

Environmental Conservation Laboratories, Inc.

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Thursday, April 26, 2018

Sensible Solutions Environmental (SE017)

Attn: Mark Hosler

PO Box 3074

Chapel Hill, NC 27515

RE: Laboratory Results for

Project Number: 18-0322, Project Name/Desc: Alma Blackley Property

ENCO Workorder(s): CB04969

Dear Mark Hosler,

Enclosed is a copy of your laboratory report for test samples received by our laboratory on Wednesday, April 11, 2018.

Unless otherwise noted in an attached project narrative, all samples were received in acceptable condition and processed in accordance with the referenced methods/procedures. Results for these procedures apply only to the samples as submitted.

The analytical results contained in this report are in compliance with NELAC standards, except as noted in the project narrative if applicable. This report shall not be reproduced except in full, without the written approval of the Laboratory.

This report contains only those analyses performed by Environmental Conservation Laboratories. Unless otherwise noted, all analyses were performed at ENCO Cary. Data from outside organizations will be reported under separate cover.

If you have any questions or require further information, please do not hesitate to contact me.

Sincerely,

A handwritten signature in black ink that reads "Chuck Smith". The signature is written in a cursive, flowing style with a large initial "C" and a stylized "S".

Chuck Smith

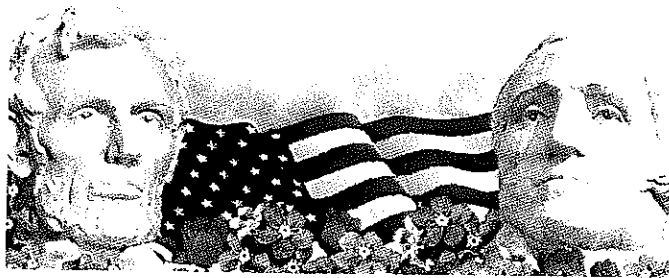
Project Manager

Enclosure(s)



Mark Hosler
Sensible Solutions
Environmental, P.C.

336-263-0965





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LAB #		CB04969-01	CB04969-02	CB04969-02RE1	CB04969-03	CB04969-03RE1	CB04969-04
MATRIX	Minimum	Soil	Soil	Soil	Soil	Soil	Soil
SAMPLE ID	Reporting Limit	SS-1	SS-2	SS-2	SS-3	SS-3	SS-4

Gasoline Range Organics by GC (Soil)

GRD (C6-C10)	5.5 mg/kg dry	<1.8	<1.9	-	<1.9	-	<1.7
2,5-Dibromotoluene	59-168	496% [9]	96%	-	103%	-	103%

Diesel Range Organics by GC (Soil)

DRO (C10-C28)	3.3 mg/kg dry	13000	-	5.6	-	5.2	-
p-Terphenyl	51-138	0.0 [8]	-	76%	-	70%	-



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LAB #		CB04969-04RE1	CB04969-05	CB04969-05RE1	CB04969-06	CB04969-06RE1	CB04969-07
MATRIX	Minimum	Soil	Soil	Soil	Soil	Soil	Soil
SAMPLE ID	Reporting Limit	SS-4	SS-5	SS-5	SS-6	SS-6	SS-7
Volatile Organic Compounds by GCMS (Soil)							
Dichlorodifluoromethane	0.0010 mg/kg dry	-	-	-	<0.00052	-	-
Chloromethane	0.0010 mg/kg dry	-	-	-	<0.00024	-	-
Vinyl chloride	0.0010 mg/kg dry	-	-	-	<0.00028	-	-
Bromomethane	0.0010 mg/kg dry	-	-	-	<0.00037	-	-
Chloroethane	0.0010 mg/kg dry	-	-	-	<0.00029	-	-
Trichlorofluoromethane	0.0010 mg/kg dry	-	-	-	<0.00030	-	-
1,1-Dichloroethene	0.0010 mg/kg dry	-	-	-	<0.00035	-	-
Acetone	0.020 mg/kg dry	-	-	-	0.016	-	-
Carbon disulfide	0.0050 mg/kg dry	-	-	-	<0.00045	-	-
Methylene Chloride	0.0020 mg/kg dry	-	-	-	<0.00085	-	-
Methyl-tert-Butyl Ether	0.0010 mg/kg dry	-	-	-	<0.00035	-	-
trans-1,2-Dichloroethene	0.0010 mg/kg dry	-	-	-	<0.00043	-	-
1,1-Dichloroethane	0.0010 mg/kg dry	-	-	-	<0.00029	-	-
2-Butanone	0.0050 mg/kg dry	-	-	-	<0.00091	-	-
cis-1,2-Dichloroethene	0.0010 mg/kg dry	-	-	-	<0.00027	-	-
2,2-Dichloropropene	0.0010 mg/kg dry	-	-	-	<0.00027	-	-
Bromochloromethane	0.0010 mg/kg dry	-	-	-	<0.00048	-	-
Chloroform	0.0010 mg/kg dry	-	-	-	<0.00021	-	-
1,1,1-Trichloroethane	0.0010 mg/kg dry	-	-	-	<0.00029	-	-
1,1-Dichloropropene	0.0010 mg/kg dry	-	-	-	<0.00019	-	-
Carbon Tetrachloride	0.0010 mg/kg dry	-	-	-	<0.00026	-	-
1,2-Dichloroethane	0.0010 mg/kg dry	-	-	-	<0.00048	-	-
Benzene	0.0010 mg/kg dry	-	-	-	<0.00020	-	-
Trichloroethene	0.0010 mg/kg dry	-	-	-	<0.00037	-	-
1,2-Dichloropropane	0.0010 mg/kg dry	-	-	-	<0.00030	-	-
Dibromomethane	0.0010 mg/kg dry	-	-	-	<0.00038	-	-
Bromodichloromethane	0.0010 mg/kg dry	-	-	-	<0.00028	-	-
2-Chloroethyl Vinyl Ether	0.0050 mg/kg dry	-	-	-	<0.00019	-	-
cis-1,3-Dichloropropene	0.0010 mg/kg dry	-	-	-	<0.00020	-	-
4-Methyl-2-pentanone	0.0050 mg/kg dry	-	-	-	<0.00066	-	-
Toluene	0.0010 mg/kg dry	-	-	-	<0.00028	-	-
trans-1,3-Dichloropropene	0.0010 mg/kg dry	-	-	-	<0.00045	-	-
1,1,2-Trichloroethane	0.0010 mg/kg dry	-	-	-	<0.00029	-	-
1,3-Dichloropropane	0.0010 mg/kg dry	-	-	-	<0.00034	-	-
Tetrachloroethene	0.0010 mg/kg dry	-	-	-	<0.00033	-	-
2-Hexanone	0.0050 mg/kg dry	-	-	-	<0.00087	-	-
Dibromochloromethane	0.0010 mg/kg dry	-	-	-	<0.00041	-	-
1,2-Dibromoethane	0.0010 mg/kg dry	-	-	-	<0.00054	-	-
Chlorobenzene	0.0010 mg/kg dry	-	-	-	<0.00020	-	-
1,1,1,2-Tetrachloroethane	0.0010 mg/kg dry	-	-	-	<0.00019	-	-
Ethylbenzene	0.0010 mg/kg dry	-	-	-	<0.00023	-	-
m,p-Xylenes	0.0020 mg/kg dry	-	-	-	<0.00043	-	-
o-Xylene	0.0010 mg/kg dry	-	-	-	<0.00026	-	-
Styrene	0.0010 mg/kg dry	-	-	-	<0.0011	-	-
Bromoform	0.0010 mg/kg dry	-	-	-	<0.00052	-	-



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LAB #		CB04969-04RE1	CB04969-05	CB04969-05RE1	CB04969-06	CB04969-06RE1	CB04969-07
MATRIX	Minimum	Soil	Soil	Soil	Soil	Soil	Soil
SAMPLE ID	Reporting Limit	SS-4	SS-5	SS-5	SS-6	SS-6	SS-7

Volatile Organic Compounds by GCMS (continued)

Isopropylbenzene	0.0010 mg/kg dry	-	-	-	<0.00017	-	-
1,1,2,2-Tetrachloroethane	0.0010 mg/kg dry	-	-	-	<0.00023	-	-
Bromobenzene	0.0010 mg/kg dry	-	-	-	<0.00026	-	-
1,2,3-Trichloropropane	0.0010 mg/kg dry	-	-	-	<0.00075	-	-
n-Propyl Benzene	0.0010 mg/kg dry	-	-	-	<0.00021	-	-
2-Chlorotoluene	0.0010 mg/kg dry	-	-	-	<0.00021	-	-
1,3,5-Trimethylbenzene	0.0010 mg/kg dry	-	-	-	<0.00023	-	-
4-Chlorotoluene	0.0010 mg/kg dry	-	-	-	<0.00030	-	-
tert-Butylbenzene	0.0010 mg/kg dry	-	-	-	<0.00020	-	-
1,2,4-Trimethylbenzene	0.0010 mg/kg dry	-	-	-	<0.00020	-	-
sec-Butylbenzene	0.0010 mg/kg dry	-	-	-	<0.0011	-	-
1,3-Dichlorobenzene	0.0010 mg/kg dry	-	-	-	<0.00026	-	-
4-Isopropyltoluene	0.0010 mg/kg dry	-	-	-	<0.00019	-	-
1,4-Dichlorobenzene	0.0010 mg/kg dry	-	-	-	<0.00023	-	-
n-Butyl Benzene	0.0010 mg/kg dry	-	-	-	<0.00015	-	-
1,2-Dichlorobenzene	0.0010 mg/kg dry	-	-	-	<0.00031	-	-
1,2-Dibromo-3-chloropropane	0.0010 mg/kg dry	-	-	-	<0.00092	-	-
1,2,4-Trichlorobenzene	0.0010 mg/kg dry	-	-	-	<0.00031	-	-
Hexachlorobutadiene	0.0010 mg/kg dry	-	-	-	<0.00041	-	-
Naphthalene	0.0010 mg/kg dry	-	-	-	0.0056	-	-
1,2,3-Trichlorobenzene	0.0010 mg/kg dry	-	-	-	<0.00033	-	-
Dibromofluoromethane	52-128	-	-	-	73%	-	-
Toluene-d8	57-124	-	-	-	77%	-	-
4-Bromofluorobenzene	50-127	-	-	-	75%	-	-
Isopropyl Ether	0.0010 mg/kg dry	-	-	-	<0.00021	-	-

Semivolatile Organic Compounds by GCMS (Soil)

N-Nitrosodimethylamine	0.33 mg/kg dry	-	-	-	<0.024	-	-
Pyridine	0.33 mg/kg dry	-	-	-	<0.096	-	-
Phenol	0.33 mg/kg dry	-	-	-	<0.026	-	-
Bis(2-chloroethyl)ether	0.33 mg/kg dry	-	-	-	<0.050	-	-
2-Chlorophenol	0.33 mg/kg dry	-	-	-	<0.029	-	-
1,3-Dichlorobenzene	0.33 mg/kg dry	-	-	-	<0.023	-	-
1,4-Dichlorobenzene	0.33 mg/kg dry	-	-	-	<0.024	-	-
Benzyl alcohol	0.33 mg/kg dry	-	-	-	<0.027	-	-
1,2-Dichlorobenzene	0.33 mg/kg dry	-	-	-	<0.027	-	-
2-Methylphenol	0.33 mg/kg dry	-	-	-	<0.029	-	-
Bis(2-chloroisopropyl)ether	0.33 mg/kg dry	-	-	-	<0.028	-	-
3 & 4-Methylphenol	0.33 mg/kg dry	-	-	-	<0.030	-	-
N-Nitroso-di-n-propylamine	0.33 mg/kg dry	-	-	-	<0.094	-	-
Hexachloroethane	0.33 mg/kg dry	-	-	-	<0.024	-	-
Nitrobenzene	0.33 mg/kg dry	-	-	-	<0.030	-	-
Isophorone	0.33 mg/kg dry	-	-	-	<0.035	-	-
2-Nitrophenol	0.33 mg/kg dry	-	-	-	<0.036	-	-
2,4-Dimethylphenol	0.33 mg/kg dry	-	-	-	<0.050	-	-
Bis(2-chloroethoxy)methane	0.33 mg/kg dry	-	-	-	<0.079	-	-



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LAB #		CB04969-04RE1	CB04969-05	CB04969-05RE1	CB04969-06	CB04969-06RE1	CB04969-07
MATRIX	Minimum	Soil	Soil	Soil	Soil	Soil	Soil
SAMPLE ID	Reporting Limit	SS-4	SS-5	SS-5	SS-6	SS-6	SS-7
Semivolatile Organic Compounds by GCMS (continued)							
Benzoic acid	1.7 mg/kg dry	-	-	-	<0.17	-	-
2,4-Dichlorophenol	0.33 mg/kg dry	-	-	-	<0.028	-	-
1,2,4-Trichlorobenzene	0.33 mg/kg dry	-	-	-	<0.030	-	-
Naphthalene	0.33 mg/kg dry	-	-	-	<0.033	-	-
4-Chloroaniline	0.33 mg/kg dry	-	-	-	<0.11	-	-
Hexachlorobutadiene	0.33 mg/kg dry	-	-	-	<0.030	-	-
4-Chloro-3-methylphenol	0.33 mg/kg dry	-	-	-	<0.038	-	-
2-Methylnaphthalene	0.33 mg/kg dry	-	-	-	<0.033	-	-
1-Methylnaphthalene	0.33 mg/kg dry	-	-	-	<0.031	-	-
Hexachlorocyclopentadiene	0.33 mg/kg dry	-	-	-	<0.045	-	-
2,4,6-Trichlorophenol	0.33 mg/kg dry	-	-	-	<0.031	-	-
2,4,5-Trichlorophenol	0.33 mg/kg dry	-	-	-	<0.031	-	-
2-Chloronaphthalene	0.33 mg/kg dry	-	-	-	<0.033	-	-
2-Nitroaniline	0.33 mg/kg dry	-	-	-	<0.035	-	-
Dimethylphthalate	0.33 mg/kg dry	-	-	-	<0.038	-	-
2,6-Dinitrotoluene	0.33 mg/kg dry	-	-	-	<0.036	-	-
Acenaphthylene	0.33 mg/kg dry	-	-	-	<0.033	-	-
3-Nitroaniline	0.33 mg/kg dry	-	-	-	<0.042	-	-
Acenaphthene	0.33 mg/kg dry	-	-	-	<0.033	-	-
2,4-Dinitrophenol	0.33 mg/kg dry	-	-	-	<0.050	-	-
4-Nitrophenol	0.33 mg/kg dry	-	-	-	<0.036	-	-
Dibenzofuran	0.33 mg/kg dry	-	-	-	<0.031	-	-
1,4-Dinitrotoluene	0.33 mg/kg dry	-	-	-	<0.033	-	-
Diethylphthalate	0.33 mg/kg dry	-	-	-	<0.033	-	-
4-Chlorophenyl-phenylether	0.33 mg/kg dry	-	-	-	<0.030	-	-
Fluorene	0.33 mg/kg dry	-	-	-	<0.034	-	-
4-Nitroaniline	0.33 mg/kg dry	-	-	-	<0.062 [10]	-	-
2-Methyl-4,6-dinitrophenol	0.33 mg/kg dry	-	-	-	<0.038	-	-
N-nitrosodiphenylamine/Diphenylamine	0.33 mg/kg dry	-	-	-	<0.063	-	-
4-Bromophenyl-phenylether	0.33 mg/kg dry	-	-	-	<0.031	-	-
Hexachlorobenzene	0.33 mg/kg dry	-	-	-	<0.030	-	-
Pentachlorophenol	0.33 mg/kg dry	-	-	-	<0.038	-	-
Phenanthrene	0.33 mg/kg dry	-	-	-	<0.031	-	-
Anthracene	0.33 mg/kg dry	-	-	-	<0.044	-	-
Di-n-butylphthalate	0.33 mg/kg dry	-	-	-	<0.048	-	-
Fluoranthene	0.33 mg/kg dry	-	-	-	<0.042	-	-
Benztidine	0.33 mg/kg dry	-	-	-	<0.13	-	-
Pyrene	0.33 mg/kg dry	-	-	-	<0.044	-	-
Butylbenzylphthalate	0.33 mg/kg dry	-	-	-	<0.047 [10]	-	-
3,3'-Dichlorobenzidine	0.33 mg/kg dry	-	-	-	<0.11	-	-
Benzo(a)anthracene	0.33 mg/kg dry	-	-	-	<0.033	-	-
Bis(2-ethylhexyl)phthalate	0.33 mg/kg dry	-	-	-	<0.041	-	-
Chrysene	0.33 mg/kg dry	-	-	-	<0.035	-	-
Di-n-octylphthalate	0.33 mg/kg dry	-	-	-	<0.036	-	-
Benzo(b)fluoranthene	0.33 mg/kg dry	-	-	-	<0.021	-	-



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LAB #		CB04969-04RE1	CB04969-05	CB04969-05RE1	CB04969-06	CB04969-06RE1	CB04969-07
MATRIX	Minimum	Soil	Soil	Soil	Soil	Soil	Soil
SAMPLE ID	Reporting Limit	SS-4	SS-5	SS-5	SS-6	SS-6	SS-7

Semivolatile Organic Compounds by GCMS (continued)

Benzo(k)fluoranthene	0.33 mg/kg dry	-	-	-	<0.038	-	-
Benzo(a)pyrene	0.33 mg/kg dry	-	-	-	<0.038	-	-
Indeno(1,2,3-cd)pyrene	0.33 mg/kg dry	-	-	-	<0.055	-	-
Dibenzo(a,h)anthracene	0.33 mg/kg dry	-	-	-	<0.059	-	-
Benzo(g,h,i)perylene	0.33 mg/kg dry	-	-	-	<0.055	-	-
2-Fluorophenol	49-126	-	-	-	72%	-	-
Phenol-d5	56-120	-	-	-	77%	-	-
Nitrobenzene-d5	50-117	-	-	-	67%	-	-
2-Fluorobiphenyl	56-120	-	-	-	83%	-	-
2,4,6-Tribromophenol	28-130	-	-	-	75%	-	-
Terphenyl-d14	36-151	-	-	-	89%	-	-

Gasoline Range Organics by GC (Soil)

GRO (C6-C10)	5.3 mg/kg dry	-	<1.7	-	<2.1	-	<2.1
2,5-Dibromotoluene	59-168	-	99%	-	152%	-	166%

Volatile Petroleum Hydrocarbons by GC (Soil)

C5-C8 Aliphatics	3.00 mg/kg dry	-	-	-	-	<0.863	-
C9-C12 Aliphatics	3.00 mg/kg dry	-	-	-	-	<1.75	-
2,5-Dibromotoluene (PID)	70-130	-	-	-	-	97.1%	-
C9-C10 Aromatics	1.00 mg/kg dry	-	-	-	-	1.94	-
2,5-Dibromotoluene (PID)	70-130	-	-	-	-	92.9%	-

Extractable Petroleum Hydrocarbons by GC (Soil)

C9-C18 Aliphatics	17 mg/kg dry	-	-	-	<1.5	-	-
C19-C36 Aliphatics	17 mg/kg dry	-	-	-	<3.6	-	-
Chloro-octadecane	40-140	-	-	-	82%	-	-
C11-C22 Aromatics	17 mg/kg dry	-	-	-	<3.6	-	-
o-Terphenyl	40-140	-	-	-	89%	-	-

Diesel Range Organics by GC (Soil)

DRO (C10-C28)	3.3 mg/kg dry	4.7	-	4.7	-	20	-
o-Terphenyl	51-138	74%	-	70%	-	71%	-



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LAB #		CB04969-07RE1	CB04969-08				
MATRIX	Minimum	Soil	Water				
SAMPLE ID	Reporting Limit	SS-7	Trip Blank				

Volatile Organic Compounds by GCMS (Water)

Dichlorodifluoromethane	1.0 ug/L	-	<0.20	-	-	-	-
Chloromethane	1.0 ug/L	-	<0.13	-	-	-	-
Vinyl chloride	1.0 ug/L	-	<0.32	-	-	-	-
Bromomethane	1.0 ug/L	-	<0.14	-	-	-	-
Chloroethane	1.0 ug/L	-	<0.23	-	-	-	-
Trichlorofluoromethane	1.0 ug/L	-	<0.24	-	-	-	-
1,1-Dichloroethene	1.0 ug/L	-	<0.21	-	-	-	-
Acetone	20 ug/L	-	<10	-	-	-	-
Carbon disulfide	5.0 ug/L	-	<1.5	-	-	-	-
Methylene chloride	1.0 ug/L	-	<0.23	-	-	-	-
Methyl-tert-Butyl Ether	1.0 ug/L	-	<0.16	-	-	-	-
trans-1,2-Dichloroethene	1.0 ug/L	-	<0.21	-	-	-	-
1,1-Dichloroethane	1.0 ug/L	-	<0.13	-	-	-	-
2-Butanone	5.0 ug/L	-	<1.3	-	-	-	-
cis-1,2-Dichloroethene	1.0 ug/L	-	<0.15	-	-	-	-
2,2-Dichloropropane	1.0 ug/L	-	<0.28	-	-	-	-
Bromochloromethane	1.0 ug/L	-	<0.48	-	-	-	-
Chloroform	1.0 ug/L	-	<0.18	-	-	-	-
1,1,1-Trichloroethane	1.0 ug/L	-	<0.12	-	-	-	-
1,1-Dichloropropene	1.0 ug/L	-	<0.15	-	-	-	-
Carbon tetrachloride	1.0 ug/L	-	<0.17	-	-	-	-
1,2-Dichloroethane	1.0 ug/L	-	<0.21	-	-	-	-
Benzene	1.0 ug/L	-	<0.15	-	-	-	-
Trichloroethene	1.0 ug/L	-	<0.15	-	-	-	-
1,2-Dichloropropene	1.0 ug/L	-	<0.10	-	-	-	-
Dibromomethane	1.0 ug/L	-	<0.27	-	-	-	-
Bromodichloromethane	1.0 ug/L	-	<0.17	-	-	-	-
2-Chloroethyl Vinyl Ether	5.0 ug/L	-	<1.1	-	-	-	-
cis-1,3-Dichloropropene	1.0 ug/L	-	<0.20	-	-	-	-
4-Methyl-2-pentanone	5.0 ug/L	-	<1.1	-	-	-	-
Toluene	1.0 ug/L	-	<0.14	-	-	-	-
trans-1,3-Dichloropropene	1.0 ug/L	-	<0.15	-	-	-	-
1,1,2-Trichloroethane	1.0 ug/L	-	<0.14	-	-	-	-
1,3-Dichloropropane	1.0 ug/L	-	<0.16	-	-	-	-
Tetrachloroethene	1.0 ug/L	-	<0.17	-	-	-	-
2-Hexanone	5.0 ug/L	-	<0.88	-	-	-	-
Dibromochloromethane	1.0 ug/L	-	<0.17	-	-	-	-
1,2-Dibromoethane	1.0 ug/L	-	<0.66	-	-	-	-
Chlorobenzene	1.0 ug/L	-	<0.17	-	-	-	-
1,1,1,2-Tetrachloroethane	1.0 ug/L	-	<0.17	-	-	-	-
Ethylbenzene	1.0 ug/L	-	<0.13	-	-	-	-
m,p-Xylenes	2.0 ug/L	-	<0.17	-	-	-	-
o-Xylene	1.0 ug/L	-	<0.065	-	-	-	-
Styrene	1.0 ug/L	-	<0.11	-	-	-	-
Bromoform	1.0 ug/L	-	<0.22	-	-	-	-



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LAB #		CB04969-07RE1	CB04969-08	-	-	-	-
MATRIX	Minimum	Soil	Water	-	-	-	-
SAMPLE ID	Reporting Limit	SS-7	Top Blank	-	-	-	-

Volatile Organic Compounds by GCMS (continued)

Isopropylbenzene	1.0 ug/L	-	<0.14	-	-	-	-
1,1,2,2-Tetrachloroethane	1.0 ug/L	-	<0.28	-	-	-	-
Bromobenzene	1.0 ug/L	-	<0.16	-	-	-	-
1,2,3-Trichloropropane	1.0 ug/L	-	<0.23	-	-	-	-
n-Propyl Benzene	1.0 ug/L	-	<0.12	-	-	-	-
2-Chlorotoluene	1.0 ug/L	-	<0.081	-	-	-	-
1,3,5-Trimethylbenzene	1.0 ug/L	-	<0.30	-	-	-	-
4-Chlorotoluene	1.0 ug/L	-	<0.068	-	-	-	-
tert-Butylbenzene	1.0 ug/L	-	<0.17	-	-	-	-
1,2,4-Trimethylbenzene	1.0 ug/L	-	<0.10	-	-	-	-
sec-Butylbenzene	1.0 ug/L	-	<0.10	-	-	-	-
1,3-Dichlorobenzene	1.0 ug/L	-	<0.15	-	-	-	-
4-Isopropyltoluene	1.0 ug/L	-	<0.085	-	-	-	-
1,4-Dichlorobenzene	1.0 ug/L	-	<0.19	-	-	-	-
n-Butyl Benzene	1.0 ug/L	-	<0.058	-	-	-	-
1,2-Dichlorobenzene	1.0 ug/L	-	<0.19	-	-	-	-
1,2-Dibromo-3-chloropropane	1.0 ug/L	-	<0.48	-	-	-	-
1,2,4-Trichlorobenzene	1.0 ug/L	-	<0.14	-	-	-	-
Hexachlorobutadiene	1.0 ug/L	-	<0.22	-	-	-	-
Naphthalene	1.0 ug/L	-	<0.11	-	-	-	-
1,2,3-Trichlorobenzene	1.0 ug/L	-	<0.012	-	-	-	-
Dibromofluoromethane	67-129	-	85%	-	-	-	-
Toluene-oB	59-134	-	77%	-	-	-	-
4-Bromofluorobenzene	53-136	-	80%	-	-	-	-
Xylenes (Total)	3.0 ug/L	-	<0.45	-	-	-	-
Isopropyl Ether	1.0 ug/L	-	<0.36	-	-	-	-

Diesel Range Organics by GC (Soil)

BDO (C10-C28)	3.3 mg/kg dry	1200 [3]	-	-	-	-	-
p-Terphenyl	51-138	0.0 [8]	-	-	-	-	-

QUALITY CONTROL

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Sample Notes
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Volatile Organic Compounds by GCMS - Quality Control

Batch 8D11038 - EPA 5030B_MS

Prepared: 04/12/2018 00:12 Analyzed: 04/12/2018 11:45

Blank (8D11038-BLKF)

1,1,1,2-Tetrachloroethane	0.17 U	1.0	ug/L
1,1,1-Trichloroethane	0.12 U	1.0	ug/L
1,1,2,2-Tetrachloroethane	0.28 U	1.0	ug/L
1,1,2-Trichloroethane	0.14 U	1.0	ug/L
1,1-Dichloroethane	0.13 U	1.0	ug/L
1,1-Dichloroethene	0.21 U	1.0	ug/L
1,1-Dichloropropene	0.15 U	1.0	ug/L
1,2,3-Trichlorobenzene	0.012 U	1.0	ug/L
1,2,3-Trichloropropane	0.23 U	1.0	ug/L
1,2,4-Trichlorobenzene	0.14 U	1.0	ug/L
1,2,4-Trimethylbenzene	0.10 U	1.0	ug/L
1,2-Dibromo-3-chloropropane	0.48 U	1.0	ug/L
1,2-Dibromoethane	0.66 U	1.0	ug/L
1,2-Dichlorobenzene	0.19 U	1.0	ug/L
1,2-Dichloroethane	0.21 U	1.0	ug/L
1,2-Dichloropropane	0.10 U	1.0	ug/L
1,3,5-Trimethylbenzene	0.30 U	1.0	ug/L
1,3-Dichlorobenzene	0.15 U	1.0	ug/L
1,3-Dichloropropane	0.16 U	1.0	ug/L
1,4-Dichlorobenzene	0.19 U	1.0	ug/L
2,2-Dichloropropane	0.28 U	1.0	ug/L
2-Butanone	1.3 U	5.0	ug/L
2-Chloroethyl Vinyl Ether	1.1 U	5.0	ug/L
2-Chlorotoluene	0.081 U	1.0	ug/L
2-Hexanone	0.88 U	5.0	ug/L
4-Chlorotoluene	0.068 U	1.0	ug/L
4-Isopropyltoluene	0.085 U	1.0	ug/L
4-Methyl-2-pentanone	1.1 U	5.0	ug/L
Acetone	1.0 U	2.0	ug/L
Benzene	0.15 U	1.0	ug/L
Bromobenzene	0.16 U	1.0	ug/L
Bromochloromethane	0.48 U	1.0	ug/L
Bromodichloromethane	0.17 U	1.0	ug/L
Bromoform	0.22 U	1.0	ug/L
Bromomethane	0.14 U	1.0	ug/L
Carbon disulfide	1.5 U	5.0	ug/L
Carbon tetrachloride	0.17 U	1.0	ug/L
Chlorobenzene	0.17 U	1.0	ug/L
Chloroethane	0.23 U	1.0	ug/L
Chloroform	0.18 U	1.0	ug/L
Chloromethane	0.13 U	1.0	ug/L
cis-1,2-Dichloroethene	0.15 U	1.0	ug/L
cis-1,3-Dichloropropene	0.20 U	1.0	ug/L
Dibromochloromethane	0.17 U	1.0	ug/L
Dibromomethane	0.27 U	1.0	ug/L
Dichlorodifluoromethane	0.20 U	1.0	ug/L



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QUALITY CONTROL

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Sample Notes
Volatile Organic Compounds by GCMS - Quality Control										
<i>Batch 8D11038 - EPA 5030B_MS</i>										
Blank (8D11038-BLK1) Continued				Prepared 04/12/2018 00:12 Analyzed 04/12/2018 11:43						
Ethylbenzene	0.15 U	1.0	ug/L							
Hexachlorobutadiene	0.22 U	1.0	ug/L							
Isopropyl Ether	0.36 U	1.0	ug/L							
Isopropylbenzene	0.14 U	1.0	ug/L							
m,p-Xylenes	0.17 U	2.0	ug/L							
Methylene chloride	0.23 U	1.0	ug/L							
Methyl-tert-Butyl Ether	0.16 U	1.0	ug/L							
Naphthalene	0.11 U	1.0	ug/L							
n-Butyl Benzene	0.058 U	1.0	ug/L							
n-Propyl Benzene	0.12 U	1.0	ug/L							
o-Xylene	0.065 U	1.0	ug/L							
sec-Butylbenzene	0.10 U	1.0	ug/L							
Styrene	0.11 U	1.0	ug/L							
tert-Butylbenzene	0.17 U	1.0	ug/L							
Tetrachloroethene	0.17 U	1.0	ug/L							
Toluene	0.14 U	1.0	ug/L							
trans-1,2-Dichloroethene	0.21 U	1.0	ug/L							
trans-1,3-Dichloropropene	0.15 U	1.0	ug/L							
Trichloroethene	0.15 U	1.0	ug/L							
Trichlorofluoromethane	0.24 U	1.0	ug/L							
Vinyl chloride	0.32 U	1.0	ug/L							
Xylenes (Total)	0.45 U	3.0	ug/L							
Surrogate: 4-Bromofluorobenzene	46		ug/L	50.0		79	53-136			
Surrogate: Dibromofluoromethane	41		ug/L	50.0		81	67-129			
Surrogate: Toluene-d8	38		ug/L	50.0		75	59-134			
LCS (8D11038-BS1)				Prepared 04/12/2018 00:12 Analyzed 04/12/2018 09:43						
1,1-Dichloroethene	19	1.0	ug/L	20.0		93	75-133			
Benzene	17	1.0	ug/L	20.0		85	81-134			
Chlorobenzene	18	1.0	ug/L	20.0		90	83-117			
Toluene	17	1.0	ug/L	20.0		83	71-118			
Trichloroethene	20	1.0	ug/L	20.0		101	74-119			
Surrogate: 4-Bromofluorobenzene	38		ug/L	50.0		76	53-136			
Surrogate: Dibromofluoromethane	41		ug/L	50.0		82	67-129			
Surrogate: Toluene-d8	39		ug/L	50.0		77	59-134			
Matrix Spike (8D11038-MS1)				Source: CB05565-05 Prepared 04/12/2018 00:12 Analyzed 04/12/2018 10:13						
1,1-Dichloroethene	20	1.0	ug/L	20.0	0.21 U	99	75-133			
Benzene	17	1.0	ug/L	20.0	0.15 U	86	81-134			
Chlorobenzene	18	1.0	ug/L	20.0	0.17 U	92	83-117			
Toluene	17	1.0	ug/L	20.0	0.14 U	84	71-118			
Trichloroethene	20	1.0	ug/L	20.0	0.15 U	101	74-119			
Surrogate: 4-Bromofluorobenzene	37		ug/L	50.0		74	53-136			
Surrogate: Dibromofluoromethane	41		ug/L	50.0		81	67-129			
Surrogate: Toluene-d8	38		ug/L	50.0		76	59-134			
Matrix Spike Dup (8D11038-MSD1)				Source: CB05565-05 Prepared 04/12/2018 00:12 Analyzed 04/12/2018 10:43						
1,1-Dichloroethene	19	1.0	ug/L	20.0	0.21 U	94	75-133	5	20	
Benzene	17	1.0	ug/L	20.0	0.15 U	84	81-134	3	17	
Chlorobenzene	18	1.0	ug/L	20.0	0.17 U	90	83-117	2	16	



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QUALITY CONTROL

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limit	RPD	RPD Limit	Sample Notes
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Volatile Organic Compounds by GCMS - Quality Control

Batch 8D11038 - EPA 5030B_MS

Matrix Spike Dup (8D11038-MSD1) Continued				Source: CB05565-05		Prepared: 04/12/2018 00:12		Analyzed: 04/12/2018 10:43		
Toluene	17	1.0	ug/L	20.0	0.14 U	84	71-118	0.5	17	
Trichloroethene	20	1.0	ug/L	20.0	0.15 U	100	74-119	0.5	22	
Surrogate: 4-Bromofluorobenzene	37		ug/L	50.0		74	53-156			
Surrogate: Dibromofluoromethane	39		ug/L	50.0		79	67-129			
Surrogate: Toluene-d8	59		ug/L	50.0		78	59-134			

Batch 8D24017 - EPA 5035_MS

Blank (8D24017-BLK1)				Prepared: 04/24/2018 11:55		Analyzed: 04/24/2018 15:44		
1,1,1,2-Tetrachloroethane	0.00016 U	0.0010	mg/kg wet					
1,1,1-Trichloroethane	0.00025 U	0.0010	mg/kg wet					
1,1,2,2-Tetrachloroethane	0.00020 U	0.0010	mg/kg wet					
1,1,2-Trichloroethane	0.00025 U	0.0010	mg/kg wet					
1,1-Dichloroethane	0.00025 U	0.0010	mg/kg wet					
1,1-Dichloroethene	0.00030 U	0.0010	mg/kg wet					
1,1-Dichloropropene	0.00018 U	0.0010	mg/kg wet					
1,2,3-Trichlorobenzene	0.00028 U	0.0010	mg/kg wet					
1,2,3-Trichloropropane	0.00064 U	0.0010	mg/kg wet					
1,2,4-Trichlorobenzene	0.00027 U	0.0010	mg/kg wet					
1,2,4-Trimethylbenzene	0.00017 U	0.0010	mg/kg wet					
1,2-Dibromo-3-chloropropane	0.00079 U	0.0010	mg/kg wet					
1,2-Dibromoethane	0.00046 U	0.0010	mg/kg wet					
1,2-Dichlorobenzene	0.00027 U	0.0010	mg/kg wet					
1,2-Dichloroethane	0.00041 U	0.0010	mg/kg wet					
1,2-Dichloropropane	0.00026 U	0.0010	mg/kg wet					
1,3,5-Trimethylbenzene	0.00020 U	0.0010	mg/kg wet					
1,3-Dichlorobenzene	0.00022 U	0.0010	mg/kg wet					
1,3-Dichloropropane	0.00029 U	0.0010	mg/kg wet					
1,4-Dichlorobenzene	0.00020 U	0.0010	mg/kg wet					
2,2-Dichloropropane	0.00023 U	0.0010	mg/kg wet					
2-Butanone	0.00078 U	0.0050	mg/kg wet					
2-Chloroethyl Vinyl Ether	0.00016 U	0.0050	mg/kg wet					
2-Chlorotoluene	0.00018 U	0.0010	mg/kg wet					
2-Hexanone	0.00075 U	0.0050	mg/kg wet					
4-Chlorotoluene	0.00026 U	0.0010	mg/kg wet					
4-Isopropyltoluene	0.00016 U	0.0010	mg/kg wet					
4-Methyl-2-pentanone	0.00057 U	0.0050	mg/kg wet					
Acetone	0.014 U	0.020	mg/kg wet					
Benzene	0.00017 U	0.0010	mg/kg wet					
Bromobenzene	0.00022 U	0.0010	mg/kg wet					
Bromochloromethane	0.00041 U	0.0010	mg/kg wet					
Bromodichloromethane	0.00024 U	0.0010	mg/kg wet					
Bromoform	0.00045 U	0.0010	mg/kg wet					
Bromomethane	0.00032 U	0.0010	mg/kg wet					
Carbon disulfide	0.00039 U	0.0050	mg/kg wet					
Carbon Tetrachloride	0.00022 U	0.0010	mg/kg wet					
Chlorobenzene	0.00017 U	0.0010	mg/kg wet					
Chloroethane	0.00025 U	0.0010	mg/kg wet					
Chloroform	0.00018 U	0.0010	mg/kg wet					
Chloromethane	0.00021 U	0.0010	mg/kg wet					



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QUALITY CONTROL

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Sample Notes
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Volatile Organic Compounds by GCMS - Quality Control

Batch 8D24017 - EPA 5035_MS

Blank (8D24017-BLK1) Continued

Prepared: 04/24/2018 11:55 Analyzed: 04/24/2018 15:44

cis-1,2-Dichloroethene	0.00023 U	0.0010	mg/kg wet
cis-1,3-Dichloropropene	0.00017 U	0.0010	mg/kg wet
Dibromochloromethane	0.00035 U	0.0010	mg/kg wet
Dibromomethane	0.00033 U	0.0010	mg/kg wet
Dichlorodifluoromethane	0.00045 U	0.0010	mg/kg wet
Ethylbenzene	0.00020 U	0.0010	mg/kg wet
Hexachlorobutadiene	0.00035 U	0.0010	mg/kg wet
Isopropyl Ether	0.00018 U	0.0010	mg/kg wet
Isopropylbenzene	0.00015 U	0.0010	mg/kg wet
m,p-Xylenes	0.00037 U	0.0020	mg/kg wet
Methylene Chloride	0.00075 U	0.0020	mg/kg wet
Methyl-tert-Butyl Ether	0.00030 U	0.0010	mg/kg wet
Naphthalene	0.00027 U	0.0010	mg/kg wet
n-Butyl Benzene	0.00013 U	0.0010	mg/kg wet
n-Propyl Benzene	0.00018 U	0.0010	mg/kg wet
o-Xylene	0.00022 U	0.0010	mg/kg wet
sec-Butylbenzene	0.00095 U	0.0010	mg/kg wet
Styrene	0.00098 U	0.0010	mg/kg wet
tert-Butylbenzene	0.00017 U	0.0010	mg/kg wet
Tetrachloroethene	0.00028 U	0.0010	mg/kg wet
Toluene	0.00024 U	0.0010	mg/kg wet
trans-1,2-Dichloroethene	0.00037 U	0.0010	mg/kg wet
trans-1,3-Dichloropropene	0.00039 U	0.0010	mg/kg wet
Trichloroethene	0.00032 U	0.0010	mg/kg wet
Trichlorofluoromethane	0.00026 U	0.0010	mg/kg wet
Vinyl chloride	0.00024 U	0.0010	mg/kg wet

Surrogate: 4-Bromofluorobenzene	36	ug/L	50.0	72	50-127
Surrogate: Dibromofluoromethane	34	ug/L	50.0	68	52-128
Surrogate: Toluene-d8	35	ug/L	50.0	76	57-124

LCS (8D24017-BS1)

Prepared: 04/24/2018 11:55 Analyzed: 04/24/2018 13:42

1,1-Dichloroethene	0.017	0.0010	mg/kg wet	0.0200	85	64-133
Benzene	0.019	0.0010	mg/kg wet	0.0200	94	79-129
Chlorobenzene	0.018	0.0010	mg/kg wet	0.0200	90	79-121
Toluene	0.017	0.0010	mg/kg wet	0.0200	86	77-120
Trichloroethene	0.020	0.0010	mg/kg wet	0.0200	99	78-118

Surrogate: 4-Bromofluorobenzene	32	ug/L	50.0	65	50-127
Surrogate: Dibromofluoromethane	32	ug/L	50.0	64	52-128
Surrogate: Toluene-d8	37	ug/L	50.0	75	57-124

Matrix Spike (8D24017-MS1)

Source: CB06086-01

Prepared: 04/24/2018 11:55 Analyzed: 04/24/2018 14:12

1,1-Dichloroethene	0.018	0.0010	mg/kg wet	0.0200	0.00030 U	88	64-133
Benzene	0.019	0.0010	mg/kg wet	0.0200	0.00017 U	96	79-129
Chlorobenzene	0.018	0.0010	mg/kg wet	0.0200	0.00017 U	91	79-121
Toluene	0.018	0.0010	mg/kg wet	0.0200	0.00024 U	88	77-120
Trichloroethene	0.020	0.0010	mg/kg wet	0.0200	0.00032 U	99	78-118

Surrogate: 4-Bromofluorobenzene	34	ug/L	50.0	68	50-127
Surrogate: Dibromofluoromethane	33	ug/L	50.0	67	52-128
Surrogate: Toluene-d8	38	ug/L	50.0	77	57-124



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QUALITY CONTROL

Analyte	Result	MRI	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Sample Notes
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Volatile Organic Compounds by GCMS - Quality Control

Batch 8D24017 - EP4 5035_MS

Matrix Spike Dup (8D24017-MSD1)		Source: CB06086-01		Prepared 04/24/2018 11:55		Analyzed 04/24/2018 14:43			
1,1-Dichloroethene	0.016	0.0010	mg/kg wet	0.0200	0.00030 U	81	64-133	8	23
Benzene	0.018	0.0010	mg/kg wet	0.0200	0.00017 U	91	79-129	6	23
Chlorobenzene	0.017	0.0010	mg/kg wet	0.0200	0.00017 U	87	79-121	4	25
Toluene	0.016	0.0010	mg/kg wet	0.0200	0.00024 U	82	77-120	7	23
Trichloroethene	0.018	0.0010	mg/kg wet	0.0200	0.00032 U	92	78-118	7	24
Surrogate: 4-Bromofluorobenzene	34		ug/L	50.0		68	50-127		
Surrogate: Dibromofluoromethane	34		ug/L	50.0		68	52-128		
Surrogate: Toluene-d8	39		ug/L	50.0		78	57-124		

Semivolatile Organic Compounds by GCMS - Quality Control

Batch 8D19024 - EP4 3550C_MS

Blank (8D19024-BLK1)				Prepared 04/19/2018 12:40		Analyzed 04/19/2018 14:53			
1,2,4-Trichlorobenzene	0.026 U	0.33	mg/kg wet						
1,2-Dichlorobenzene	0.023 U	0.33	mg/kg wet						
1,3-Dichlorobenzene	0.020 U	0.33	mg/kg wet						
1,4-Dichlorobenzene	0.021 U	0.33	mg/kg wet						
1-Methylnaphthalene	0.027 U	0.33	mg/kg wet						
2,4,5-Trichlorophenol	0.027 U	0.33	mg/kg wet						
2,4,6-Trichlorophenol	0.027 U	0.33	mg/kg wet						
2,4-Dichlorophenol	0.024 U	0.33	mg/kg wet						
2,4-Dimethylphenol	0.043 U	0.33	mg/kg wet						
2,4-Dinitrophenol	0.043 U	0.33	mg/kg wet						
2,4-Dinitrotoluene	0.028 U	0.33	mg/kg wet						
2,6-Dinitrotoluene	0.031 U	0.33	mg/kg wet						
2-Chloronaphthalene	0.028 U	0.33	mg/kg wet						
2-Chlorophenol	0.025 U	0.33	mg/kg wet						
2-Methyl-4,6-dinitrophenol	0.033 U	0.33	mg/kg wet						
2-Methylnaphthalene	0.028 U	0.33	mg/kg wet						
2-Methylphenol	0.025 U	0.33	mg/kg wet						
2-Nitroaniline	0.030 U	0.33	mg/kg wet						
2-Nitrophenol	0.031 U	0.33	mg/kg wet						
3,4-Methylphenol	0.026 U	0.33	mg/kg wet						
3,3-Dichlorobenzidine	0.098 U	0.33	mg/kg wet						
3-Nitroaniline	0.036 U	0.33	mg/kg wet						QV-02
4-Bromophenyl-phenylether	0.027 U	0.33	mg/kg wet						
4-Chloro-3-methylphenol	0.033 U	0.33	mg/kg wet						
4-Chloroaniline	0.093 U	0.33	mg/kg wet						
4-Chlorophenyl-phenylether	0.026 U	0.33	mg/kg wet						
4-Nitroaniline	0.053 U	0.33	mg/kg wet						QV-01
4-Nitrophenol	0.031 U	0.33	mg/kg wet						QV-01
Acenaphthene	0.028 U	0.33	mg/kg wet						
Acenaphthylene	0.028 U	0.33	mg/kg wet						
Anthracene	0.038 U	0.33	mg/kg wet						
Benzidine	0.11 U	0.33	mg/kg wet						
Benzofluoranthene	0.028 U	0.33	mg/kg wet						
Benzofluorene	0.033 U	0.33	mg/kg wet						
Benzo(b)fluoranthene	0.018 U	0.33	mg/kg wet						
Benzo(g,h,i)perylene	0.047 U	0.33	mg/kg wet						
Benzo(k)fluoranthene	0.033 U	0.33	mg/kg wet						

QUALITY CONTROL

Analyte	Result	MRI	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Sample Notes
Semivolatile Organic Compounds by GCMS - Quality Control										
Batch 8D19024 - EPA 3550C_MS										
Blank (8D19024-BLKT) Continued				Prepared 04/19/2018 12:40 Analyzed 04/19/2018 14:53						
Benzoic acid	0.15 U	1.7	mg/kg wet							QV-01
Benzyl alcohol	0.023 U	0.33	mg/kg wet							
Bis(2-chloroethoxy)methane	0.025 U	0.33	mg/kg wet							
Bis(2-chloroethyl)ether	0.043 U	0.33	mg/kg wet							
Bis(2-chloroisopropyl)ether	0.024 U	0.33	mg/kg wet							
Bis(2-ethylhexyl)phthalate	0.037 U	0.33	mg/kg wet							
Butylbenzylphthalate	0.040 U	0.33	mg/kg wet							
Chrysene	0.030 U	0.33	mg/kg wet							
Dibenz(a,h)anthracene	0.051 U	0.33	mg/kg wet							
Dibenzofuran	0.027 U	0.33	mg/kg wet							
Diethylphthalate	0.028 U	0.33	mg/kg wet							
Dimethylphthalate	0.033 U	0.33	mg/kg wet							
Di-n-butylphthalate	0.041 U	0.33	mg/kg wet							
Di-n-octylphthalate	0.033 U	0.33	mg/kg wet							
Fluoranthene	0.036 U	0.33	mg/kg wet							
Fluorene	0.029 U	0.33	mg/kg wet							
Hexachlorobenzene	0.026 U	0.33	mg/kg wet							
Hexachlorobutadiene	0.026 U	0.33	mg/kg wet							
Hexachlorocyclopentadiene	0.039 U	0.33	mg/kg wet							
Hexachloroethane	0.021 U	0.33	mg/kg wet							
Indeno(1,2,3-cd)pyrene	0.047 U	0.33	mg/kg wet							
Isophorone	0.030 U	0.33	mg/kg wet							
Naphthalene	0.028 U	0.33	mg/kg wet							
Nitrobenzene	0.026 U	0.33	mg/kg wet							
N-Nitrosodimethylamine	0.021 U	0.33	mg/kg wet							
N-Nitroso-di-n-propylamine	0.081 U	0.33	mg/kg wet							
N-nitrosodiphenylamine-Diphenylamine	0.054 U	0.33	mg/kg wet							
Pentachlorophenol	0.033 U	0.33	mg/kg wet							
Phenanthrene	0.027 U	0.33	mg/kg wet							
Phenol	0.022 U	0.33	mg/kg wet							
Pyrene	0.038 U	0.33	mg/kg wet							
Pyridine	0.082 U	0.33	mg/kg wet							
Surrogate: 2,4,6-Tribromophenol	2.4		mg/kg wet	3.33		73	28-150			
Surrogate: 2-Fluorobiphenyl	1.4		mg/kg wet	1.67		86	56-120			
Surrogate: 2-Fluorophenol	2.6		mg/kg wet	3.33		79	49-126			
Surrogate: Nitrobenzene-d5	1.3		mg/kg wet	1.67		76	50-117			
Surrogate: Phenol-d5	2.8		mg/kg wet	3.33		85	56-120			
Surrogate: Terphenyl-d14	1.7		mg/kg wet	1.67		103	36-151			
LCS (8D19024-BST)				Prepared 04/19/2018 12:40 Analyzed 04/19/2018 15:23						
1,2,4-Trichlorobenzene	1.4	0.33	mg/kg wet	1.67		81	51-121			1-04
1,4-Dichlorobenzene	1.4	0.33	mg/kg wet	1.67		84	48-118			
2,4-Dinitrotoluene	1.6	0.33	mg/kg wet	1.67		96	63-127			
2-Chlorophenol	1.5	0.33	mg/kg wet	1.67		88	56-120			
4-Chloro-3-methylphenol	1.5	0.33	mg/kg wet	1.67		92	59-121			
4-Nitrophenol	1.5	0.33	mg/kg wet	1.67		93	73-147			
Acenaphthene	1.6	0.33	mg/kg wet	1.67		95	64-131			
N-Nitroso-di-n-propylamine	1.6	0.33	mg/kg wet	1.67		95	55-135			



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QUALITY CONTROL

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Sample Notes
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Semivolatile Organic Compounds by GCMS - Quality ControlBatch 8D19024 - EPA 3550C₂ MS**LCS (8D19024-BS1) Continued**

Prepared: 04/19/2018 12:40 Analyzed: 04/19/2018 15:23

Pentachlorophenol	1.5	0.33	mg/kg wet	1.67		91	45-117			
Phenol	1.6	0.33	mg/kg wet	1.67		93	54-121			
Pyrene	1.6	0.33	mg/kg wet	1.67		97	65-146			
Surrogate: 2,4,6-Tribromophenol	2.7		mg/kg wet	3.33		81	28-130			
Surrogate: 2-Fluorobiphenyl	1.5		mg/kg wet	1.67		89	56-120			
Surrogate: 2-Fluorophenol	2.8		mg/kg wet	3.33		85	49-126			
Surrogate: Nitrobenzene-d5	1.4		mg/kg wet	1.67		81	50-117			
Surrogate: Phenol-d5	3.0		mg/kg wet	3.33		91	56-120			
Surrogate: Terphenyl-d14	1.7		mg/kg wet	1.67		104	36-151			

Matrix Spike (8D19024-MS1)

Source: CB05653-01RE2

Prepared: 04/19/2018 12:40 Analyzed: 04/19/2018 15:52

1,2,4-Trichlorobenzene	1.4	0.33	mg/kg wet	1.67	0.026 U	81	51-121			
1,4-Dichlorobenzene	1.4	0.33	mg/kg wet	1.67	0.021 U	83	48-118			
2,4-Dinitrotoluene	1.7	0.33	mg/kg wet	1.67	0.028 U	100	63-127			
2-Chlorophenol	1.4	0.33	mg/kg wet	1.67	0.025 U	86	56-120			
4-Chloro-3-methylphenol	1.5	0.33	mg/kg wet	1.67	0.033 U	89	59-121			
4-Nitrophenol	1.6	0.33	mg/kg wet	1.67	0.031 U	94	73-147			J-04
Acenaphthene	1.6	0.33	mg/kg wet	1.67	0.028 U	95	64-131			
N-Nitroso-di-n-propylamine	1.5	0.33	mg/kg wet	1.67	0.081 U	91	55-135			
Pentachlorophenol	1.7	0.33	mg/kg wet	1.67	0.033 U	100	45-117			
Phenol	1.5	0.33	mg/kg wet	1.67	0.022 U	90	54-121			
Pyrene	1.7	0.33	mg/kg wet	1.67	0.038 U	101	65-146			
Surrogate: 2,4,6-Tribromophenol	2.7		mg/kg wet	3.33		81	28-130			
Surrogate: 2-Fluorobiphenyl	1.5		mg/kg wet	1.67		89	56-120			
Surrogate: 2-Fluorophenol	2.7		mg/kg wet	3.33		82	49-126			
Surrogate: Nitrobenzene-d5	1.3		mg/kg wet	1.67		50	50-117			
Surrogate: Phenol-d5	2.9		mg/kg wet	3.33		86	56-120			
Surrogate: Terphenyl-d14	1.7		mg/kg wet	1.67		103	36-151			

Matrix Spike Dup (8D19024-MSD1)

Source: CB05653-01RE2

Prepared: 04/19/2018 12:40 Analyzed: 04/19/2018 16:22

1,2,4-Trichlorobenzene	1.4	0.33	mg/kg wet	1.67	0.026 U	81	51-121	0.5	10	
1,4-Dichlorobenzene	1.4	0.33	mg/kg wet	1.67	0.021 U	83	48-118	0.1	13	
2,4-Dinitrotoluene	1.7	0.33	mg/kg wet	1.67	0.028 U	104	63-127	4	10	
2-Chlorophenol	1.4	0.33	mg/kg wet	1.67	0.025 U	87	56-120	0.8	11	
4-Chloro-3-methylphenol	1.6	0.33	mg/kg wet	1.67	0.033 U	96	59-121	8	10	
4-Nitrophenol	1.8	0.33	mg/kg wet	1.67	0.031 U	111	73-147	17	10	J-04, QM-11
Acenaphthene	1.6	0.33	mg/kg wet	1.67	0.028 U	95	64-131	0.3	19	
N-Nitroso-di-n-propylamine	1.5	0.33	mg/kg wet	1.67	0.081 U	92	55-135	2	10	
Pentachlorophenol	1.8	0.33	mg/kg wet	1.67	0.033 U	106	45-117	6	10	
Phenol	1.5	0.33	mg/kg wet	1.67	0.022 U	91	54-121	2	13	
Pyrene	1.7	0.33	mg/kg wet	1.67	0.038 U	99	65-146	2	50	
Surrogate: 2,4,6-Tribromophenol	2.9		mg/kg wet	3.33		87	28-130			
Surrogate: 2-Fluorobiphenyl	1.4		mg/kg wet	1.67		86	56-120			
Surrogate: 2-Fluorophenol	2.7		mg/kg wet	3.33		82	49-126			
Surrogate: Nitrobenzene-d5	1.4		mg/kg wet	1.67		81	50-117			
Surrogate: Phenol-d5	2.9		mg/kg wet	3.33		87	56-120			
Surrogate: Terphenyl-d14	1.7		mg/kg wet	1.67		103	36-151			

Gasoline Range Organics by GC - Quality Control



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QUALITY CONTROL

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Sample Notes
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Gasoline Range Organics by GC - Quality Control

Batch 8D12029 - EPA 5035

Blank (8D12029-BLK1)				Prepared 04/12/2018 13:08 Analyzed 04/12/2018 17:33						
GRO (C6-C10)	1.8 U	5.5	mg/kg wet							
Surrogate: 2,5-Dibromotoluene	12		mg/kg wet	10.0		117	59-168			
LCS (8D12029-BS1)				Prepared 04/12/2018 13:08 Analyzed 04/12/2018 16:58						
GRO (C6-C10)	36	5.5	mg/kg wet	49.9		72	51-115			
Surrogate: 2,5-Dibromotoluene	13		mg/kg wet	9.98		128	59-168			
Matrix Spike (8D12029-MS1)				Source: CB05565-08 Prepared 04/12/2018 13:08 Analyzed 04/12/2018 18:07						
GRO (C6-C10)	37	5.5	mg/kg wet	50.2	1.8 U	73	45-162			
Surrogate: 2,5-Dibromotoluene	15		mg/kg wet	10.0		151	59-168			
Matrix Spike Dup (8D12029-MSD1)				Source: CB05565-08 Prepared 04/12/2018 13:08 Analyzed 04/12/2018 18:40						
GRO (C6-C10)	36	5.5	mg/kg wet	50.2	1.8 U	72	45-162	2	24	
Surrogate: 2,5-Dibromotoluene	12		mg/kg wet	10.0		119	59-168			

Volatile Petroleum Hydrocarbons by GC - Quality Control

Batch 8D25004 - EPA 5035

Blank (8D25004-BLK1)				Prepared 04/25/2018 08:40 Analyzed 04/25/2018 10:47						
C5-C8 Aliphatics	0.740 U	3.00	mg/kg wet							
C9-C10 Aromatics	0.489 U	1.00	mg/kg wet							
C9-C12 Aliphatics	1.50 U	3.00	mg/kg wet							
Surrogate: 2,5-Dibromotoluene (FID)	9.02		mg/kg wet	10.0		90	70-130			
Surrogate: 2,5-Dibromotoluene (PID)	8.16		mg/kg wet	10.0		82	70-130			
LCS (8D25004-BS1)				Prepared 04/25/2018 08:40 Analyzed 04/25/2018 11:18						
C5-C8 Aliphatics	13.2	3.00	mg/kg wet	12.0		110	70-130			
C9-C10 Aromatics	3.63	1.00	mg/kg wet	4.00		91	70-130			
C9-C12 Aliphatics	13.4	3.00	mg/kg wet	12.0		112	70-130			
Surrogate: 2,5-Dibromotoluene (FID)	9.76		mg/kg wet	10.0		98	70-130			
Surrogate: 2,5-Dibromotoluene (PID)	9.29		mg/kg wet	10.0		93	70-130			
LCS Dup (8D25004-BSD1)				Prepared 04/25/2018 08:40 Analyzed 04/25/2018 11:49						
C5-C8 Aliphatics	11.1	3.00	mg/kg wet	12.0		92	70-130	17	25	
C9-C10 Aromatics	3.54	1.00	mg/kg wet	4.00		89	70-130	3	25	
C9-C12 Aliphatics	11.5	3.00	mg/kg wet	12.0		96	70-130	16	25	
Surrogate: 2,5-Dibromotoluene (FID)	9.29		mg/kg wet	10.0		93	70-130			
Surrogate: 2,5-Dibromotoluene (PID)	8.81		mg/kg wet	10.0		88	70-130			

Extractable Petroleum Hydrocarbons by GC - Quality Control

Batch 8D19053 - EPA 3550C

Blank (8D19053-BLK1)				Prepared 04/19/2018 22:53 Analyzed 04/22/2018 15:17						
C11-C22 Aromatics	3.1 U	17	mg/kg wet							
C14-C36 Aliphatics	3.1 U	17	mg/kg wet							
C9-C18 Aliphatics	1.3 U	17	mg/kg wet							
Surrogate: Chloro-octadecane	1.2		mg/kg wet	1.33		87	40-140			
Surrogate: o-Terphenyl	1.3		mg/kg wet	1.33		95	40-140			
LCS (8D19053-BS1)				Prepared 04/19/2018 22:53 Analyzed 04/22/2018 15:47						
C11-C22 Aromatics	21	17	mg/kg wet	22.7		92	40-140			
C14-C36 Aliphatics	19	17	mg/kg wet	21.3		89	40-140			
C9-C18 Aliphatics	12.1	17	mg/kg wet	16.0		77	40-140			

QUALITY CONTROL

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Sample Notes
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Extractable Petroleum Hydrocarbons by GC - Quality Control

Batch 8D19053 - EPA 3550C

LCS (8D19053-BST) Continued

Prepared: 04/19/2018 22:53 Analyzed: 04/22/2018 15:47

Surrogate: Chloro-octadecane
Surrogate: o-Terphenyl

1.2 mg/kg wet 1.33 90 40-140
1.2 mg/kg wet 1.33 93 40-140

LCS Dup (8D19053-BSD1)

Prepared: 04/19/2018 22:53 Analyzed: 04/22/2018 16:16

C11-C22 Aromatics
C19-C36 Aliphatics
C9-C18 Aliphatics

22 17 mg/kg wet 22.7 98 40-140 6 25
20 17 mg/kg wet 21.3 95 40-140 6 25
13.3 17 mg/kg wet 16.0 82 40-140 6 25

Surrogate: Chloro-octadecane
Surrogate: o-Terphenyl

1.2 mg/kg wet 1.33 93 40-140
1.3 mg/kg wet 1.33 97 40-140

Diesel Range Organics by GC - Quality Control

Batch 8D12006 - EPA 3550C

Blank (8D12006-BLK1)

Prepared: 04/12/2018 08:10 Analyzed: 04/17/2018 21:04

DRO (C10-C28)

15 3.3 mg/kg wet

Surrogate: o-Terphenyl

1.2 mg/kg wet 1.67 69 51-138

LCS (8D12006-BST)

Prepared: 04/12/2018 08:10 Analyzed: 04/17/2018 21:32

DRO (C10-C28)

22 B 3.3 mg/kg wet 33.3 65 37-116

Surrogate: o-Terphenyl

1.0 mg/kg wet 1.67 62 51-138

Matrix Spike (8D12006-MS1)

Source: CB04969-01

Prepared: 04/12/2018 08:10 Analyzed: 04/18/2018 14:23

DRO (C10-C28)

11000 BD 200 mg/kg dry 40.1 13000 NR 37-116

Surrogate: o-Terphenyl

0.0 mg/kg dry 2.00 51-138

Matrix Spike Dup (8D12006-MSD1)

Source: CB04969-01

Prepared: 04/12/2018 08:10 Analyzed: 04/18/2018 14:51

DRO (C10-C28)

12000 BD 200 mg/kg dry 40.1 13000 NR 37-116 8 45

Surrogate: o-Terphenyl

0.0 mg/kg dry 2.00 51-138

Batch 8D19035 - EPA 3550C

Blank (8D19035-BLK1)

Prepared: 04/19/2018 13:09 Analyzed: 04/19/2018 19:55

DRO (C10-C28)

1.7 U 3.3 mg/kg wet

Surrogate: o-Terphenyl

1.2 mg/kg wet 1.67 73 51-138

LCS (8D19035-BST)

Prepared: 04/19/2018 13:09 Analyzed: 04/19/2018 20:23

DRO (C10-C28)

20 3.3 mg/kg wet 33.3 59 37-116

Surrogate: o-Terphenyl

1.2 mg/kg wet 1.67 74 51-138

Matrix Spike (8D19035-MS1)

Source: CB05550-01RE1

Prepared: 04/19/2018 13:09 Analyzed: 04/19/2018 20:51

DRO (C10-C28)

22 3.9 mg/kg dry 39.0 2.0 U 58 37-116

Surrogate: o-Terphenyl

1.7 mg/kg dry 1.95 85 51-138

Matrix Spike Dup (8D19035-MSD1)

Source: CB05550-01RE1

Prepared: 04/19/2018 13:09 Analyzed: 04/19/2018 21:19

DRO (C10-C28)

22 3.9 mg/kg dry 39.0 2.0 U 57 37-116 0.9 45

Surrogate: o-Terphenyl

1.5 mg/kg dry 1.95 76 51-138

Special Notes

B	The analyte was detected in the associated method blank.
D	The sample was analyzed at dilution.
J	The reported value is between the laboratory method detection limit (MDL) and the laboratory method reporting limit (MRL), adjusted for actual sample preparation data and moisture content, where applicable.
U	The analyte was analyzed for but not detected to the level shown, adjusted for actual sample preparation data and moisture content, where applicable.
E	The concentration indicated for this analyte is an estimated value above the calibration range of the instrument. This value is considered an estimate.
MRL	Method Reporting Limit. The MRL is roughly equivalent to the practical quantitation limit (PQL) and is based on the low point of the calibration curve, when applicable, sample preparation factor, dilution factor, and, in the case of soil samples, moisture content.
PQL	Practical Quantitation Limit - defined as the lowest concentration that can be reliably achieved within specified limits of precision and accuracy. PQL may also be defined as a reliable and routinely achievable reporting limit (MRL).
N	The analysis indicates the presence of an analyte for which there is presumptive evidence (85% or greater confidence) to make a "tentative identification".
P	Greater than 25% concentration difference was observed between the primary and secondary GC column. The lower concentration is reported.
[1]	= J-04 = Result may be biased high. Associated calibration verification standard exceeded the upper control limit.
[3]	= QB-01 = The method blank had a positive result for the analyte; however, the concentration in the method blank is less than 10% of the sample result. There is minimal impact to the data.
[6]	= QM-07 = The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
[7]	= QM-11 = Precision between duplicate matrix spikes of the same sample was outside acceptance limits.
[8]	= QS-04 = Surrogate recovery not calculated. Surrogate diluted out of the calibration range.
[9]	= QS-06 = Surrogate recovery exceeded acceptance criteria due to the presence of a coeluting compound. This is a confirmed matrix effect.
[10]	= QV-01 = The associated continuing calibration verification standard exhibited high bias; since the result is ND, there is no impact.
[11]	= QV-02 = The associated continuing calibration verification standard exhibited low bias; the reported result should be considered to be a minimum estimate.

LABORATORY CERTIFICATION SUMMARY

Analysis	Matrix	Cert ID	Cert Number
8260B	Soil	NC	591
8260B	Water	NC	591
8260B Extended	Soil	NC	591
8260B Extended	Water	NC	591
8270D	Soil	NC	591
DRO 8015C	Soil	NC	591
EPH Unfractionated	Soil	NC	591
GRO 8015C	Soil	NC	591
VPH Aliph	Soil	NC	591
VPH Arom	Soil	NC	591

TABLE 1 **UST OWNER AND OPERATOR INFORMATION**

Alma Blackley Heirs Property
2910 Flat Rock Road, Franklinton, Granville County
Incident Number: Pending Table Revision/Review Date: April 26, 2018

UST ID Number	T1	Facility ID Number	N/A (residential)
Name of Owner/Operator		Dates of Ownership (mm/dd/yyyy to mm/dd/yyyy)	
Melanie Blackly, etal.		Date of acquisition not researched to Present	
Address/Telephone Number			
6502 Racquet Wood Ct., Charlotte, NC 28226-6663 / 704-365-3760			
Name of Owner/Operator		Dates of Ownership (mm/dd/yyyy to mm/dd/yyyy)	
Alma Blackley		Not researched	
Address			
Deceased			
Name of Owner/Operator		Dates of Ownership (mm/dd/yy to mm/dd/yy)	
Address/Telephone Number			
Name of Owner/Operator		Dates of Ownership (mm/dd/yy to mm/dd/yy)	
Address/Telephone Number			

TABLE 2
STORAGE TANK SYSTEM INFORMATION

Alma Blackley Heirs Property
2910 Flat Rock Road, Franklinton, Granville County
Incident Number: Pending Table Revision/Review Date: April 26, 2018

UST ID Number	Current/Last Contents	Previous Contents	Capacity (in gallons)	Construction Details	Tank Dimensions (in feet)	Description of Assoc. Piping/Pumps	Date Tank Installed	Status of UST	Was a release associated with the system?
N/A	Heating Oil	Heating Oil	550	Steel	4.0 x 5.0	Copper delivery and return lines.	1958	Removed on Apr. 11, 2018.	Yes

[illegible]

TABLE 3 **SUMMARY OF SOIL SAMPLING RESULTS (Page 1 of 2)**

Alma Blackley Heirs Property
2910 Flat Rock Road, Franklinton, Granville County
Incident Number: Pending Table Revision/Review Date: April 26, 2018

Parameter (Analytical Method)	Ind/Comm MSCC	Residential MSCC	Soil-to- GW/ MSCC	SS-1	SS-2	SS-3	SS-4	SS-5	SS-6	SS-7
Diesel Range Organics (8015C)	N/A	N/A	N/A	13,000	5.6	5.2	4.7	4.7	20	1,200
Gasoline Range Organics (8015C)	N/A	N/A	N/A	< 1.8	< 1.9	< 1.9	< 1.7	< 1.7	< 2.1	< 2.1
Risk-based Analyses (8260, 8270B/N, VPTL and E-PH)	N/A	N/A	N/A	NR	NR	NR	NR	NR	See Page 2 of Table	NR
Sample Collection Procedure				Backhoe	Backhoe	Backhoe	Backhoe	Backhoe	Backhoe	By hand
Type of Sample				Grab	Grab	Grab	Grab	Grab	Grab	Composite
Sample Location				Between T1 and T2	At base of northeast wall of pit	At base of southeast wall of pit.	At base of southwest wall of pit.	At base of northwest wall of pit.	Center of pit floor	Taken from 1 truck load.
Sample Depth (ft. Below original Ground Surface)				6.5	8.0	8.0	8.0	8.0	10.0	N/A
Date of Sample Collection				04/11/18	04/11/18	04/11/18	04/11/18	04/11/18	04/11/18	04/11/18
Incident Phase				IAA	IAA	IAA	IAA	IAA	IAA	IAA

N/A = Not Applicable
IAA = Initial Abatement Action
NR = Analysis Not Requested
BCIS = Below Ground Surface
Results and MSCCs in parts per million (ppm) = mg/kg.

TABLE 3
SUMMARY OF SOIL SAMPLING RESULTS (Page 2 of 2)

Alma Blackley Heirs Property
2910 Flat Rock Road, Franklinton, Granville County
Incident Number: Pending Table Revision/Review Date: April 26, 2018

Parameter (Analytical Method)	Ind/Comm MSCC	Residential MSCC	Soil-to- GW MSCC	SS-1	SS-2	SS-3	SS-4	SS-5	SS-6	SS-7
Acetone (8260)	360,000	14,000	24	NR	NR	NR	NR	NR	0.016	NR
Naphthalene (8260)	8,176	3.3	0.16	NR	NR	NR	NR	NR	0.0056	NR
Method 8270 Compounds	N/A	N/A	N/A	NR	NR	NR	NR	NR	ND	NR
C9-C10 Aromatics (VPH)	12,264	469	31	NR	NR	NR	NR	NR	1.94	NR
Other VPH and EPH	N/A	N/A	N/A	NR	NR	NR	NR	NR	ND	NR
Sample Collection Procedure				Backhoe	Backhoe	Backhoe	Backhoe	Backhoe	Backhoe	By hand
Type of Sample				Grab	Grab	Grab	Grab	Grab	Grab	Composite
Sample Location				Between T1 and T2	At base of northeast wall of pit	At base of southeast wall of pit	At base of southwest wall of pit	At base of northwest wall of pit	Center of pit floor	Taken from 1 truck load
Sample Depth (ft. Below original Ground Surface)				6.5	8.0	8.0	8.0	8.0	10.0	N/A
Date of Sample Collection				04/11/18	04/11/18	04/11/18	04/11/18	04/11/18	04/11/18	04/11/18
Incident Phase				IAA	IAA	IAA	IAA	IAA	IAA	IAA

N/A = Not Applicable
ND = None Detected

IAA = Initial Abatement Action
BCGS = Below Ground Surface

NR = Analysis Not Requested
Results and MSCCs in parts per million (ppm) = mg/kg.