND	25.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	
Hexachloroethane	ND	25.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	
Nitrobenzene	ND	25.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	
Isophorone	ND	25.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	
2-Nitrophenol	ND	25.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	
2,4-Dimethylphenol	ND	25.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	
Bis(2-chloroethoxy)methane	ND	25.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	
2,4-Dichlorophenol	ND	25.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	
Naphthalene	ND	25.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	
4-Chloroaniline	ND	25.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	
Hexachlorobutadiene	ND	25.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	
4-Chloro-3-methylphenol	ND	25.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	
2-Methylnaphthalene	ND	25.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	
Hexachlorocyclopentadiene	ND	25.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	
2,4,6-Trichlorophenol	ND	25.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	
2,4,5-Trichlorophenol	ND	25.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	
2-Chloronaphthalene	ND	25.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	
2-Nitroaniline	ND	25.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	
Dimethylphthalate	ND	50.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	
2,6-Dinitrotoluene	ND	25.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	A-01
Acenaphthylene	ND	25.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	
Acenaphthene	ND	25.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	
3-Nitroaniline	ND	25.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	
2,4-Dinitrophenol	ND	100	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	
4-Nitrophenol	ND	50.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	
Dibenzofuran	ND	25.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	
2,4-Dinitrotoluene	ND	25.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	A-01
Diethylphthalate	ND	50.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	A-01
4-Chlorophenyl-phenylether	ND	25.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	
Fluorene	ND	25.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	
4-Nitroaniline	ND	50.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	
4,6-Dinitro-2-methylphenol	ND	50.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	A-01
4-Bromophenyl-phenylether	ND	25.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	
Hexachlorobenzene	ND	25.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	
Pentachlorophenol	ND	50.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	
Phenanthrene	ND	25.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	

Sample ID: UCC-GW-002
Labratory ID: C17I005-04 (Water)
Laboratory: PHILIS
Instrument ID: GC/MS #5
Method: Semivolatile Organic Compounds by EPA Method 8270D

Analyte	Result	Rpt Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Anthracene	ND	25.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	
Carbazole	ND	25.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	A-01
Di-n-butylphthalate	ND	50.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	
Fluoranthene	ND	25.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	
Pyrene	ND	25.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	
Butylbenzylphthalate	ND	50.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	
Benzo(a)anthracene	ND	25.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	
Bis(2-ethylhexyl)phthalate	ND	50.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	
Chrysene	ND	25.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	
Di-n-octylphthalate	ND	50.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	
Benzo(b)fluoranthene	ND	25.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	
Benzo(k)fluoranthene	ND	25.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	
Benzo(a)pyrene	ND	25.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	
Indeno(1,2,3-cd)pyrene	ND	25.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	
Dibenzo(a,h)anthracene	ND	25.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	
Benzo(g,h,i)perylene	ND	25.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	

Surrogate: 2-Fluorophenol	*19.1 %*	*0-120*	*C7I1202*	*09/12/17*	*09/12/17*	*8270D*
Surrogate: Phenol-d6	*11.7 %*	*1.78-120*	*C7I1202*	*09/12/17*	*09/12/17*	*8270D*
Surrogate: Nitrobenzene-d5	*32.7 %*	*4.97-120*	*C7I1202*	*09/12/17*	*09/12/17*	*8270D*
Surrogate: 2-Fluorobiphenyl	*38.0 %*	*6.08-120*	*C7I1202*	*09/12/17*	*09/12/17*	*8270D*
Surrogate: 2,4,6-Tribromophenol	*36.6 %*	*1.77-120*	*C7I1202*	*09/12/17*	*09/12/17*	*8270D*
Surrogate: Terphenyl-d14	*58.5 %*	*21.1-160*	*C7I1202*	*09/12/17*	*09/12/17*	*8270D*

Instrument ID: GC/MS #4
Method: Volatile Organic Compounds by EPA Method 8260C

Analyte	Result	Rpt Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Dichlorodifluoromethane	ND	2.00	ug/L	1	C7I1201	09/11/17	09/11/17	8260C	U
Chloromethane	ND	2.00	ug/L	1	C7I1201	09/11/17	09/11/17	8260C	U
Vinyl chloride	ND	2.00	ug/L	1	C7I1201	09/11/17	09/11/17	8260C	U
Bromomethane	ND	2.00	ug/L	1	C7I1201	09/11/17	09/11/17	8260C	U
Chloroethane	ND	2.00	ug/L	1	C7I1201	09/11/17	09/11/17	8260C	U
Trichlorofluoromethane	ND	2.00	ug/L	1	C7I1201	09/11/17	09/11/17	8260C	U
1,1-Dichloroethene	ND	2.00	ug/L	1	C7I1201	09/11/17	09/11/17	8260C	U
Methylene chloride	ND	5.00	ug/L	1	C7I1201	09/11/17	09/11/17	8260C	U
Methyl tert-butyl ether	ND	2.00	ug/L	1	C7I1201	09/11/17	09/11/17	8260C	U
Acetone	ND	10.0	ug/L	1	C7I1201	09/11/17	09/11/17	8260C	U
trans-1,2-Dichloroethene	ND	2.00	ug/L	1	C7I1201	09/11/17	09/11/17	8260C	U
1,1-Dichloroethane	ND	2.00	ug/L	1	C7I1201	09/11/17	09/11/17	8260C	U
cis-1,2-Dichloroethene	ND	2.00	ug/L	1	C7I1201	09/11/17	09/11/17	8260C	U
Bromochloromethane	ND	2.00	ug/L	1	C7I1201	09/11/17	09/11/17	8260C	U
Chloroform	ND	2.00	ug/L	1	C7I1201	09/11/17	09/11/17	8260C	U

Sample ID: UCC-GW-002
Labratory ID: C17I005-04 (Water)
Laboratory: PHILIS
Instrument ID: GC/MS #4
Method: Volatile Organic Compounds by EPA Method 8260C

Analyte	Result	Rpt Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Carbon tetrachloride	ND	2.00	ug/L	1	C7I1201	09/11/17	09/11/17	8260C	U
1,1,1-Trichloroethane	ND	2.00	ug/L	1	C7I1201	09/11/17	09/11/17	8260C	U
2-Butanone	ND	10.0	ug/L	1	C7I1201	09/11/17	09/11/17	8260C	U
Benzene	ND	2.00	ug/L	1	C7I1201	09/11/17	09/11/17	8260C	U
1,2-Dichloroethane	ND	2.00	ug/L	1	C7I1201	09/11/17	09/11/17	8260C	U
Trichloroethene	ND	2.00	ug/L	1	C7I1201	09/11/17	09/11/17	8260C	U
1,2-Dichloropropane	ND	2.00	ug/L	1	C7I1201	09/11/17	09/11/17	8260C	U
Bromodichloromethane	ND	2.00	ug/L	1	C7I1201	09/11/17	09/11/17	8260C	U
cis-1,3-Dichloropropene	ND	2.00	ug/L	1	C7I1201	09/11/17	09/11/17	8260C	U
Toluene	ND	2.00	ug/L	1	C7I1201	09/11/17	09/11/17	8260C	U
Tetrachloroethene	ND	2.00	ug/L	1	C7I1201	09/11/17	09/11/17	8260C	U
trans-1,3-Dichloropropene	ND	2.00	ug/L	1	C7I1201	09/11/17	09/11/17	8260C	U
4-Methyl-2-pentanone	ND	10.0	ug/L	1	C7I1201	09/11/17	09/11/17	8260C	U
1,1,2-Trichloroethane	ND	2.00	ug/L	1	C7I1201	09/11/17	09/11/17	8260C	U
Dibromochloromethane	ND	2.00	ug/L	1	C7I1201	09/11/17	09/11/17	8260C	U
1,2-Dibromoethane	ND	2.00	ug/L	1	C7I1201	09/11/17	09/11/17	8260C	U
2-Hexanone	ND	10.0	ug/L	1	C7I1201	09/11/17	09/11/17	8260C	U
Chlorobenzene	ND	2.00	ug/L	1	C7I1201	09/11/17	09/11/17	8260C	U
Ethylbenzene	ND	2.00	ug/L	1	C7I1201	09/11/17	09/11/17	8260C	U
m,p-Xylene	ND	6.00	ug/L	1	C7I1201	09/11/17	09/11/17	8260C	U
o-Xylene	ND	2.00	ug/L	1	C7I1201	09/11/17	09/11/17	8260C	U
Xylene (total)	ND	6.00	ug/L	1	C7I1201	09/11/17	09/11/17	8260C	U
Bromoform	ND	2.00	ug/L	1	C7I1201	09/11/17	09/11/17	8260C	U
Styrene	ND	2.00	ug/L	1	C7I1201	09/11/17	09/11/17	8260C	U
Isopropylbenzene	ND	2.00	ug/L	1	C7I1201	09/11/17	09/11/17	8260C	U
1,1,2,2-Tetrachloroethane	ND	2.00	ug/L	1	C7I1201	09/11/17	09/11/17	8260C	U
1,3-Dichlorobenzene	ND	2.00	ug/L	1	C7I1201	09/11/17	09/11/17	8260C	U
1,4-Dichlorobenzene	ND	2.00	ug/L	1	C7I1201	09/11/17	09/11/17	8260C	U
1,2-Dichlorobenzene	ND	2.00	ug/L	1	C7I1201	09/11/17	09/11/17	8260C	U
1,2-Dibromo-3-chloropropane	ND	5.00	ug/L	1	C7I1201	09/11/17	09/11/17	8260C	U
1,2,4-Trichlorobenzene	ND	2.00	ug/L	1	C7I1201	09/11/17	09/11/17	8260C	U
1,2,3-Trichlorobenzene	ND	2.00	ug/L	1	C7I1201	09/11/17	09/11/17	8260C	U

Surrogate: 1,2-Dichloroethane-d4	*114 %*	*80-120*	*C7I1201*	*09/11/17*	*09/11/17*	*8260C*
Surrogate: Toluene-d8	*99.4 %*	*80-120*	*C7I1201*	*09/11/17*	*09/11/17*	*8260C*
Surrogate: 4-Bromofluorobenzene	*106 %*	*80-120*	*C7I1201*	*09/11/17*	*09/11/17*	*8260C*

Attachment 1

Portable High-Throughput Integrated Laboratory Identification System (PHILIS)

EPA Contract No. EP-W-09-034
U.S. Environmental Protection Agency
Office of Emergency Management
Washington, DC 20460

Data Report

DPC-098 dated 09-14-2017

Site Name: Houston Superfund Environmental Response

Client: US EPA – Region 6

Sample Collection Date: 09/10/2017

Work Order No.: C17I005

Operated by:

CSS
8833 Cincinnati-Dayton Road, Suite 202
West Chester, OH 45069

ANALYSES INCLUDED IN THIS REPORT

Volatile Organic Compounds by EPA method 8260C.
Semi-Volatile Organic Compounds by EPA method 8270D.

REPORT NARRATIVE

PHILIS Unit: PAL (VIN No.: 1S12E95325E506676)
SPA (VIN No.: 4AG6U33235C037445)

Field Sample Identifiers:

Field ID #	Lab ID #
CCC-GW-001	C17I005-01
CCC-GW-002	C17I005-02
UCC-GW-001	C17I005-03
UCC-GW-002	C17I005-04
TB-001	C17I005-05

Data Package Identifier(s) / Data Reporting Group: **C17I005**

Shipping Information:

Carrier Name: Delivered by Client

Date Received: 09/11/2017

GENERAL COMMENTS AND SUMMARY

Sample receipt and analysis proceeded as per protocol. Any discrepancies are noted below.

SAMPLE RECEIPT

Samples received by the laboratory met SOP requirements for sample receipt.

ANALYTICAL EXCEPTIONS

Sample analysis met method and SOP requirements. Any deviations are noted below.

PERFORMANCE FOR METHOD 8260C

Mass Spectrometer Instrument Performance Check
Met method and SOP requirements.

Initial Calibration
Met method and SOP requirements.

Second-source Calibration Verification (SCV)
Met method and SOP requirements.

Continuing Calibration Verification (CCV)
Met method and SOP requirements.

CI71001-CCV2: Acetone exceeded method/SOP acceptance criteria (123% Drift – The upper limit is 120% Drift). Acetone was not detected in any of the associated samples. 1,1,2,2-Tetrachloroethane exceeded method/SOP acceptance criteria (121% Drift – the upper limit is 120% Drift). 1,1,2,2-Tetrachloroethane was not detected in any of the associated samples.

Laboratory Control Sample/ Laboratory Control Sample Duplicate (LCS/LCSD)
Met method and SOP requirements.

Matrix Spike/ Matrix Spike Duplicate (MS/MSD) or Duplicate
Inadequate sample was provided for an MS/MSD.

Internal Standards
Met method and SOP requirements.

Method Blanks
Met method and SOP requirements.

Surrogates Standards
Met method and SOP requirements.

Samples
Met method and SOP requirements.

PERFORMANCE FOR METHOD 8270D

Mass Spectrometer Instrument Performance Check
Met method and SOP requirements.

Initial Calibration
Met method and SOP requirements.

Second-source Calibration Verification (SCV)
Met method and SOP requirements.

Continuing Calibration Verification (CCV)
Met method and SOP requirements.

Laboratory Control Sample/ Laboratory Control Sample Duplicate (LCS/LCSD)

A-01: Laboratory control sample C7I1202-BS1 had five compounds below acceptable limits. Carbazole recovery was 58.4% with the lower limit at 64.5%; 2,6-Dinitrotoluene recovery was 54.3% with a lower limit at 55.8%; 2,4-Dinitrotoluene recovery was 56.0% with a lower at 56.7%; Diethylphthalate recovery was 57.5% with a lower limit of 57.7% and 4,6-Dinitro-2-methylphenol recovery was 53.0% with a lower limit of 55.9%. The analytes listed above were not detected in any of the associated samples. The instrument had adequate sensitivity to detect these analytes if they were present in the samples.

Matrix Spike/ Matrix Spike Duplicate (MS/MSD) or Duplicate

Met method and SOP requirements.

Internal Standards

Met method and SOP requirements.

Method Blanks

Met method and SOP requirements.

Surrogates Standards

Met method and SOP requirements.

Samples

A-01: Laboratory control sample C7I1202-BS1 had five compounds below acceptable limits. Carbazole recovery was 58.4% with the lower limit at 64.5%; 2,6-Dinitrotoluene recovery was 54.3% with a lower limit at 55.8%; 2,4-Dinitrotoluene recovery was 56.0% with a lower at 56.7%; Diethylphthalate recovery was 57.5% with a lower limit of 57.7% and 4,6-Dinitro-2-methylphenol recovery was 53.0% with a lower limit of 55.9%. The analytes listed above were not detected in any of the associated samples. The instrument had adequate sensitivity to detect these analytes if they were present in the samples.

ABBREVIATIONS AND DEFINITIONS

Abbreviation	Definition
% Breakdown	Percent Breakdown
% by weight	Percent by weight
% Diff/Drift	Percent difference/ drift (ccv rf relative to ical mean rf/ ccv or scv concentration relative to standard concentration)
% R	Percent Recovery
% Resolution	Percent Resolution
% RSD	Percent Relative Standard Deviation
% Solids	Percent Solids
%D (%Diff/Drift)	Percent Difference
Area %	Area percent (relative to reference area – midpoint standard from curve)
AVECF	Mean Calibration Factor
AVERRF	Mean Relative Response Factor
AVERT	Mean Retention Time
BLK	Blank
BS	Blank Spike
BSD	Blank Spike Duplicate
CAL	Calibration
Calibration Mean RT	Calibration Mean Retention Time (Mean retention time of compound from curve)
CCV	Continuing Calibration Verification
CF	Calibration Factor
COC	Chain of Custody
COD	Coefficient of Determination
D	Dilution
Dev	Deviation
DIFF	Difference
DMC	Deuterated Monitoring Compound
DUP	Sample Duplicate
HCV	High Concentration Calibration Verification
IB	Instrument Blank
ICAL	Initial Calibration
ICB	Instrument Calibration Blank
IS	Internal Standard
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
LEB	Leachate Extraction Blank
Linear r	Linear curve fit
MB	Method Blank
MDL	Method Detection Limit
Mean RF	Mean Response Factor (curve)
Mean RT	Mean Retention Time (curve)
Min(#)	Minimum response factor value (if not at or above this value - there must be an explanation in narrative.

Abbreviation	Definition
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PE	Performance Evaluation
Prep	Preparation
Q	Qualifier (see narrative for explanation)
Q DEL'd	Deleted compound (false positive)
QC	Quality Control
QIon	Quantitation or Target Ion
QUAD	Quadratic
Quad COD	Quadratic curve fit
Rec.	Recovery
REF	Reference
Rel.	Relative
RF	Response Factor
RF RSD	Response Factor Relative Standard Deviation(curve)
RL	Reporting Limit
RPD (%RPD)	Relative Percent Difference
RRF	Relative Response Factor
RRT	Relative Retention Time
RT	Retention Time
RT Diff	Retention Time Difference (relative to calibration mean RT)
RT RSD	Retention Time Relative Standard Deviation (Curve)
SCV	Second source Calibration Verification
SDG	Sample Delivery Group
SEDD	Staged Electronic Data Deliverable
SOP	Standard Operating Procedure
STD	Standard
TAL	Target Analyte List
TIC	Tentatively Identified Compound
TOF	Time-of-Flight
TUN	Tune Check
U	Under the RL
ug/Kg dry	Result on dry weight basis
ug/Kg wet	Result on wet weight basis

DATA PACKAGE ORDER AND TABLE OF CONTENTS

Report Approvals:

Julia Capri

Julia Capri
PHILIS Program Manager

PHILIS
Portable High-throughput Integrated laboratory Identification Systems

CSS

CLIENT - LAB SAMPLE CROSS REFERENCE

EPA
2890 Woodbridge Ave. Bldg. 238
Edison NJ, 08837

Project: Hurricane Harvey Environmental Response
Project Number: [none]
Project Manager: Larry Kaelin

Reported:
09/13/17 11:35
Printed:
09/13/17 11:35

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
CCC-GW-001	C17I005-01	Water	09/11/17 10:45	09/11/17 19:11
CCC-GW-002	C17I005-02	Water	09/11/17 11:07	09/11/17 19:11
UCC-GW-001	C17I005-03	Water	09/11/17 13:40	09/11/17 19:11
UCC-GW-002	C17I005-04	Water	09/11/17 14:15	09/11/17 19:11
TB-001	C17I005-05	Water	09/11/17 18:10	09/11/17 19:11

PHILIS
Portable High-throughput Integrated laboratory Identification Systems

CSS

ANALYTICAL RESULTS

EPA
2890 Woodbridge Ave. Bldg. 238
Edison NJ, 08837

Project: Hurricane Harvey Environmental Response
Project Number: [none]
Project Manager: Larry Kaelin

Reported:
09/13/17 11:11
Printed:
09/13/17 11:11

Sample ID: CCC-GW-001
Labratory ID: C17I005-01 (Water)
Laboratory: PHILIS
Instrument ID: GC/MS #5
Method: Semivolatile Organic Compounds by EPA Method 8270D

Analyte	Result	Rpt Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Phenol	ND	25.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	
Bis(2-chloroethyl)ether	ND	25.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	
2-Chlorophenol	ND	25.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	
2-Methylphenol	ND	25.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	
2,2'-Oxybis(1-chloropropane)	ND	25.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	
N-Nitroso-di-n-propylamine	ND	25.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	
Hexachloroethane	ND	25.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	
Nitrobenzene	ND	25.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	
Isophorone	ND	25.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	
2-Nitrophenol	ND	25.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	
2,4-Dimethylphenol	ND	25.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	
Bis(2-chloroethoxy)methane	ND	25.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	
2,4-Dichlorophenol	ND	25.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	
Naphthalene	ND	25.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	
4-Chloroaniline	ND	25.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	
Hexachlorobutadiene	ND	25.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	
4-Chloro-3-methylphenol	ND	25.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	
2-Methylnaphthalene	ND	25.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	
Hexachlorocyclopentadiene	ND	25.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	
2,4,6-Trichlorophenol	ND	25.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	
2,4,5-Trichlorophenol	ND	25.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	
2-Chloronaphthalene	ND	25.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	
2-Nitroaniline	ND	25.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	
Dimethylphthalate	ND	50.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	
2,6-Dinitrotoluene	ND	25.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	A-01
Acenaphthylene	ND	25.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	
Acenaphthene	ND	25.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	
3-Nitroaniline	ND	25.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	
2,4-Dinitrophenol	ND	100	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	
4-Nitrophenol	ND	50.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	
Dibenzofuran	ND	25.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	
2,4-Dinitrotoluene	ND	25.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	A-01
Diethylphthalate	ND	50.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	A-01
4-Chlorophenyl-phenylether	ND	25.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	
Fluorene	ND	25.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	

Sample ID: CCC-GW-001
Labratory ID: C17I005-01 (Water)
Laboratory: PHILIS
Instrument ID: GC/MS #5
Method: Semivolatile Organic Compounds by EPA Method 8270D

Analyte	Result	Rpt Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
4-Nitroaniline	ND	50.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	
4,6-Dinitro-2-methylphenol	ND	50.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	A-01
4-Bromophenyl-phenylether	ND	25.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	
Hexachlorobenzene	ND	25.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	
Pentachlorophenol	ND	50.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	
Phenanthrene	ND	25.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	
Anthracene	ND	25.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	
Carbazole	ND	25.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	A-01
Di-n-butylphthalate	ND	50.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	
Fluoranthene	ND	25.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	
Pyrene	ND	25.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	
Butylbenzylphthalate	ND	50.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	
Benzo(a)anthracene	ND	25.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	
Bis(2-ethylhexyl)phthalate	ND	50.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	
Chrysene	ND	25.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	
Di-n-octylphthalate	ND	50.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	
Benzo(b)fluoranthene	ND	25.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	
Benzo(k)fluoranthene	ND	25.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	
Benzo(a)pyrene	ND	25.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	
Indeno(1,2,3-cd)pyrene	ND	25.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	
Dibenzo(a,h)anthracene	ND	25.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	
Benzo(g,h,i)perylene	ND	25.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	

Surrogate: 2-Fluorophenol	*20.4 %*	*0-120*	*C7I1202*	*09/12/17*	*09/12/17*	*8270D*
Surrogate: Phenol-d6	*13.1 %*	*1.78-120*	*C7I1202*	*09/12/17*	*09/12/17*	*8270D*
Surrogate: Nitrobenzene-d5	*29.6 %*	*4.97-120*	*C7I1202*	*09/12/17*	*09/12/17*	*8270D*
Surrogate: 2-Fluorobiphenyl	*33.8 %*	*6.08-120*	*C7I1202*	*09/12/17*	*09/12/17*	*8270D*
Surrogate: 2,4,6-Tribromophenol	*31.4 %*	*1.77-120*	*C7I1202*	*09/12/17*	*09/12/17*	*8270D*
Surrogate: Terphenyl-d14	*53.0 %*	*21.1-160*	*C7I1202*	*09/12/17*	*09/12/17*	*8270D*

Sample ID: CCC-GW-002
Labratory ID: C17I005-02RE1 (Water)
Laboratory: PHILIS
Instrument ID: GC/MS #5
Method: Semivolatile Organic Compounds by EPA Method 8270D

Analyte	Result	Rpt Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Phenol	ND	25.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	
Bis(2-chloroethyl)ether	ND	25.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	
2-Chlorophenol	ND	25.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	
2-Methylphenol	ND	25.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	
2,2'-Oxybis(1-chloropropane)	ND	25.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	
N-Nitroso-di-n-propylamine	ND	25.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	
Hexachloroethane	ND	25.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	
Nitrobenzene	ND	25.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	
Isophorone	ND	25.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	
2-Nitrophenol	ND	25.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	
2,4-Dimethylphenol	ND	25.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	
Bis(2-chloroethoxy)methane	ND	25.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	
2,4-Dichlorophenol	ND	25.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	
Naphthalene	ND	25.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	
4-Chloroaniline	ND	25.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	
Hexachlorobutadiene	ND	25.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	
4-Chloro-3-methylphenol	ND	25.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	
2-Methylnaphthalene	ND	25.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	
Hexachlorocyclopentadiene	ND	25.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	
2,4,6-Trichlorophenol	ND	25.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	
2,4,5-Trichlorophenol	ND	25.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	
2-Chloronaphthalene	ND	25.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	
2-Nitroaniline	ND	25.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	
Dimethylphthalate	ND	50.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	
2,6-Dinitrotoluene	ND	25.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	A-01
Acenaphthylene	ND	25.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	
Acenaphthene	ND	25.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	
3-Nitroaniline	ND	25.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	
2,4-Dinitrophenol	ND	100	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	
4-Nitrophenol	ND	50.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	
Dibenzofuran	ND	25.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	
2,4-Dinitrotoluene	ND	25.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	A-01
Diethylphthalate	ND	50.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	A-01
4-Chlorophenyl-phenylether	ND	25.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	
Fluorene	ND	25.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	
4-Nitroaniline	ND	50.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	
4,6-Dinitro-2-methylphenol	ND	50.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	A-01
4-Bromophenyl-phenylether	ND	25.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	
Hexachlorobenzene	ND	25.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	
Pentachlorophenol	ND	50.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	
Phenanthrene	ND	25.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	

Sample ID: CCC-GW-002
Labratory ID: C17I005-02RE1 (Water)
Laboratory: PHILIS
Instrument ID: GC/MS #5
Method: Semivolatile Organic Compounds by EPA Method 8270D

Analyte	Result	Rpt Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Anthracene	ND	25.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	
Carbazole	ND	25.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	A-01
Di-n-butylphthalate	ND	50.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	
Fluoranthene	ND	25.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	
Pyrene	ND	25.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	
Butylbenzylphthalate	ND	50.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	
Benzo(a)anthracene	ND	25.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	
Bis(2-ethylhexyl)phthalate	ND	50.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	
Chrysene	ND	25.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	
Di-n-octylphthalate	ND	50.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	
Benzo(b)fluoranthene	ND	25.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	
Benzo(k)fluoranthene	ND	25.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	
Benzo(a)pyrene	ND	25.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	
Indeno(1,2,3-cd)pyrene	ND	25.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	
Dibenzo(a,h)anthracene	ND	25.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	
Benzo(g,h,i)perylene	ND	25.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	

Surrogate: 2-Fluorophenol	*25.8 %*	*0-120*	*C7I1202*	*09/12/17*	*09/12/17*	*8270D*
Surrogate: Phenol-d6	*19.7 %*	*1.78-120*	*C7I1202*	*09/12/17*	*09/12/17*	*8270D*
Surrogate: Nitrobenzene-d5	*23.7 %*	*4.97-120*	*C7I1202*	*09/12/17*	*09/12/17*	*8270D*
Surrogate: 2-Fluorobiphenyl	*25.7 %*	*6.08-120*	*C7I1202*	*09/12/17*	*09/12/17*	*8270D*
Surrogate: 2,4,6-Tribromophenol	*24.9 %*	*1.77-120*	*C7I1202*	*09/12/17*	*09/12/17*	*8270D*
Surrogate: Terphenyl-d14	*39.7 %*	*21.1-160*	*C7I1202*	*09/12/17*	*09/12/17*	*8270D*

Sample ID: UCC-GW-001
Labratory ID: C17I005-03 (Water)
Laboratory: PHILIS
Instrument ID: GC/MS #5
Method: Semivolatile Organic Compounds by EPA Method 8270D

Analyte	Result	Rpt Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Phenol	ND	25.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	
Bis(2-chloroethyl)ether	ND	25.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	
2-Chlorophenol	ND	25.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	
2-Methylphenol	ND	25.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	
2,2'-Oxybis(1-chloropropane)	ND	25.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	
N-Nitroso-di-n-propylamine	ND	25.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	
Hexachloroethane	ND	25.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	
Nitrobenzene	ND	25.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	
Isophorone	ND	25.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	
2-Nitrophenol	ND	25.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	
2,4-Dimethylphenol	ND	25.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	
Bis(2-chloroethoxy)methane	ND	25.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	
2,4-Dichlorophenol	ND	25.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	
Naphthalene	ND	25.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	
4-Chloroaniline	ND	25.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	
Hexachlorobutadiene	ND	25.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	
4-Chloro-3-methylphenol	ND	25.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	
2-Methylnaphthalene	ND	25.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	
Hexachlorocyclopentadiene	ND	25.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	
2,4,6-Trichlorophenol	ND	25.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	
2,4,5-Trichlorophenol	ND	25.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	
2-Chloronaphthalene	ND	25.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	
2-Nitroaniline	ND	25.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	
Dimethylphthalate	ND	50.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	
2,6-Dinitrotoluene	ND	25.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	A-01
Acenaphthylene	ND	25.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	
Acenaphthene	ND	25.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	
3-Nitroaniline	ND	25.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	
2,4-Dinitrophenol	ND	100	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	
4-Nitrophenol	ND	50.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	
Dibenzofuran	ND	25.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	
2,4-Dinitrotoluene	ND	25.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	A-01
Diethylphthalate	ND	50.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	A-01
4-Chlorophenyl-phenylether	ND	25.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	
Fluorene	ND	25.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	
4-Nitroaniline	ND	50.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	
4,6-Dinitro-2-methylphenol	ND	50.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	A-01
4-Bromophenyl-phenylether	ND	25.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	
Hexachlorobenzene	ND	25.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	
Pentachlorophenol	ND	50.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	
Phenanthrene	ND	25.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	

Sample ID: UCC-GW-001
Labratory ID: C17I005-03 (Water)
Laboratory: PHILIS
Instrument ID: GC/MS #5
Method: Semivolatile Organic Compounds by EPA Method 8270D

Analyte	Result	Rpt Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Anthracene	ND	25.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	
Carbazole	ND	25.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	A-01
Di-n-butylphthalate	ND	50.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	
Fluoranthene	ND	25.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	
Pyrene	ND	25.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	
Butylbenzylphthalate	ND	50.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	
Benzo(a)anthracene	ND	25.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	
Bis(2-ethylhexyl)phthalate	ND	50.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	
Chrysene	ND	25.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	
Di-n-octylphthalate	ND	50.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	
Benzo(b)fluoranthene	ND	25.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	
Benzo(k)fluoranthene	ND	25.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	
Benzo(a)pyrene	ND	25.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	
Indeno(1,2,3-cd)pyrene	ND	25.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	
Dibenzo(a,h)anthracene	ND	25.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	
Benzo(g,h,i)perylene	ND	25.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	

Surrogate: 2-Fluorophenol	*29.2 %*	*0-120*	*C7I1202*	*09/12/17*	*09/12/17*	*8270D*
Surrogate: Phenol-d6	*18.2 %*	*1.78-120*	*C7I1202*	*09/12/17*	*09/12/17*	*8270D*
Surrogate: Nitrobenzene-d5	*55.0 %*	*4.97-120*	*C7I1202*	*09/12/17*	*09/12/17*	*8270D*
Surrogate: 2-Fluorobiphenyl	*58.8 %*	*6.08-120*	*C7I1202*	*09/12/17*	*09/12/17*	*8270D*
Surrogate: 2,4,6-Tribromophenol	*53.6 %*	*1.77-120*	*C7I1202*	*09/12/17*	*09/12/17*	*8270D*
Surrogate: Terphenyl-d14	*82.5 %*	*21.1-160*	*C7I1202*	*09/12/17*	*09/12/17*	*8270D*

Instrument ID: GC/MS #4
Method: Volatile Organic Compounds by EPA Method 8260C

Analyte	Result	Rpt Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Dichlorodifluoromethane	ND	2.00	ug/L	1	C7I1201	09/11/17	09/11/17	8260C	U
Chloromethane	ND	2.00	ug/L	1	C7I1201	09/11/17	09/11/17	8260C	U
Vinyl chloride	ND	2.00	ug/L	1	C7I1201	09/11/17	09/11/17	8260C	U
Bromomethane	ND	2.00	ug/L	1	C7I1201	09/11/17	09/11/17	8260C	U
Chloroethane	ND	2.00	ug/L	1	C7I1201	09/11/17	09/11/17	8260C	U
Trichlorofluoromethane	ND	2.00	ug/L	1	C7I1201	09/11/17	09/11/17	8260C	U
1,1-Dichloroethene	ND	2.00	ug/L	1	C7I1201	09/11/17	09/11/17	8260C	U
Methylene chloride	ND	5.00	ug/L	1	C7I1201	09/11/17	09/11/17	8260C	U
Methyl tert-butyl ether	ND	2.00	ug/L	1	C7I1201	09/11/17	09/11/17	8260C	U
Acetone	ND	10.0	ug/L	1	C7I1201	09/11/17	09/11/17	8260C	U
trans-1,2-Dichloroethene	ND	2.00	ug/L	1	C7I1201	09/11/17	09/11/17	8260C	U
1,1-Dichloroethane	ND	2.00	ug/L	1	C7I1201	09/11/17	09/11/17	8260C	U
cis-1,2-Dichloroethene	ND	2.00	ug/L	1	C7I1201	09/11/17	09/11/17	8260C	U
Bromochloromethane	ND	2.00	ug/L	1	C7I1201	09/11/17	09/11/17	8260C	U
Chloroform	ND	2.00	ug/L	1	C7I1201	09/11/17	09/11/17	8260C	U

Sample ID: UCC-GW-001
Labratory ID: C17I005-03 (Water)
Laboratory: PHILIS
Instrument ID: GC/MS #4
Method: Volatile Organic Compounds by EPA Method 8260C

Analyte	Result	Rpt Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Carbon tetrachloride	ND	2.00	ug/L	1	C7I1201	09/11/17	09/11/17	8260C	U
1,1,1-Trichloroethane	ND	2.00	ug/L	1	C7I1201	09/11/17	09/11/17	8260C	U
2-Butanone	ND	10.0	ug/L	1	C7I1201	09/11/17	09/11/17	8260C	U
Benzene	ND	2.00	ug/L	1	C7I1201	09/11/17	09/11/17	8260C	U
1,2-Dichloroethane	ND	2.00	ug/L	1	C7I1201	09/11/17	09/11/17	8260C	U
Trichloroethene	ND	2.00	ug/L	1	C7I1201	09/11/17	09/11/17	8260C	U
1,2-Dichloropropane	ND	2.00	ug/L	1	C7I1201	09/11/17	09/11/17	8260C	U
Bromodichloromethane	ND	2.00	ug/L	1	C7I1201	09/11/17	09/11/17	8260C	U
cis-1,3-Dichloropropene	ND	2.00	ug/L	1	C7I1201	09/11/17	09/11/17	8260C	U
Toluene	ND	2.00	ug/L	1	C7I1201	09/11/17	09/11/17	8260C	U
Tetrachloroethene	ND	2.00	ug/L	1	C7I1201	09/11/17	09/11/17	8260C	U
trans-1,3-Dichloropropene	ND	2.00	ug/L	1	C7I1201	09/11/17	09/11/17	8260C	U
4-Methyl-2-pentanone	ND	10.0	ug/L	1	C7I1201	09/11/17	09/11/17	8260C	U
1,1,2-Trichloroethane	ND	2.00	ug/L	1	C7I1201	09/11/17	09/11/17	8260C	U
Dibromochloromethane	ND	2.00	ug/L	1	C7I1201	09/11/17	09/11/17	8260C	U
1,2-Dibromoethane	ND	2.00	ug/L	1	C7I1201	09/11/17	09/11/17	8260C	U
2-Hexanone	ND	10.0	ug/L	1	C7I1201	09/11/17	09/11/17	8260C	U
Chlorobenzene	ND	2.00	ug/L	1	C7I1201	09/11/17	09/11/17	8260C	U
Ethylbenzene	ND	2.00	ug/L	1	C7I1201	09/11/17	09/11/17	8260C	U
m,p-Xylene	ND	6.00	ug/L	1	C7I1201	09/11/17	09/11/17	8260C	U
o-Xylene	ND	2.00	ug/L	1	C7I1201	09/11/17	09/11/17	8260C	U
Xylene (total)	ND	6.00	ug/L	1	C7I1201	09/11/17	09/11/17	8260C	U
Bromoform	ND	2.00	ug/L	1	C7I1201	09/11/17	09/11/17	8260C	U
Styrene	ND	2.00	ug/L	1	C7I1201	09/11/17	09/11/17	8260C	U
Isopropylbenzene	ND	2.00	ug/L	1	C7I1201	09/11/17	09/11/17	8260C	U
1,1,2,2-Tetrachloroethane	ND	2.00	ug/L	1	C7I1201	09/11/17	09/11/17	8260C	U
1,3-Dichlorobenzene	ND	2.00	ug/L	1	C7I1201	09/11/17	09/11/17	8260C	U
1,4-Dichlorobenzene	ND	2.00	ug/L	1	C7I1201	09/11/17	09/11/17	8260C	U
1,2-Dichlorobenzene	ND	2.00	ug/L	1	C7I1201	09/11/17	09/11/17	8260C	U
1,2-Dibromo-3-chloropropane	ND	5.00	ug/L	1	C7I1201	09/11/17	09/11/17	8260C	U
1,2,4-Trichlorobenzene	ND	2.00	ug/L	1	C7I1201	09/11/17	09/11/17	8260C	U
1,2,3-Trichlorobenzene	ND	2.00	ug/L	1	C7I1201	09/11/17	09/11/17	8260C	U

Surrogate: 1,2-Dichloroethane-d4	*109 %*	*80-120*	*C7I1201*	*09/11/17*	*09/11/17*	*8260C*
Surrogate: Toluene-d8	*98.7 %*	*80-120*	*C7I1201*	*09/11/17*	*09/11/17*	*8260C*
Surrogate: 4-Bromofluorobenzene	*106 %*	*80-120*	*C7I1201*	*09/11/17*	*09/11/17*	*8260C*

Sample ID: UCC-GW-002
Labratory ID: C17I005-04 (Water)
Laboratory: PHILIS
Instrument ID: GC/MS #5
Method: Semivolatile Organic Compounds by EPA Method 8270D

Analyte	Result	Rpt Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Phenol	ND	25.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	
Bis(2-chloroethyl)ether	ND	25.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	
2-Chlorophenol	ND	25.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	
2-Methylphenol	ND	25.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	
2,2'-Oxybis(1-chloropropane)	ND	25.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	
N-Nitroso-di-n-propylamine	ND	25.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	
Hexachloroethane	ND	25.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	
Nitrobenzene	ND	25.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	
Isophorone	ND	25.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	
2-Nitrophenol	ND	25.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	
2,4-Dimethylphenol	ND	25.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	
Bis(2-chloroethoxy)methane	ND	25.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	
2,4-Dichlorophenol	ND	25.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	
Naphthalene	ND	25.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	
4-Chloroaniline	ND	25.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	
Hexachlorobutadiene	ND	25.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	
4-Chloro-3-methylphenol	ND	25.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	
2-Methylnaphthalene	ND	25.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	
Hexachlorocyclopentadiene	ND	25.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	
2,4,6-Trichlorophenol	ND	25.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	
2,4,5-Trichlorophenol	ND	25.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	
2-Chloronaphthalene	ND	25.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	
2-Nitroaniline	ND	25.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	
Dimethylphthalate	ND	50.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	
2,6-Dinitrotoluene	ND	25.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	A-01
Acenaphthylene	ND	25.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	
Acenaphthene	ND	25.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	
3-Nitroaniline	ND	25.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	
2,4-Dinitrophenol	ND	100	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	
4-Nitrophenol	ND	50.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	
Dibenzofuran	ND	25.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	
2,4-Dinitrotoluene	ND	25.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	A-01
Diethylphthalate	ND	50.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	A-01
4-Chlorophenyl-phenylether	ND	25.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	
Fluorene	ND	25.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	
4-Nitroaniline	ND	50.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	
4,6-Dinitro-2-methylphenol	ND	50.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	A-01
4-Bromophenyl-phenylether	ND	25.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	
Hexachlorobenzene	ND	25.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	
Pentachlorophenol	ND	50.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	
Phenanthrene	ND	25.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	

Sample ID: UCC-GW-002
Labratory ID: C17I005-04 (Water)
Laboratory: PHILIS
Instrument ID: GC/MS #5
Method: Semivolatile Organic Compounds by EPA Method 8270D

Analyte	Result	Rpt Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Anthracene	ND	25.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	
Carbazole	ND	25.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	A-01
Di-n-butylphthalate	ND	50.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	
Fluoranthene	ND	25.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	
Pyrene	ND	25.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	
Butylbenzylphthalate	ND	50.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	
Benzo(a)anthracene	ND	25.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	
Bis(2-ethylhexyl)phthalate	ND	50.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	
Chrysene	ND	25.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	
Di-n-octylphthalate	ND	50.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	
Benzo(b)fluoranthene	ND	25.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	
Benzo(k)fluoranthene	ND	25.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	
Benzo(a)pyrene	ND	25.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	
Indeno(1,2,3-cd)pyrene	ND	25.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	
Dibenzo(a,h)anthracene	ND	25.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	
Benzo(g,h,i)perylene	ND	25.0	ug/L	1	C7I1202	09/12/17	09/12/17	8270D	

Surrogate: 2-Fluorophenol	*19.1 %*	*0-120*	*C7I1202*	*09/12/17*	*09/12/17*	*8270D*
Surrogate: Phenol-d6	*11.7 %*	*1.78-120*	*C7I1202*	*09/12/17*	*09/12/17*	*8270D*
Surrogate: Nitrobenzene-d5	*32.7 %*	*4.97-120*	*C7I1202*	*09/12/17*	*09/12/17*	*8270D*
Surrogate: 2-Fluorobiphenyl	*38.0 %*	*6.08-120*	*C7I1202*	*09/12/17*	*09/12/17*	*8270D*
Surrogate: 2,4,6-Tribromophenol	*36.6 %*	*1.77-120*	*C7I1202*	*09/12/17*	*09/12/17*	*8270D*
Surrogate: Terphenyl-d14	*58.5 %*	*21.1-160*	*C7I1202*	*09/12/17*	*09/12/17*	*8270D*

Instrument ID: GC/MS #4
Method: Volatile Organic Compounds by EPA Method 8260C

Analyte	Result	Rpt Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Dichlorodifluoromethane	ND	2.00	ug/L	1	C7I1201	09/11/17	09/11/17	8260C	U
Chloromethane	ND	2.00	ug/L	1	C7I1201	09/11/17	09/11/17	8260C	U
Vinyl chloride	ND	2.00	ug/L	1	C7I1201	09/11/17	09/11/17	8260C	U
Bromomethane	ND	2.00	ug/L	1	C7I1201	09/11/17	09/11/17	8260C	U
Chloroethane	ND	2.00	ug/L	1	C7I1201	09/11/17	09/11/17	8260C	U
Trichlorofluoromethane	ND	2.00	ug/L	1	C7I1201	09/11/17	09/11/17	8260C	U
1,1-Dichloroethene	ND	2.00	ug/L	1	C7I1201	09/11/17	09/11/17	8260C	U
Methylene chloride	ND	5.00	ug/L	1	C7I1201	09/11/17	09/11/17	8260C	U
Methyl tert-butyl ether	ND	2.00	ug/L	1	C7I1201	09/11/17	09/11/17	8260C	U
Acetone	ND	10.0	ug/L	1	C7I1201	09/11/17	09/11/17	8260C	U
trans-1,2-Dichloroethene	ND	2.00	ug/L	1	C7I1201	09/11/17	09/11/17	8260C	U
1,1-Dichloroethane	ND	2.00	ug/L	1	C7I1201	09/11/17	09/11/17	8260C	U
cis-1,2-Dichloroethene	ND	2.00	ug/L	1	C7I1201	09/11/17	09/11/17	8260C	U
Bromochloromethane	ND	2.00	ug/L	1	C7I1201	09/11/17	09/11/17	8260C	U
Chloroform	ND	2.00	ug/L	1	C7I1201	09/11/17	09/11/17	8260C	U

Sample ID: UCC-GW-002
Labratory ID: C17I005-04 (Water)
Laboratory: PHILIS
Instrument ID: GC/MS #4
Method: Volatile Organic Compounds by EPA Method 8260C

Analyte	Result	Rpt Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Carbon tetrachloride	ND	2.00	ug/L	1	C7I1201	09/11/17	09/11/17	8260C	U
1,1,1-Trichloroethane	ND	2.00	ug/L	1	C7I1201	09/11/17	09/11/17	8260C	U
2-Butanone	ND	10.0	ug/L	1	C7I1201	09/11/17	09/11/17	8260C	U
Benzene	ND	2.00	ug/L	1	C7I1201	09/11/17	09/11/17	8260C	U
1,2-Dichloroethane	ND	2.00	ug/L	1	C7I1201	09/11/17	09/11/17	8260C	U
Trichloroethene	ND	2.00	ug/L	1	C7I1201	09/11/17	09/11/17	8260C	U
1,2-Dichloropropane	ND	2.00	ug/L	1	C7I1201	09/11/17	09/11/17	8260C	U
Bromodichloromethane	ND	2.00	ug/L	1	C7I1201	09/11/17	09/11/17	8260C	U
cis-1,3-Dichloropropene	ND	2.00	ug/L	1	C7I1201	09/11/17	09/11/17	8260C	U
Toluene	ND	2.00	ug/L	1	C7I1201	09/11/17	09/11/17	8260C	U
Tetrachloroethene	ND	2.00	ug/L	1	C7I1201	09/11/17	09/11/17	8260C	U
trans-1,3-Dichloropropene	ND	2.00	ug/L	1	C7I1201	09/11/17	09/11/17	8260C	U
4-Methyl-2-pentanone	ND	10.0	ug/L	1	C7I1201	09/11/17	09/11/17	8260C	U
1,1,2-Trichloroethane	ND	2.00	ug/L	1	C7I1201	09/11/17	09/11/17	8260C	U
Dibromochloromethane	ND	2.00	ug/L	1	C7I1201	09/11/17	09/11/17	8260C	U
1,2-Dibromoethane	ND	2.00	ug/L	1	C7I1201	09/11/17	09/11/17	8260C	U
2-Hexanone	ND	10.0	ug/L	1	C7I1201	09/11/17	09/11/17	8260C	U
Chlorobenzene	ND	2.00	ug/L	1	C7I1201	09/11/17	09/11/17	8260C	U
Ethylbenzene	ND	2.00	ug/L	1	C7I1201	09/11/17	09/11/17	8260C	U
m,p-Xylene	ND	6.00	ug/L	1	C7I1201	09/11/17	09/11/17	8260C	U
o-Xylene	ND	2.00	ug/L	1	C7I1201	09/11/17	09/11/17	8260C	U
Xylene (total)	ND	6.00	ug/L	1	C7I1201	09/11/17	09/11/17	8260C	U
Bromoform	ND	2.00	ug/L	1	C7I1201	09/11/17	09/11/17	8260C	U
Styrene	ND	2.00	ug/L	1	C7I1201	09/11/17	09/11/17	8260C	U
Isopropylbenzene	ND	2.00	ug/L	1	C7I1201	09/11/17	09/11/17	8260C	U
1,1,2,2-Tetrachloroethane	ND	2.00	ug/L	1	C7I1201	09/11/17	09/11/17	8260C	U
1,3-Dichlorobenzene	ND	2.00	ug/L	1	C7I1201	09/11/17	09/11/17	8260C	U
1,4-Dichlorobenzene	ND	2.00	ug/L	1	C7I1201	09/11/17	09/11/17	8260C	U
1,2-Dichlorobenzene	ND	2.00	ug/L	1	C7I1201	09/11/17	09/11/17	8260C	U
1,2-Dibromo-3-chloropropane	ND	5.00	ug/L	1	C7I1201	09/11/17	09/11/17	8260C	U
1,2,4-Trichlorobenzene	ND	2.00	ug/L	1	C7I1201	09/11/17	09/11/17	8260C	U
1,2,3-Trichlorobenzene	ND	2.00	ug/L	1	C7I1201	09/11/17	09/11/17	8260C	U

Surrogate: 1,2-Dichloroethane-d4	*114 %*	*80-120*	*C7I1201*	*09/11/17*	*09/11/17*	*8260C*
Surrogate: Toluene-d8	*99.4 %*	*80-120*	*C7I1201*	*09/11/17*	*09/11/17*	*8260C*
Surrogate: 4-Bromofluorobenzene	*106 %*	*80-120*	*C7I1201*	*09/11/17*	*09/11/17*	*8260C*

Sample ID: TB-001
Labratory ID: C17I005-05 (Water)
Laboratory: PHILIS
Instrument ID: GC/MS #4
Method: Volatile Organic Compounds by EPA Method 8260C

Analyte	Result	Rpt Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Dichlorodifluoromethane	ND	2.00	ug/L	1	C7I1201	09/11/17	09/11/17	8260C	U
Chloromethane	ND	2.00	ug/L	1	C7I1201	09/11/17	09/11/17	8260C	U
Vinyl chloride	ND	2.00	ug/L	1	C7I1201	09/11/17	09/11/17	8260C	U
Bromomethane	ND	2.00	ug/L	1	C7I1201	09/11/17	09/11/17	8260C	U
Chloroethane	ND	2.00	ug/L	1	C7I1201	09/11/17	09/11/17	8260C	U
Trichlorofluoromethane	ND	2.00	ug/L	1	C7I1201	09/11/17	09/11/17	8260C	U
1,1-Dichloroethene	ND	2.00	ug/L	1	C7I1201	09/11/17	09/11/17	8260C	U
Methylene chloride	ND	5.00	ug/L	1	C7I1201	09/11/17	09/11/17	8260C	U
Methyl tert-butyl ether	ND	2.00	ug/L	1	C7I1201	09/11/17	09/11/17	8260C	U
Acetone	ND	10.0	ug/L	1	C7I1201	09/11/17	09/11/17	8260C	U
trans-1,2-Dichloroethene	ND	2.00	ug/L	1	C7I1201	09/11/17	09/11/17	8260C	U
1,1-Dichloroethane	ND	2.00	ug/L	1	C7I1201	09/11/17	09/11/17	8260C	U
cis-1,2-Dichloroethene	ND	2.00	ug/L	1	C7I1201	09/11/17	09/11/17	8260C	U
Bromochloromethane	ND	2.00	ug/L	1	C7I1201	09/11/17	09/11/17	8260C	U
Chloroform	ND	2.00	ug/L	1	C7I1201	09/11/17	09/11/17	8260C	U
Carbon tetrachloride	ND	2.00	ug/L	1	C7I1201	09/11/17	09/11/17	8260C	U
1,1,1-Trichloroethane	ND	2.00	ug/L	1	C7I1201	09/11/17	09/11/17	8260C	U
2-Butanone	ND	10.0	ug/L	1	C7I1201	09/11/17	09/11/17	8260C	U
Benzene	ND	2.00	ug/L	1	C7I1201	09/11/17	09/11/17	8260C	U
1,2-Dichloroethane	ND	2.00	ug/L	1	C7I1201	09/11/17	09/11/17	8260C	U
Trichloroethene	ND	2.00	ug/L	1	C7I1201	09/11/17	09/11/17	8260C	U
1,2-Dichloropropane	ND	2.00	ug/L	1	C7I1201	09/11/17	09/11/17	8260C	U
Bromodichloromethane	ND	2.00	ug/L	1	C7I1201	09/11/17	09/11/17	8260C	U
cis-1,3-Dichloropropene	ND	2.00	ug/L	1	C7I1201	09/11/17	09/11/17	8260C	U
Toluene	ND	2.00	ug/L	1	C7I1201	09/11/17	09/11/17	8260C	U
Tetrachloroethene	ND	2.00	ug/L	1	C7I1201	09/11/17	09/11/17	8260C	U
trans-1,3-Dichloropropene	ND	2.00	ug/L	1	C7I1201	09/11/17	09/11/17	8260C	U
4-Methyl-2-pentanone	ND	10.0	ug/L	1	C7I1201	09/11/17	09/11/17	8260C	U
1,1,2-Trichloroethane	ND	2.00	ug/L	1	C7I1201	09/11/17	09/11/17	8260C	U
Dibromochloromethane	ND	2.00	ug/L	1	C7I1201	09/11/17	09/11/17	8260C	U
1,2-Dibromoethane	ND	2.00	ug/L	1	C7I1201	09/11/17	09/11/17	8260C	U
2-Hexanone	ND	10.0	ug/L	1	C7I1201	09/11/17	09/11/17	8260C	U
Chlorobenzene	ND	2.00	ug/L	1	C7I1201	09/11/17	09/11/17	8260C	U
Ethylbenzene	ND	2.00	ug/L	1	C7I1201	09/11/17	09/11/17	8260C	U
m,p-Xylene	ND	6.00	ug/L	1	C7I1201	09/11/17	09/11/17	8260C	U
o-Xylene	ND	2.00	ug/L	1	C7I1201	09/11/17	09/11/17	8260C	U
Xylene (total)	ND	6.00	ug/L	1	C7I1201	09/11/17	09/11/17	8260C	U
Bromoform	ND	2.00	ug/L	1	C7I1201	09/11/17	09/11/17	8260C	U
Styrene	ND	2.00	ug/L	1	C7I1201	09/11/17	09/11/17	8260C	U
Isopropylbenzene	ND	2.00	ug/L	1	C7I1201	09/11/17	09/11/17	8260C	U
1,1,2,2-Tetrachloroethane	ND	2.00	ug/L	1	C7I1201	09/11/17	09/11/17	8260C	U

Sample ID: TB-001
Labratory ID: C17I005-05 (Water)
Laboratory: PHILIS
Instrument ID: GC/MS #4
Method: Volatile Organic Compounds by EPA Method 8260C

Analyte	Result	Rpt Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
1,3-Dichlorobenzene	ND	2.00	ug/L	1	C7I1201	09/11/17	09/11/17	8260C	U
1,4-Dichlorobenzene	ND	2.00	ug/L	1	C7I1201	09/11/17	09/11/17	8260C	U
1,2-Dichlorobenzene	ND	2.00	ug/L	1	C7I1201	09/11/17	09/11/17	8260C	U
1,2-Dibromo-3-chloropropane	ND	5.00	ug/L	1	C7I1201	09/11/17	09/11/17	8260C	U
1,2,4-Trichlorobenzene	ND	2.00	ug/L	1	C7I1201	09/11/17	09/11/17	8260C	U
1,2,3-Trichlorobenzene	ND	2.00	ug/L	1	C7I1201	09/11/17	09/11/17	8260C	U

Surrogate: 1,2-Dichloroethane-d4	*114 %*	*80-120*		*C7I1201*	*09/11/17*	*09/11/17*	*8260C*
Surrogate: Toluene-d8	*98.8 %*	*80-120*		*C7I1201*	*09/11/17*	*09/11/17*	*8260C*

A-01 - See Narrative.

PHILIS
Portable High-throughput Integrated laboratory Identification Systems

QUALITY CONTROL

EPA
2890 Woodbridge Ave. Bldg. 238
Edison NJ, 08837

Project: Hurricane Harvey Environmental Response
Project Number: [none]
Project Manager: Larry Kaelin

Reported: 09/13/17 11:31
Printed: 09/13/17 11:31

Method: Semivolatile Organic Compounds by EPA Method 8270D - Quality Control
Laboratory: PHILIS
Batch ID: Batch C7I1202 - 3510C
Instrument ID: GC/MS #5
Sample Header: Blank (C7I1202-BLK1)
Sp Source:
Analyzed Date: Prepared & Analyzed: 09/12/17

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Phenol	ND	25.0	ug/L							
Bis(2-chloroethyl)ether	ND	25.0	ug/L							
2-Chlorophenol	ND	25.0	ug/L							
2-Methylphenol	ND	25.0	ug/L							
2,2'-Oxybis(1-chloropropane)	ND	25.0	ug/L							
N-Nitroso-di-n-propylamine	ND	25.0	ug/L							
Hexachloroethane	ND	25.0	ug/L							
Nitrobenzene	ND	25.0	ug/L							
Isophorone	ND	25.0	ug/L							
2-Nitrophenol	ND	25.0	ug/L							
2,4-Dimethylphenol	ND	25.0	ug/L							
Bis(2-chloroethoxy)methane	ND	25.0	ug/L							
2,4-Dichlorophenol	ND	25.0	ug/L							
Naphthalene	ND	25.0	ug/L							
4-Chloroaniline	ND	25.0	ug/L							
Hexachlorobutadiene	ND	25.0	ug/L							
4-Chloro-3-methylphenol	ND	25.0	ug/L							
2-Methylnaphthalene	ND	25.0	ug/L							
Hexachlorocyclopentadiene	ND	25.0	ug/L							
2,4,6-Trichlorophenol	ND	25.0	ug/L							
2,4,5-Trichlorophenol	ND	25.0	ug/L							
2-Chloronaphthalene	ND	25.0	ug/L							
2-Nitroaniline	ND	25.0	ug/L							
Dimethylphthalate	ND	50.0	ug/L							
2,6-Dinitrotoluene	ND	25.0	ug/L							
Acenaphthylene	ND	25.0	ug/L							
Acenaphthene	ND	25.0	ug/L							
3-Nitroaniline	ND	25.0	ug/L							
2,4-Dinitrophenol	ND	100	ug/L							
4-Nitrophenol	ND	50.0	ug/L							
Dibenzofuran	ND	25.0	ug/L							
2,4-Dinitrotoluene	ND	25.0	ug/L							
Diethylphthalate	ND	50.0	ug/L							
4-Chlorophenyl-phenylether	ND	25.0	ug/L							
Fluorene	ND	25.0	ug/L							
4-Nitroaniline	ND	50.0	ug/L							
4,6-Dinitro-2-methylphenol	ND	50.0	ug/L							

Method: Semivolatile Organic Compounds by EPA Method 8270D - Quality Control
Laboratory: PHILIS
Batch ID: Batch C7I1202 - 3510C
Instrument ID: GC/MS #5
Sample Header: Blank (C7I1202-BLK1)
Sp Source:
Analyzed Date: Prepared & Analyzed: 09/12/17

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
4-Bromophenyl-phenylether	ND	25.0	ug/L							
Hexachlorobenzene	ND	25.0	ug/L							
Pentachlorophenol	ND	50.0	ug/L							
Phenanthrene	ND	25.0	ug/L							
Anthracene	ND	25.0	ug/L							
Carbazole	ND	25.0	ug/L							
Di-n-butylphthalate	ND	50.0	ug/L							
Fluoranthene	ND	25.0	ug/L							
Pyrene	ND	25.0	ug/L							
Butylbenzylphthalate	ND	50.0	ug/L							
Benzo(a)anthracene	ND	25.0	ug/L							
Bis(2-ethylhexyl)phthalate	ND	50.0	ug/L							
Chrysene	ND	25.0	ug/L							
Di-n-octylphthalate	ND	50.0	ug/L							
Benzo(b)fluoranthene	ND	25.0	ug/L							
Benzo(k)fluoranthene	ND	25.0	ug/L							
Benzo(a)pyrene	ND	25.0	ug/L							
Indeno(1,2,3-cd)pyrene	ND	25.0	ug/L							
Dibenzo(a,h)anthracene	ND	25.0	ug/L							
Benzo(g,h,i)perylene	ND	25.0	ug/L							
Surrogate: 2-Fluorophenol	*124*		*ug/L*	*400.00*		*30.9*	*0-120*			
Surrogate: Phenol-d6	*81.2*		*ug/L*	*400.00*		*20.3*	*1.78-120*			
Surrogate: Nitrobenzene-d5	*152*		*ug/L*	*400.00*		*37.9*	*4.97-120*			
Surrogate: 2-Fluorobiphenyl	*168*		*ug/L*	*400.00*		*41.9*	*6.08-120*			
Surrogate: 2,4,6-Tribromophenol	*142*		*ug/L*	*400.00*		*35.4*	*1.77-120*			
Surrogate: Terphenyl-d14	*215*		*ug/L*	*400.00*		*53.7*	*21.1-160*			

Instrument ID: GC/MS #5
Sample Header: LCS (C7I1202-BS1)
Sp Source:
Analyzed Date: Prepared: 09/12/17 Analyzed: 09/13/17

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Phenol	63.9	25.0	ug/L	400.00		16.0	9.64-120			
Bis(2-chloroethyl)ether	142	25.0	ug/L	400.00		35.6	34.7-120			
2-Chlorophenol	138	25.0	ug/L	400.00		34.4	30.8-120			
2-Methylphenol	135	25.0	ug/L	400.00		33.8	30.8-120			
2,2'-Oxybis(1-chloropropane)	138	25.0	ug/L	400.00		34.4	32-120			
N-Nitroso-di-n-propylamine	162	25.0	ug/L	400.00		40.6	37.3-120			
Hexachloroethane	102	25.0	ug/L	400.00		25.6	22.9-120			

Method: Semivolatile Organic Compounds by EPA Method 8270D - Quality Control
Laboratory: PHILIS
Batch ID: Batch C7I1202 - 3510C
Instrument ID: GC/MS #5
Sample Header: LCS (C7I1202-BS1)
Sp Source:
Analyzed Date: Prepared: 09/12/17 Analyzed: 09/13/17

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Nitrobenzene	154	25.0	ug/L	400.00		38.6	37.4-120			
Isophorone	183	25.0	ug/L	400.00		45.8	43.8-120			
2-Nitrophenol	163	25.0	ug/L	400.00		40.7	35.4-120			
2,4-Dimethylphenol	163	25.0	ug/L	400.00		40.8	25-120			
Bis(2-chloroethoxy)methane	161	25.0	ug/L	400.00		40.2	39.9-120			
2,4-Dichlorophenol	165	25.0	ug/L	400.00		41.2	37.5-120			
Naphthalene	151	25.0	ug/L	400.00		37.8	35.1-120			
4-Chloroaniline	210	25.0	ug/L	400.00		52.4	39.1-120			
Hexachlorobutadiene	116	25.0	ug/L	400.00		29.0	21-120			
4-Chloro-3-methylphenol	195	25.0	ug/L	400.00		48.7	42.5-120			
2-Methylnaphthalene	165	25.0	ug/L	400.00		41.2	37-120			
Hexachlorocyclopentadiene	138	25.0	ug/L	400.00		34.4	21.5-120			
2,4,6-Trichlorophenol	193	25.0	ug/L	400.00		48.2	43-120			
2,4,5-Trichlorophenol	199	25.0	ug/L	400.00		49.6	45-120			
2-Chloronaphthalene	176	25.0	ug/L	400.00		44.1	35.2-120			
2-Nitroaniline	210	25.0	ug/L	400.00		52.6	50.1-120			
Dimethylphthalate	218	50.0	ug/L	400.00		54.6	48.2-125			
2,6-Dinitrotoluene	217	25.0	ug/L	400.00		54.3	55.8-120			A-01
Acenaphthylene	197	25.0	ug/L	400.00		49.3	42.1-120			
Acenaphthene	194	25.0	ug/L	400.00		48.4	39.9-120			
3-Nitroaniline	238	25.0	ug/L	400.00		59.4	54.9-120			
2,4-Dinitrophenol	208	100	ug/L	400.00		51.9	42.2-126			
4-Nitrophenol	103	50.0	ug/L	400.00		25.8	22-120			
Dibenzofuran	201	25.0	ug/L	400.00		50.2	40.7-120			
2,4-Dinitrotoluene	224	25.0	ug/L	400.00		56.0	56.7-122			A-01
Diethylphthalate	230	50.0	ug/L	400.00		57.5	57.7-120			A-01
4-Chlorophenyl-phenylether	212	25.0	ug/L	400.00		52.9	36.6-126			
Fluorene	214	25.0	ug/L	400.00		53.4	42.1-124			
4-Nitroaniline	246	50.0	ug/L	400.00		61.5	54.2-132			
4,6-Dinitro-2-methylphenol	212	50.0	ug/L	400.00		53.0	55.9-133			A-01
4-Bromophenyl-phenylether	231	25.0	ug/L	400.00		57.6	34.8-133			
Hexachlorobenzene	228	25.0	ug/L	400.00		57.1	34.4-132			
Pentachlorophenol	238	50.0	ug/L	400.00		59.4	55.5-133			
Phenanthrene	225	25.0	ug/L	400.00		56.2	43.6-128			
Anthracene	226	25.0	ug/L	400.00		56.6	41.6-129			
Carbazole	234	25.0	ug/L	400.00		58.4	64.5-123			A-01
Di-n-butylphthalate	238	50.0	ug/L	400.00		59.5	47.3-136			
Fluoranthene	228	25.0	ug/L	400.00		57.0	42.9-137			
Pyrene	232	25.0	ug/L	400.00		58.0	43.2-140			
Butylbenzylphthalate	244	50.0	ug/L	400.00		60.9	42.5-146			
Benzo(a)anthracene	236	25.0	ug/L	400.00		59.0	45.3-138			
Bis(2-ethylhexyl)phthalate	244	50.0	ug/L	400.00		61.1	41.8-144			

Method: Semivolatile Organic Compounds by EPA Method 8270D - Quality Control
Laboratory: PHILIS
Batch ID: Batch C7I1202 - 3510C
Instrument ID: GC/MS #5
Sample Header: LCS (C7I1202-BS1)
Sp Source:
Analyzed Date: Prepared: 09/12/17 Analyzed: 09/13/17

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Chrysene	230	25.0	ug/L	400.00		57.4	41.8-135			
Di-n-octylphthalate	250	50.0	ug/L	400.00		62.4	41.5-149			
Benzo(b)fluoranthene	237	25.0	ug/L	400.00		59.2	43.2-136			
Benzo(k)fluoranthene	236	25.0	ug/L	400.00		59.0	44.9-134			
Benzo(a)pyrene	253	25.0	ug/L	400.00		63.2	40.7-140			
Indeno(1,2,3-cd)pyrene	237	25.0	ug/L	400.00		59.2	42.5-150			
Dibenzo(a,h)anthracene	241	25.0	ug/L	400.00		60.3	30-148			
Benzo(g,h,i)perylene	226	25.0	ug/L	400.00		56.4	37.9-145			
Surrogate: 2-Fluorophenol	*90.9*		*ug/L*	*400.00*		*22.7*	*8.97-120*			
Surrogate: Phenol-d6	*62.0*		*ug/L*	*400.00*		*15.5*	*4.63-120*			
Surrogate: Nitrobenzene-d5	*161*		*ug/L*	*400.00*		*40.3*	*10-120*			
Surrogate: 2-Fluorobiphenyl	*185*		*ug/L*	*400.00*		*46.4*	*10-120*			
Surrogate: 2,4,6-Tribromophenol	*240*		*ug/L*	*400.00*		*59.9*	*0.853-160*			
Surrogate: Terphenyl-d14	*259*		*ug/L*	*400.00*		*64.8*	*42-152*			

Instrument ID: GC/MS #5
Sample Header: Matrix Spike (C7I1202-MS1)
Sp Source: Source: C17I005-03
Analyzed Date: Prepared & Analyzed: 09/12/17

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Phenol	70.6	25.0	ug/L	400.00	ND	17.6	9.64-130			
Bis(2-chloroethyl)ether	193	25.0	ug/L	400.00	ND	48.2	34.7-130			
2-Chlorophenol	172	25.0	ug/L	400.00	ND	43.1	30.8-130			
2-Methylphenol	163	25.0	ug/L	400.00	ND	40.8	30.8-130			
2,2'-Oxybis(1-chloropropane)	194	25.0	ug/L	400.00	ND	48.4	32-130			
N-Nitroso-di-n-propylamine	213	25.0	ug/L	400.00	ND	53.3	37.3-130			
Hexachloroethane	164	25.0	ug/L	400.00	ND	40.9	22.9-130			
Nitrobenzene	209	25.0	ug/L	400.00	ND	52.3	37.4-130			
Isophorone	230	25.0	ug/L	400.00	ND	57.6	43.8-130			
2-Nitrophenol	209	25.0	ug/L	400.00	ND	52.4	35.4-130			
2,4-Dimethylphenol	194	25.0	ug/L	400.00	ND	48.6	25-130			
Bis(2-chloroethoxy)methane	216	25.0	ug/L	400.00	ND	53.9	39.9-130			
2,4-Dichlorophenol	212	25.0	ug/L	400.00	ND	53.0	37.5-130			
Naphthalene	206	25.0	ug/L	400.00	ND	51.6	35.1-130			
4-Chloroaniline	172	25.0	ug/L	400.00	ND	43.1	39.1-130			
Hexachlorobutadiene	173	25.0	ug/L	400.00	ND	43.2	21-130			
4-Chloro-3-methylphenol	218	25.0	ug/L	400.00	ND	54.5	42.5-130			
2-Methylnaphthalene	219	25.0	ug/L	400.00	ND	54.7	37-130			
Hexachlorocyclopentadiene	189	25.0	ug/L	400.00	ND	47.3	21.5-130			

Method: Semivolatile Organic Compounds by EPA Method 8270D - Quality Control
Laboratory: PHILIS
Batch ID: Batch C7I1202 - 3510C
Instrument ID: GC/MS #5
Sample Header: Matrix Spike (C7I1202-MS1)
Sp Source: Source: C17I005-03
Analyzed Date: Prepared & Analyzed: 09/12/17

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
2,4,6-Trichlorophenol	233	25.0	ug/L	400.00	ND	58.2	43-130			
2,4,5-Trichlorophenol	239	25.0	ug/L	400.00	ND	59.8	45-130			
2-Chloronaphthalene	225	25.0	ug/L	400.00	ND	56.2	35.2-130			
2-Nitroaniline	243	25.0	ug/L	400.00	ND	60.8	50.1-130			
Dimethylphthalate	252	50.0	ug/L	400.00	ND	63.0	48.1-125			
2,6-Dinitrotoluene	251	25.0	ug/L	400.00	ND	62.8	55.8-130			
Acenaphthylene	241	25.0	ug/L	400.00	ND	60.4	42.1-130			
Acenaphthene	237	25.0	ug/L	400.00	ND	59.3	39.9-130			
3-Nitroaniline	225	25.0	ug/L	400.00	ND	56.3	54.9-130			
2,4-Dinitrophenol	248	100	ug/L	400.00	ND	62.0	42.2-130			
4-Nitrophenol	102	50.0	ug/L	400.00	ND	25.5	22-130			
Dibenzofuran	240	25.0	ug/L	400.00	ND	60.0	40.7-130			
2,4-Dinitrotoluene	256	25.0	ug/L	400.00	ND	64.0	56.7-130			
Diethylphthalate	259	50.0	ug/L	400.00	ND	64.8	57.5-130			
4-Chlorophenyl-phenylether	247	25.0	ug/L	400.00	ND	61.8	36.6-130			
Fluorene	247	25.0	ug/L	400.00	ND	61.7	42.1-130			
4-Nitroaniline	246	50.0	ug/L	400.00	ND	61.4	54.2-132			
4,6-Dinitro-2-methylphenol	241	50.0	ug/L	400.00	ND	60.2	55.9-133			
4-Bromophenyl-phenylether	264	25.0	ug/L	400.00	ND	66.1	34.8-133			
Hexachlorobenzene	269	25.0	ug/L	400.00	ND	67.2	34.4-132			
Pentachlorophenol	262	50.0	ug/L	400.00	ND	65.4	55.5-133			
Phenanthrene	259	25.0	ug/L	400.00	ND	64.8	43.6-130			
Anthracene	259	25.0	ug/L	400.00	ND	64.7	41.6-130			
Carbazole	265	25.0	ug/L	400.00	ND	66.2	64.5-130			
Di-n-butylphthalate	264	50.0	ug/L	400.00	25.2	59.8	47.3-136			
Fluoranthene	258	25.0	ug/L	400.00	9.10	62.2	42.9-137			
Pyrene	252	25.0	ug/L	400.00	5.70	61.5	43.2-140			
Butylbenzylphthalate	254	50.0	ug/L	400.00	ND	63.6	42.5-146			
Benzo(a)anthracene	253	25.0	ug/L	400.00	10.3	60.6	45.3-138			
Bis(2-ethylhexyl)phthalate	252	50.0	ug/L	400.00	ND	63.1	41.8-144			
Chrysene	252	25.0	ug/L	400.00	ND	62.9	41.8-135			
Di-n-octylphthalate	250	50.0	ug/L	400.00	ND	62.4	41.5-149			
Benzo(b)fluoranthene	249	25.0	ug/L	400.00	14.5	58.6	43.2-136			
Benzo(k)fluoranthene	250	25.0	ug/L	400.00	15.5	58.6	44.9-134			
Benzo(a)pyrene	271	25.0	ug/L	400.00	ND	67.7	40.7-140			
Indeno(1,2,3-cd)pyrene	264	25.0	ug/L	400.00	ND	66.1	42.5-150			
Dibenzo(a,h)anthracene	268	25.0	ug/L	400.00	ND	67.0	30-148			
Benzo(g,h,i)perylene	255	25.0	ug/L	400.00	ND	63.8	37.9-145			
Surrogate: 2-Fluorophenol	*100*		*ug/L*	*400.00*		*25.0*	*0-120*			
Surrogate: Phenol-d6	*70.6*		*ug/L*	*400.00*		*17.6*	*1.78-120*			
Surrogate: Nitrobenzene-d5	*213*		*ug/L*	*400.00*		*53.4*	*4.97-120*			
Surrogate: 2-Fluorobiphenyl	*231*		*ug/L*	*400.00*		*57.8*	*6.08-120*			

Method: Semivolatile Organic Compounds by EPA Method 8270D - Quality Control
Laboratory: PHILIS
Batch ID: Batch C7I1202 - 3510C
Instrument ID: GC/MS #5
Sample Header: Matrix Spike (C7I1202-MS1)
Sp Source: Source: C17I005-03
Analyzed Date: Prepared & Analyzed: 09/12/17

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Surrogate: 2,4,6-Tribromophenol	*275*		*ug/L*	*400.00*		*68.8*	*1.77-120*			
Surrogate: Terphenyl-d14	*276*		*ug/L*	*400.00*		*68.9*	*21.1-160*			

Instrument ID: GC/MS #5
Sample Header: Matrix Spike Dup (C7I1202-MSD1)
Sp Source: Source: C17I005-03
Analyzed Date: Prepared & Analyzed: 09/12/17

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Phenol	87.4	25.0	ug/L	400.00	ND	21.8	9.64-130	21.3	31.5	
Bis(2-chloroethyl)ether	220	25.0	ug/L	400.00	ND	55.0	34.7-130	13.1	34.1	
2-Chlorophenol	206	25.0	ug/L	400.00	ND	51.5	30.8-130	17.8	32.5	
2-Methylphenol	194	25.0	ug/L	400.00	ND	48.5	30.8-130	17.2	30	
2,2'-Oxybis(1-chloropropane)	214	25.0	ug/L	400.00	ND	53.6	32-130	10.1	30.8	
N-Nitroso-di-n-propylamine	243	25.0	ug/L	400.00	ND	60.8	37.3-130	13.3	30	
Hexachloroethane	185	25.0	ug/L	400.00	ND	46.4	22.9-130	12.6	35.7	
Nitrobenzene	239	25.0	ug/L	400.00	ND	59.8	37.4-130	13.4	30.3	
Isophorone	269	25.0	ug/L	400.00	ND	67.2	43.8-130	15.4	30	
2-Nitrophenol	242	25.0	ug/L	400.00	ND	60.5	35.4-130	14.4	30	
2,4-Dimethylphenol	233	25.0	ug/L	400.00	ND	58.3	25-130	18.1	30	
Bis(2-chloroethoxy)methane	244	25.0	ug/L	400.00	ND	61.1	39.9-130	12.6	30	
2,4-Dichlorophenol	244	25.0	ug/L	400.00	ND	61.1	37.5-130	14.1	30	
Naphthalene	232	25.0	ug/L	400.00	ND	58.0	35.1-130	11.6	30.4	
4-Chloroaniline	206	25.0	ug/L	400.00	ND	51.5	39.1-130	17.8	30	
Hexachlorobutadiene	197	25.0	ug/L	400.00	ND	49.3	21-130	13.1	42.6	
4-Chloro-3-methylphenol	262	25.0	ug/L	400.00	ND	65.6	42.5-130	18.4	30	
2-Methylnaphthalene	249	25.0	ug/L	400.00	ND	62.4	37-130	13.0	30	
Hexachlorocyclopentadiene	221	25.0	ug/L	400.00	ND	55.4	21.5-130	15.7	46.5	
2,4,6-Trichlorophenol	276	25.0	ug/L	400.00	ND	69.0	43-130	17.1	30	
2,4,5-Trichlorophenol	279	25.0	ug/L	400.00	ND	69.7	45-130	15.3	30	
2-Chloronaphthalene	266	25.0	ug/L	400.00	ND	66.6	35.2-130	16.8	30	
2-Nitroaniline	281	25.0	ug/L	400.00	ND	70.2	50.1-130	14.4	30	
Dimethylphthalate	286	50.0	ug/L	400.00	ND	71.6	48.1-125	12.8	30	
2,6-Dinitrotoluene	288	25.0	ug/L	400.00	ND	71.9	55.8-130	13.5	30	
Acenaphthylene	285	25.0	ug/L	400.00	ND	71.3	42.1-130	16.6	30	
Acenaphthene	278	25.0	ug/L	400.00	ND	69.4	39.9-130	15.7	31.1	
3-Nitroaniline	272	25.0	ug/L	400.00	ND	68.1	54.9-130	19.1	30	
2,4-Dinitrophenol	268	100	ug/L	400.00	ND	67.0	42.2-130	7.80	45.4	
4-Nitrophenol	119	50.0	ug/L	400.00	ND	29.8	22-130	15.8	33.5	
Dibenzofuran	281	25.0	ug/L	400.00	ND	70.2	40.7-130	15.7	30	

Method: Semivolatile Organic Compounds by EPA Method 8270D - Quality Control
Laboratory: PHILIS
Batch ID: Batch C7I1202 - 3510C
Instrument ID: GC/MS #5
Sample Header: Matrix Spike Dup (C7I1202-MSD1)
Sp Source: Source: C17I005-03
Analyzed Date: Prepared & Analyzed: 09/12/17

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
2,4-Dinitrotoluene	290	25.0	ug/L	400.00	ND	72.4	56.7-130	12.5	30	
Diethylphthalate	292	50.0	ug/L	400.00	ND	72.9	57.5-130	11.7	30	
4-Chlorophenyl-phenylether	288	25.0	ug/L	400.00	ND	72.0	36.6-130	15.3	47.5	
Fluorene	288	25.0	ug/L	400.00	ND	72.1	42.1-130	15.6	36.8	
4-Nitroaniline	290	50.0	ug/L	400.00	ND	72.6	54.2-132	16.7	38.3	
4,6-Dinitro-2-methylphenol	269	50.0	ug/L	400.00	ND	67.2	55.9-133	11.1	30	
4-Bromophenyl-phenylether	307	25.0	ug/L	400.00	ND	76.7	34.8-133	14.8	46.2	
Hexachlorobenzene	302	25.0	ug/L	400.00	ND	75.5	34.4-132	11.7	52.2	
Pentachlorophenol	310	50.0	ug/L	400.00	ND	77.5	55.5-133	16.9	30	
Phenanthrene	290	25.0	ug/L	400.00	ND	72.6	43.6-130	11.2	41.5	
Anthracene	294	25.0	ug/L	400.00	ND	73.5	41.6-130	12.7	45.7	
Carbazole	297	25.0	ug/L	400.00	ND	74.2	64.5-130	11.4	30	
Di-n-butylphthalate	300	50.0	ug/L	400.00	25.2	68.7	47.3-136	12.7	53.4	
Fluoranthene	293	25.0	ug/L	400.00	9.10	71.0	42.9-137	12.8	60.4	
Pyrene	288	25.0	ug/L	400.00	5.70	70.7	43.2-140	13.6	57.7	
Butylbenzylphthalate	299	50.0	ug/L	400.00	ND	74.7	42.5-146	16.1	57.7	
Benzo(a)anthracene	295	25.0	ug/L	400.00	10.3	71.1	45.3-138	15.3	59.9	
Bis(2-ethylhexyl)phthalate	296	50.0	ug/L	400.00	ND	74.1	41.8-144	16.0	63.7	
Chrysene	290	25.0	ug/L	400.00	ND	72.4	41.8-135	14.0	57.3	
Di-n-octylphthalate	294	50.0	ug/L	400.00	ND	73.5	41.5-149	16.4	60.9	
Benzo(b)fluoranthene	300	25.0	ug/L	400.00	14.5	71.4	43.2-136	18.7	59.2	
Benzo(k)fluoranthene	292	25.0	ug/L	400.00	15.5	69.0	44.9-134	15.4	57.2	
Benzo(a)pyrene	310	25.0	ug/L	400.00	ND	77.6	40.7-140	13.6	55.8	
Indeno(1,2,3-cd)pyrene	296	25.0	ug/L	400.00	ND	74.1	42.5-150	11.4	74	
Dibenzo(a,h)anthracene	297	25.0	ug/L	400.00	ND	74.2	30-148	10.2	56.2	
Benzo(g,h,i)perylene	281	25.0	ug/L	400.00	ND	70.4	37.9-145	9.73	59.1	
Surrogate: 2-Fluorophenol	*127*		*ug/L*	*400.00*		*31.7*	*0-120*			
Surrogate: Phenol-d6	*86.2*		*ug/L*	*400.00*		*21.6*	*1.78-120*			
Surrogate: Nitrobenzene-d5	*239*		*ug/L*	*400.00*		*59.8*	*4.97-120*			
Surrogate: 2-Fluorobiphenyl	*271*		*ug/L*	*400.00*		*67.8*	*6.08-120*			
Surrogate: 2,4,6-Tribromophenol	*309*		*ug/L*	*400.00*		*77.2*	*1.77-120*			
Surrogate: Terphenyl-d14	*315*		*ug/L*	*400.00*		*78.8*	*21.1-160*			

Method: Volatile Organic Compounds by EPA Method 8260C - Quality Control
Laboratory: PHILIS
Batch ID: Batch C7I1201 - 5030C
Instrument ID: GC/MS #4
Sample Header: Blank (C7I1201-BLK1)
Sp Source:
Analyzed Date: Prepared: 09/01/17 Analyzed: 09/11/17

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Dichlorodifluoromethane	ND	2.00	ug/L							U
Chloromethane	ND	2.00	ug/L							U
Vinyl chloride	ND	2.00	ug/L							U
Bromomethane	ND	2.00	ug/L							U
Chloroethane	ND	2.00	ug/L							U
Trichlorofluoromethane	ND	2.00	ug/L							U
1,1-Dichloroethene	ND	2.00	ug/L							U
Methylene chloride	ND	5.00	ug/L							U
Methyl tert-butyl ether	ND	2.00	ug/L							U
Acetone	ND	10.0	ug/L							U
trans-1,2-Dichloroethene	ND	2.00	ug/L							U
1,1-Dichloroethane	ND	2.00	ug/L							U
cis-1,2-Dichloroethene	ND	2.00	ug/L							U
Bromochloromethane	ND	2.00	ug/L							U
Chloroform	ND	2.00	ug/L							U
Carbon tetrachloride	ND	2.00	ug/L							U
1,1,1-Trichloroethane	ND	2.00	ug/L							U
2-Butanone	ND	10.0	ug/L							U
Benzene	ND	2.00	ug/L							U
1,2-Dichloroethane	ND	2.00	ug/L							U
Trichloroethene	ND	2.00	ug/L							U
1,2-Dichloropropane	ND	2.00	ug/L							U
Bromodichloromethane	ND	2.00	ug/L							U
cis-1,3-Dichloropropene	ND	2.00	ug/L							U
Toluene	ND	2.00	ug/L							U
Tetrachloroethene	ND	2.00	ug/L							U
trans-1,3-Dichloropropene	ND	2.00	ug/L							U
4-Methyl-2-pentanone	ND	10.0	ug/L							U
1,1,2-Trichloroethane	ND	2.00	ug/L							U
Dibromochloromethane	ND	2.00	ug/L							U
1,2-Dibromoethane	ND	2.00	ug/L							U
2-Hexanone	ND	10.0	ug/L							U
Chlorobenzene	ND	2.00	ug/L							U
Ethylbenzene	ND	2.00	ug/L							U
m,p-Xylene	ND	6.00	ug/L							U
o-Xylene	ND	2.00	ug/L							U
Xylene (total)	ND	6.00	ug/L							U
Bromoform	ND	2.00	ug/L							U
Styrene	ND	2.00	ug/L							U
Isopropylbenzene	ND	2.00	ug/L							U
1,1,2,2-Tetrachloroethane	ND	2.00	ug/L							U
1,3-Dichlorobenzene	ND	2.00	ug/L							U

Method: Volatile Organic Compounds by EPA Method 8260C - Quality Control
Laboratory: PHILIS
Batch ID: Batch C7I1201 - 5030C
Instrument ID: GC/MS #4
Sample Header: Blank (C7I1201-BLK1)
Sp Source:
Analyzed Date: Prepared: 09/01/17 Analyzed: 09/11/17

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
1,4-Dichlorobenzene	ND	2.00	ug/L							U
1,2-Dichlorobenzene	ND	2.00	ug/L							U
1,2-Dibromo-3-chloropropane	ND	5.00	ug/L							U
1,2,4-Trichlorobenzene	ND	2.00	ug/L							U
1,2,3-Trichlorobenzene	ND	2.00	ug/L							U
Surrogate: 1,2-Dichloroethane-d4	*55.4*		*ug/L*	*50.000*		*111*	*80-120*			
Surrogate: Toluene-d8	*50.4*		*ug/L*	*50.000*		*101*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*50.6*		*ug/L*	*50.000*		*101*	*80-120*			

Instrument ID: GC/MS #4
Sample Header: LCS (C7I1201-BS1)
Sp Source:
Analyzed Date: Prepared: 09/01/17 Analyzed: 09/11/17

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Dichlorodifluoromethane	22.7	2.00	ug/L	20.000		113	35.3-145			
Chloromethane	20.3	2.00	ug/L	20.000		102	62.9-129			
Vinyl chloride	20.4	2.00	ug/L	20.000		102	71.7-126			
Bromomethane	19.6	2.00	ug/L	20.000		97.9	77.7-121			
Chloroethane	19.5	2.00	ug/L	20.000		97.4	77.2-121			
Trichlorofluoromethane	20.4	2.00	ug/L	20.000		102	78.2-120			
1,1-Dichloroethene	19.7	2.00	ug/L	20.000		98.4	85.7-120			
Methylene chloride	19.9	5.00	ug/L	20.000		99.7	80-120			
Methyl tert-butyl ether	21.3	2.00	ug/L	20.000		107	78.6-126			
Acetone	123	10.0	ug/L	100.00		123	66.8-137			
trans-1,2-Dichloroethene	19.5	2.00	ug/L	20.000		97.4	74.6-136			
1,1-Dichloroethane	20.1	2.00	ug/L	20.000		101	63.4-148			
cis-1,2-Dichloroethene	19.2	2.00	ug/L	20.000		95.8	80-122			
Bromochloromethane	19.4	2.00	ug/L	20.000		97.0	80-120			
Chloroform	20.1	2.00	ug/L	20.000		100	80-120			
Carbon tetrachloride	18.8	2.00	ug/L	20.000		94.0	80-122			
1,1,1-Trichloroethane	19.5	2.00	ug/L	20.000		97.4	80-121			
2-Butanone	113	10.0	ug/L	100.00		113	75.9-130			
Benzene	19.6	2.00	ug/L	20.000		98.0	80-120			
1,2-Dichloroethane	21.1	2.00	ug/L	20.000		105	80-127			
Trichloroethene	19.0	2.00	ug/L	20.000		95.0	80-122			
1,2-Dichloropropane	21.2	2.00	ug/L	20.000		106	80-123			
Bromodichloromethane	18.8	2.00	ug/L	20.000		93.8	80-128			
cis-1,3-Dichloropropene	19.6	2.00	ug/L	20.000		98.2	77-125			
Toluene	19.6	2.00	ug/L	20.000		98.0	80-120			

Method: Volatile Organic Compounds by EPA Method 8260C - Quality Control
Laboratory: PHILIS
Batch ID: Batch C7I1201 - 5030C
Instrument ID: GC/MS #4
Sample Header: LCS (C7I1201-BS1)
Sp Source:
Analyzed Date: Prepared: 09/01/17 Analyzed: 09/11/17

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Tetrachloroethene	20.0	2.00	ug/L	20.000		99.9	80-120			
trans-1,3-Dichloropropene	20.0	2.00	ug/L	20.000		99.8	78.1-123			
4-Methyl-2-pentanone	110	10.0	ug/L	100.00		110	75.4-124			
1,1,2-Trichloroethane	21.6	2.00	ug/L	20.000		108	80-121			
Dibromochloromethane	19.5	2.00	ug/L	20.000		97.3	75.6-135			
1,2-Dibromoethane	20.0	2.00	ug/L	20.000		99.8	80-123			
2-Hexanone	112	10.0	ug/L	100.00		112	73.8-128			
Chlorobenzene	20.3	2.00	ug/L	20.000		101	83-120			
Ethylbenzene	19.3	2.00	ug/L	20.000		96.4	80-120			
m,p-Xylene	39.8	6.00	ug/L	40.000		99.5	80-120			
o-Xylene	19.6	2.00	ug/L	20.000		98.0	80-120			
Xylene (total)	59.4	6.00	ug/L	60.000		99.0	80-120			
Bromoform	19.2	2.00	ug/L	20.000		95.8	67-142			
Styrene	19.3	2.00	ug/L	20.000		96.3	80-120			
Isopropylbenzene	20.2	2.00	ug/L	20.000		101	80-120			
1,1,2,2-Tetrachloroethane	24.2	2.00	ug/L	20.000		121	30.3-164			
1,3-Dichlorobenzene	20.6	2.00	ug/L	20.000		103	80-120			
1,4-Dichlorobenzene	20.5	2.00	ug/L	20.000		103	80-120			
1,2-Dichlorobenzene	20.7	2.00	ug/L	20.000		104	80-120			
1,2-Dibromo-3-chloropropane	20.6	5.00	ug/L	20.000		103	80-120			
1,2,4-Trichlorobenzene	19.4	2.00	ug/L	20.000		97.2	80-119			
1,2,3-Trichlorobenzene	20.6	2.00	ug/L	20.000		103	80-120			
Surrogate: 1,2-Dichloroethane-d4	*53.9*		*ug/L*	*50.000*		*108*	*80-120*			
Surrogate: Toluene-d8	*50.8*		*ug/L*	*50.000*		*102*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*50.4*		*ug/L*	*50.000*		*101*	*80-120*			

Instrument ID: GC/MS #4
Sample Header: Matrix Spike (C7I1201-MS1)
Sp Source: Source: C17I005-03
Analyzed Date: Prepared: 09/01/17 Analyzed: 09/11/17

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Dichlorodifluoromethane	25.9	2.00	ug/L	20.000	ND	129	35.3-145			
Chloromethane	23.6	2.00	ug/L	20.000	ND	118	62.9-129			
Vinyl chloride	22.9	2.00	ug/L	20.000	ND	115	70-130			
Bromomethane	21.9	2.00	ug/L	20.000	ND	110	70-130			
Chloroethane	21.9	2.00	ug/L	20.000	ND	110	70-130			
Trichlorofluoromethane	24.3	2.00	ug/L	20.000	ND	121	70-130			
1,1-Dichloroethene	22.2	2.00	ug/L	20.000	ND	111	70-130			
Methylene chloride	22.6	5.00	ug/L	20.000	ND	113	70-130			

Method: Volatile Organic Compounds by EPA Method 8260C - Quality Control
Laboratory: PHILIS
Batch ID: Batch C7I1201 - 5030C
Instrument ID: GC/MS #4
Sample Header: Matrix Spike (C7I1201-MS1)
Sp Source: Source: C17I005-03
Analyzed Date: Prepared: 09/01/17 Analyzed: 09/11/17

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Methyl tert-butyl ether	23.5	2.00	ug/L	20.000	ND	117	70-130			
Acetone	139	10.0	ug/L	100.00	ND	139	66.8-137			A-01
trans-1,2-Dichloroethene	22.4	2.00	ug/L	20.000	ND	112	70-136			
1,1-Dichloroethane	22.5	2.00	ug/L	20.000	ND	113	63.4-148			
cis-1,2-Dichloroethene	21.1	2.00	ug/L	20.000	ND	105	70-130			
Bromochloromethane	23.0	2.00	ug/L	20.000	ND	115	70-130			
Chloroform	22.1	2.00	ug/L	20.000	0.370	108	70-130			
Carbon tetrachloride	23.0	2.00	ug/L	20.000	ND	115	70-130			
1,1,1-Trichloroethane	23.3	2.00	ug/L	20.000	ND	116	70-130			
2-Butanone	123	10.0	ug/L	100.00	ND	123	70-130			
Benzene	21.5	2.00	ug/L	20.000	ND	107	70-130			
1,2-Dichloroethane	23.7	2.00	ug/L	20.000	ND	119	70-130			
Trichloroethene	21.1	2.00	ug/L	20.000	ND	106	70-130			
1,2-Dichloropropane	23.0	2.00	ug/L	20.000	ND	115	70-130			
Bromodichloromethane	22.6	2.00	ug/L	20.000	ND	113	70-130			
cis-1,3-Dichloropropene	22.3	2.00	ug/L	20.000	ND	112	70-130			
Toluene	21.3	2.00	ug/L	20.000	ND	106	70-130			
Tetrachloroethene	22.6	2.00	ug/L	20.000	ND	113	70-130			
trans-1,3-Dichloropropene	23.0	2.00	ug/L	20.000	ND	115	70-130			
4-Methyl-2-pentanone	126	10.0	ug/L	100.00	ND	126	70-130			
1,1,2-Trichloroethane	24.7	2.00	ug/L	20.000	ND	123	70-130			
Dibromochloromethane	23.3	2.00	ug/L	20.000	ND	116	70-135			
1,2-Dibromoethane	22.9	2.00	ug/L	20.000	ND	115	70-130			
2-Hexanone	128	10.0	ug/L	100.00	ND	128	70-130			
Chlorobenzene	22.2	2.00	ug/L	20.000	ND	111	70-130			
Ethylbenzene	21.4	2.00	ug/L	20.000	0.750	103	70-130			
m,p-Xylene	44.2	6.00	ug/L	40.000	1.78	106	70-130			
o-Xylene	20.8	2.00	ug/L	20.000	ND	104	70-130			
Xylene (total)	65.0	6.00	ug/L	60.000	1.78	105	70-130			
Bromoform	24.1	2.00	ug/L	20.000	ND	120	67-142			
Styrene	21.1	2.00	ug/L	20.000	ND	106	70-130			
Isopropylbenzene	22.7	2.00	ug/L	20.000	ND	113	70-130			
1,1,2,2-Tetrachloroethane	29.3	2.00	ug/L	20.000	ND	146	30.3-164			
1,3-Dichlorobenzene	22.8	2.00	ug/L	20.000	ND	114	70-130			
1,4-Dichlorobenzene	23.0	2.00	ug/L	20.000	ND	115	70-130			
1,2-Dichlorobenzene	22.7	2.00	ug/L	20.000	ND	114	70-130			
1,2-Dibromo-3-chloropropane	24.7	5.00	ug/L	20.000	ND	124	70-130			
1,2,4-Trichlorobenzene	21.3	2.00	ug/L	20.000	0.480	104	70-130			
1,2,3-Trichlorobenzene	22.5	2.00	ug/L	20.000	0.710	109	70-130			
Surrogate: 1,2-Dichloroethane-d4	*56.2*		*ug/L*	*50.000*		*112*	*70-130*			
Surrogate: Toluene-d8	*50.7*		*ug/L*	*50.000*		*101*	*70-130*			
Surrogate: 4-Bromofluorobenzene	*52.0*		*ug/L*	*50.000*		*104*	*70-130*			

Method: Volatile Organic Compounds by EPA Method 8260C - Quality Control
Laboratory: PHILIS
Batch ID: Batch C7I1201 - 5030C

Instrument ID: GC/MS #4
Sample Header: Matrix Spike Dup (C7I1201-MSD1)
Sp Source: Source: C17I005-03
Analyzed Date: Prepared: 09/01/17 Analyzed: 09/11/17

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Dichlorodifluoromethane	22.1	2.00	ug/L	20.000	ND	110	35.3-145	15.9	30	
Chloromethane	21.4	2.00	ug/L	20.000	ND	107	62.9-129	9.51	30	
Vinyl chloride	19.8	2.00	ug/L	20.000	ND	99.2	70-130	14.5	30	
Bromomethane	18.5	2.00	ug/L	20.000	ND	92.5	70-130	16.9	30	
Chloroethane	18.9	2.00	ug/L	20.000	ND	94.4	70-130	14.9	30	
Trichlorofluoromethane	19.7	2.00	ug/L	20.000	ND	98.4	70-130	20.8	30	
1,1-Dichloroethene	18.7	2.00	ug/L	20.000	ND	93.3	70-130	17.5	30	
Methylene chloride	19.3	5.00	ug/L	20.000	ND	96.5	70-130	15.8	30	
Methyl tert-butyl ether	20.4	2.00	ug/L	20.000	ND	102	70-130	14.2	30	
Acetone	114	10.0	ug/L	100.00	ND	114	66.8-137	20.0	30	
trans-1,2-Dichloroethene	18.5	2.00	ug/L	20.000	ND	92.4	70-136	19.3	30	
1,1-Dichloroethane	18.9	2.00	ug/L	20.000	ND	94.3	63.4-148	17.7	30	
cis-1,2-Dichloroethene	18.0	2.00	ug/L	20.000	ND	89.8	70-130	16.0	30	
Bromochloromethane	18.6	2.00	ug/L	20.000	ND	93.2	70-130	20.8	30	
Chloroform	19.2	2.00	ug/L	20.000	0.370	94.2	70-130	13.8	30	
Carbon tetrachloride	19.4	2.00	ug/L	20.000	ND	97.0	70-130	17.1	30	
1,1,1-Trichloroethane	19.3	2.00	ug/L	20.000	ND	96.4	70-130	18.8	30	
2-Butanone	108	10.0	ug/L	100.00	ND	108	70-130	12.7	30	
Benzene	18.0	2.00	ug/L	20.000	ND	89.9	70-130	17.8	30	
1,2-Dichloroethane	19.7	2.00	ug/L	20.000	ND	98.4	70-130	18.5	30	
Trichloroethene	17.4	2.00	ug/L	20.000	ND	87.2	70-130	19.2	30	
1,2-Dichloropropane	19.4	2.00	ug/L	20.000	ND	96.9	70-130	17.2	30	
Bromodichloromethane	19.5	2.00	ug/L	20.000	ND	97.4	70-130	14.7	30	
cis-1,3-Dichloropropene	19.0	2.00	ug/L	20.000	ND	95.0	70-130	16.0	30	
Toluene	17.9	2.00	ug/L	20.000	ND	89.4	70-130	17.4	30	
Tetrachloroethene	18.8	2.00	ug/L	20.000	ND	93.8	70-130	18.4	30	
trans-1,3-Dichloropropene	19.8	2.00	ug/L	20.000	ND	98.8	70-130	15.2	30	
4-Methyl-2-pentanone	107	10.0	ug/L	100.00	ND	107	70-130	16.2	30	
1,1,2-Trichloroethane	19.4	2.00	ug/L	20.000	ND	97.1	70-130	23.8	30	
Dibromochloromethane	19.2	2.00	ug/L	20.000	ND	96.0	70-135	19.2	30	
1,2-Dibromoethane	19.2	2.00	ug/L	20.000	ND	96.2	70-130	17.5	30	
2-Hexanone	107	10.0	ug/L	100.00	ND	107	70-130	17.5	30	
Chlorobenzene	18.6	2.00	ug/L	20.000	ND	92.8	70-130	17.9	30	
Ethylbenzene	18.1	2.00	ug/L	20.000	0.750	86.6	70-130	16.9	30	
m,p-Xylene	36.4	6.00	ug/L	40.000	1.78	86.6	70-130	19.4	30	
o-Xylene	17.7	2.00	ug/L	20.000	ND	88.3	70-130	16.2	30	
Xylene (total)	54.1	6.00	ug/L	60.000	1.78	87.2	70-130	18.4	30	
Bromoform	19.8	2.00	ug/L	20.000	ND	99.2	67-142	19.4	30	
Styrene	17.2	2.00	ug/L	20.000	ND	86.2	70-130	20.2	30	
Isopropylbenzene	18.6	2.00	ug/L	20.000	ND	93.2	70-130	19.6	30	
1,1,2,2-Tetrachloroethane	24.7	2.00	ug/L	20.000	ND	123	30.3-164	17.1	30	

Method: Volatile Organic Compounds by EPA Method 8260C - Quality Control
Laboratory: PHILIS
Batch ID: Batch C7I1201 - 5030C
Instrument ID: GC/MS #4
Sample Header: Matrix Spike Dup (C7I1201-MSD1)
Sp Source: Source: C17I005-03
Analyzed Date: Prepared: 09/01/17 Analyzed: 09/11/17

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
1,3-Dichlorobenzene	19.2	2.00	ug/L	20.000	ND	96.2	70-130	17.1	30	
1,4-Dichlorobenzene	18.9	2.00	ug/L	20.000	ND	94.4	70-130	19.5	30	
1,2-Dichlorobenzene	19.4	2.00	ug/L	20.000	ND	96.9	70-130	16.0	30	
1,2-Dibromo-3-chloropropane	21.7	5.00	ug/L	20.000	ND	108	70-130	13.0	30	
1,2,4-Trichlorobenzene	18.1	2.00	ug/L	20.000	0.480	88.0	70-130	16.3	30	
1,2,3-Trichlorobenzene	19.1	2.00	ug/L	20.000	0.710	91.9	70-130	16.5	30	
Surrogate: 1,2-Dichloroethane-d4	*55.5*		*ug/L*	*50.000*		*111*	*70-130*			
Surrogate: Toluene-d8	*50.5*		*ug/L*	*50.000*		*101*	*70-130*			
Surrogate: 4-Bromofluorobenzene	*52.2*		*ug/L*	*50.000*		*104*	*70-130*			

A-01 - See Narrative.