

## **APPENDIX I**

### **DRUM SAMPLE WASTE CHARACTERIZATION LABORATORY ANALYTICAL REPORTS**

22 June 2018

Nancy Love  
Chesapeake GeoSciences, Inc.  
5405 Twin Knolls Rd, Suite 1  
Columbia, MD 21045  
RE: ARMED FORCES RETIREMENT HOME

Enclosed are the results of analyses for samples received by the laboratory on 06/12/18 16:07.

A more detailed report format is available upon request, which lists the accreditation status for all analytical methods performed.

Please visit our website at [www.mdspectral.com](http://www.mdspectral.com) for a complete listing of our accreditations.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Rabecka Koons  
Quality Assurance Officer

**Analytical Results**

1500 Caton Center Dr Suite G  
Baltimore MD 21227  
410-247-7600  
www.mdspectral.com

**Project: ARMED FORCES RETIREMENT HOME**

Project Number: CG-17-1111  
Project Manager: Nancy Love

Reported:  
06/22/18 16:52

Client Sample ID	Alternate Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
46-W-A		8061223-01	Nonpotable Water	06/12/18 08:15	06/12/18 16:07
46-W-B		8061223-02	Nonpotable Water	06/12/18 08:45	06/12/18 16:07
46-S-A		8061223-03	Soil	06/12/18 09:15	06/12/18 16:07
46-S-B		8061223-04	Soil	06/12/18 09:50	06/12/18 16:07
46-S-C		8061223-05	Soil	06/12/18 10:10	06/12/18 16:07
46-W-C		8061223-06	Nonpotable Water	06/12/18 10:45	06/12/18 16:07
46-S-D		8061223-07	Soil	06/12/18 11:20	06/12/18 16:07
73-S-A		8061223-08	Soil	06/12/18 12:05	06/12/18 16:07
76-S-A		8061223-09	Soil	06/12/18 13:30	06/12/18 16:07



Rabecka Koons, Quality Assurance Officer

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*

**Analytical Results**

**Project: ARMED FORCES RETIREMENT HOME**

Project Number: CG-17-1111  
Project Manager: Nancy Love

Reported:  
06/22/18 16:52

**46-W-A**

**8061223-01 (Nonpotable Water)**

**Sample Date: 06/12/18**

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Quantitation Limit (LOQ)	Dilution	Prepared	Analyzed	Analyst
<b>VOLATILE ORGANICS BY EPA METHOD 8260B (GC/MS)</b>									
Acetone	93.8		ug/L	10.0	10.0	1	06/14/18	06/14/18 15:50	GM
tert-Amyl alcohol (TAA)	ND		ug/L	20.0	20.0	1	06/14/18	06/14/18 15:50	GM
tert-Amyl methyl ether (TAME)	ND		ug/L	5.0	2.0	1	06/14/18	06/14/18 15:50	GM
<b>Benzene</b>	<b>11.8</b>		ug/L	5.0	2.0	1	06/14/18	06/14/18 15:50	GM
Bromobenzene	ND		ug/L	5.0	2.0	1	06/14/18	06/14/18 15:50	GM
Bromochloromethane	ND		ug/L	5.0	2.0	1	06/14/18	06/14/18 15:50	GM
Bromodichloromethane	ND		ug/L	5.0	2.0	1	06/14/18	06/14/18 15:50	GM
Bromoform	ND		ug/L	5.0	2.0	1	06/14/18	06/14/18 15:50	GM
Bromomethane	ND		ug/L	5.0	5.0	1	06/14/18	06/14/18 15:50	GM
tert-Butanol (TBA)	ND		ug/L	15.0	15.0	1	06/14/18	06/14/18 15:50	GM
<b>2-Butanone (MEK)</b>	<b>27.5</b>		ug/L	10.0	10.0	1	06/14/18	06/14/18 15:50	GM
n-Butylbenzene	ND		ug/L	5.0	2.0	1	06/14/18	06/14/18 15:50	GM
sec-Butylbenzene	ND		ug/L	5.0	2.0	1	06/14/18	06/14/18 15:50	GM
tert-Butylbenzene	ND		ug/L	5.0	2.0	1	06/14/18	06/14/18 15:50	GM
Carbon disulfide	ND		ug/L	5.0	2.0	1	06/14/18	06/14/18 15:50	GM
Carbon tetrachloride	ND		ug/L	5.0	2.0	1	06/14/18	06/14/18 15:50	GM
Chlorobenzene	ND		ug/L	5.0	2.0	1	06/14/18	06/14/18 15:50	GM
Chloroethane	ND		ug/L	5.0	5.0	1	06/14/18	06/14/18 15:50	GM
<b>Chloroform</b>	<b>2.8</b>	J	ug/L	5.0	2.0	1	06/14/18	06/14/18 15:50	GM
Chloromethane	ND		ug/L	5.0	5.0	1	06/14/18	06/14/18 15:50	GM
2-Chlorotoluene	ND		ug/L	5.0	2.0	1	06/14/18	06/14/18 15:50	GM
4-Chlorotoluene	ND		ug/L	5.0	2.0	1	06/14/18	06/14/18 15:50	GM
Dibromochloromethane	ND		ug/L	5.0	2.0	1	06/14/18	06/14/18 15:50	GM
1,2-Dibromo-3-chloropropane	ND		ug/L	5.0	2.0	1	06/14/18	06/14/18 15:50	GM
1,2-Dibromoethane (EDB)	ND		ug/L	5.0	2.0	1	06/14/18	06/14/18 15:50	GM
Dibromomethane	ND		ug/L	5.0	2.0	1	06/14/18	06/14/18 15:50	GM
1,2-Dichlorobenzene	ND		ug/L	5.0	2.0	1	06/14/18	06/14/18 15:50	GM
1,3-Dichlorobenzene	ND		ug/L	5.0	2.0	1	06/14/18	06/14/18 15:50	GM
1,4-Dichlorobenzene	ND		ug/L	5.0	2.0	1	06/14/18	06/14/18 15:50	GM
Dichlorodifluoromethane	ND		ug/L	5.0	2.0	1	06/14/18	06/14/18 15:50	GM
1,1-Dichloroethane	ND		ug/L	5.0	2.0	1	06/14/18	06/14/18 15:50	GM
1,2-Dichloroethane	ND		ug/L	5.0	2.0	1	06/14/18	06/14/18 15:50	GM
1,1-Dichloroethene	ND		ug/L	5.0	2.0	1	06/14/18	06/14/18 15:50	GM
cis-1,2-Dichloroethene	ND		ug/L	5.0	2.0	1	06/14/18	06/14/18 15:50	GM

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*



Rabecka Koons, Quality Assurance Officer

**Analytical Results**

**Project: ARMED FORCES RETIREMENT HOME**

Project Number: CG-17-1111  
Project Manager: Nancy Love

Reported:  
06/22/18 16:52

**46-W-A**

**8061223-01 (Nonpotable Water)**

**Sample Date: 06/12/18**

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Quantitation Limit (LOQ)	Dilution	Prepared	Analyzed	Analyst
<b>VOLATILE ORGANICS BY EPA METHOD 8260B (GC/MS) (continued)</b>									
trans-1,2-Dichloroethene	ND		ug/L	5.0	2.0	1	06/14/18	06/14/18 15:50	GM
Dichlorofluoromethane	ND		ug/L	5.0	2.0	1	06/14/18	06/14/18 15:50	GM
1,2-Dichloropropane	ND		ug/L	5.0	2.0	1	06/14/18	06/14/18 15:50	GM
1,3-Dichloropropane	ND		ug/L	5.0	2.0	1	06/14/18	06/14/18 15:50	GM
2,2-Dichloropropane	ND		ug/L	5.0	2.0	1	06/14/18	06/14/18 15:50	GM
1,1-Dichloropropene	ND		ug/L	5.0	2.0	1	06/14/18	06/14/18 15:50	GM
cis-1,3-Dichloropropene	ND		ug/L	5.0	2.0	1	06/14/18	06/14/18 15:50	GM
trans-1,3-Dichloropropene	ND		ug/L	5.0	2.0	1	06/14/18	06/14/18 15:50	GM
Diisopropyl ether (DIPE)	ND		ug/L	5.0	2.0	1	06/14/18	06/14/18 15:50	GM
Ethyl tert-butyl ether (ETBE)	ND		ug/L	5.0	2.0	1	06/14/18	06/14/18 15:50	GM
Ethylbenzene	ND		ug/L	5.0	2.0	1	06/14/18	06/14/18 15:50	GM
Hexachlorobutadiene	ND		ug/L	5.0	2.0	1	06/14/18	06/14/18 15:50	GM
2-Hexanone	ND		ug/L	10.0	10.0	1	06/14/18	06/14/18 15:50	GM
Isopropylbenzene (Cumene)	ND		ug/L	5.0	2.0	1	06/14/18	06/14/18 15:50	GM
4-Isopropyltoluene	ND		ug/L	5.0	2.0	1	06/14/18	06/14/18 15:50	GM
Methyl tert-butyl ether (MTBE)	ND		ug/L	5.0	2.0	1	06/14/18	06/14/18 15:50	GM
4-Methyl-2-pentanone	ND		ug/L	10.0	10.0	1	06/14/18	06/14/18 15:50	GM
Methylene chloride	ND		ug/L	10.0	10.0	1	06/14/18	06/14/18 15:50	GM
Naphthalene	ND		ug/L	5.0	2.0	1	06/14/18	06/14/18 15:50	GM
n-Propylbenzene	ND		ug/L	5.0	2.0	1	06/14/18	06/14/18 15:50	GM
Styrene	ND		ug/L	5.0	2.0	1	06/14/18	06/14/18 15:50	GM
1,1,1,2-Tetrachloroethane	ND		ug/L	5.0	2.0	1	06/14/18	06/14/18 15:50	GM
1,1,2,2-Tetrachloroethane	ND		ug/L	5.0	2.0	1	06/14/18	06/14/18 15:50	GM
Tetrachloroethene	ND		ug/L	5.0	2.0	1	06/14/18	06/14/18 15:50	GM
<b>Toluene</b>	<b>4.1</b>	J	ug/L	5.0	2.0	1	06/14/18	06/14/18 15:50	GM
1,2,3-Trichlorobenzene	ND		ug/L	5.0	2.0	1	06/14/18	06/14/18 15:50	GM
1,2,4-Trichlorobenzene	ND		ug/L	5.0	2.0	1	06/14/18	06/14/18 15:50	GM
1,1,1-Trichloroethane	ND		ug/L	5.0	2.0	1	06/14/18	06/14/18 15:50	GM
1,1,2-Trichloroethane	ND		ug/L	5.0	2.0	1	06/14/18	06/14/18 15:50	GM
Trichloroethene	ND		ug/L	5.0	2.0	1	06/14/18	06/14/18 15:50	GM
Trichlorofluoromethane (Freon 11)	ND		ug/L	5.0	2.0	1	06/14/18	06/14/18 15:50	GM
1,2,3-Trichloropropane	ND		ug/L	5.0	2.0	1	06/14/18	06/14/18 15:50	GM
1,2,4-Trimethylbenzene	ND		ug/L	5.0	2.0	1	06/14/18	06/14/18 15:50	GM
1,3,5-Trimethylbenzene	ND		ug/L	5.0	2.0	1	06/14/18	06/14/18 15:50	GM

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*



Rabecka Koons, Quality Assurance Officer

**Analytical Results**

**Project: ARMED FORCES RETIREMENT HOME**

Project Number: CG-17-1111  
Project Manager: Nancy Love

Reported:  
06/22/18 16:52

**46-W-A**

**8061223-01 (Nonpotable Water)**  
**Sample Date: 06/12/18**

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Quantitation Limit (LOQ)	Dilution	Prepared	Analyzed	Analyst
<b>VOLATILE ORGANICS BY EPA METHOD 8260B (GC/MS) (continued)</b>									
Vinyl chloride	ND		ug/L	5.0	2.0	1	06/14/18	06/14/18 15:50	GM
o-Xylene	ND		ug/L	5.0	2.0	1	06/14/18	06/14/18 15:50	GM
m- & p-Xylenes	ND		ug/L	5.0	2.0	1	06/14/18	06/14/18 15:50	GM
Surrogate: 1,2-Dichloroethane-d4		75-120		100 %	06/14/18		06/14/18 15:50		
Surrogate: Toluene-d8		84-110		99 %	06/14/18		06/14/18 15:50		
Surrogate: 4-Bromofluorobenzene		78-110		98 %	06/14/18		06/14/18 15:50		
<b>Metals EPA 6020 Performed at Enviro-Chem</b>									
Arsenic	3.85		ug/L	1.00	1.00	1	06/14/18	06/14/18 15:27	MAP
Barium	115		ug/L	1.00	1.00	1	06/14/18	06/14/18 15:27	MAP
Cadmium	1.18		ug/L	1.00	1.00	1	06/14/18	06/14/18 15:27	MAP
Chromium	30.2		ug/L	1.00	0.500	1	06/14/18	06/14/18 15:27	MAP
Lead	7.71		ug/L	1.00	1.00	1	06/14/18	06/14/18 15:27	MAP
Mercury	ND		ug/L	0.200	0.200	1	06/14/18	06/14/18 15:27	MAP
Selenium	3.54		ug/L	1.00	1.00	1	06/14/18	06/14/18 15:27	MAP
Silver	ND		ug/L	1.00	1.00	1	06/14/18	06/14/18 15:27	MAP



Rabecka Koons, Quality Assurance Officer

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*

**Analytical Results**

**Project: ARMED FORCES RETIREMENT HOME**

Project Number: CG-17-1111  
Project Manager: Nancy Love

Reported:  
06/22/18 16:52

**46-W-B**

**8061223-02 (Nonpotable Water)**

**Sample Date: 06/12/18**

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Quantitation Limit (LOQ)	Dilution	Prepared	Analyzed	Analyst
<b>VOLATILE ORGANICS BY EPA METHOD 8260B (GC/MS)</b>									
Acetone	159		ug/L	10.0	10.0	1	06/14/18	06/14/18 16:13	GM
tert-Amyl alcohol (TAA)	ND		ug/L	20.0	20.0	1	06/14/18	06/14/18 16:13	GM
tert-Amyl methyl ether (TAME)	ND		ug/L	5.0	2.0	1	06/14/18	06/14/18 16:13	GM
Benzene	ND		ug/L	5.0	2.0	1	06/14/18	06/14/18 16:13	GM
Bromobenzene	ND		ug/L	5.0	2.0	1	06/14/18	06/14/18 16:13	GM
Bromochloromethane	ND		ug/L	5.0	2.0	1	06/14/18	06/14/18 16:13	GM
Bromodichloromethane	ND		ug/L	5.0	2.0	1	06/14/18	06/14/18 16:13	GM
Bromoform	ND		ug/L	5.0	2.0	1	06/14/18	06/14/18 16:13	GM
Bromomethane	ND		ug/L	5.0	5.0	1	06/14/18	06/14/18 16:13	GM
tert-Butanol (TBA)	16.7		ug/L	15.0	15.0	1	06/14/18	06/14/18 16:13	GM
2-Butanone (MEK)	34.0		ug/L	10.0	10.0	1	06/14/18	06/14/18 16:13	GM
n-Butylbenzene	ND		ug/L	5.0	2.0	1	06/14/18	06/14/18 16:13	GM
sec-Butylbenzene	ND		ug/L	5.0	2.0	1	06/14/18	06/14/18 16:13	GM
tert-Butylbenzene	ND		ug/L	5.0	2.0	1	06/14/18	06/14/18 16:13	GM
Carbon disulfide	ND		ug/L	5.0	2.0	1	06/14/18	06/14/18 16:13	GM
Carbon tetrachloride	ND		ug/L	5.0	2.0	1	06/14/18	06/14/18 16:13	GM
Chlorobenzene	ND		ug/L	5.0	2.0	1	06/14/18	06/14/18 16:13	GM
Chloroethane	ND		ug/L	5.0	5.0	1	06/14/18	06/14/18 16:13	GM
Chloroform	3.4	J	ug/L	5.0	2.0	1	06/14/18	06/14/18 16:13	GM
Chloromethane	ND		ug/L	5.0	5.0	1	06/14/18	06/14/18 16:13	GM
2-Chlorotoluene	ND		ug/L	5.0	2.0	1	06/14/18	06/14/18 16:13	GM
4-Chlorotoluene	ND		ug/L	5.0	2.0	1	06/14/18	06/14/18 16:13	GM
Dibromochloromethane	ND		ug/L	5.0	2.0	1	06/14/18	06/14/18 16:13	GM
1,2-Dibromo-3-chloropropane	ND		ug/L	5.0	2.0	1	06/14/18	06/14/18 16:13	GM
1,2-Dibromoethane (EDB)	ND		ug/L	5.0	2.0	1	06/14/18	06/14/18 16:13	GM
Dibromomethane	ND		ug/L	5.0	2.0	1	06/14/18	06/14/18 16:13	GM
1,2-Dichlorobenzene	ND		ug/L	5.0	2.0	1	06/14/18	06/14/18 16:13	GM
1,3-Dichlorobenzene	ND		ug/L	5.0	2.0	1	06/14/18	06/14/18 16:13	GM
1,4-Dichlorobenzene	ND		ug/L	5.0	2.0	1	06/14/18	06/14/18 16:13	GM
Dichlorodifluoromethane	ND		ug/L	5.0	2.0	1	06/14/18	06/14/18 16:13	GM
1,1-Dichloroethane	ND		ug/L	5.0	2.0	1	06/14/18	06/14/18 16:13	GM
1,2-Dichloroethane	ND		ug/L	5.0	2.0	1	06/14/18	06/14/18 16:13	GM
1,1-Dichloroethene	ND		ug/L	5.0	2.0	1	06/14/18	06/14/18 16:13	GM
cis-1,2-Dichloroethene	ND		ug/L	5.0	2.0	1	06/14/18	06/14/18 16:13	GM

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*



Rabecka Koons, Quality Assurance Officer

## Analytical Results

**Project: ARMED FORCES RETIREMENT HOME**

Project Number: CG-17-1111

Project Manager: Nancy Love

Reported:

06/22/18 16:52

**46-W-B**

**8061223-02 (Nonpotable Water)**

**Sample Date: 06/12/18**

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Quantitation Limit (LOQ)	Dilution	Prepared	Analyzed	Analyst
<b>VOLATILE ORGANICS BY EPA METHOD 8260B (GC/MS) (continued)</b>									
trans-1,2-Dichloroethene	ND		ug/L	5.0	2.0	1	06/14/18	06/14/18 16:13	GM
Dichlorofluoromethane	ND		ug/L	5.0	2.0	1	06/14/18	06/14/18 16:13	GM
1,2-Dichloropropane	ND		ug/L	5.0	2.0	1	06/14/18	06/14/18 16:13	GM
1,3-Dichloropropane	ND		ug/L	5.0	2.0	1	06/14/18	06/14/18 16:13	GM
2,2-Dichloropropane	ND		ug/L	5.0	2.0	1	06/14/18	06/14/18 16:13	GM
1,1-Dichloropropene	ND		ug/L	5.0	2.0	1	06/14/18	06/14/18 16:13	GM
cis-1,3-Dichloropropene	ND		ug/L	5.0	2.0	1	06/14/18	06/14/18 16:13	GM
trans-1,3-Dichloropropene	ND		ug/L	5.0	2.0	1	06/14/18	06/14/18 16:13	GM
Diisopropyl ether (DIPE)	ND		ug/L	5.0	2.0	1	06/14/18	06/14/18 16:13	GM
Ethyl tert-butyl ether (ETBE)	ND		ug/L	5.0	2.0	1	06/14/18	06/14/18 16:13	GM
Ethylbenzene	ND		ug/L	5.0	2.0	1	06/14/18	06/14/18 16:13	GM
Hexachlorobutadiene	ND		ug/L	5.0	2.0	1	06/14/18	06/14/18 16:13	GM
2-Hexanone	ND		ug/L	10.0	10.0	1	06/14/18	06/14/18 16:13	GM
Isopropylbenzene (Cumene)	ND		ug/L	5.0	2.0	1	06/14/18	06/14/18 16:13	GM
4-Isopropyltoluene	ND		ug/L	5.0	2.0	1	06/14/18	06/14/18 16:13	GM
Methyl tert-butyl ether (MTBE)	ND		ug/L	5.0	2.0	1	06/14/18	06/14/18 16:13	GM
4-Methyl-2-pentanone	ND		ug/L	10.0	10.0	1	06/14/18	06/14/18 16:13	GM
Methylene chloride	ND		ug/L	10.0	10.0	1	06/14/18	06/14/18 16:13	GM
Naphthalene	ND		ug/L	5.0	2.0	1	06/14/18	06/14/18 16:13	GM
n-Propylbenzene	ND		ug/L	5.0	2.0	1	06/14/18	06/14/18 16:13	GM
Styrene	ND		ug/L	5.0	2.0	1	06/14/18	06/14/18 16:13	GM
1,1,1,2-Tetrachloroethane	ND		ug/L	5.0	2.0	1	06/14/18	06/14/18 16:13	GM
1,1,2,2-Tetrachloroethane	ND		ug/L	5.0	2.0	1	06/14/18	06/14/18 16:13	GM
Tetrachloroethene	ND		ug/L	5.0	2.0	1	06/14/18	06/14/18 16:13	GM
Toluene	ND		ug/L	5.0	2.0	1	06/14/18	06/14/18 16:13	GM
1,2,3-Trichlorobenzene	ND		ug/L	5.0	2.0	1	06/14/18	06/14/18 16:13	GM
1,2,4-Trichlorobenzene	ND		ug/L	5.0	2.0	1	06/14/18	06/14/18 16:13	GM
1,1,1-Trichloroethane	ND		ug/L	5.0	2.0	1	06/14/18	06/14/18 16:13	GM
1,1,2-Trichloroethane	ND		ug/L	5.0	2.0	1	06/14/18	06/14/18 16:13	GM
Trichloroethene	ND		ug/L	5.0	2.0	1	06/14/18	06/14/18 16:13	GM
Trichlorofluoromethane (Freon 11)	ND		ug/L	5.0	2.0	1	06/14/18	06/14/18 16:13	GM
1,2,3-Trichloropropane	ND		ug/L	5.0	2.0	1	06/14/18	06/14/18 16:13	GM
1,2,4-Trimethylbenzene	ND		ug/L	5.0	2.0	1	06/14/18	06/14/18 16:13	GM
1,3,5-Trimethylbenzene	ND		ug/L	5.0	2.0	1	06/14/18	06/14/18 16:13	GM

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*



Rabecka Koons, Quality Assurance Officer



**Analytical Results**

**Project: ARMED FORCES RETIREMENT HOME**

Project Number: CG-17-1111  
Project Manager: Nancy Love

Reported:  
06/22/18 16:52

**46-W-B**

**8061223-02 (Nonpotable Water)**  
**Sample Date: 06/12/18**

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Quantitation Limit (LOQ)	Dilution	Prepared	Analyzed	Analyst
<b>VOLATILE ORGANICS BY EPA METHOD 8260B (GC/MS) (continued)</b>									
Vinyl chloride	ND		ug/L	5.0	2.0	1	06/14/18	06/14/18 16:13	GM
o-Xylene	ND		ug/L	5.0	2.0	1	06/14/18	06/14/18 16:13	GM
m- & p-Xylenes	ND		ug/L	5.0	2.0	1	06/14/18	06/14/18 16:13	GM
Surrogate: 1,2-Dichloroethane-d4		75-120		98 %	06/14/18		06/14/18 16:13		
Surrogate: Toluene-d8		84-110		98 %	06/14/18		06/14/18 16:13		
Surrogate: 4-Bromofluorobenzene		78-110		98 %	06/14/18		06/14/18 16:13		
<b>Metals EPA 6020 Performed at Enviro-Chem</b>									
Arsenic	10.4		ug/L	1.00	1.00	1	06/14/18	06/14/18 15:30	MAP
Barium	274		ug/L	1.00	1.00	1	06/14/18	06/14/18 15:30	MAP
Cadmium	1.57		ug/L	1.00	1.00	1	06/14/18	06/14/18 15:30	MAP
Chromium	128		ug/L	1.00	0.500	1	06/14/18	06/14/18 15:30	MAP
Lead	197		ug/L	1.00	1.00	1	06/14/18	06/14/18 15:30	MAP
Mercury	ND		ug/L	0.200	0.200	1	06/14/18	06/14/18 15:30	MAP
Selenium	8.57		ug/L	1.00	1.00	1	06/14/18	06/14/18 15:30	MAP
Silver	ND		ug/L	1.00	1.00	1	06/14/18	06/14/18 15:30	MAP



Rabecka Koons, Quality Assurance Officer

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*

## Analytical Results

**Project: ARMED FORCES RETIREMENT HOME**

Project Number: CG-17-1111

Project Manager: Nancy Love

Reported:

06/22/18 16:52

46-S-A

8061223-03 (Soil)

Sample Date: 06/12/18

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Quantitation Limit (LOQ)	Dilution	Prepared	Analyzed	Analyst
<b>TCLP VOLATILE ORGANICS BY EPA METHODS 1311/8260B (GC/MS)</b>									
Benzene	ND		ug/L	25.0	25.0	5	06/21/18	06/21/18 13:15	GM
2-Butanone (MEK)	ND		ug/L	50.0	50.0	5	06/21/18	06/21/18 13:15	GM
Carbon tetrachloride	ND		ug/L	25.0	25.0	5	06/21/18	06/21/18 13:15	GM
Chlorobenzene	ND		ug/L	25.0	25.0	5	06/21/18	06/21/18 13:15	GM
Chloroform	ND		ug/L	25.0	25.0	5	06/21/18	06/21/18 13:15	GM
1,4-Dichlorobenzene	ND		ug/L	25.0	25.0	5	06/21/18	06/21/18 13:15	GM
1,2-Dichloroethane	ND		ug/L	25.0	25.0	5	06/21/18	06/21/18 13:15	GM
1,1-Dichloroethene	ND		ug/L	25.0	25.0	5	06/21/18	06/21/18 13:15	GM
Tetrachloroethene	ND		ug/L	25.0	25.0	5	06/21/18	06/21/18 13:15	GM
Trichloroethene	ND		ug/L	25.0	25.0	5	06/21/18	06/21/18 13:15	GM
Vinyl chloride	ND		ug/L	25.0	25.0	5	06/21/18	06/21/18 13:15	GM
<i>Surrogate: 1,2-Dichloroethane-d4</i>		70-121		95 %	06/21/18		06/21/18 13:15		
<i>Surrogate: Toluene-d8</i>		84-138		95 %	06/21/18		06/21/18 13:15		
<i>Surrogate: 4-Bromofluorobenzene</i>		59-113		98 %	06/21/18		06/21/18 13:15		
<b>TCLP Metals EPA 1311/6010 Performed at Enviro-Chem</b>									
Arsenic	ND		mg/L	0.050	0.050	1	06/19/18	06/19/18 13:45	RAS
<b>Barium</b>	<b>0.256</b>		mg/L	0.020	0.020	1	06/19/18	06/19/18 13:45	RAS
Cadmium	ND		mg/L	0.005	0.005	1	06/19/18	06/19/18 13:45	RAS
Chromium	ND		mg/L	0.010	0.010	1	06/19/18	06/19/18 13:45	RAS
Lead	ND		mg/L	0.050	0.050	1	06/19/18	06/19/18 13:45	RAS
Selenium	ND		mg/L	0.050	0.050	1	06/19/18	06/19/18 13:45	RAS
Silver	ND		mg/L	0.010	0.010	1	06/19/18	06/19/18 13:45	RAS
<b>TCLP Metals EPA 1311/7470 Performed at Enviro-Chem</b>									
Mercury	ND		mg/L	0.001	0.001	1	06/20/18	06/20/18 15:41	RAS

*Rabecka Koons*

Rabecka Koons, Quality Assurance Officer

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

**Analytical Results**

**Project: ARMED FORCES RETIREMENT HOME**

Project Number: CG-17-1111

Project Manager: Nancy Love

Reported:

06/22/18 16:52

46-S-B

8061223-04 (Soil)

Sample Date: 06/12/18

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Quantitation Limit (LOQ)	Dilution	Prepared	Analyzed	Analyst
---------	--------	-------	-------	-----------------------	--------------------------	----------	----------	----------	---------

**TCLP VOLATILE ORGANICS BY EPA METHODS 1311/8260B (GC/MS)**

Benzene	ND		ug/L	25.0	25.0	5	06/21/18	06/21/18 13:39	GM
2-Butanone (MEK)	ND		ug/L	50.0	50.0	5	06/21/18	06/21/18 13:39	GM
Carbon tetrachloride	ND		ug/L	25.0	25.0	5	06/21/18	06/21/18 13:39	GM
Chlorobenzene	ND		ug/L	25.0	25.0	5	06/21/18	06/21/18 13:39	GM
Chloroform	ND		ug/L	25.0	25.0	5	06/21/18	06/21/18 13:39	GM
1,4-Dichlorobenzene	ND		ug/L	25.0	25.0	5	06/21/18	06/21/18 13:39	GM
1,2-Dichloroethane	ND		ug/L	25.0	25.0	5	06/21/18	06/21/18 13:39	GM
1,1-Dichloroethene	ND		ug/L	25.0	25.0	5	06/21/18	06/21/18 13:39	GM
Tetrachloroethene	ND		ug/L	25.0	25.0	5	06/21/18	06/21/18 13:39	GM
Trichloroethene	ND		ug/L	25.0	25.0	5	06/21/18	06/21/18 13:39	GM
Vinyl chloride	ND		ug/L	25.0	25.0	5	06/21/18	06/21/18 13:39	GM

Surrogate: 1,2-Dichloroethane-d4

70-121

96 %

06/21/18

06/21/18 13:39

Surrogate: Toluene-d8

84-138

94 %

06/21/18

06/21/18 13:39

Surrogate: 4-Bromofluorobenzene

59-113

97 %

06/21/18

06/21/18 13:39

**TCLP Metals EPA 1311/6010 Performed at Enviro-Chem**

Arsenic	ND		mg/L	0.050	0.050	1	06/19/18	06/19/18 13:53	RAS
<b>Barium</b>	<b>0.190</b>		mg/L	0.020	0.020	1	06/19/18	06/19/18 13:53	RAS
Cadmium	ND		mg/L	0.005	0.005	1	06/19/18	06/19/18 13:53	RAS
Chromium	ND		mg/L	0.010	0.010	1	06/19/18	06/19/18 13:53	RAS
Lead	ND		mg/L	0.050	0.050	1	06/19/18	06/19/18 13:53	RAS
Selenium	ND		mg/L	0.050	0.050	1	06/19/18	06/19/18 13:53	RAS
Silver	ND		mg/L	0.010	0.010	1	06/19/18	06/19/18 13:53	RAS

**TCLP Metals EPA 1311/7470 Performed at Enviro-Chem**

Mercury	ND		mg/L	0.001	0.001	1	06/20/18	06/20/18 15:50	RAS
---------	----	--	------	-------	-------	---	----------	----------------	-----

*Rabecka Koons*

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Rabecka Koons, Quality Assurance Officer

**Analytical Results**

**Project: ARMED FORCES RETIREMENT HOME**

Project Number: CG-17-1111  
Project Manager: Nancy Love

Reported:  
06/22/18 16:52

46-S-C

8061223-05 (Soil)  
Sample Date: 06/12/18

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Quantitation Limit (LOQ)	Dilution	Prepared	Analyzed	Analyst
---------	--------	-------	-------	-----------------------	--------------------------	----------	----------	----------	---------

**TCLP VOLATILE ORGANICS BY EPA METHODS 1311/8260B (GC/MS)**

Benzene	ND		ug/L	25.0	25.0	5	06/21/18	06/21/18 14:03	GM
2-Butanone (MEK)	ND		ug/L	50.0	50.0	5	06/21/18	06/21/18 14:03	GM
Carbon tetrachloride	ND		ug/L	25.0	25.0	5	06/21/18	06/21/18 14:03	GM
Chlorobenzene	ND		ug/L	25.0	25.0	5	06/21/18	06/21/18 14:03	GM
Chloroform	ND		ug/L	25.0	25.0	5	06/21/18	06/21/18 14:03	GM
1,4-Dichlorobenzene	ND		ug/L	25.0	25.0	5	06/21/18	06/21/18 14:03	GM
1,2-Dichloroethane	ND		ug/L	25.0	25.0	5	06/21/18	06/21/18 14:03	GM
1,1-Dichloroethene	ND		ug/L	25.0	25.0	5	06/21/18	06/21/18 14:03	GM
Tetrachloroethene	ND		ug/L	25.0	25.0	5	06/21/18	06/21/18 14:03	GM
Trichloroethene	ND		ug/L	25.0	25.0	5	06/21/18	06/21/18 14:03	GM
Vinyl chloride	ND		ug/L	25.0	25.0	5	06/21/18	06/21/18 14:03	GM

Surrogate: 1,2-Dichloroethane-d4

70-121

96 %

06/21/18

06/21/18 14:03

Surrogate: Toluene-d8

84-138

95 %

06/21/18

06/21/18 14:03

Surrogate: 4-Bromofluorobenzene

59-113

98 %

06/21/18

06/21/18 14:03

**TCLP Metals EPA 1311/6010 Performed at Enviro-Chem**

Arsenic	ND		mg/L	0.050	0.050	1	06/19/18	06/19/18 13:55	RAS
<b>Barium</b>	<b>0.310</b>		mg/L	0.020	0.020	1	06/19/18	06/19/18 13:55	RAS
Cadmium	ND		mg/L	0.005	0.005	1	06/19/18	06/19/18 13:55	RAS
Chromium	ND		mg/L	0.010	0.010	1	06/19/18	06/19/18 13:55	RAS
Lead	ND		mg/L	0.050	0.050	1	06/19/18	06/19/18 13:55	RAS
Selenium	ND		mg/L	0.050	0.050	1	06/19/18	06/19/18 13:55	RAS
Silver	ND		mg/L	0.010	0.010	1	06/19/18	06/19/18 13:55	RAS

**TCLP Metals EPA 1311/7470 Performed at Enviro-Chem**

Mercury	ND		mg/L	0.001	0.001	1	06/20/18	06/20/18 15:58	RAS
---------	----	--	------	-------	-------	---	----------	----------------	-----

*Rabecka Koons*

Rabecka Koons, Quality Assurance Officer

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

**Analytical Results**

**Project: ARMED FORCES RETIREMENT HOME**

Project Number: CG-17-1111  
Project Manager: Nancy Love

Reported:  
06/22/18 16:52

**46-W-C**

**8061223-06 (Nonpotable Water)**

**Sample Date: 06/12/18**

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Quantitation Limit (LOQ)	Dilution	Prepared	Analyzed	Analyst
<b>VOLATILE ORGANICS BY EPA METHOD 8260B (GC/MS)</b>									
Acetone	ND		ug/L	10.0	10.0	1	06/14/18	06/14/18 16:37	GM
tert-Amyl alcohol (TAA)	ND		ug/L	20.0	20.0	1	06/14/18	06/14/18 16:37	GM
tert-Amyl methyl ether (TAME)	ND		ug/L	5.0	2.0	1	06/14/18	06/14/18 16:37	GM
Benzene	ND		ug/L	5.0	2.0	1	06/14/18	06/14/18 16:37	GM
Bromobenzene	ND		ug/L	5.0	2.0	1	06/14/18	06/14/18 16:37	GM
Bromochloromethane	ND		ug/L	5.0	2.0	1	06/14/18	06/14/18 16:37	GM
Bromodichloromethane	ND		ug/L	5.0	2.0	1	06/14/18	06/14/18 16:37	GM
Bromoform	ND		ug/L	5.0	2.0	1	06/14/18	06/14/18 16:37	GM
Bromomethane	ND		ug/L	5.0	5.0	1	06/14/18	06/14/18 16:37	GM
<b>tert-Butanol (TBA)</b>	<b>52.0</b>		ug/L	15.0	15.0	1	06/14/18	06/14/18 16:37	GM
2-Butanone (MEK)	ND		ug/L	10.0	10.0	1	06/14/18	06/14/18 16:37	GM
n-Butylbenzene	ND		ug/L	5.0	2.0	1	06/14/18	06/14/18 16:37	GM
sec-Butylbenzene	ND		ug/L	5.0	2.0	1	06/14/18	06/14/18 16:37	GM
tert-Butylbenzene	ND		ug/L	5.0	2.0	1	06/14/18	06/14/18 16:37	GM
Carbon disulfide	ND		ug/L	5.0	2.0	1	06/14/18	06/14/18 16:37	GM
Carbon tetrachloride	ND		ug/L	5.0	2.0	1	06/14/18	06/14/18 16:37	GM
Chlorobenzene	ND		ug/L	5.0	2.0	1	06/14/18	06/14/18 16:37	GM
Chloroethane	ND		ug/L	5.0	5.0	1	06/14/18	06/14/18 16:37	GM
<b>Chloroform</b>	<b>6.3</b>		ug/L	5.0	2.0	1	06/14/18	06/14/18 16:37	GM
Chloromethane	ND		ug/L	5.0	5.0	1	06/14/18	06/14/18 16:37	GM
2-Chlorotoluene	ND		ug/L	5.0	2.0	1	06/14/18	06/14/18 16:37	GM
4-Chlorotoluene	ND		ug/L	5.0	2.0	1	06/14/18	06/14/18 16:37	GM
Dibromochloromethane	ND		ug/L	5.0	2.0	1	06/14/18	06/14/18 16:37	GM
1,2-Dibromo-3-chloropropane	ND		ug/L	5.0	2.0	1	06/14/18	06/14/18 16:37	GM
1,2-Dibromoethane (EDB)	ND		ug/L	5.0	2.0	1	06/14/18	06/14/18 16:37	GM
Dibromomethane	ND		ug/L	5.0	2.0	1	06/14/18	06/14/18 16:37	GM
1,2-Dichlorobenzene	ND		ug/L	5.0	2.0	1	06/14/18	06/14/18 16:37	GM
1,3-Dichlorobenzene	ND		ug/L	5.0	2.0	1	06/14/18	06/14/18 16:37	GM
1,4-Dichlorobenzene	ND		ug/L	5.0	2.0	1	06/14/18	06/14/18 16:37	GM
Dichlorodifluoromethane	ND		ug/L	5.0	2.0	1	06/14/18	06/14/18 16:37	GM
1,1-Dichloroethane	ND		ug/L	5.0	2.0	1	06/14/18	06/14/18 16:37	GM
1,2-Dichloroethane	ND		ug/L	5.0	2.0	1	06/14/18	06/14/18 16:37	GM
1,1-Dichloroethene	ND		ug/L	5.0	2.0	1	06/14/18	06/14/18 16:37	GM
cis-1,2-Dichloroethene	ND		ug/L	5.0	2.0	1	06/14/18	06/14/18 16:37	GM

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*



Rabecka Koons, Quality Assurance Officer

**Analytical Results**

**Project: ARMED FORCES RETIREMENT HOME**

Project Number: CG-17-1111  
Project Manager: Nancy Love

Reported:  
06/22/18 16:52

**46-W-C**

**8061223-06 (Nonpotable Water)**  
**Sample Date: 06/12/18**

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Quantitation Limit (LOQ)	Dilution	Prepared	Analyzed	Analyst
<b>VOLATILE ORGANICS BY EPA METHOD 8260B (GC/MS) (continued)</b>									
trans-1,2-Dichloroethene	ND		ug/L	5.0	2.0	1	06/14/18	06/14/18 16:37	GM
Dichlorofluoromethane	ND		ug/L	5.0	2.0	1	06/14/18	06/14/18 16:37	GM
1,2-Dichloropropane	ND		ug/L	5.0	2.0	1	06/14/18	06/14/18 16:37	GM
1,3-Dichloropropane	ND		ug/L	5.0	2.0	1	06/14/18	06/14/18 16:37	GM
2,2-Dichloropropane	ND		ug/L	5.0	2.0	1	06/14/18	06/14/18 16:37	GM
1,1-Dichloropropene	ND		ug/L	5.0	2.0	1	06/14/18	06/14/18 16:37	GM
cis-1,3-Dichloropropene	ND		ug/L	5.0	2.0	1	06/14/18	06/14/18 16:37	GM
trans-1,3-Dichloropropene	ND		ug/L	5.0	2.0	1	06/14/18	06/14/18 16:37	GM
Diisopropyl ether (DIPE)	ND		ug/L	5.0	2.0	1	06/14/18	06/14/18 16:37	GM
Ethyl tert-butyl ether (ETBE)	ND		ug/L	5.0	2.0	1	06/14/18	06/14/18 16:37	GM
Ethylbenzene	ND		ug/L	5.0	2.0	1	06/14/18	06/14/18 16:37	GM
Hexachlorobutadiene	ND		ug/L	5.0	2.0	1	06/14/18	06/14/18 16:37	GM
2-Hexanone	ND		ug/L	10.0	10.0	1	06/14/18	06/14/18 16:37	GM
Isopropylbenzene (Cumene)	ND		ug/L	5.0	2.0	1	06/14/18	06/14/18 16:37	GM
4-Isopropyltoluene	ND		ug/L	5.0	2.0	1	06/14/18	06/14/18 16:37	GM
Methyl tert-butyl ether (MTBE)	ND		ug/L	5.0	2.0	1	06/14/18	06/14/18 16:37	GM
4-Methyl-2-pentanone	ND		ug/L	10.0	10.0	1	06/14/18	06/14/18 16:37	GM
Methylene chloride	ND		ug/L	10.0	10.0	1	06/14/18	06/14/18 16:37	GM
Naphthalene	ND		ug/L	5.0	2.0	1	06/14/18	06/14/18 16:37	GM
n-Propylbenzene	ND		ug/L	5.0	2.0	1	06/14/18	06/14/18 16:37	GM
Styrene	ND		ug/L	5.0	2.0	1	06/14/18	06/14/18 16:37	GM
1,1,1,2-Tetrachloroethane	ND		ug/L	5.0	2.0	1	06/14/18	06/14/18 16:37	GM
1,1,2,2-Tetrachloroethane	ND		ug/L	5.0	2.0	1	06/14/18	06/14/18 16:37	GM
Tetrachloroethene	ND		ug/L	5.0	2.0	1	06/14/18	06/14/18 16:37	GM
Toluene	ND		ug/L	5.0	2.0	1	06/14/18	06/14/18 16:37	GM
1,2,3-Trichlorobenzene	ND		ug/L	5.0	2.0	1	06/14/18	06/14/18 16:37	GM
1,2,4-Trichlorobenzene	ND		ug/L	5.0	2.0	1	06/14/18	06/14/18 16:37	GM
1,1,1-Trichloroethane	ND		ug/L	5.0	2.0	1	06/14/18	06/14/18 16:37	GM
1,1,2-Trichloroethane	ND		ug/L	5.0	2.0	1	06/14/18	06/14/18 16:37	GM
Trichloroethene	ND		ug/L	5.0	2.0	1	06/14/18	06/14/18 16:37	GM
Trichlorofluoromethane (Freon 11)	ND		ug/L	5.0	2.0	1	06/14/18	06/14/18 16:37	GM
1,2,3-Trichloropropane	ND		ug/L	5.0	2.0	1	06/14/18	06/14/18 16:37	GM
1,2,4-Trimethylbenzene	ND		ug/L	5.0	2.0	1	06/14/18	06/14/18 16:37	GM
1,3,5-Trimethylbenzene	ND		ug/L	5.0	2.0	1	06/14/18	06/14/18 16:37	GM



Rabecka Koons, Quality Assurance Officer

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*

**Analytical Results**

**Project: ARMED FORCES RETIREMENT HOME**

Project Number: CG-17-1111  
Project Manager: Nancy Love

Reported:  
06/22/18 16:52

**46-W-C**

**8061223-06 (Nonpotable Water)**  
**Sample Date: 06/12/18**

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Quantitation Limit (LOQ)	Dilution	Prepared	Analyzed	Analyst
---------	--------	-------	-------	-----------------------	--------------------------	----------	----------	----------	---------

**VOLATILE ORGANICS BY EPA METHOD 8260B (GC/MS) (continued)**

Vinyl chloride	ND		ug/L	5.0	2.0	1	06/14/18	06/14/18 16:37	GM
o-Xylene	ND		ug/L	5.0	2.0	1	06/14/18	06/14/18 16:37	GM
m- & p-Xylenes	ND		ug/L	5.0	2.0	1	06/14/18	06/14/18 16:37	GM
Surrogate: 1,2-Dichloroethane-d4		75-120		98 %	06/14/18		06/14/18 16:37		
Surrogate: Toluene-d8		84-110		98 %	06/14/18		06/14/18 16:37		
Surrogate: 4-Bromofluorobenzene		78-110		96 %	06/14/18		06/14/18 16:37		

**Metals EPA 6020 Performed at Enviro-Chem**

<b>Arsenic</b>	<b>2.44</b>		ug/L	1.00	1.00	1	06/14/18	06/14/18 15:34	MAP
<b>Barium</b>	<b>56.4</b>		ug/L	1.00	1.00	1	06/14/18	06/14/18 15:34	MAP
Cadmium	ND		ug/L	1.00	1.00	1	06/14/18	06/14/18 15:34	MAP
<b>Chromium</b>	<b>25.2</b>		ug/L	1.00	0.500	1	06/14/18	06/14/18 15:34	MAP
<b>Lead</b>	<b>4.19</b>		ug/L	1.00	1.00	1	06/14/18	06/14/18 15:34	MAP
Mercury	ND		ug/L	0.200	0.200	1	06/14/18	06/14/18 15:34	MAP
<b>Selenium</b>	<b>2.90</b>		ug/L	1.00	1.00	1	06/14/18	06/14/18 15:34	MAP
Silver	ND		ug/L	1.00	1.00	1	06/14/18	06/14/18 15:34	MAP

*Rabecka Koons*

Rabecka Koons, Quality Assurance Officer

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*

**Analytical Results**

**Project: ARMED FORCES RETIREMENT HOME**

Project Number: CG-17-1111  
Project Manager: Nancy Love

Reported:  
06/22/18 16:52

**46-S-D**

**8061223-07 (Soil)**  
**Sample Date: 06/12/18**

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Quantitation Limit (LOQ)	Dilution	Prepared	Analyzed	Analyst
---------	--------	-------	-------	-----------------------	--------------------------	----------	----------	----------	---------

**TCLP VOLATILE ORGANICS BY EPA METHODS 1311/8260B (GC/MS)**

Benzene	ND		ug/L	25.0	25.0	5	06/21/18	06/21/18 14:27	GM
2-Butanone (MEK)	ND		ug/L	50.0	50.0	5	06/21/18	06/21/18 14:27	GM
Carbon tetrachloride	ND		ug/L	25.0	25.0	5	06/21/18	06/21/18 14:27	GM
Chlorobenzene	ND		ug/L	25.0	25.0	5	06/21/18	06/21/18 14:27	GM
Chloroform	ND		ug/L	25.0	25.0	5	06/21/18	06/21/18 14:27	GM
1,4-Dichlorobenzene	ND		ug/L	25.0	25.0	5	06/21/18	06/21/18 14:27	GM
1,2-Dichloroethane	ND		ug/L	25.0	25.0	5	06/21/18	06/21/18 14:27	GM
1,1-Dichloroethene	ND		ug/L	25.0	25.0	5	06/21/18	06/21/18 14:27	GM
Tetrachloroethene	ND		ug/L	25.0	25.0	5	06/21/18	06/21/18 14:27	GM
Trichloroethene	ND		ug/L	25.0	25.0	5	06/21/18	06/21/18 14:27	GM
Vinyl chloride	ND		ug/L	25.0	25.0	5	06/21/18	06/21/18 14:27	GM
<i>Surrogate: 1,2-Dichloroethane-d4</i>			<i>70-121</i>	<i>96 %</i>	<i>06/21/18</i>	<i>06/21/18 14:27</i>			
<i>Surrogate: Toluene-d8</i>			<i>84-138</i>	<i>94 %</i>	<i>06/21/18</i>	<i>06/21/18 14:27</i>			
<i>Surrogate: 4-Bromofluorobenzene</i>			<i>59-113</i>	<i>98 %</i>	<i>06/21/18</i>	<i>06/21/18 14:27</i>			

**TCLP Metals EPA 1311/6010 Performed at Enviro-Chem**

Arsenic	ND		mg/L	0.050	0.050	1	06/19/18	06/19/18 14:02	RAS
<b>Barium</b>	<b>0.306</b>		mg/L	0.020	0.020	1	06/19/18	06/19/18 14:02	RAS
Cadmium	ND		mg/L	0.005	0.005	1	06/19/18	06/19/18 14:02	RAS
Chromium	ND		mg/L	0.010	0.010	1	06/19/18	06/19/18 14:02	RAS
Lead	ND		mg/L	0.050	0.050	1	06/19/18	06/19/18 14:02	RAS
Selenium	ND		mg/L	0.050	0.050	1	06/19/18	06/19/18 14:02	RAS
Silver	ND		mg/L	0.010	0.010	1	06/19/18	06/19/18 14:02	RAS

**TCLP Metals EPA 1311/7470 Performed at Enviro-Chem**

Mercury	ND		mg/L	0.001	0.001	1	06/20/18	06/20/18 16:00	RAS
---------	----	--	------	-------	-------	---	----------	----------------	-----

*Rabecka Koons*

Rabecka Koons, Quality Assurance Officer

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*



**Analytical Results**

**Project: ARMED FORCES RETIREMENT HOME**

Project Number: CG-17-1111  
Project Manager: Nancy Love

Reported:  
06/22/18 16:52

73-S-A

8061223-08 (Soil)  
Sample Date: 06/12/18

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Quantitation Limit (LOQ)	Dilution	Prepared	Analyzed	Analyst
---------	--------	-------	-------	-----------------------	--------------------------	----------	----------	----------	---------

**TCLP VOLATILE ORGANICS BY EPA METHODS 1311/8260B (GC/MS)**

Benzene	ND		ug/L	25.0	25.0	5	06/21/18	06/21/18 14:51	GM
2-Butanone (MEK)	ND		ug/L	50.0	50.0	5	06/21/18	06/21/18 14:51	GM
Carbon tetrachloride	ND		ug/L	25.0	25.0	5	06/21/18	06/21/18 14:51	GM
Chlorobenzene	ND		ug/L	25.0	25.0	5	06/21/18	06/21/18 14:51	GM
Chloroform	ND		ug/L	25.0	25.0	5	06/21/18	06/21/18 14:51	GM
1,4-Dichlorobenzene	ND		ug/L	25.0	25.0	5	06/21/18	06/21/18 14:51	GM
1,2-Dichloroethane	ND		ug/L	25.0	25.0	5	06/21/18	06/21/18 14:51	GM
1,1-Dichloroethene	ND		ug/L	25.0	25.0	5	06/21/18	06/21/18 14:51	GM
Tetrachloroethene	ND		ug/L	25.0	25.0	5	06/21/18	06/21/18 14:51	GM
Trichloroethene	ND		ug/L	25.0	25.0	5	06/21/18	06/21/18 14:51	GM
Vinyl chloride	ND		ug/L	25.0	25.0	5	06/21/18	06/21/18 14:51	GM
<i>Surrogate: 1,2-Dichloroethane-d4</i>			<i>70-121</i>	<i>95 %</i>	<i>06/21/18</i>	<i>06/21/18 14:51</i>			
<i>Surrogate: Toluene-d8</i>			<i>84-138</i>	<i>94 %</i>	<i>06/21/18</i>	<i>06/21/18 14:51</i>			
<i>Surrogate: 4-Bromofluorobenzene</i>			<i>59-113</i>	<i>98 %</i>	<i>06/21/18</i>	<i>06/21/18 14:51</i>			

**TCLP Metals EPA 1311/6010 Performed at Enviro-Chem**

Arsenic	ND		mg/L	0.050	0.050	1	06/19/18	06/19/18 14:03	RAS
<b>Barium</b>	<b>0.325</b>		mg/L	0.020	0.020	1	06/19/18	06/19/18 14:03	RAS
Cadmium	ND		mg/L	0.005	0.005	1	06/19/18	06/19/18 14:03	RAS
Chromium	ND		mg/L	0.010	0.010	1	06/19/18	06/19/18 14:03	RAS
Lead	ND		mg/L	0.050	0.050	1	06/19/18	06/19/18 14:03	RAS
Selenium	ND		mg/L	0.050	0.050	1	06/19/18	06/19/18 14:03	RAS
Silver	ND		mg/L	0.010	0.010	1	06/19/18	06/19/18 14:03	RAS

**TCLP Metals EPA 1311/7470 Performed at Enviro-Chem**

Mercury	ND		mg/L	0.001	0.001	1	06/20/18	06/20/18 16:02	RAS
---------	----	--	------	-------	-------	---	----------	----------------	-----

*Rabecka Koons*

Rabecka Koons, Quality Assurance Officer

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*

## Analytical Results

**Project: ARMED FORCES RETIREMENT HOME**

Project Number: CG-17-1111

Project Manager: Nancy Love

Reported:

06/22/18 16:52

76-S-A

8061223-09 (Soil)

Sample Date: 06/12/18

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Quantitation Limit (LOQ)	Dilution	Prepared	Analyzed	Analyst
<b>TCLP VOLATILE ORGANICS BY EPA METHODS 1311/8260B (GC/MS)</b>									
Benzene	ND		ug/L	25.0	25.0	5	06/21/18	06/21/18 15:15	GM
2-Butanone (MEK)	ND		ug/L	50.0	50.0	5	06/21/18	06/21/18 15:15	GM
Carbon tetrachloride	ND		ug/L	25.0	25.0	5	06/21/18	06/21/18 15:15	GM
Chlorobenzene	ND		ug/L	25.0	25.0	5	06/21/18	06/21/18 15:15	GM
Chloroform	ND		ug/L	25.0	25.0	5	06/21/18	06/21/18 15:15	GM
1,4-Dichlorobenzene	ND		ug/L	25.0	25.0	5	06/21/18	06/21/18 15:15	GM
1,2-Dichloroethane	ND		ug/L	25.0	25.0	5	06/21/18	06/21/18 15:15	GM
1,1-Dichloroethene	ND		ug/L	25.0	25.0	5	06/21/18	06/21/18 15:15	GM
Tetrachloroethene	ND		ug/L	25.0	25.0	5	06/21/18	06/21/18 15:15	GM
Trichloroethene	ND		ug/L	25.0	25.0	5	06/21/18	06/21/18 15:15	GM
Vinyl chloride	ND		ug/L	25.0	25.0	5	06/21/18	06/21/18 15:15	GM
<i>Surrogate: 1,2-Dichloroethane-d4</i>		70-121		94 %	06/21/18		06/21/18 15:15		
<i>Surrogate: Toluene-d8</i>		84-138		94 %	06/21/18		06/21/18 15:15		
<i>Surrogate: 4-Bromofluorobenzene</i>		59-113		98 %	06/21/18		06/21/18 15:15		
<b>TCLP Metals EPA 1311/6010 Performed at Enviro-Chem</b>									
Arsenic	ND		mg/L	0.050	0.050	1	06/19/18	06/19/18 14:05	RAS
<b>Barium</b>	<b>0.348</b>		mg/L	0.020	0.020	1	06/19/18	06/19/18 14:05	RAS
Cadmium	ND		mg/L	0.005	0.005	1	06/19/18	06/19/18 14:05	RAS
Chromium	ND		mg/L	0.010	0.010	1	06/19/18	06/19/18 14:05	RAS
Lead	ND		mg/L	0.050	0.050	1	06/19/18	06/19/18 14:05	RAS
Selenium	ND		mg/L	0.050	0.050	1	06/19/18	06/19/18 14:05	RAS
Silver	ND		mg/L	0.010	0.010	1	06/19/18	06/19/18 14:05	RAS
<b>TCLP Metals EPA 1311/7470 Performed at Enviro-Chem</b>									
Mercury	ND		mg/L	0.001	0.001	1	06/20/18	06/20/18 16:04	RAS



Rabecka Koons, Quality Assurance Officer

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

## Analytical Results

1500 Caton Center Dr Suite G  
Baltimore MD 21227  
410-247-7600  
www.mdspectral.com

**Project: ARMED FORCES RETIREMENT HOME**

Project Number: CG-17-1111

Project Manager: Nancy Love

Reported:

06/22/18 16:52

### Notes and Definitions

J	Detected but below the reporting limit; therefore, result is an estimated concentration (CLP J-Flag).
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference



Rabecka Koons, Quality Assurance Officer

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*

Company Name: Chesapeake Geo Sciences		Project Manager: Nancy Love		Analysis Requested		CHAIN-OF-CUSTODY RECORD			
Project Name: AFRH		Project ID: CG-17-1111		RCRA 8 Metals EPA 6000/70000		Maryland Spectral Services, Inc. 1500 Caton Center Drive, Suite G Baltimore, MD 21227 410-247-7600 • Fax 410-247-7602 labman@mdspectral.com			
Sampler(s): Devin Glancey & Meg Staines		P.O. Number: CG171111DG		TCIP - VOCs		Matrix Codes: NW (nonpotable water) PW (potable water)			
Field Sample ID	Date	Time	Water	Soil	Other	No. of Containers	Preservative: 1+1 HCL, H <sub>2</sub> SO <sub>4</sub> , Methanol, Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> , NaHCO <sub>3</sub>	Field pH, Residual Chlorine, QC Request, Trip Blank, Field Blank	MSS Lab ID
4G-W-A	6/12/18	08:15	X			4	HCL pH < 4		806122301
4G-W-B		08:45	X			4	HCL pH < 4		-02
4G-S-A		09:15		X		4	Cool 4°C		-03
4G-S-B		09:50	X	X		4	Cool 4°C		-04
4G-S-C		10:10	X	X		4	Cool 4°C		-05
4G-W-C		10:45	X	X		4	HCL pH < 4		-06
4G-S-D		11:20	X	X		4	Cool 4°C		-07
73-S-A		12:05	X	X		4	Cool 4°C		-08
76-S-A		13:30	X	X		4	Cool 4°C		-09
Relinquished by: (Signature) <i>Devin Glancey</i>		Date/Time 6/12/18	Received by: (Signature)		Relinquished by: (Signature)		Date/Time	Received by: (Signature)	
(Printed) Devin Glancey		16:07	(Printed) <i>Devin Glancey</i>		(Printed)			(Printed)	
Relinquished by: (Signature)		Date/Time 6/12/18	Received by Lab: (Signature)		Turn Around Time:		Lab Use:		
(Printed)		16:07	(Printed) <i>Cory Koens</i>		<input checked="" type="checkbox"/> Normal (7 day) <input type="checkbox"/> 5 day <input type="checkbox"/> 4 day <input type="checkbox"/> 3 day <input type="checkbox"/> Rush (2 day) <input type="checkbox"/> Next Day <input type="checkbox"/> Other: _____ <input type="checkbox"/> Specific Due Date: _____		Temp: 5.6 °C <input type="checkbox"/> Received on Ice <input type="checkbox"/> Received same day <input type="checkbox"/> Preservation Appropriate Sample Disposal: <input type="checkbox"/> Return to Client <input type="checkbox"/> Disposal by lab <input checked="" type="checkbox"/> Archive for 7 days		
Delivery Method: Courier		Special Instructions/QC Requirements & Comments:							
Client									
UPS									
FedEx									
USPS									
Other:									

**SUBCONTRACT ORDER**  
Maryland Spectral Services

**8061223**

**SENDING LABORATORY:**

Maryland Spectral Services  
1500 Caton Center Dr. Suite G  
Halethorpe, MD 21227  
Phone: 410.247.7600  
Project Manager: Cory Koons

**RECEIVING LABORATORY:**

Enviro-Chem Laboratories, Inc  
47 Loveton Circle, Suite K  
Sparks, MD 21152  
Phone: (410) 472-1112  
Fax: (410) 472-1116

Reports Email: [Reporting@mdspectral.com](mailto:Reporting@mdspectral.com)

Auto-log Sent  
Date/Initial  
6/12/18 / PK

**Due 4:00 PM 06/21/18**

Laboratory ID

Comments

**Sample ID: 8061223-01 46-W-A**

Water Sampled:06/12/18 08:15

6020 (RCRA8 Total)

Containers Supplied:  
Plastic, 0.25L None (D)

**Sample ID: 8061223-02 46-W-B**

Water Sampled:06/12/18 08:45

6020 (RCRA8 Total)

Containers Supplied:  
Plastic, 0.25L None (D)

**Sample ID: 8061223-03 46-S-A**

Soil Sampled:06/12/18 09:15

6020 (RCRA8 TCLP)

Containers Supplied:  
Glass Jar, 4 oz (C)

**Sample ID: 8061223-04 46-S-B**

Soil Sampled:06/12/18 09:50

6020 (RCRA8 TCLP)

Containers Supplied:  
Glass Jar, 4 oz (C)

Released By: Robert A. ... 16:53  
Date: 6/13/18

Received By: Steve P. ...  
Date: 6/12/18

Released By

Date

Received By

Date

**SUBCONTRACT ORDER**  
Maryland Spectral Services

**8061223**

54348

Auto-log Sent  
Date/Initial  
6/12/18/RL

**Due 4:00 PM 06/21/18**

Laboratory ID

Comments

**Sample ID: 8061223-05**

46-S-C

Soil

Sampled:06/12/18 10:10

6020 (RCRA8 TCLP)

Containers Supplied:

Glass Jar, 4 oz (C)

**Sample ID: 8061223-06**

46-W-C

Water

Sampled:06/12/18 10:45

6020 (RCRA8 Total)

Containers Supplied:

Plastic, 0.25L None (D)

**Sample ID: 8061223-07**

46-S-D

Soil

Sampled:06/12/18 11:20

6020 (RCRA8 TCLP)

Containers Supplied:

Glass Jar, 4 oz (C)

**Sample ID: 8061223-08**

73-S-A

Soil

Sampled:06/12/18 12:05

6020 (RCRA8 TCLP)

Containers Supplied:

Glass Jar, 4 oz (C)

**Sample ID: 8061223-09**

76-S-A

Soil

Sampled:06/12/18 13:30

6020 (RCRA8 TCLP)

Containers Supplied:

Glass Jar, 4 oz (C)

Released By *[Signature]* 16:53

Date 6/13/18

Received By *[Signature]*

Date

Released By \_\_\_\_\_ Date \_\_\_\_\_

Received By \_\_\_\_\_ Date \_\_\_\_\_

26 June 2018

Nancy Love  
Chesapeake GeoSciences, Inc.  
5405 Twin Knolls Rd, Suite 1  
Columbia, MD 21045  
RE: ARMED FORCES RETIREMENT HOME

Enclosed are the results of analyses for samples received by the laboratory on 06/15/18 08:02.

A more detailed report format is available upon request, which lists the accreditation status for all analytical methods performed.

Please visit our website at [www.mdspectral.com](http://www.mdspectral.com) for a complete listing of our accreditations.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Will Brewington  
President

**Analytical Results**

1500 Caton Center Dr Suite G  
Baltimore MD 21227  
410-247-7600  
www.mdspectral.com

**Project: ARMED FORCES RETIREMENT HOME**

Project Number: CG-17-1111  
Project Manager: Nancy Love

Reported:  
06/26/18 16:38

Client Sample ID	Alternate Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
76-S-B		8061503-01	Soil	06/13/18 08:55	06/15/18 08:02
76-S-C		8061503-02	Soil	06/13/18 09:20	06/15/18 08:02
76-S-D		8061503-03	Soil	06/13/18 09:35	06/15/18 08:02
77-S-A		8061503-04	Soil	06/13/18 09:55	06/15/18 08:02



Will Brewington, President

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*



**Analytical Results**

**Project: ARMED FORCES RETIREMENT HOME**

Project Number: CG-17-1111  
Project Manager: Nancy Love

Reported:  
06/26/18 16:38

76-S-B

8061503-01 (Soil)  
Sample Date: 06/13/18

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Quantitation Limit (LOQ)	Dilution	Prepared	Analyzed	Analyst
---------	--------	-------	-------	-----------------------	--------------------------	----------	----------	----------	---------

**TCLP VOLATILE ORGANICS BY EPA METHODS 1311/8260B (GC/MS)**

Benzene	ND		ug/L	25.0	25.0	5	06/21/18	06/21/18 16:02	GM
2-Butanone (MEK)	ND		ug/L	50.0	50.0	5	06/21/18	06/21/18 16:02	GM
Carbon tetrachloride	ND		ug/L	25.0	25.0	5	06/21/18	06/21/18 16:02	GM
Chlorobenzene	ND		ug/L	25.0	25.0	5	06/21/18	06/21/18 16:02	GM
Chloroform	ND		ug/L	25.0	25.0	5	06/21/18	06/21/18 16:02	GM
1,4-Dichlorobenzene	ND		ug/L	25.0	25.0	5	06/21/18	06/21/18 16:02	GM
1,2-Dichloroethane	ND		ug/L	25.0	25.0	5	06/21/18	06/21/18 16:02	GM
1,1-Dichloroethene	ND		ug/L	25.0	25.0	5	06/21/18	06/21/18 16:02	GM
Tetrachloroethene	ND		ug/L	25.0	25.0	5	06/21/18	06/21/18 16:02	GM
Trichloroethene	ND		ug/L	25.0	25.0	5	06/21/18	06/21/18 16:02	GM
Vinyl chloride	ND		ug/L	25.0	25.0	5	06/21/18	06/21/18 16:02	GM

Surrogate: 1,2-Dichloroethane-d4 70-121 94 % 06/21/18 06/21/18 16:02  
 Surrogate: Toluene-d8 84-138 94 % 06/21/18 06/21/18 16:02  
 Surrogate: 4-Bromofluorobenzene 59-113 98 % 06/21/18 06/21/18 16:02

**TCLP Metals EPA 1311/6010 Performed at Enviro-Chem**

Arsenic	ND		mg/L	0.050	0.050	1	06/20/18	06/21/18 13:56	RAS
<b>Barium</b>	<b>0.123</b>		mg/L	0.020	0.020	1	06/20/18	06/21/18 13:56	RAS
Cadmium	ND		mg/L	0.005	0.005	1	06/20/18	06/21/18 13:56	RAS
Chromium	ND		mg/L	0.010	0.010	1	06/20/18	06/21/18 13:56	RAS
Lead	ND		mg/L	0.050	0.050	1	06/20/18	06/21/18 13:56	RAS
Selenium	ND		mg/L	0.050	0.050	1	06/20/18	06/21/18 13:56	RAS
Silver	ND		mg/L	0.010	0.010	1	06/20/18	06/21/18 13:56	RAS

**TCLP Metals EPA 1311/7470 Performed at Enviro-Chem**

Mercury	ND		mg/L	0.001	0.001	1	06/20/18	06/20/18 16:09	RAS
---------	----	--	------	-------	-------	---	----------	----------------	-----

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Will Brewington, President

**Analytical Results**

**Project: ARMED FORCES RETIREMENT HOME**

Project Number: CG-17-1111  
Project Manager: Nancy Love

Reported:  
06/26/18 16:38

76-S-C

8061503-02 (Soil)  
Sample Date: 06/13/18

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Quantitation Limit (LOQ)	Dilution	Prepared	Analyzed	Analyst
---------	--------	-------	-------	-----------------------	--------------------------	----------	----------	----------	---------

**TCLP VOLATILE ORGANICS BY EPA METHODS 1311/8260B (GC/MS)**

Benzene	ND		ug/L	25.0	25.0	5	06/21/18	06/21/18 16:26	GM
2-Butanone (MEK)	ND		ug/L	50.0	50.0	5	06/21/18	06/21/18 16:26	GM
Carbon tetrachloride	ND		ug/L	25.0	25.0	5	06/21/18	06/21/18 16:26	GM
Chlorobenzene	ND		ug/L	25.0	25.0	5	06/21/18	06/21/18 16:26	GM
Chloroform	ND		ug/L	25.0	25.0	5	06/21/18	06/21/18 16:26	GM
1,4-Dichlorobenzene	ND		ug/L	25.0	25.0	5	06/21/18	06/21/18 16:26	GM
1,2-Dichloroethane	ND		ug/L	25.0	25.0	5	06/21/18	06/21/18 16:26	GM
1,1-Dichloroethene	ND		ug/L	25.0	25.0	5	06/21/18	06/21/18 16:26	GM
Tetrachloroethene	ND		ug/L	25.0	25.0	5	06/21/18	06/21/18 16:26	GM
Trichloroethene	ND		ug/L	25.0	25.0	5	06/21/18	06/21/18 16:26	GM
Vinyl chloride	ND		ug/L	25.0	25.0	5	06/21/18	06/21/18 16:26	GM
<i>Surrogate: 1,2-Dichloroethane-d4</i>			70-121	95 %	06/21/18	06/21/18 16:26			
<i>Surrogate: Toluene-d8</i>			84-138	94 %	06/21/18	06/21/18 16:26			
<i>Surrogate: 4-Bromofluorobenzene</i>			59-113	98 %	06/21/18	06/21/18 16:26			

**TCLP Metals EPA 1311/6010 Performed at Enviro-Chem**

Arsenic	ND		mg/L	0.050	0.050	1	06/20/18	06/21/18 14:04	RAS
<b>Barium</b>	<b>0.148</b>		mg/L	0.020	0.020	1	06/20/18	06/21/18 14:04	RAS
Cadmium	ND		mg/L	0.005	0.005	1	06/20/18	06/21/18 14:04	RAS
Chromium	ND		mg/L	0.010	0.010	1	06/20/18	06/21/18 14:04	RAS
Lead	ND		mg/L	0.050	0.050	1	06/20/18	06/21/18 14:04	RAS
Selenium	ND		mg/L	0.050	0.050	1	06/20/18	06/21/18 14:04	RAS
Silver	ND		mg/L	0.010	0.010	1	06/20/18	06/21/18 14:04	RAS

**TCLP Metals EPA 1311/7470 Performed at Enviro-Chem**

Mercury	ND		mg/L	0.001	0.001	1	06/20/18	06/20/18 16:15	RAS
---------	----	--	------	-------	-------	---	----------	----------------	-----

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*



Will Brewington, President

**Analytical Results**

**Project: ARMED FORCES RETIREMENT HOME**

Project Number: CG-17-1111  
Project Manager: Nancy Love

Reported:  
06/26/18 16:38

**76-S-D**

**8061503-03 (Soil)**  
**Sample Date: 06/13/18**

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Quantitation Limit (LOQ)	Dilution	Prepared	Analyzed	Analyst
---------	--------	-------	-------	-----------------------	--------------------------	----------	----------	----------	---------

**TCLP VOLATILE ORGANICS BY EPA METHODS 1311/8260B (GC/MS)**

Benzene	ND		ug/L	25.0	25.0	5	06/21/18	06/21/18 16:50	GM
2-Butanone (MEK)	ND		ug/L	50.0	50.0	5	06/21/18	06/21/18 16:50	GM
Carbon tetrachloride	ND		ug/L	25.0	25.0	5	06/21/18	06/21/18 16:50	GM
Chlorobenzene	ND		ug/L	25.0	25.0	5	06/21/18	06/21/18 16:50	GM
Chloroform	ND		ug/L	25.0	25.0	5	06/21/18	06/21/18 16:50	GM
1,4-Dichlorobenzene	ND		ug/L	25.0	25.0	5	06/21/18	06/21/18 16:50	GM
1,2-Dichloroethane	ND		ug/L	25.0	25.0	5	06/21/18	06/21/18 16:50	GM
1,1-Dichloroethene	ND		ug/L	25.0	25.0	5	06/21/18	06/21/18 16:50	GM
Tetrachloroethene	ND		ug/L	25.0	25.0	5	06/21/18	06/21/18 16:50	GM
Trichloroethene	ND		ug/L	25.0	25.0	5	06/21/18	06/21/18 16:50	GM
Vinyl chloride	ND		ug/L	25.0	25.0	5	06/21/18	06/21/18 16:50	GM
<i>Surrogate: 1,2-Dichloroethane-d4</i>			<i>70-121</i>	<i>95 %</i>	<i>06/21/18</i>	<i>06/21/18 16:50</i>			
<i>Surrogate: Toluene-d8</i>			<i>84-138</i>	<i>94 %</i>	<i>06/21/18</i>	<i>06/21/18 16:50</i>			
<i>Surrogate: 4-Bromofluorobenzene</i>			<i>59-113</i>	<i>98 %</i>	<i>06/21/18</i>	<i>06/21/18 16:50</i>			

**TCLP Metals EPA 1311/6010 Performed at Enviro-Chem**

Arsenic	ND		mg/L	0.050	0.050	1	06/20/18	06/21/18 14:06	RAS
<b>Barium</b>	<b>0.168</b>		mg/L	0.020	0.020	1	06/20/18	06/21/18 14:06	RAS
Cadmium	ND		mg/L	0.005	0.005	1	06/20/18	06/21/18 14:06	RAS
Chromium	ND		mg/L	0.010	0.010	1	06/20/18	06/21/18 14:06	RAS
Lead	ND		mg/L	0.050	0.050	1	06/20/18	06/21/18 14:06	RAS
Selenium	ND		mg/L	0.050	0.050	1	06/20/18	06/21/18 14:06	RAS
Silver	ND		mg/L	0.010	0.010	1	06/20/18	06/21/18 14:06	RAS

**TCLP Metals EPA 1311/7470 Performed at Enviro-Chem**

Mercury	ND		mg/L	0.001	0.001	1	06/20/18	06/20/18 16:38	RAS
---------	----	--	------	-------	-------	---	----------	----------------	-----

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*



Will Brewington, President

**Analytical Results**

**Project: ARMED FORCES RETIREMENT HOME**

Project Number: CG-17-1111  
Project Manager: Nancy Love

Reported:  
06/26/18 16:38

77-S-A

**8061503-04 (Soil)**  
**Sample Date: 06/13/18**

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Quantitation Limit (LOQ)	Dilution	Prepared	Analyzed	Analyst
<b>TCLP VOLATILE ORGANICS BY EPA METHODS 1311/8260B (GC/MS)</b>									
Benzene	ND		ug/L	25.0	25.0	5	06/21/18	06/21/18 17:13	GM
2-Butanone (MEK)	ND		ug/L	50.0	50.0	5	06/21/18	06/21/18 17:13	GM
Carbon tetrachloride	ND		ug/L	25.0	25.0	5	06/21/18	06/21/18 17:13	GM
Chlorobenzene	ND		ug/L	25.0	25.0	5	06/21/18	06/21/18 17:13	GM
Chloroform	ND		ug/L	25.0	25.0	5	06/21/18	06/21/18 17:13	GM
1,4-Dichlorobenzene	ND		ug/L	25.0	25.0	5	06/21/18	06/21/18 17:13	GM
1,2-Dichloroethane	ND		ug/L	25.0	25.0	5	06/21/18	06/21/18 17:13	GM
1,1-Dichloroethene	ND		ug/L	25.0	25.0	5	06/21/18	06/21/18 17:13	GM
Tetrachloroethene	ND		ug/L	25.0	25.0	5	06/21/18	06/21/18 17:13	GM
Trichloroethene	ND		ug/L	25.0	25.0	5	06/21/18	06/21/18 17:13	GM
Vinyl chloride	ND		ug/L	25.0	25.0	5	06/21/18	06/21/18 17:13	GM
<i>Surrogate: 1,2-Dichloroethane-d4</i>		<i>70-121</i>		<i>93 %</i>	<i>06/21/18</i>		<i>06/21/18 17:13</i>		
<i>Surrogate: Toluene-d8</i>		<i>84-138</i>		<i>94 %</i>	<i>06/21/18</i>		<i>06/21/18 17:13</i>		
<i>Surrogate: 4-Bromofluorobenzene</i>		<i>59-113</i>		<i>97 %</i>	<i>06/21/18</i>		<i>06/21/18 17:13</i>		
<b>TCLP Metals EPA 1311/6010 Performed at Enviro-Chem</b>									
Arsenic	ND		mg/L	0.050	0.050	1	06/20/18	06/21/18 14:13	RAS
<b>Barium</b>	<b>0.158</b>		mg/L	0.020	0.020	1	06/20/18	06/21/18 14:13	RAS
<b>Cadmium</b>	<b>0.005</b>		mg/L	0.005	0.005	1	06/20/18	06/21/18 14:13	RAS
Chromium	ND		mg/L	0.010	0.010	1	06/20/18	06/21/18 14:13	RAS
Lead	ND		mg/L	0.050	0.050	1	06/20/18	06/21/18 14:13	RAS
Selenium	ND		mg/L	0.050	0.050	1	06/20/18	06/21/18 14:13	RAS
Silver	ND		mg/L	0.010	0.010	1	06/20/18	06/21/18 14:13	RAS
<b>TCLP Metals EPA 1311/7470 Performed at Enviro-Chem</b>									
Mercury	ND		mg/L	0.001	0.001	1	06/20/18	06/20/18 16:42	RAS

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*



Will Brewington, President

**Analytical Results**

1500 Caton Center Dr Suite G  
Baltimore MD 21227  
410-247-7600  
www.mdspectral.com

**Project: ARMED FORCES RETIREMENT HOME**

Project Number: CG-17-1111

Project Manager: Nancy Love

Reported:

06/26/18 16:38

**Notes and Definitions**

DET Analyte DETECTED  
ND Analyte NOT DETECTED at or above the reporting limit  
NR Not Reported  
dry Sample results reported on a dry weight basis  
RPD Relative Percent Difference

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*



Will Brewington, President

# CHAIN-OF-CUSTODY RECORD

Company Name:  
Chesapeake Geo Sciences

Project Manager:  
Nancy Love

Project Name:  
AFRH

Project ID:  
CG-17-1111

Sampler(s):  
Devin Glancey & Meg Staines

P.O. Number:  
CG171111DG

Analysis Requested

VOCS EPA 8260	
RCRA 8 Metals EPA 6000/7000	
TCLP - VOCs	
TCLP-RCRA 8 Metals	

Matrix Codes: NW (nonpotable water)  
PW (potable water)

Maryland Spectral Services, Inc.  
1500 Caton Center Drive, Suite G  
Baltimore, MD 21227  
410-247-7600 • Fax 410-247-7602  
labman@mdspectral.com

Field pH, Residual Chlorine, QC Request, Trip Blank, Field Blank

MSS Lab ID

Field Sample ID	Date	Time	No. of Containers			Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)											
			Water	Soil	Other																	
76-S-B	6/13/18	08:56	X			4																
76-S-C		09:20	X			4																
76-S-D		09:35	X			4																
77-S-A		09:58	X			4																

Preservative: 1+1 HCL, H<sub>2</sub>SO<sub>4</sub>, Methanol, Na<sub>2</sub>S<sub>2</sub>O<sub>3</sub>, NaHCO<sub>3</sub>

Temp: 4°C

Lab Use:

Received on Ice  
 Received same day  
 Preservation Appropriate

Sample Disposal:  
 Return to Client  
 Disposal by Lab  
 Archive for 7 days

Turn Around Time:  
 Normal (7 day)  
 5 day  
 4 day  
 3 day  
 Rush (2 day)  
 Next Day  
 Other: \_\_\_\_\_  
 Specific Due Date: \_\_\_\_\_

Relinquished by: (Signature)  
Devin Glancey

Received by: (Signature)  
William Brewington

Relinquished by: (Signature)  
Devin Glancey

Received by: (Signature)

Delivery Method:  
 Courier  
 Client  
 UPS  
 FedEx  
 USPS  
 Other: \_\_\_\_\_

Special Instructions/QC Requirements & Comments:

**SUBCONTRACT ORDER**  
Maryland Spectral Services

**8061503**

**SENDING LABORATORY:**

Maryland Spectral Services  
1500 Caton Center Dr. Suite G  
Halethorpe, MD 21227  
Phone: 410.247.7600  
Project Manager: Cory Koons  
Reports Email: Reporting@mdspectral.com

**RECEIVING LABORATORY:**

Enviro-Chem Laboratories, Inc  
47 Loveton Circle, Suite K  
Sparks, MD 21152  
Phone : (410) 472-1112  
Fax: (410) 472-1116

**Due 4:00 PM 06/26/18**

**Laboratory ID**

**Comments**

**Sample ID: 8061503-01 76-S-B**      **Soil**      **Sampled: 06/13/18 08:55**

6020 (RCRA8 TCLP)      |      TCLP-NONVOLATILE-1311

*Containers Supplied:*  
Glass Jar, 4 oz (D)

**Sample ID: 8061503-02 76-S-C**      **Soil**      **Sampled: 06/13/18 09:20**

6020 (RCRA8 TCLP)      |      TCLP-NONVOLATILE-1311

*Containers Supplied:*  
Glass Jar, 4 oz (D)

**Sample ID: 8061503-03 76-S-D**      **Soil**      **Sampled: 06/13/18 09:35**

6020 (RCRA8 TCLP)      |      TCLP-NONVOLATILE-1311

*Containers Supplied:*  
Glass Jar, 4 oz (D)

**Sample ID: 8061503-04 77-S-A**      **Soil**      **Sampled: 06/13/18 09:55**

6020 (RCRA8 TCLP)      |      TCLP-NONVOLATILE-1311

*Containers Supplied:*  
Glass Jar, 4 oz (D)

Released By: [Signature]      Date: 6/18/18      Received By: [Signature]      Date: 6/18/18

26 June 2018

Nancy Love  
Chesapeake GeoSciences, Inc.  
5405 Twin Knolls Rd, Suite 1  
Columbia, MD 21045  
RE: ARMED FORCES RETIREMENT HOME

Enclosed are the results of analyses for samples received by the laboratory on 06/15/18 08:02.

A more detailed report format is available upon request, which lists the accreditation status for all analytical methods performed.

Please visit our website at [www.mdspectral.com](http://www.mdspectral.com) for a complete listing of our accreditations.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Will Brewington  
President



**Analytical Results**

1500 Caton Center Dr Suite G  
Baltimore MD 21227  
410-247-7600  
www.mdspectral.com

**Project: ARMED FORCES RETIREMENT HOME**

Project Number: CG-17-1111

Project Manager: Nancy Love

Reported:

06/26/18 16:42

Client Sample ID	Alternate Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
72-W-A		8061502-01	Nonpotable Water	06/14/18 08:25	06/15/18 08:02
73-W-A		8061502-02	Nonpotable Water	06/14/18 08:40	06/15/18 08:02



Will Brewington, President

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*

**Analytical Results**

**Project: ARMED FORCES RETIREMENT HOME**

Project Number: CG-17-1111  
Project Manager: Nancy Love

Reported:  
06/26/18 16:42

72-W-A

**8061502-01 (Nonpotable Water)**  
Sample Date: 06/14/18

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Quantitation Limit (LOQ)	Dilution	Prepared	Analyzed	Analyst
<b>VOLATILE ORGANICS BY EPA METHOD 8260B (GC/MS)</b>									
Acetone	ND		ug/L	10.0	10.0	1	06/18/18	06/18/18 18:26	GM
tert-Amyl alcohol (TAA)	ND		ug/L	20.0	20.0	1	06/18/18	06/18/18 18:26	GM
tert-Amyl methyl ether (TAME)	ND		ug/L	5.0	2.0	1	06/18/18	06/18/18 18:26	GM
Benzene	ND		ug/L	5.0	2.0	1	06/18/18	06/18/18 18:26	GM
Bromobenzene	ND		ug/L	5.0	2.0	1	06/18/18	06/18/18 18:26	GM
Bromochloromethane	ND		ug/L	5.0	2.0	1	06/18/18	06/18/18 18:26	GM
Bromodichloromethane	ND		ug/L	5.0	2.0	1	06/18/18	06/18/18 18:26	GM
Bromoform	ND		ug/L	5.0	2.0	1	06/18/18	06/18/18 18:26	GM
Bromomethane	ND		ug/L	5.0	5.0	1	06/18/18	06/18/18 18:26	GM
tert-Butanol (TBA)	ND		ug/L	15.0	15.0	1	06/18/18	06/18/18 18:26	GM
2-Butanone (MEK)	ND		ug/L	10.0	10.0	1	06/18/18	06/18/18 18:26	GM
n-Butylbenzene	ND		ug/L	5.0	2.0	1	06/18/18	06/18/18 18:26	GM
sec-Butylbenzene	ND		ug/L	5.0	2.0	1	06/18/18	06/18/18 18:26	GM
tert-Butylbenzene	ND		ug/L	5.0	2.0	1	06/18/18	06/18/18 18:26	GM
Carbon disulfide	ND		ug/L	5.0	2.0	1	06/18/18	06/18/18 18:26	GM
Carbon tetrachloride	ND		ug/L	5.0	2.0	1	06/18/18	06/18/18 18:26	GM
Chlorobenzene	ND		ug/L	5.0	2.0	1	06/18/18	06/18/18 18:26	GM
Chloroethane	ND		ug/L	5.0	5.0	1	06/18/18	06/18/18 18:26	GM
Chloroform	ND		ug/L	5.0	2.0	1	06/18/18	06/18/18 18:26	GM
Chloromethane	ND		ug/L	5.0	5.0	1	06/18/18	06/18/18 18:26	GM
2-Chlorotoluene	ND		ug/L	5.0	2.0	1	06/18/18	06/18/18 18:26	GM
4-Chlorotoluene	ND		ug/L	5.0	2.0	1	06/18/18	06/18/18 18:26	GM
Dibromochloromethane	ND		ug/L	5.0	2.0	1	06/18/18	06/18/18 18:26	GM
1,2-Dibromo-3-chloropropane	ND		ug/L	5.0	2.0	1	06/18/18	06/18/18 18:26	GM
1,2-Dibromoethane (EDB)	ND		ug/L	5.0	2.0	1	06/18/18	06/18/18 18:26	GM
Dibromomethane	ND		ug/L	5.0	2.0	1	06/18/18	06/18/18 18:26	GM
1,2-Dichlorobenzene	ND		ug/L	5.0	2.0	1	06/18/18	06/18/18 18:26	GM
1,3-Dichlorobenzene	ND		ug/L	5.0	2.0	1	06/18/18	06/18/18 18:26	GM
1,4-Dichlorobenzene	ND		ug/L	5.0	2.0	1	06/18/18	06/18/18 18:26	GM
Dichlorodifluoromethane	ND		ug/L	5.0	2.0	1	06/18/18	06/18/18 18:26	GM
1,1-Dichloroethane	ND		ug/L	5.0	2.0	1	06/18/18	06/18/18 18:26	GM
1,2-Dichloroethane	ND		ug/L	5.0	2.0	1	06/18/18	06/18/18 18:26	GM
1,1-Dichloroethene	ND		ug/L	5.0	2.0	1	06/18/18	06/18/18 18:26	GM
cis-1,2-Dichloroethene	ND		ug/L	5.0	2.0	1	06/18/18	06/18/18 18:26	GM

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*



Will Brewington, President

**Analytical Results**

**Project: ARMED FORCES RETIREMENT HOME**

Project Number: CG-17-1111

Project Manager: Nancy Love

Reported:

06/26/18 16:42

72-W-A

8061502-01 (Nonpotable Water)

Sample Date: 06/14/18

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Quantitation Limit (LOQ)	Dilution	Prepared	Analyzed	Analyst
<b>VOLATILE ORGANICS BY EPA METHOD 8260B (GC/MS) (continued)</b>									
trans-1,2-Dichloroethene	ND		ug/L	5.0	2.0	1	06/18/18	06/18/18 18:26	GM
Dichlorofluoromethane	ND		ug/L	5.0	2.0	1	06/18/18	06/18/18 18:26	GM
1,2-Dichloropropane	ND		ug/L	5.0	2.0	1	06/18/18	06/18/18 18:26	GM
1,3-Dichloropropane	ND		ug/L	5.0	2.0	1	06/18/18	06/18/18 18:26	GM
2,2-Dichloropropane	ND		ug/L	5.0	2.0	1	06/18/18	06/18/18 18:26	GM
1,1-Dichloropropene	ND		ug/L	5.0	2.0	1	06/18/18	06/18/18 18:26	GM
cis-1,3-Dichloropropene	ND		ug/L	5.0	2.0	1	06/18/18	06/18/18 18:26	GM
trans-1,3-Dichloropropene	ND		ug/L	5.0	2.0	1	06/18/18	06/18/18 18:26	GM
Diisopropyl ether (DIPE)	ND		ug/L	5.0	2.0	1	06/18/18	06/18/18 18:26	GM
Ethyl tert-butyl ether (ETBE)	ND		ug/L	5.0	2.0	1	06/18/18	06/18/18 18:26	GM
Ethylbenzene	ND		ug/L	5.0	2.0	1	06/18/18	06/18/18 18:26	GM
Hexachlorobutadiene	ND		ug/L	5.0	2.0	1	06/18/18	06/18/18 18:26	GM
2-Hexanone	ND		ug/L	10.0	10.0	1	06/18/18	06/18/18 18:26	GM
Isopropylbenzene (Cumene)	ND		ug/L	5.0	2.0	1	06/18/18	06/18/18 18:26	GM
4-Isopropyltoluene	ND		ug/L	5.0	2.0	1	06/18/18	06/18/18 18:26	GM
Methyl tert-butyl ether (MTBE)	ND		ug/L	5.0	2.0	1	06/18/18	06/18/18 18:26	GM
4-Methyl-2-pentanone	ND		ug/L	10.0	10.0	1	06/18/18	06/18/18 18:26	GM
Methylene chloride	ND		ug/L	10.0	10.0	1	06/18/18	06/18/18 18:26	GM
Naphthalene	ND		ug/L	5.0	2.0	1	06/18/18	06/18/18 18:26	GM
n-Propylbenzene	ND		ug/L	5.0	2.0	1	06/18/18	06/18/18 18:26	GM
Styrene	ND		ug/L	5.0	2.0	1	06/18/18	06/18/18 18:26	GM
1,1,1,2-Tetrachloroethane	ND		ug/L	5.0	2.0	1	06/18/18	06/18/18 18:26	GM
1,1,2,2-Tetrachloroethane	ND		ug/L	5.0	2.0	1	06/18/18	06/18/18 18:26	GM
Tetrachloroethene	ND		ug/L	5.0	2.0	1	06/18/18	06/18/18 18:26	GM
Toluene	ND		ug/L	5.0	2.0	1	06/18/18	06/18/18 18:26	GM
1,2,3-Trichlorobenzene	ND		ug/L	5.0	2.0	1	06/18/18	06/18/18 18:26	GM
1,2,4-Trichlorobenzene	ND		ug/L	5.0	2.0	1	06/18/18	06/18/18 18:26	GM
1,1,1-Trichloroethane	ND		ug/L	5.0	2.0	1	06/18/18	06/18/18 18:26	GM
1,1,2-Trichloroethane	ND		ug/L	5.0	2.0	1	06/18/18	06/18/18 18:26	GM
Trichloroethene	ND		ug/L	5.0	2.0	1	06/18/18	06/18/18 18:26	GM
Trichlorofluoromethane (Freon 11)	ND		ug/L	5.0	2.0	1	06/18/18	06/18/18 18:26	GM
1,2,3-Trichloropropane	ND		ug/L	5.0	2.0	1	06/18/18	06/18/18 18:26	GM
1,2,4-Trimethylbenzene	ND		ug/L	5.0	2.0	1	06/18/18	06/18/18 18:26	GM
1,3,5-Trimethylbenzene	ND		ug/L	5.0	2.0	1	06/18/18	06/18/18 18:26	GM

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Will Brewington, President

**Analytical Results**

**Project: ARMED FORCES RETIREMENT HOME**

Project Number: CG-17-1111

Project Manager: Nancy Love

Reported:

06/26/18 16:42

72-W-A

8061502-01 (Nonpotable Water)

Sample Date: 06/14/18

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Quantitation Limit (LOQ)	Dilution	Prepared	Analyzed	Analyst
---------	--------	-------	-------	-----------------------	--------------------------	----------	----------	----------	---------

**VOLATILE ORGANICS BY EPA METHOD 8260B (GC/MS) (continued)**

Vinyl chloride	ND		ug/L	5.0	2.0	1	06/18/18	06/18/18 18:26	GM
o-Xylene	ND		ug/L	5.0	2.0	1	06/18/18	06/18/18 18:26	GM
m- & p-Xylenes	ND		ug/L	5.0	2.0	1	06/18/18	06/18/18 18:26	GM
Surrogate: 1,2-Dichloroethane-d4		75-120		98 %	06/18/18		06/18/18 18:26		
Surrogate: Toluene-d8		84-110		96 %	06/18/18		06/18/18 18:26		
Surrogate: 4-Bromofluorobenzene		78-110		99 %	06/18/18		06/18/18 18:26		

**Metals EPA 6020 Performed at Enviro-Chem**

Arsenic	ND		ug/L	1.00	1.00	1	06/19/18	06/20/18 12:01	MAP
<b>Barium</b>	<b>5.65</b>		ug/L	1.00	1.00	1	06/19/18	06/20/18 12:01	MAP
Cadmium	ND		ug/L	1.00	1.00	1	06/19/18	06/20/18 12:01	MAP
Chromium	ND		ug/L	1.00	0.500	1	06/19/18	06/20/18 12:01	MAP
Lead	ND		ug/L	1.00	1.00	1	06/19/18	06/20/18 12:01	MAP
Mercury	ND		ug/L	0.200	0.200	1	06/19/18	06/20/18 12:01	MAP
Selenium	ND		ug/L	1.00	1.00	1	06/19/18	06/20/18 12:01	MAP
Silver	ND		ug/L	1.00	1.00	1	06/19/18	06/20/18 13:26	MAP

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Will Brewington, President

**Analytical Results**

**Project: ARMED FORCES RETIREMENT HOME**

Project Number: CG-17-1111  
Project Manager: Nancy Love

Reported:  
06/26/18 16:42

73-W-A

8061502-02 (Nonpotable Water)  
Sample Date: 06/14/18

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Quantitation Limit (LOQ)	Dilution	Prepared	Analyzed	Analyst
<b>VOLATILE ORGANICS BY EPA METHOD 8260B (GC/MS)</b>									
Acetone	ND		ug/L	10.0	10.0	1	06/18/18	06/18/18 18:50	GM
tert-Amyl alcohol (TAA)	ND		ug/L	20.0	20.0	1	06/18/18	06/18/18 18:50	GM
tert-Amyl methyl ether (TAME)	ND		ug/L	5.0	2.0	1	06/18/18	06/18/18 18:50	GM
Benzene	ND		ug/L	5.0	2.0	1	06/18/18	06/18/18 18:50	GM
Bromobenzene	ND		ug/L	5.0	2.0	1	06/18/18	06/18/18 18:50	GM
Bromochloromethane	ND		ug/L	5.0	2.0	1	06/18/18	06/18/18 18:50	GM
Bromodichloromethane	ND		ug/L	5.0	2.0	1	06/18/18	06/18/18 18:50	GM
Bromoform	ND		ug/L	5.0	2.0	1	06/18/18	06/18/18 18:50	GM
Bromomethane	ND		ug/L	5.0	5.0	1	06/18/18	06/18/18 18:50	GM
tert-Butanol (TBA)	ND		ug/L	15.0	15.0	1	06/18/18	06/18/18 18:50	GM
2-Butanone (MEK)	ND		ug/L	10.0	10.0	1	06/18/18	06/18/18 18:50	GM
n-Butylbenzene	ND		ug/L	5.0	2.0	1	06/18/18	06/18/18 18:50	GM
sec-Butylbenzene	ND		ug/L	5.0	2.0	1	06/18/18	06/18/18 18:50	GM
tert-Butylbenzene	ND		ug/L	5.0	2.0	1	06/18/18	06/18/18 18:50	GM
Carbon disulfide	ND		ug/L	5.0	2.0	1	06/18/18	06/18/18 18:50	GM
Carbon tetrachloride	ND		ug/L	5.0	2.0	1	06/18/18	06/18/18 18:50	GM
Chlorobenzene	ND		ug/L	5.0	2.0	1	06/18/18	06/18/18 18:50	GM
Chloroethane	ND		ug/L	5.0	5.0	1	06/18/18	06/18/18 18:50	GM
Chloroform	ND		ug/L	5.0	2.0	1	06/18/18	06/18/18 18:50	GM
Chloromethane	ND		ug/L	5.0	5.0	1	06/18/18	06/18/18 18:50	GM
2-Chlorotoluene	ND		ug/L	5.0	2.0	1	06/18/18	06/18/18 18:50	GM
4-Chlorotoluene	ND		ug/L	5.0	2.0	1	06/18/18	06/18/18 18:50	GM
Dibromochloromethane	ND		ug/L	5.0	2.0	1	06/18/18	06/18/18 18:50	GM
1,2-Dibromo-3-chloropropane	ND		ug/L	5.0	2.0	1	06/18/18	06/18/18 18:50	GM
1,2-Dibromoethane (EDB)	ND		ug/L	5.0	2.0	1	06/18/18	06/18/18 18:50	GM
Dibromomethane	ND		ug/L	5.0	2.0	1	06/18/18	06/18/18 18:50	GM
1,2-Dichlorobenzene	ND		ug/L	5.0	2.0	1	06/18/18	06/18/18 18:50	GM
1,3-Dichlorobenzene	ND		ug/L	5.0	2.0	1	06/18/18	06/18/18 18:50	GM
1,4-Dichlorobenzene	ND		ug/L	5.0	2.0	1	06/18/18	06/18/18 18:50	GM
Dichlorodifluoromethane	ND		ug/L	5.0	2.0	1	06/18/18	06/18/18 18:50	GM
1,1-Dichloroethane	ND		ug/L	5.0	2.0	1	06/18/18	06/18/18 18:50	GM
1,2-Dichloroethane	ND		ug/L	5.0	2.0	1	06/18/18	06/18/18 18:50	GM
1,1-Dichloroethene	ND		ug/L	5.0	2.0	1	06/18/18	06/18/18 18:50	GM
cis-1,2-Dichloroethene	ND		ug/L	5.0	2.0	1	06/18/18	06/18/18 18:50	GM

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Will Brewington, President

**Analytical Results**

**Project: ARMED FORCES RETIREMENT HOME**

Project Number: CG-17-1111

Project Manager: Nancy Love

Reported:

06/26/18 16:42

73-W-A

8061502-02 (Nonpotable Water)

Sample Date: 06/14/18

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Quantitation Limit (LOQ)	Dilution	Prepared	Analyzed	Analyst
<b>VOLATILE ORGANICS BY EPA METHOD 8260B (GC/MS) (continued)</b>									
trans-1,2-Dichloroethene	ND		ug/L	5.0	2.0	1	06/18/18	06/18/18 18:50	GM
Dichlorofluoromethane	ND		ug/L	5.0	2.0	1	06/18/18	06/18/18 18:50	GM
1,2-Dichloropropane	ND		ug/L	5.0	2.0	1	06/18/18	06/18/18 18:50	GM
1,3-Dichloropropane	ND		ug/L	5.0	2.0	1	06/18/18	06/18/18 18:50	GM
2,2-Dichloropropane	ND		ug/L	5.0	2.0	1	06/18/18	06/18/18 18:50	GM
1,1-Dichloropropene	ND		ug/L	5.0	2.0	1	06/18/18	06/18/18 18:50	GM
cis-1,3-Dichloropropene	ND		ug/L	5.0	2.0	1	06/18/18	06/18/18 18:50	GM
trans-1,3-Dichloropropene	ND		ug/L	5.0	2.0	1	06/18/18	06/18/18 18:50	GM
Diisopropyl ether (DIPE)	ND		ug/L	5.0	2.0	1	06/18/18	06/18/18 18:50	GM
Ethyl tert-butyl ether (ETBE)	ND		ug/L	5.0	2.0	1	06/18/18	06/18/18 18:50	GM
Ethylbenzene	ND		ug/L	5.0	2.0	1	06/18/18	06/18/18 18:50	GM
Hexachlorobutadiene	ND		ug/L	5.0	2.0	1	06/18/18	06/18/18 18:50	GM
2-Hexanone	ND		ug/L	10.0	10.0	1	06/18/18	06/18/18 18:50	GM
Isopropylbenzene (Cumene)	ND		ug/L	5.0	2.0	1	06/18/18	06/18/18 18:50	GM
4-Isopropyltoluene	ND		ug/L	5.0	2.0	1	06/18/18	06/18/18 18:50	GM
Methyl tert-butyl ether (MTBE)	ND		ug/L	5.0	2.0	1	06/18/18	06/18/18 18:50	GM
4-Methyl-2-pentanone	ND		ug/L	10.0	10.0	1	06/18/18	06/18/18 18:50	GM
Methylene chloride	ND		ug/L	10.0	10.0	1	06/18/18	06/18/18 18:50	GM
Naphthalene	ND		ug/L	5.0	2.0	1	06/18/18	06/18/18 18:50	GM
n-Propylbenzene	ND		ug/L	5.0	2.0	1	06/18/18	06/18/18 18:50	GM
Styrene	ND		ug/L	5.0	2.0	1	06/18/18	06/18/18 18:50	GM
1,1,1,2-Tetrachloroethane	ND		ug/L	5.0	2.0	1	06/18/18	06/18/18 18:50	GM
1,1,2,2-Tetrachloroethane	ND		ug/L	5.0	2.0	1	06/18/18	06/18/18 18:50	GM
Tetrachloroethene	ND		ug/L	5.0	2.0	1	06/18/18	06/18/18 18:50	GM
Toluene	ND		ug/L	5.0	2.0	1	06/18/18	06/18/18 18:50	GM
1,2,3-Trichlorobenzene	ND		ug/L	5.0	2.0	1	06/18/18	06/18/18 18:50	GM
1,2,4-Trichlorobenzene	ND		ug/L	5.0	2.0	1	06/18/18	06/18/18 18:50	GM
1,1,1-Trichloroethane	ND		ug/L	5.0	2.0	1	06/18/18	06/18/18 18:50	GM
1,1,2-Trichloroethane	ND		ug/L	5.0	2.0	1	06/18/18	06/18/18 18:50	GM
Trichloroethene	ND		ug/L	5.0	2.0	1	06/18/18	06/18/18 18:50	GM
Trichlorofluoromethane (Freon 11)	ND		ug/L	5.0	2.0	1	06/18/18	06/18/18 18:50	GM
1,2,3-Trichloropropane	ND		ug/L	5.0	2.0	1	06/18/18	06/18/18 18:50	GM
1,2,4-Trimethylbenzene	ND		ug/L	5.0	2.0	1	06/18/18	06/18/18 18:50	GM
1,3,5-Trimethylbenzene	ND		ug/L	5.0	2.0	1	06/18/18	06/18/18 18:50	GM

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Will Brewington, President

**Analytical Results**

**Project: ARMED FORCES RETIREMENT HOME**

Project Number: CG-17-1111  
Project Manager: Nancy Love

Reported:  
06/26/18 16:42

73-W-A

**8061502-02 (Nonpotable Water)**  
Sample Date: 06/14/18

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Quantitation Limit (LOQ)	Dilution	Prepared	Analyzed	Analyst
---------	--------	-------	-------	-----------------------	--------------------------	----------	----------	----------	---------

**VOLATILE ORGANICS BY EPA METHOD 8260B (GC/MS) (continued)**

Vinyl chloride	ND		ug/L	5.0	2.0	1	06/18/18	06/18/18 18:50	GM
o-Xylene	ND		ug/L	5.0	2.0	1	06/18/18	06/18/18 18:50	GM
m- & p-Xylenes	ND		ug/L	5.0	2.0	1	06/18/18	06/18/18 18:50	GM
Surrogate: 1,2-Dichloroethane-d4		75-120		97 %	06/18/18		06/18/18 18:50		
Surrogate: Toluene-d8		84-110		96 %	06/18/18		06/18/18 18:50		
Surrogate: 4-Bromofluorobenzene		78-110		98 %	06/18/18		06/18/18 18:50		

**Metals EPA 6020 Performed at Enviro-Chem**

Arsenic	ND		ug/L	1.00	1.00	1	06/19/18	06/20/18 12:20	MAP
Barium	ND		ug/L	1.00	1.00	1	06/19/18	06/20/18 12:20	MAP
Cadmium	ND		ug/L	1.00	1.00	1	06/19/18	06/20/18 12:20	MAP
Chromium	ND		ug/L	1.00	0.500	1	06/19/18	06/20/18 12:20	MAP
Lead	ND		ug/L	1.00	1.00	1	06/19/18	06/20/18 12:20	MAP
Mercury	ND		ug/L	0.200	0.200	1	06/19/18	06/20/18 12:20	MAP
Selenium	ND		ug/L	1.00	1.00	1	06/19/18	06/20/18 12:20	MAP
Silver	ND		ug/L	1.00	1.00	1	06/19/18	06/20/18 13:41	MAP

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Will Brewington, President

---

## Analytical Results

1500 Caton Center Dr Suite G  
Baltimore MD 21227  
410-247-7600  
www.mdspectral.com

**Project: ARMED FORCES RETIREMENT HOME**

Project Number: CG-17-1111

Project Manager: Nancy Love

Reported:

06/26/18 16:42

### Notes and Definitions

J	Detected but below the reporting limit; therefore, result is an estimated concentration (CLP J-Flag).
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference

---

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*



---

Will Brewington, President





**SUBCONTRACT ORDER**  
**Maryland Spectral Services**  
**8061502**

**SENDING LABORATORY:**

Maryland Spectral Services  
 1500 Caton Center Dr. Suite G  
 Halethorpe, MD 21227  
 Phone: 410.247.7600  
 Project Manager: Cory Koons  
 Reports Email: [Reporting@mdspectral.com](mailto:Reporting@mdspectral.com)

**RECEIVING LABORATORY:**

Enviro-Chem Laboratories, Inc  
 47 Loveton Circle, Suite K  
 Sparks, MD 21152  
 Phone: (410) 472-1112  
 Fax: (410) 472-1116

**Due 4:00 PM 06/26/18**

**Laboratory ID**      **Comments**

**Sample ID: 8061502-01**      **72-W-A**      **Water**      **Sampled:06/14/18 08:25**

6020 (RCRA8 Total)

*Containers Supplied:*

Plastic, 0.25L None (D)

**Sample ID: 8061502-02**      **73-W-A**      **Water**      **Sampled:06/14/18 08:40**

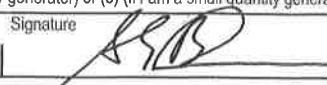
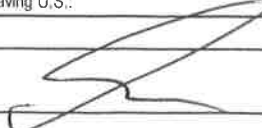
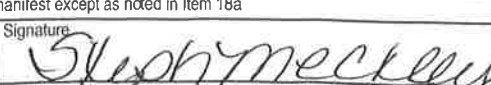
6020 (RCRA8 Total)

*Containers Supplied:*

Plastic, 0.25L None (D)

Released By: *Rachael Ann*      Date: 6/18/18      Received By: *Sub 2 Kelly*      Date: 6/18/18 167

**APPENDIX J**  
**DRUM DISPOSAL MANIFESTS**

<b>UNIFORM HAZARDOUS WASTE MANIFEST</b>		1. Generator ID Number	2. Page 1 of 1	3. Emergency Response Phone (410) 368-9170	4. Manifest Tracking Number <b>018998156 JJK</b>		
5. Generator's Name and Mailing Address <b>Attn: Susan Bryhan</b> Generator's Phone: <b>202-541-7534</b>			Generator's Site Address (if different than mailing address) <b>Armed Forces Retirement Home</b> <b>3700 N. Capital Street, NW</b> <b>Washington, DC 20011</b> Same				
6. Transporter 1 Company Name <b>ALLSTATE POWER VAC, INC</b>				U.S. EPA ID Number <b>NIID003812047</b>			
7. Transporter 2 Company Name				U.S. EPA ID Number			
8. Designated Facility Name and Site Address Facility's Phone: <b>Cycle Chem, INC.</b> <b>550 Industrial Dr</b> <b>Lewisberry PA 17339</b> <b>(717) 938-4700</b>				U.S. EPA ID Number <b>PAD 067 098 822</b>			
9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers		11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes	
		No.	Type				
X	1. RQ, NA2212, Asbestos, 9, PGIII (RQ=1#)	1	DM	200	P	NONE	
	2. Non DOT/ Non RCRA Regulated Material (Soil)	14	DM	9800	P	NONE	
	3. Non DOT/ Non RCRA Regulated Material (Water)					NONE	
	4. Non DOT/ Non RCRA Regulated Material (Soil/Water)					NONE	
14. Special Handling Instructions and Additional Information <b>Freeland Job#</b>							
15. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent. I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.							
Generator's/Offoror's Printed/Typed Name <b>Susan E Bryhan</b>			Signature 		Month Day Year <b>10 7 06 18</b>		
16. International Shipments <input type="checkbox"/> Import to U.S. <input checked="" type="checkbox"/> Export from U.S. Port of entry/exit: _____ Date leaving U.S.: _____							
17. Transporter Acknowledgment of Receipt of Materials							
Transporter 1 Printed/Typed Name <b>William Schupbach</b>			Signature 		Month Day Year <b>7 6 18</b>		
Transporter 2 Printed/Typed Name			Signature		Month Day Year		
18. Discrepancy							
18a. Discrepancy Indication Space <input type="checkbox"/> Quantity <input type="checkbox"/> Type <input type="checkbox"/> Residue <input type="checkbox"/> Partial Rejection <input type="checkbox"/> Full Rejection							
18b. Alternate Facility (or Generator) Manifest Reference Number: _____ U.S. EPA ID Number: _____							
18c. Signature of Alternate Facility (or Generator) _____ Month Day Year _____							
19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)							
1. _____		2. _____		3. _____			
4. _____		5. _____		6. _____			
20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a							
Printed/Typed Name <b>Steph Meckley</b>			Signature 		Month Day Year <b>7 6 18</b>		

GENERATOR  
INT'L  
TRANSPORTER  
DESIGNATED FACILITY

6024

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039

<b>UNIFORM HAZARDOUS WASTE MANIFEST</b>		1. Generator ID Number	2. Page 1 of <u>3</u>	3. Emergency Response Phone (410) 368-9170	4. Manifest Tracking Number <b>018998157 JJK</b>				
5. Generator's Name and Mailing Address <b>Attn: Susan Bryhan Armed Forces Retirement Home 3700 N. Capital Street, NW Washington, DC 20011</b>				Generator's Site Address (if different than mailing address) <b>Same</b>					
Generator's Phone: <b>202-541-7534</b>									
6. Transporter 1 Company Name <b>ALLSTATE POWER VAC, INC</b>				U.S. EPA ID Number <b>NJD003812047</b>					
7. Transporter 2 Company Name				U.S. EPA ID Number					
8. Designated Facility Name and Site Address <b>Cycle Chem, INC. 550 Industrial Dr Lewisberry PA 17339</b>				Facility's Phone: <b>(717) 938-4700</b>		U.S. EPA ID Number <b>PAD 067 098 822</b>			
9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))			10. Containers No. Type		11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes	
1	<del>RQ, NA2212, Asbestos, 9, PGIII (RQ=1#) <i>Did not ship</i></del>							NONE	
2	Non DOT/ Non RCRA Regulated Material (Soil)			36 DM		25,000	P	NONE	
3	Non DOT/ Non RCRA Regulated Material (Water)			8 DM		5600	P	NONE	
4	Non DOT/ Non RCRA Regulated Material (Soil/Water)			3 DM		2100	P	NONE	
14. Special Handling Instructions and Additional Information <b>Freeland Job#</b>									
15. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent. I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.									
Generator's/Offor's Printed/Typed Name <i>Susan S. Bryhan</i>				Signature <i>Susan Bryhan</i>		Month Day Year <b>07 10 18</b>			
16. International Shipments <input type="checkbox"/> Import to U.S. <input type="checkbox"/> Export from U.S. Port of entry/exit: Date leaving U.S.:									
17. Transporter Acknowledgment of Receipt of Materials									
Transporter 1 Printed/Typed Name <i>Ryan L. Raback</i>				Signature <i>Ryan L Raback</i>		Month Day Year <b>7 10 18</b>			
Transporter 2 Printed/Typed Name				Signature		Month Day Year			
18. Discrepancy									
18a. Discrepancy Indication Space <input type="checkbox"/> Quantity <input type="checkbox"/> Type <input type="checkbox"/> Residue <input type="checkbox"/> Partial Rejection <input type="checkbox"/> Full Rejection									
18b. Alternate Facility (or Generator)						Manifest Reference Number: U.S. EPA ID Number			
Facility's Phone:									
18c. Signature of Alternate Facility (or Generator) <i>[Signature]</i>								Month Day Year <b>07 10 18</b>	
19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)									
1.		2.		3.		4.			
20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a									
Printed/Typed Name <b>Heather Thoms</b>				Signature <i>Heather Thoms</i>		Month Day Year <b>7 11 18</b>			

GENERATOR  
TRANSPORTER INT'L  
DESIGNATED FACILITY

**APPENDIX K**  
**FULL LABORATORY ANALYTICAL DATA TABLES**

**Table K-1**  
**Additional Phase II Environmental Site Assessment (ESA) at Buildings 46 and 76**  
**Armed Forces Retirement Home (AFRH) - Main Campus**  
**3700 N. Capital Street, NW, Washington, DC 20011**

**Building 46 - UST Contents Sample Laboratory Analytical Data**  
**VOCs, TPH-GRO, and TPH-DRO**

VOCs Screening Levels	TPH Screening Level	Analytical Suite	Sample ID	UST-EAST	UST-WEST
EPA Tapwater RSLs	DDOE Tier 1 RBSL		Lab Sample ID	7102016-01	7102016-02
(ug/L)	(ug/L)	VOCs	Sample Collection Date	10/20/17	10/20/17
			Sample Collection Depth (feet BG)	5.5	5.5
		TPH	Sample Type	UST Contents	UST Contents
			Dilution Factor (VOCs and TPH)	1	1
			Analyte Name	Concentration (ug/L)	
1.4E+04	-		Acetone	10.0 U	10.0 U
6.3E+00	-		tert-Amyl alcohol (TAA)	20.0 U	20.0 U
na	-		tert-Amyl methyl ether (TAME)	5.0 U	5.0 U
4.6E-01	-		Benzene	5.0 U	5.0 U
6.2E+01	-		Bromobenzene	5.0 U	5.0 U
8.3E+01	-		Bromochloromethane	5.0 U	5.0 U
1.3E-01	-		Bromodichloromethane	5.0 U	5.0 U
3.3E+00	-		Bromoform	5.0 U	5.0 U
7.5E+00	-		Bromomethane	5.0 U	5.0 U
na	-		tert-Butanol (TBA)	15.0 U	15.0 U
5.6E+03	-		2-Butanone (MEK)	10.0 U	10.0 U
1.0E+03	-		n-Butylbenzene	5.0 U	5.0 U
2.0E+03	-		sec-Butylbenzene	5.0 U	5.0 U
6.9E+02	-		tert-Butylbenzene	5.0 U	5.0 U
8.1E+02	-		Carbon disulfide	5.0 U	5.0 U
4.6E-01	-		Carbon tetrachloride	5.0 U	5.0 U
7.8E+01	-		Chlorobenzene	5.0 U	5.0 U
2.1E+04	-		Chloroethane	5.0 U	5.0 U
2.2E-01	-		Chloroform	5.0 U	5.0 U
1.9E+02	-		Chloromethane	5.0 U	5.0 U
2.4E+02	-		2-Chlorotoluene	5.0 U	5.0 U
2.5E+02	-		4-Chlorotoluene	5.0 U	5.0 U
8.7E-01	-		Dibromochloromethane	5.0 U	5.0 U
3.3E-04	-		1,2-Dibromo-3-chloropropane	5.0 U	5.0 U
7.5E-03	-		1,2-Dibromoethane (EDB)	5.0 U	5.0 U
8.3E+00	-		Dibromomethane	5.0 U	5.0 U
3.0E+02	-		1,2-Dichlorobenzene	5.0 U	5.0 U
na	-		1,3-Dichlorobenzene	5.0 U	5.0 U
4.8E-01	-		1,4-Dichlorobenzene	5.0 U	5.0 U
2.0E+02	-		Dichlorodifluoromethane	5.0 U	5.0 U
2.8E+00	-		1,1-Dichloroethane	5.0 U	5.0 U
1.7E-01	-		1,2-Dichloroethane	5.0 U	5.0 U
2.8E+02	-		1,1-Dichloroethene	5.0 U	5.0 U
3.6E+01	-		cis-1,2-Dichloroethene	5.0 U	5.0 U
3.6E+02	-		trans-1,2-Dichloroethene	5.0 U	5.0 U
1.0E+05	-		Dichlorofluoromethane	5.0 U	5.0 U
8.5E-01	-		1,2-Dichloropropane	5.0 U	5.0 U
3.7E+02	-		1,3-Dichloropropane	5.0 U	5.0 U
na	-		2,2-Dichloropropane	5.0 U	5.0 U
na	-		1,1-Dichloropropene	5.0 U	5.0 U
na	-		cis-1,3-Dichloropropene	5.0 U	5.0 U
na	-		trans-1,3-Dichloropropene	5.0 U	5.0 U
1.5E+03	-		Diisopropyl ether (DIPE)	5.0 U	5.0 U
na	-		Ethyl tert-butyl ether (ETBE)	5.0 U	5.0 U
1.5E+00	-		Ethylbenzene	5.0 U	5.0 U
1.4E-01	-		Hexachlorobutadiene	5.0 U	5.0 U
3.8E+01	-		2-Hexanone	10.0 U	10.0 U
4.5E+02	-		Isopropylbenzene (Cumene)	5.0 U	5.0 U
na	-		4-Isopropyltoluene	5.0 U	5.0 U
1.4E+01	-		Methyl tert-butyl ether (MTBE)	5.0 U	5.0 U
6.3E+03	-		4-Methyl-2-pentanone	10.0 U	10.0 U
1.1E+01	-		Methylene chloride	10.0 U	10.0 U
1.7E-01	-		Naphthalene	5.0 U	5.0 U
6.6E+02	-		n-Propylbenzene	5.0 U	5.0 U
1.2E+03	-		Styrene	5.0 U	5.0 U
5.7E-01	-		1,1,1,2-Tetrachloroethane	5.0 U	5.0 U
7.6E-02	-		1,1,2,2-Tetrachloroethane	5.0 U	5.0 U
1.1E+01	-		Tetrachloroethene	5.0 U	5.0 U
1.1E+03	-		Toluene	5.0 U	5.0 U
7.0E+00	-		1,2,3-Trichlorobenzene	5.0 U	5.0 U
1.2E+00	-		1,2,4-Trichlorobenzene	5.0 U	5.0 U
8.0E+03	-		1,1,1-Trichloroethane	5.0 U	5.0 U
2.8E-01	-		1,1,2-Trichloroethane	5.0 U	5.0 U
4.9E-01	-		Trichloroethene	5.0 U	5.0 U
5.2E+03	-		Trichlorofluoromethane (Freon 11)	5.0 U	5.0 U
7.5E-04	-		1,2,3-Trichloropropane	5.0 U	5.0 U
5.6E+01	-		1,2,4-Trimethylbenzene	<b>2.5 J</b>	5.0 U
6.0E+01	-		1,3,5-Trimethylbenzene	<b>2.4 J</b>	5.0 U
1.9E-02	-		Vinyl chloride	5.0 U	5.0 U
1.9E+02	-		o-Xylene	5.0 U	5.0 U
1.9E+02	-		m- & p-Xylenes	5.0 U	5.0 U
-	3.45E+04		Gasoline-Range Organics	100 U	100 U
-	3.45E+04		Diesel-Range Organics	<b>310</b>	200 U

**Table Notes:**

VOCs Analytical Method: EPA Method 8260B  
 TPH Analytical Method: EPA Method 8015M  
 ug/L - micrograms per liter or parts per billion (ppb)  
 BG - Below Grade  
 CR - Cancer Risk  
 HI - Hazard Index  
 U - Analyte not detected above specified Method Reporting Limit (MRL) (shown as a gray tone).  
 J - Detected above the Method Detection Limit (MDL) but below the MRL; result is an estimated concentration.  
 na - not applicable  
**Bold** - Detected analyte concentration

**Screening Levels:**

EPA Tapwater Regional Screening Levels (RSLs) (at CR = 1x10<sup>-6</sup> or HI = 1.0) (May 2018)  
 DDOE Tier 1 Risk-Based Screening Level (RBSL) - Protection of Groundwater: Domestic Use of Water (Ingestion and Inhalation) Exposure Pathway (June 2011)

**Screening Evaluation Notes:**

**Red, bold, and underline** - Detected analyte concentration exceeds the respective Screening Level. (None on this table.)  
Underline - MRL exceeds the respective Screening Level.

**Additional Screening Level Notes:**

Analyte	EPA RSL	DDOE RBSL
m- & p-Xylenes	Total Xylenes	na for this table

Table K-2  
 Additional Phase II Environmental Site Assessment (ESA) at Buildings 46 and 76  
 Armed Forces Retirement Home (AFRH) - Main Campus  
 3700 N. Capital Street, NW, Washington, DC 20011

Building 46 - Soil Sample Laboratory Analytical Data  
 VOCs and TPH- C7-C12

VOC Screening Levels		TPH Screening Levels			Analytical Suite	Sample ID	SB-01 (5')	SB-02 (6.5')	SB-03 (17')	SB-04 (29.5')	SB-05 (5')	SB-06 (5')	SB-07 (32.5')	SB-08 (5')	SB-09 (14')
EPA Residential Soil RSLs	EPA Industrial Soil RSLs	DOEE Tier 0 Soil Standard	DDOE Residential Soil Tier 1 RBSL	DDOE Commercial Subsurface Soil Tier 1 RBSL		Lab Sample ID	8043007-01	8051413-01	8043007-02	8043007-03	8043007-04	8043007-05	8043007-06	8050315-02	8050107-01
(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	Sample Collection Date	04/23/18	05/01/18	04/23/18	04/23/18	04/24/18	04/24/18	04/24/18	05/01/18	04/26/18	
					Sample Collection Depth (feet BG)	5	6.5	17	29.5	5	5	5	32.5	5	
					Sample Type	Subsurface Soil	Subsurface Soil	Subsurface Soil	Subsurface Soil	Subsurface Soil	Subsurface Soil	Subsurface Soil	Subsurface Soil	Subsurface Soil	
					Rationale for Soil Sample Collection Depth	Predetermined depth	High PID	High PID	High PID	Predetermined depth	Predetermined depth	Predetermined depth duplicate	Predetermined depth	High PID	
					Soil Sample PID Reading (ppm)	0	618.4	20	0.1	0	0	0	0.2	9.9	
					Dilution Factor (VOCs)	1	5	30.5	1	1	1	1	1	1	
					Dilution Factor (TPH)	1	5	NA	NA	NA	NA	NA	1	1	
					Analyte Name	Concentration (mg/kg)									
	6.1E+04	6.7E+05	-	-	Acetone	0.0095 U	0.0641 U	0.363 U	0.0079 U	0.0078 U	0.0084 U	0.0088 U	0.0115 U	0.0072 U	0.0083 U
	8.2E+01	3.4E+02	-	-	tert-Amyl alcohol (TAA)	0.0473 U	0.321 U	1.82 U	0.0397 U	0.0439 U	0.0422 U	0.0439 U	0.0575 U	0.0359 U	0.0413 U
	na	na	-	-	tert-Amyl methyl ether (TAME)	0.0047 U	0.0321 U	0.182 U	0.0040 U	0.0039 U	0.0042 U	0.0044 U	0.0057 U	0.0036 U	0.0041 U
	1.2E+00	5.1E+00	-	-	Benzene	0.0047 U	0.0321 U	0.182 U	0.0040 U	0.0039 U	0.0042 U	0.0044 U	0.0057 U	0.0036 U	0.0041 U
	2.9E+02	1.8E+03	-	-	Bromobenzene	0.0047 U	0.0321 U	0.182 U	0.0040 U	0.0039 U	0.0042 U	0.0044 U	0.0057 U	0.0036 U	0.0041 U
	1.5E+02	6.3E+02	-	-	Bromochloromethane	0.0047 U	0.0321 U	0.182 U	0.0040 U	0.0039 U	0.0042 U	0.0044 U	0.0057 U	0.0036 U	0.0041 U
	2.9E-01	1.3E+00	-	-	Bromodichloromethane	0.0047 U	0.0321 U	0.182 U	0.0040 U	0.0039 U	0.0042 U	0.0044 U	0.0057 U	0.0036 U	0.0041 U
	1.9E+01	8.6E+01	-	-	Bromoform	0.0047 U	0.0321 U	0.182 U	0.0040 U	0.0039 U	0.0042 U	0.0044 U	0.0057 U	0.0036 U	0.0041 U
	6.8E+00	3.0E+01	-	-	Bromomethane	0.0047 U	0.0321 U	0.182 U	0.0040 U	0.0039 U	0.0042 U	0.0044 U	0.0057 U	0.0036 U	0.0041 U
	na	na	-	-	tert-Butanol (TBA)	0.0473 U	0.321 U	1.82 U	0.0397 U	0.0391 U	0.0422 U	0.0439 U	0.0575 U	0.0359 U	0.0413 U
	2.7E+04	1.9E+05	-	-	2-Butanone (MEK)	0.0095 U	0.0641 U	0.363 U	0.0079 U	0.0078 U	0.0084 U	0.0088 U	0.0115 U	0.0072 U	0.0083 U
	3.9E+03	5.8E+04	-	-	n-Butylbenzene	0.0047 U	0.0321 U	0.182 U	0.0040 U	0.0039 U	0.0042 U	0.0044 U	0.0057 U	0.0036 U	0.0041 U
	7.8E+03	1.2E+05	-	-	sec-Butylbenzene	0.0047 U	0.0321 U	0.182 U	0.0040 U	0.0039 U	0.0042 U	0.0044 U	0.0057 U	0.0036 U	0.0041 U
	7.8E+03	1.2E+05	-	-	tert-Butylbenzene	0.0047 U	0.0321 U	0.182 U	0.0040 U	0.0039 U	0.0042 U	0.0044 U	0.0057 U	0.0036 U	0.0041 U
	7.7E+02	3.5E+03	-	-	Carbon disulfide	0.0047 U	0.0321 U	0.182 U	0.0016 J	0.0039 U	0.0042 U	0.0044 U	0.0057 U	0.0036 U	0.0041 U
	6.5E-01	2.9E+00	-	-	Carbon tetrachloride	0.0047 U	0.0321 U	0.182 U	0.0040 U	0.0039 U	0.0042 U	0.0044 U	0.0057 U	0.0036 U	0.0041 U
	2.8E+02	1.3E+03	-	-	Chlorobenzene	0.0047 U	0.0321 U	0.182 U	0.0040 U	0.0039 U	0.0042 U	0.0044 U	0.0057 U	0.0036 U	0.0041 U
	1.4E+04	5.7E+04	-	-	Chloroethane	0.0047 U	0.0321 U	0.182 U	0.0040 U	0.0039 U	0.0042 U	0.0044 U	0.0057 U	0.0036 U	0.0041 U
	3.2E-01	1.4E+00	-	-	Chloroform	0.0047 U	0.0321 U	0.182 U	0.0040 U	0.0039 U	0.0042 U	0.0044 U	0.0057 U	0.0036 U	0.0041 U
	1.1E+02	4.6E+02	-	-	Chloromethane	0.0047 U	0.0321 U	0.182 U	0.0040 U	0.0039 U	0.0042 U	0.0044 U	0.0057 U	0.0036 U	0.0041 U
	1.6E+03	2.3E+04	-	-	2-Chlorotoluene	0.0047 U	0.0321 U	0.182 U	0.0040 U	0.0039 U	0.0042 U	0.0044 U	0.0057 U	0.0036 U	0.0041 U
	1.6E+03	2.3E+04	-	-	4-Chlorotoluene	0.0047 U	0.0321 U	0.182 U	0.0040 U	0.0039 U	0.0042 U	0.0044 U	0.0057 U	0.0036 U	0.0041 U
	5.3E-03	6.4E-02	-	-	1,2-Dibromo-3-chloropropane	0.0047 U	0.0321 U	0.182 U	0.0040 U	0.0039 U	0.0042 U	0.0044 U	0.0057 U	0.0036 U	0.0041 U
	8.3E+00	3.9E+01	-	-	Dibromochloromethane	0.0047 U	0.0321 U	0.182 U	0.0040 U	0.0039 U	0.0042 U	0.0044 U	0.0057 U	0.0036 U	0.0041 U
	3.6E-02	1.6E-01	-	-	1,2-Dibromoethane (EDB)	0.0047 U	0.0321 U	0.182 U	0.0040 U	0.0039 U	0.0042 U	0.0044 U	0.0057 U	0.0036 U	0.0041 U
	2.4E+01	9.9E+01	-	-	Dibromomethane	0.0047 U	0.0321 U	0.182 U	0.0040 U	0.0039 U	0.0042 U	0.0044 U	0.0057 U	0.0036 U	0.0041 U
	1.8E+03	9.3E+03	-	-	1,2-Dichlorobenzene	0.0047 U	0.0321 U	0.182 U	0.0040 U	0.0039 U	0.0042 U	0.0044 U	0.0057 U	0.0036 U	0.0041 U
	na	na	-	-	1,3-Dichlorobenzene	0.0047 U	0.0321 U	0.182 U	0.0040 U	0.0039 U	0.0042 U	0.0044 U	0.0057 U	0.0036 U	0.0041 U
	2.6E+00	1.1E+01	-	-	1,4-Dichlorobenzene	0.0047 U	0.0321 U	0.182 U	0.0040 U	0.0039 U	0.0042 U	0.0044 U	0.0057 U	0.0036 U	0.0041 U
	8.7E+01	3.7E+02	-	-	Dichlorodifluoromethane	0.0047 U	0.0321 U	0.182 U	0.0040 U	0.0039 U	0.0042 U	0.0044 U	0.0057 U	0.0036 U	0.0041 U
	3.6E+00	1.6E+01	-	-	1,1-Dichloroethane	0.0047 U	0.0321 U	0.182 U	0.0040 U	0.0039 U	0.0042 U	0.0044 U	0.0057 U	0.0036 U	0.0041 U
	4.6E-01	2.0E+00	-	-	1,2-Dichloroethane	0.0047 U	0.0321 U	0.182 U	0.0040 U	0.0039 U	0.0042 U	0.0044 U	0.0057 U	0.0036 U	0.0041 U
	2.3E+02	1.0E+03	-	-	1,1-Dichloroethene	0.0047 U	0.0321 U	0.182 U	0.0040 U	0.0039 U	0.0042 U	0.0044 U	0.0057 U	0.0036 U	0.0041 U
	1.6E+02	2.3E+03	-	-	cis-1,2-Dichloroethene	0.0047 U	0.0321 U	0.613	0.0040 U	0.0039 U	0.0042 U	0.0044 U	0.0057 U	0.0036 U	0.0041 U
	1.6E+03	2.3E+04	-	-	trans-1,2-Dichloroethene	0.0047 U	0.0321 U	0.182 U	0.0040 U	0.0039 U	0.0042 U	0.0044 U	0.0057 U	0.0036 U	0.0041 U
	4.9E+04	2.1E+05	-	-	Dichlorofluoromethane	0.0047 U	0.0321 U	0.182 U	0.0040 U	0.0039 U	0.0042 U	0.0044 U	0.0057 U	0.0036 U	0.0041 U
	2.5E+00	1.1E+01	-	-	1,2-Dichloropropane	0.0047 U	0.0321 U	0.182 U	0.0040 U	0.0039 U	0.0042 U	0.0044 U	0.0057 U	0.0036 U	0.0041 U
	1.6E+03	2.3E+04	-	-	1,3-Dichloropropane	0.0047 U	0.0321 U	0.182 U	0.0040 U	0.0039 U	0.0042 U	0.0044 U	0.0057 U	0.0036 U	0.0041 U
	na	na	-	-	2,2-Dichloropropane	0.0047 U	0.0321 U	0.182 U	0.0040 U	0.0039 U	0.0042 U	0.0044 U	0.0057 U	0.0036 U	0.0041 U
	na	na	-	-	1,1-Dichloropropene	0.0047 U	0.0321 U	0.182 U	0.0040 U	0.0039 U	0.0042 U	0.0044 U	0.0057 U	0.0036 U	0.0041 U
	na	na	-	-	cis-1,3-Dichloropropene	0.0047 U	0.0321 U	0.182 U	0.0040 U	0.0039 U	0.0042 U	0.0044 U	0.0057 U	0.0036 U	0.0041 U
	na	na	-	-	trans-1,3-Dichloropropene	0.0047 U	0.0321 U	0.182 U	0.0040 U	0.0039 U	0.0042 U	0.0044 U	0.0057 U	0.0036 U	0.0041 U
	2.2E+03	9.4E+03	-	-	Diisopropyl ether (DIPE)	0.0047 U	0.0321 U	0.182 U	0.0040 U	0.0039 U	0.0042 U	0.0044 U	0.0057 U	0.0036 U	0.0041 U
	na	na	-	-	Ethyl tert-butyl ether (ETBE)	0.0047 U	0.0321 U	0.182 U	0.0040 U	0.0039 U	0.0042 U	0.0044 U	0.0057 U	0.0036 U	0.0041 U
	5.8E+00	2.5E+01	-	-	Ethylbenzene	0.0047 U	0.0321 U	0.182 U	0.0040 U	0.0039 U	0.0042 U	0.0044 U	0.0057 U	0.0036 U	0.0041 U
	1.2E+00	5.3E+00	-	-	Hexachlorobutadiene	0.0047 U	0.0321 U	0.182 U	0.0040 U	0.0039 U	0.0042 U	0.0044 U	0.0057 U	0.0036 U	0.0041 U
	2.0E+02	1.3E+03	-	-	2-Hexanone	0.0095 U	0.0641 U	0.363 U	0.0079 U	0.0078 U	0.0084 U	0.0088 U	0.0115 U	0.0072 U	0.0083 U
	1.9E+03	9.9E+03	-	-	Isopropylbenzene (Cumene)	0.0047 U	0.0321 U	0.182 U	0.0040 U	0.0039 U	0.0042 U	0.0044 U	0.0057 U	0.0036 U	0.0041 U
	na	na	-	-	4-Isopropyltoluene	0.0047 U	0.0321 U	0.182 U	0.0040 U	0.0039 U	0.0042 U	0.0044 U	0.0057 U	0.0036 U	0.0041 U
	4.7E+01	2.1E+02	-	-	Methyl tert-butyl ether (MTBE)	0.0047 U	0.0321 U	0.182 U	0.0040 U	0.0039 U	0.0042 U	0.0044 U	0.0057 U	0.0036 U	0.0041 U
	3.3E+04	1.4E+05	-	-	4-Methyl-2-pentanone	0.0095 U	0.0641 U	0.363 U	0.0079 U	0.0078 U	0.0084 U	0.0088 U	0.0115 U	0.0072 U	0.0083 U
	5.7E+01	1.0E+03	-	-	Methylene chloride	0.0095 U	0.128 U	0.363 U	0.0079 U	0.0078 U	0.0084 U	0.0088 U	0.0115 U	0.0072 U	0.0083 U
	3.8E+00	1.7E+01	-	-	Naphthalene	0.0047 U	0.0321 U	0.182 U	0.0161	0.0473	0.0189	0.0044 U	0.0057 U	0.0036 U	0.0041 U
	3.8E+03	2.4E+04	-	-	n-Propylbenzene	0.0047 U	0.0321 U	0.182 U	0.0040 U	0.0039 U	0.0042 U	0.0044 U	0.0057 U	0.0036 U	0.0041 U
	6.0E+03	3.5E+04	-	-	Styrene	0.0047 U	0.0321 U	0.182 U	0.0040 U	0.0039 U	0.0042 U	0.0044 U	0.0057 U	0.0036 U	0.0041 U
	2.0E+00	8.8E+00	-	-	1,1,1,2-Tetrachloroethane	0.0047 U	0.0321 U	0.182 U	0.0040 U	0.0039 U	0.0042 U	0.0044 U	0.0057 U	0.0036 U	0.0041 U
	6.0E-01	2.7E+00	-	-	1,1,2,2-Tetrachloroethane	0.0047 U	0.0321 U	0.182 U	0.0040 U	0.0039 U	0.0042 U	0.0044 U	0.0057 U	0.0036 U	0.0041 U
	2.4E+01	1.0E+02	-	-	Tetrachloroethene	0.0047 U	0.0321 U	1.25	0.0022 J	0.0039 U	0.0042 U	0.0044 U	0.0057 U	0.0036 U	0.0041 U
	4.9E+03	4.7E+04	-	-	Toluene	0.0047 U	0.0321 U	0.182 U	0.0040 U	0.0039 U	0.0042 U	0.0044 U	0.0057 U	0.0036 U	0.0041 U
	6.3E+01	9.3E+02	-	-	1,2,3-Trichlorobenzene	0.0047 U	0.0321 U	0.182 U	0.0040 U	0.0039 U	0.0042 U	0.0044 U	0.0057 U	0.0036 U	0.0041 U
	2.4E+01	1.1E+02	-	-	1,2,4-Trichlorobenzene	0.0047 U	0.0321 U	0.182 U	0.0040 U	0.0039 U	0.0042 U	0.0044 U	0.0057 U	0.0036 U	0.0041 U
	8.1E+03	3.6E+04	-	-	1,1,1-Trichloroethane	0.0047 U	0.0321 U	0.182 U	0.0040 U	0.0039 U	0.0042 U	0.0044 U	0.0057 U	0.0036 U	0.0041 U
	1.1E+00	5.0E+00	-	-	1,1,2-Trichloroethane	0.0047 U	0.0321 U	0.182 U	0.0040 U	0.0039 U	0.0042 U	0.0044 U	0.0057 U	0.	



Table K-2  
 Additional Phase II Environmental Site Assessment (ESA) at Buildings 46 and 76  
 Armed Forces Retirement Home (AFRH) - Main Campus  
 3700 N. Capital Street, NW, Washington, DC 20011

Building 46 - Soil Sample Laboratory Analytical Data  
 VOCs and TPH- C7-C12

VOC Screening Levels		TPH Screening Levels			Analytical Suite	Sample ID	SB-10 (7')	SB-10 (7') [SB-D2]	SB-11 (21.5')	SB-12 (24')	SB-13 (36')	SB-14 (5')	
EPA Residential Soil RSLs	EPA Industrial Soil RSLs	DOEE Tier 0 Soil Standard	DDOE Residential Soil Tier 1 RBSL	DDOE Commercial Subsurface Soil Tier 1 RBSL		Lab Sample ID	8050107-02	8050107-04	8050315-03	8043007-07	8043007-08	8050107-03	
(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	Sample Collection Date	04/26/18	04/26/18	05/01/18	04/25/18	04/26/18	04/26/18		
					Sample Collection Depth (feet BG)	7	7	21.5	24	36	5		
					Sample Type	Subsurface Soil	Subsurface Soil	Subsurface Soil	Subsurface Soil	Subsurface Soil	Subsurface Soil		
					Rationale for Soil Sample Collection Depth	High PID	High PID Duplicate	High PID	Above perched groundwater zone	High PID	Predetermined depth		
					Soil Sample PID Reading (ppm)	603.3	603.3	0.6	0	0.3	0		
					Dilution Factor (VOCs)	562	65.8	1	1	1	1		
					Dilution Factor (TPH)	28.1	32.9	1	NA	NA	1		
					Analyte Name	Concentration (mg/kg)							
	6.1E+04	6.7E+05	-	-	Acetone	6.31 U	0.739 U	0.0074 U	0.0086 U	0.0080 U	0.0077 U		
	8.2E+01	3.4E+02	-	-	tert-Amyl alcohol (TAA)	31.6 U	3.70 U	0.0368 U	0.0428 U	0.0402 U	0.0386 U		
	na	na	-	-	tert-Amyl methyl ether (TAME)	3.16 U	0.370 U	0.0037 U	0.0043 U	0.0040 U	0.0039 U		
	1.2E+00	5.1E+00	-	-	Benzene	3.16 U	0.370 U	0.0037 U	0.0043 U	0.0040 U	0.0039 U		
	2.9E+02	1.8E+03	-	-	Bromobenzene	3.16 U	0.370 U	0.0037 U	0.0043 U	0.0040 U	0.0039 U		
	1.5E+02	6.3E+02	-	-	Bromochloromethane	3.16 U	0.370 U	0.0037 U	0.0043 U	0.0040 U	0.0039 U		
	2.9E-01	1.3E+00	-	-	Bromodichloromethane	3.16 U	0.370 U	0.0037 U	0.0043 U	0.0040 U	0.0039 U		
	1.9E+01	8.6E+01	-	-	Bromoforn	3.16 U	0.370 U	0.0037 U	0.0043 U	0.0040 U	0.0039 U		
	6.8E+00	3.0E+01	-	-	Bromomethane	3.16 U	0.370 U	0.0037 U	0.0043 U	0.0040 U	0.0039 U		
	na	na	-	-	tert-Butanol (TBA)	31.6 U	3.70 U	0.0368 U	0.0428 U	0.0402 U	0.0386 U		
	2.7E+04	1.9E+05	-	-	2-Butanone (MEK)	6.31 U	0.739 U	0.0074 U	0.0086 U	0.0080 U	0.0077 U		
	3.9E+03	5.8E+04	-	-	n-Butylbenzene	3.16 U	0.370 U	0.0037 U	0.0043 U	0.0040 U	0.0039 U		
	7.8E+03	1.2E+05	-	-	sec-Butylbenzene	3.16 U	0.370 U	0.0037 U	0.0043 U	0.0040 U	0.0039 U		
	7.8E+03	1.2E+05	-	-	tert-Butylbenzene	3.16 U	0.370 U	0.0037 U	0.0043 U	0.0040 U	0.0039 U		
	7.7E+02	3.5E+03	-	-	Carbon disulfide	3.16 U	0.370 U	0.0037 U	0.0043 U	0.0040 U	0.0039 U		
	6.5E-01	2.9E+00	-	-	Carbon tetrachloride	3.16 U	0.370 U	0.0037 U	0.0043 U	0.0040 U	0.0039 U		
	2.8E+02	1.3E+03	-	-	Chlorobenzene	3.16 U	0.370 U	0.0037 U	0.0043 U	0.0040 U	0.0039 U		
	1.4E+04	5.7E+04	-	-	Chloroethane	3.16 U	0.370 U	0.0037 U	0.0043 U	0.0040 U	0.0039 U		
	3.2E-01	1.4E+00	-	-	Chloroform	3.16 U	0.370 U	0.0037 U	0.0043 U	0.0040 U	0.0039 U		
	1.1E+02	4.6E+02	-	-	Chloromethane	3.16 U	0.370 U	0.0037 U	0.0043 U	0.0040 U	0.0039 U		
	1.6E+03	2.3E+04	-	-	2-Chlorotoluene	3.16 U	0.370 U	0.0037 U	0.0043 U	0.0040 U	0.0039 U		
	1.6E+03	2.3E+04	-	-	4-Chlorotoluene	3.16 U	0.370 U	0.0037 U	0.0043 U	0.0040 U	0.0039 U		
	5.3E-03	6.4E-02	-	-	1,2-Dibromo-3-chloropropane	3.16 U	0.370 U	0.0037 U	0.0043 U	0.0040 U	0.0039 U		
	8.3E+00	3.9E+01	-	-	Dibromochloromethane	3.16 U	0.370 U	0.0037 U	0.0043 U	0.0040 U	0.0039 U		
	3.6E-02	1.6E-01	-	-	1,2-Dibromoethane (EDB)	3.16 U	0.370 U	0.0037 U	0.0043 U	0.0040 U	0.0039 U		
	2.4E+01	9.9E+01	-	-	Dibromomethane	3.16 U	0.370 U	0.0037 U	0.0043 U	0.0040 U	0.0039 U		
	1.8E+03	9.3E+03	-	-	1,2-Dichlorobenzene	3.16 U	0.370 U	0.0037 U	0.0043 U	0.0040 U	0.0039 U		
	na	na	-	-	1,3-Dichlorobenzene	3.16 U	0.370 U	0.0037 U	0.0043 U	0.0040 U	0.0039 U		
	2.6E+00	1.1E+01	-	-	1,4-Dichlorobenzene	3.16 U	5.55	0.0037 U	0.0043 U	0.0040 U	0.0039 U		
	8.7E+01	3.7E+02	-	-	Dichlorodifluoromethane	3.16 U	0.370 U	0.0037 U	0.0043 U	0.0040 U	0.0039 U		
	3.6E+00	1.6E+01	-	-	1,1-Dichloroethane	3.16 U	0.370 U	0.0037 U	0.0043 U	0.0040 U	0.0039 U		
	4.6E-01	2.0E+00	-	-	1,2-Dichloroethane	3.16 U	0.370 U	0.0037 U	0.0043 U	0.0040 U	0.0039 U		
	2.3E+02	1.0E+03	-	-	1,1-Dichloroethene	3.16 U	0.370 U	0.0037 U	0.0043 U	0.0040 U	0.0039 U		
	1.6E+02	2.3E+03	-	-	cis-1,2-Dichloroethene	3.16 U	0.370 U	0.0037 U	0.0043 U	0.0040 U	0.0039 U		
	1.6E+03	2.3E+04	-	-	trans-1,2-Dichloroethene	3.16 U	0.370 U	0.0037 U	0.0043 U	0.0040 U	0.0039 U		
	4.9E+04	2.1E+05	-	-	Dichlorofluoromethane	3.16 U	0.370 U	0.0037 U	0.0043 U	0.0040 U	0.0039 U		
	2.5E+00	1.1E+01	-	-	1,2-Dichloropropane	3.16 U	0.370 U	0.0037 U	0.0043 U	0.0040 U	0.0039 U		
	1.6E+03	2.3E+04	-	-	1,3-Dichloropropane	3.16 U	0.370 U	0.0037 U	0.0043 U	0.0040 U	0.0039 U		
	na	na	-	-	2,2-Dichloropropane	3.16 U	0.370 U	0.0037 U	0.0043 U	0.0040 U	0.0039 U		
	na	na	-	-	1,1-Dichloropropene	3.16 U	0.370 U	0.0037 U	0.0043 U	0.0040 U	0.0039 U		
	na	na	-	-	cis-1,3-Dichloropropene	3.16 U	0.370 U	0.0037 U	0.0043 U	0.0040 U	0.0039 U		
	na	na	-	-	trans-1,3-Dichloropropene	3.16 U	0.370 U	0.0037 U	0.0043 U	0.0040 U	0.0039 U		
	2.2E+03	9.4E+03	-	-	Diisopropyl ether (DIPE)	3.16 U	0.370 U	0.0037 U	0.0043 U	0.0040 U	0.0039 U		
	na	na	-	-	Ethyl tert-butyl ether (ETBE)	3.16 U	0.370 U	0.0037 U	0.0043 U	0.0040 U	0.0039 U		
	5.8E+00	2.5E+01	-	-	Ethylbenzene	3.16 U	0.370 U	0.0037 U	0.0043 U	0.0040 U	0.0039 U		
	1.2E+00	5.3E+00	-	-	Hexachlorobutadiene	3.16 U	0.370 U	0.0037 U	0.0043 U	0.0040 U	0.0039 U		
	2.0E+02	1.3E+03	-	-	2-Hexanone	6.31 U	0.739 U	0.0074 U	0.0086 U	0.0080 U	0.0077 U		
	1.9E+03	9.9E+03	-	-	Isopropylbenzene (Cumene)	3.16 U	0.370 U	0.0037 U	0.0043 U	0.0040 U	0.0039 U		
	na	na	-	-	4-Isopropyltoluene	3.16 U	0.849	0.0037 U	0.0043 U	0.0040 U	0.0039 U		
	4.7E+01	2.1E+02	-	-	Methyl tert-butyl ether (MTBE)	3.16 U	0.370 U	0.0037 U	0.0043 U	0.0040 U	0.0039 U		
	3.3E+04	1.4E+05	-	-	4-Methyl-2-pentanone	6.31 U	0.739 U	0.0074 U	0.0086 U	0.0080 U	0.0077 U		
	5.7E+01	1.0E+03	-	-	Methylene chloride	6.31 U	0.739 U	0.0074 U	0.0086 U	0.0080 U	0.0077 U		
	3.8E+00	1.7E+01	-	-	Naphthalene	3.16 U	0.370 U	0.0037 U	0.0087	0.0040 U	0.0039 U		
	3.8E+03	2.4E+04	-	-	n-Propylbenzene	3.16 U	0.370 U	0.0037 U	0.0043 U	0.0040 U	0.0039 U		
	6.0E+03	3.5E+04	-	-	Styrene	3.16 U	0.370 U	0.0037 U	0.0043 U	0.0040 U	0.0039 U		
	2.0E+00	8.8E+00	-	-	1,1,1,2-Tetrachloroethane	3.16 U	0.370 U	0.0037 U	0.0043 U	0.0040 U	0.0039 U		
	6.0E-01	2.7E+00	-	-	1,1,2,2-Tetrachloroethane	3.16 U	0.370 U	0.0037 U	0.0043 U	0.0040 U	0.0039 U		
	2.4E+01	1.0E+02	-	-	Tetrachloroethene	13.1	0.370 U	0.0115	0.0043 U	0.0059	0.0039 U		
	4.9E+03	4.7E+04	-	-	Toluene	3.16 U	0.370 U	0.0037 U	0.0043 U	0.0040 U	0.0039 U		
	6.3E+01	9.3E+02	-	-	1,2,3-Trichlorobenzene	19.5	0.336 J	0.0037 U	0.0043 U	0.0040 U	0.0039 U		
	2.4E+01	1.1E+02	-	-	1,2,4-Trichlorobenzene	86.8	0.654	0.0037 U	0.0043 U	0.0040 U	0.0039 U		
	8.1E+03	3.6E+04	-	-	1,1,1-Trichloroethane	3.16 U	0.370 U	0.0037 U	0.0043 U	0.0040 U	0.0039 U		
	1.1E+00	5.0E+00	-	-	1,1,2-Trichloroethane	3.16 U	0.370 U	0.0037 U	0.0043 U	0.0040 U	0.0039 U		
	9.4E-01	6.0E+00	-	-	Trichloroethene	3.16 U	0.370 U	0.0037 U	0.0043 U	0.0040 U	0.0039 U		
	2.3E+04	3.5E+05	-	-	Trichlorofluoromethane (Freon 11)	3.16 U	0.370 U	0.0037 U	0.0043 U	0.0040 U	0.0039 U		
	5.1E-03	1.1E-01	-	-	1,2,3-Trichloropropane	3.16 U	0.370 U	0.0037 U	0.0043 U	0.0040 U	0.0039 U		
	3.0E+02	1.8E+03	-	-	1,2,4-Trimethylbenzene	3.16 U	0.410	0.0037 U	0.0043 U	0.0040 U	0.0039 U		
	2.7E+02	1.5E+03	-	-	1,3,5-Trimethylbenzene	3.16 U	0.370 U	0.0037 U	0.0043 U	0.0040 U	0.0039 U		
	5.9E-02	1.7E+00	-	-	Vinyl chloride	3.16 U	0.370 U	0.0037 U	0.0043 U	0.0040 U	0.0039 U		
	6.5E+02	2.8E+03	-	-	o-Xylene	3.16 U	0.370 U	0.0037 U	0.0043 U	0.0040 U	0.0039 U		
	5.8E+02	2.5E+03	-	-	m- & p-Xylenes	3.16 U	0.370 U	0.0037 U	0.0043 U	0.0040 U	0.0039 U		
	-	-	1.00E+02	5.44E+01	3.76E+02	TPH	C7-C12	1.760 * **	566 * **	0.38 U	NA	NA	0.38 U

**Table Notes:**  
 VOCs Analytical Method: EPA Method 8260B  
 TPH Analytical Method: EPA Method 8015M  
 [Sample ID] - Sample Identification as shown on COC and in Lab Report for duplicate samples.  
 mg/kg - milligrams per kilogram or parts per million (ppm)  
 BG - Below Grade  
 CR - Cancer Risk  
 HI - Hazard Index  
 U - Analyte not detected above specified Method Reporting Limit (MRL) (shown as a gray tone).  
 J - Detected above the Method Detection Limit (MDL) but below the MRL; result is an estimated concentration.  
 na - not applicable  
 NA - not analyzed  
**Bold** - Detected analyte concentration

**Screening Levels:**  
 EPA Residential Soil Regional Screening Levels (RSLs) (at CR = 1x10<sup>-6</sup> or HI = 1.0) (May 2018)  
 EPA Industrial Soil RSLs (at CR = 1x10<sup>-6</sup> or HI = 1.0) (May 2018)  
 DOEE Tier 0 Soil Standard (June 2011) for gasoline range organics (GRO)  
 DDOE GRO Residential Subsurface Soil Tier 1 Risk-Based Screening Level (RBSL) - Resident Adult - Indoor Inhalation Exposure Pathway (June 2011)  
 DDOE GRO Commercial Subsurface Soil Tier 1 RBSL for TPH-GRO - Commercial Worker - Indoor Inhalation Exposure Pathway (June 2011)

**Screening Evaluation Notes for VOCs:**  
**Red, bold, and underline** - Detected analyte concentration exceeds the respective Residential Screening Level.  
**Underline** - MRL exceeds the respective Residential Screening Level.  
 \* - Detected analyte concentration also exceeds the respective Industrial/Commercial Screening Level. (None on this table.)

**Screening Evaluation Notes for TPH:**  
**Red, bold, and underline** - Detected analyte concentration exceeds the DOEE Tier 0 Soil Standard.  
**Underline** - MRL exceeds the DOEE Tier 0 Soil Standard.  
 \* - Detected analyte concentration also exceeds the DDOE Residential Subsurface Soil Tier 1 RBSL.  
 \*\* - Detected analyte concentration also exceeds the DDOE Commercial Subsurface Soil Tier 1 RBSL.

**Additional Screening Level Notes:**  
**Analyte**      **EPA RSL**      **DDOE RBSL**  
 m- & p-Xylenes      Total Xylenes      na for this table

**Table K-3**  
**Additional Phase II Environmental Site Assessment (ESA) at Buildings 46 and 76**  
**Armed Forces Retirement Home (AFRH) - Main Campus**  
**3700 N. Capital Street, NW, Washington, DC 20011**

**Building 76 - Soil Sample Laboratory Analytical Data**  
**TPH-DRO, TPH-ORO, PAHs, PCBs, and Metals**

PAH, PCB, and Metals Screening Levels		TPH Screening Levels					Analytical Suite	Sample ID	SB-76-01 (SS)	SB-76-01 (8'-TOP)	SB-76-01 (9')	SB-76-01 (13'-BTM)	SB-76-02 (7.5'-TOP)	SB-76-02 (10')	SB-76-02 (14'-BTM)
EPA Residential Soil RSLs	EPA Industrial Soil RSLs	DOEE Tier 0 Soil Standards	DDOE Residential Surface Soil Tier 1 RBSLs	DDOE Residential Subsurface Soil Tier 1 RBSLs	DDOE Commercial Surface Soil Tier 1 RBSLs	DDOE Commercial Subsurface Soil Tier 1 RBSLs		Lab Sample ID	8043008-01	8043008-02	8043008-03	8043008-04	8043008-05	8043008-06	8043008-07
(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	Sample Collection Date	04/27/18	04/27/18	04/27/18	04/27/18	04/27/18	04/27/18	04/27/18	
-	-	1.00E+02	2.30E+05	2.12E+03	2.02E+06	1.46E+04	Sample Collection Depth (feet BG)	0	8	9	13	7.5	10	14	
-	-	1.00E+02	2.02E+05	na	1.78E+06	na	Sample Type	Surface Soil	Subsurface Soil	Subsurface Soil	Subsurface Soil	Subsurface Soil	Subsurface Soil	Subsurface Soil	
3.6E+03	4.5E+04	-	-	-	-	-	Rationale for Soil Sample Collection Depth	SS	Top	High PID	Bottom	Top	High PID	Bottom	
na	na	-	-	-	-	-	Soil Sample PID Reading (ppm)	0	0	33.9	0	0	22.4	0	
1.8E+04	2.3E+05	-	-	-	-	-	Dilution Factor (TPH)	1	5	20	1	1	10	1	
1.1E+00	2.1E+01	-	-	-	-	-	Dilution Factor (PAHs and PCBs)	1	NA	NA	NA	NA	NA	NA	
1.1E+00	2.1E+01	-	-	-	-	-	Dilution Factor (Metals)	NA	NA	2	NA	NA	2	NA	
1.1E+01	2.1E+02	-	-	-	-	-	Analyte Name	Concentration (mg/kg)							
na	na	-	-	-	-	-	Diesel-Range Organics	10.0 U	<b>846</b>	<b>4,410</b> *	9.9 U	10.0 U	<b>1,420</b>	<b>11.4</b>	
1.1E-01	2.1E+00	-	-	-	-	-	Oil-Range Organics C28-C36	10 U	<b>628</b>	<b>2,240</b>	10 U	10 U	<b>664</b>	<b>11</b>	
1.1E+02	2.1E+03	-	-	-	-	-	Acenaphthene	0.313 U	NA	NA	NA	NA	NA	NA	
1.1E-01	2.1E+00	-	-	-	-	-	Acenaphthylene	0.313 U	NA	NA	NA	NA	NA	NA	
2.4E+03	3.0E+04	-	-	-	-	-	Anthracene	0.313 U	NA	NA	NA	NA	NA	NA	
2.4E+03	3.0E+04	-	-	-	-	-	Benzo[a]anthracene	0.313 U	NA	NA	NA	NA	NA	NA	
1.1E+00	2.1E+01	-	-	-	-	-	Benzo[b]fluoranthene	0.313 U	NA	NA	NA	NA	NA	NA	
1.1E+01	2.1E+02	-	-	-	-	-	Benzo[k]fluoranthene	0.313 U	NA	NA	NA	NA	NA	NA	
na	na	-	-	-	-	-	Benzo[ghi]perylene	0.313 U	NA	NA	NA	NA	NA	NA	
1.1E-01	2.1E+00	-	-	-	-	-	Benzo[a]pyrene	0.313 U	NA	NA	NA	NA	NA	NA	
1.1E+02	2.1E+03	-	-	-	-	-	Chrysene	0.313 U	NA	NA	NA	NA	NA	NA	
1.1E-01	2.1E+00	-	-	-	-	-	Dibenzo[a,h]anthracene	0.313 U	NA	NA	NA	NA	NA	NA	
2.4E+03	3.0E+04	-	-	-	-	-	Fluoranthene	0.313 U	NA	NA	NA	NA	NA	NA	
2.4E+03	3.0E+04	-	-	-	-	-	Fluorene	0.313 U	NA	NA	NA	NA	NA	NA	
1.1E+00	2.1E+01	-	-	-	-	-	Indeno[1,2,3-cd]pyrene	0.313 U	NA	NA	NA	NA	NA	NA	
2.4E+02	3.0E+03	-	-	-	-	-	2-Methylnaphthalene	0.313 U	NA	NA	NA	NA	NA	NA	
3.8E+00	1.7E+01	-	-	-	-	-	Naphthalene	0.313 U	NA	NA	NA	NA	NA	NA	
na	na	-	-	-	-	-	Phenanthrene	0.313 U	NA	NA	NA	NA	NA	NA	
1.8E+03	2.3E+04	-	-	-	-	-	Pyrene	0.313 U	NA	NA	NA	NA	NA	NA	
4.1E+00	2.7E+01	-	-	-	-	-	Aroclor-1016	0.0830 U	NA	NA	NA	NA	NA	NA	
2.0E-01	8.3E-01	-	-	-	-	-	Aroclor-1221	0.170 U	NA	NA	NA	NA	NA	NA	
1.7E-01	7.2E-01	-	-	-	-	-	Aroclor-1232	0.0830 U	NA	NA	NA	NA	NA	NA	
2.3E-01	9.5E-01	-	-	-	-	-	Aroclor-1242	0.0830 U	NA	NA	NA	NA	NA	NA	
2.3E-01	9.5E-01	-	-	-	-	-	Aroclor-1248	0.0830 U	NA	NA	NA	NA	NA	NA	
2.4E-01	9.7E-01	-	-	-	-	-	Aroclor-1254	0.0830 U	NA	NA	NA	NA	NA	NA	
2.4E-01	9.9E-01	-	-	-	-	-	Aroclor-1260	0.0830 U	NA	NA	NA	NA	NA	NA	
na	na	-	-	-	-	-	Aroclor-1262	0.0830 U	NA	NA	NA	NA	NA	NA	
na	na	-	-	-	-	-	Aroclor-1268	0.0830 U	NA	NA	NA	NA	NA	NA	
6.8E-01	3.0E+00	-	-	-	-	-	Arsenic	NA	NA	<b>3.34</b> *	NA	NA	<b>2.46</b>	NA	
1.5E+04	2.2E+05	-	-	-	-	-	Barium	NA	NA	<b>166</b>	NA	NA	<b>32.5</b>	NA	
7.1E+01	9.8E+02	-	-	-	-	-	Cadmium	NA	NA	0.481 U	NA	NA	0.468 U	NA	
1.2E+05	1.8E+06	-	-	-	-	-	Chromium	NA	NA	<b>30.6</b>	NA	NA	<b>21.4</b>	NA	
4.0E+02	8.0E+02	-	-	-	-	-	Lead	NA	NA	<b>14.3</b>	NA	NA	<b>8.84</b>	NA	
1.1E+01	4.6E+01	-	-	-	-	-	Mercury	NA	NA	0.0962 U	NA	NA	0.0935 U	NA	
3.9E+02	5.8E+03	-	-	-	-	-	Selenium	NA	NA	<b>2.21</b>	NA	NA	<b>2.69</b>	NA	
3.9E+02	5.8E+03	-	-	-	-	-	Silver	NA	NA	0.481 U	NA	NA	0.468 U	NA	

**Table Notes:**  
 TPH Analytical Method: EPA Method 8015M  
 PAH Analytical Method: EPA Method 8270D  
 PCB Analytical Method: EPA Method 8082  
 Metals Analytical Method: EPA Method 6020A  
 [Sample ID] - Sample Identification as shown on COC and in Lab Report for duplicate samples.  
 mg/kg - milligrams per kilogram or parts per million (ppm)  
 BG - Below Grade  
 CR - Cancer Risk  
 HI - Hazard Index  
 U - Analyte not detected above specified Method Reporting Limit (MRL) (shown as a gray tone).  
 J - Detected above the Method Detection Limit (MDL) but below the MRL; result is an estimated concentration.  
 na - not applicable  
 NA - not analyzed  
**Bold** - Detected analyte concentration

**Screening Levels:**  
 EPA Residential Soil Regional Screening Levels (RSLs) (at CR = 1x10<sup>-6</sup> or HI = 1.0) (May 2018)  
 EPA Industrial Soil RSLs (at CR = 1x10<sup>-6</sup> or HI = 1.0) (May 2018)  
 DOEE Tier 0 Soil Standard (June 2011)  
 DDOE Residential Surface Soil Tier 1 Risk-Based Screening Levels (RBSLs) - Resident Child - Ingestion, Inhalation, and Dermal Contact Exposure Pathways (June 2011)  
 DDOE Residential Subsurface Soil Tier 1 RBSLs - Resident Child - Indoor Inhalation Exposure Pathway (June 2011)  
 DDOE Commercial Surface Soil Tier 1 RBSLs - Commercial Worker - Ingestion, Inhalation, and Dermal Contact Exposure Pathways (June 2011)  
 DDOE Commercial Subsurface Soil Tier 1 RBSLs - Commercial Worker - Indoor Inhalation Exposure Pathway (June 2011)

**Screening Evaluation Notes for TPH:**  
**Red, bold, and underline** - Detected analyte concentration exceeds the DOEE Tier 0 Soil Standard.  
**Underline** - MRL exceeds the DOEE Tier 0 Soil Standard. (None on this table.)  
 \* - Detected analyte concentration also exceeds the DDOE Residential Surface Soil or Subsurface Soil Tier 1 RBSL.  
 \*\* - Detected analyte concentration also exceeds the DDOE Commercial Surface Soil or Subsurface Soil Tier 1 RBSL. (None on this table.)

**Screening Evaluation Notes for PAHs, PCBs, and Metals:**  
**Red, bold, and underline** - Detected analyte concentration exceeds the respective Residential Screening Level.  
**Underline** - MRL exceeds the respective Residential Screening Level.  
 \* - Detected analyte concentration also exceeds the respective Industrial/Commercial Screening Level.

**Additional Screening Level Notes:**

Analyte	EPA RSL	DDOE RBSL
Chromium	Trivalent Chromium	na for this table
Mercury	Mercury (elemental)	

**Table K-3**  
**Additional Phase II Environmental Site Assessment (ESA) at Buildings 46 and 76**  
**Armed Forces Retirement Home (AFRH) - Main Campus**  
**3700 N. Capital Street, NW, Washington, DC 20011**

**Building 76 - Soil Sample Laboratory Analytical Data**  
**TPH-DRO, TPH-ORO, PAHs, PCBs, and Metals**

PAH, PCB, and Metals Screening Levels		TPH Screening Levels					Analytical Suite	Sample ID	SB-76-03 (SS)	SB-76-03 (1.5'-TOP)	SB-76-03 (3')	SB-76-03 (3') [SB-76-D1]	SB-76-03 (18'-btm)	SB-76-04 (7')	SB-76-04 (10.5')	SB-76-04 (25')
EPA Residential Soil RSLs	EPA Industrial Soil RSLs	DOEE Tier 0 Standards	DDOE Residential Surface Soil Tier 1 RBSLs	DDOE Residential Subsurface Soil Tier 1 RBSLs	DDOE Commercial Surface Soil Tier 1 RBSLs	DDOE Commercial Subsurface Soil Tier 1 RBSLs		Lab Sample ID	8043008-08	8043008-09	8043008-10	8043008-12	8043008-11	8050317-04	8050317-05	8050317-06
(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	Sample Collection Date	04/27/18	04/27/18	04/27/18	04/27/18	04/27/18	04/30/18	04/30/18	04/30/18	
-	-	1.00E+02	2.30E+05	2.12E+03	2.02E+06	1.46E+04	Sample Collection Depth (feet BG)	0	1.5	3	3	18	7	10.5	25	
-	-	1.00E+02	2.02E+05	na	1.78E+06	na	Sample Type	Surface Soil	Subsurface Soil	Subsurface Soil	Subsurface Soil	Subsurface Soil	Subsurface Soil	Subsurface Soil	Subsurface Soil	
3.6E+03	4.5E+04	-	-	-	-	-	Rationale for Soil Sample Collection Depth	SS	Top	High PID	High PID Duplicate	Bottom	Top	High PID	Bottom of boring	
na	na	-	-	-	-	-	Soil Sample PID Reading (ppm)	0	0	75.5	75.5	3	0	13.9	12.9	
1.8E+04	2.3E+05	-	-	-	-	-	Dilution Factor (TPH)	1	1	3	2	1	1	100	1	
1.1E+00	2.1E+01	-	-	-	-	-	Dilution Factor (PAHs and PCBs)	1	NA	NA	NA	NA	NA	NA	NA	
1.1E+00	2.1E+01	-	-	-	-	-	Dilution Factor (Metals)	NA	NA	2	NA	NA	NA	2	NA	
1.1E+01	2.1E+02	-	-	-	-	-	Analyte Name	Concentration (mg/kg)								
na	na	-	-	-	-	-	Diesel-Range Organics	9.5 U	9.0 U	<b>478</b>	<b>324</b>	9.6 U	9.9 U	<b>3,980 *</b>	9.6 U	
1.1E-01	2.1E+00	-	-	-	-	-	Oil-Range Organics C28-C36	10 U	9 U	<b>212</b>	<b>146</b>	10 U	10 U	<b>2,040</b>	10 U	
1.1E+02	2.1E+03	-	-	-	-	-	Acenaphthene	0.298 U	NA	NA	NA	NA	NA	NA	NA	
1.1E-01	2.1E+00	-	-	-	-	-	Acenaphthylene	0.298 U	NA	NA	NA	NA	NA	NA	NA	
2.4E+03	3.0E+04	-	-	-	-	-	Anthracene	0.298 U	NA	NA	NA	NA	NA	NA	NA	
2.4E+03	3.0E+04	-	-	-	-	-	Benzo[a]anthracene	0.298 U	NA	NA	NA	NA	NA	NA	NA	
1.1E+00	2.1E+01	-	-	-	-	-	Benzo[b]fluoranthene	0.298 U	NA	NA	NA	NA	NA	NA	NA	
1.1E+01	2.1E+02	-	-	-	-	-	Benzo[k]fluoranthene	0.298 U	NA	NA	NA	NA	NA	NA	NA	
na	na	-	-	-	-	-	Benzo[ghi]perylene	0.298 U	NA	NA	NA	NA	NA	NA	NA	
1.1E-01	2.1E+00	-	-	-	-	-	Benzo[a]pyrene	0.298 U	NA	NA	NA	NA	NA	NA	NA	
1.1E+02	2.1E+03	-	-	-	-	-	Chrysene	0.298 U	NA	NA	NA	NA	NA	NA	NA	
1.1E-01	2.1E+00	-	-	-	-	-	Dibenzo[a,h]anthracene	0.298 U	NA	NA	NA	NA	NA	NA	NA	
2.4E+03	3.0E+04	-	-	-	-	-	Fluoranthene	0.298 U	NA	NA	NA	NA	NA	NA	NA	
2.4E+03	3.0E+04	-	-	-	-	-	Fluorene	0.298 U	NA	NA	NA	NA	NA	NA	NA	
1.1E+00	2.1E+01	-	-	-	-	-	Indeno[1,2,3-cd]pyrene	0.298 U	NA	NA	NA	NA	NA	NA	NA	
2.4E+02	3.0E+03	-	-	-	-	-	2-Methylnaphthalene	0.298 U	NA	NA	NA	NA	NA	NA	NA	
3.8E+00	1.7E+01	-	-	-	-	-	Naphthalene	0.298 U	NA	NA	NA	NA	NA	NA	NA	
na	na	-	-	-	-	-	Phenanthrene	0.298 U	NA	NA	NA	NA	NA	NA	NA	
1.8E+03	2.3E+04	-	-	-	-	-	Pyrene	0.298 U	NA	NA	NA	NA	NA	NA	NA	
4.1E+00	2.7E+01	-	-	-	-	-	Aroclor-1016	0.0830 U	NA	NA	NA	NA	NA	NA	NA	
2.0E-01	8.3E-01	-	-	-	-	-	Aroclor-1221	0.170 U	NA	NA	NA	NA	NA	NA	NA	
1.7E-01	7.2E-01	-	-	-	-	-	Aroclor-1232	0.0830 U	NA	NA	NA	NA	NA	NA	NA	
2.3E-01	9.5E-01	-	-	-	-	-	Aroclor-1242	0.0830 U	NA	NA	NA	NA	NA	NA	NA	
2.3E-01	9.5E-01	-	-	-	-	-	Aroclor-1248	0.0830 U	NA	NA	NA	NA	NA	NA	NA	
2.4E-01	9.7E-01	-	-	-	-	-	Aroclor-1254	0.0830 U	NA	NA	NA	NA	NA	NA	NA	
2.4E-01	9.9E-01	-	-	-	-	-	Aroclor-1260	0.0830 U	NA	NA	NA	NA	NA	NA	NA	
na	na	-	-	-	-	-	Aroclor-1262	0.0830 U	NA	NA	NA	NA	NA	NA	NA	
na	na	-	-	-	-	-	Aroclor-1268	0.0830 U	NA	NA	NA	NA	NA	NA	NA	
6.8E-01	3.0E+00	-	-	-	-	-	Arsenic	NA	NA	<b>7.80 *</b>	NA	NA	NA	<b>4.34 *</b>	NA	
1.5E+04	2.2E+05	-	-	-	-	-	Barium	NA	NA	<b>76.8</b>	NA	NA	NA	<b>43.1</b>	NA	
7.1E+01	9.8E+02	-	-	-	-	-	Cadmium	NA	NA	0.421 U	NA	NA	NA	0.498 U	NA	
1.2E+05	1.8E+06	-	-	-	-	-	Chromium	NA	NA	<b>24.0</b>	NA	NA	NA	<b>41.4</b>	NA	
4.0E+02	8.0E+02	-	-	-	-	-	Lead	NA	NA	<b>8.40</b>	NA	NA	NA	<b>8.04</b>	NA	
1.1E+01	4.6E+01	-	-	-	-	-	Mercury	NA	NA	0.0841 U	NA	NA	NA	0.0997 U	NA	
3.9E+02	5.8E+03	-	-	-	-	-	Selenium	NA	NA	<b>2.91</b>	NA	NA	NA	<b>1.60</b>	NA	
3.9E+02	5.8E+03	-	-	-	-	-	Silver	NA	NA	0.421 U	NA	NA	NA	0.498 U	NA	

**Table Notes:**  
 TPH Analytical Method: EPA Method 8015M  
 PAH Analytical Method: EPA Method 8270D  
 PCB Analytical Method: EPA Method 8082  
 Metals Analytical Method: EPA Method 6020A  
 [Sample ID] - Sample Identification as shown on COC and in Lab Report for duplicate samples.  
 mg/kg - milligrams per kilogram or parts per million (ppm)  
 BG - Below Grade  
 CR - Cancer Risk  
 HI - Hazard Index  
 U - Analyte not detected above specified Method Reporting Limit (MRL) (shown as a gray tone).  
 J - Detected above the Method Detection Limit (MDL) but below the MRL; result is an estimated concentration.  
 na - not applicable  
 NA - not analyzed  
**Bold** - Detected analyte concentration

**Screening Levels:**  
 EPA Residential Soil Regional Screening Levels (RSLs) (at CR = 1x10<sup>-6</sup> or HI = 1.0) (May 2018)  
 EPA Industrial Soil RSLs (at CR = 1x10<sup>-6</sup> or HI = 1.0) (May 2018)  
 DOEE Tier 0 Soil Standard (June 2011)  
 DDOE Residential Surface Soil Tier 1 Risk-Based Screening Levels (RBSLs) - Resident Child - Ingestion, Inhalation, and Dermal Contact Exposure Pathways (June 2011)  
 DDOE Residential Subsurface Soil Tier 1 RBSLs - Resident Child - Indoor Inhalation Exposure Pathway (June 2011)  
 DDOE Commercial Surface Soil Tier 1 RBSLs - Commercial Worker - Ingestion, Inhalation, and Dermal Contact Exposure Pathways (June 2011)  
 DDOE Commercial Subsurface Soil Tier 1 RBSLs - Commercial Worker - Indoor Inhalation Exposure Pathway (June 2011)

**Screening Evaluation Notes for TPH:**  
**Red, bold, and underline** - Detected analyte concentration exceeds the DOEE Tier 0 Soil Standard.  
**Underline** - MRL exceeds the DOEE Tier 0 Soil Standard. (None on this table).  
 \* - Detected analyte concentration also exceeds the DDOE Residential Surface Soil or Subsurface Soil Tier 1 RBSL.  
 \*\* - Detected analyte concentration also exceeds the DDOE Commercial Surface Soil or Subsurface Soil Tier 1 RBSL. (None on this table.)

**Screening Evaluation Notes for PAHs, PCBs, and Metals:**  
**Red, bold, and underline** - Detected analyte concentration exceeds the respective Residential Screening Level.  
**Underline** - MRL exceeds the respective Residential Screening Level.  
 \* - Detected analyte concentration also exceeds the respective Industrial/Commercial Screening Level.

**Additional Screening Level Notes:**

Analyte	EPA RSL	DDOE RBSL
Chromium	Trivalent Chromium	na for this table
Mercury	Mercury (elemental)	

**Table K-3**  
**Additional Phase II Environmental Site Assessment (ESA) at Buildings 46 and 76**  
**Armed Forces Retirement Home (AFRH) - Main Campus**  
**3700 N. Capital Street, NW, Washington, DC 20011**

**Building 76 - Soil Sample Laboratory Analytical Data**  
**TPH-DRO, TPH-ORO, PAHs, PCBs, and Metals**

PAH, PCB, and Metals Screening Levels		TPH Screening Levels					Analytical Suite	Sample ID	SB-76-05 (7')	SB-76-05 (15.5')	SB-76-05 (21')	SB-76-06 (SS)	SB-76-06 (7.5')	SB-76-06 (12')	SB-76-06 (12') [SB-76-D2]	SB-76-06 (19')	
EPA Residential Soil RSLs	EPA Industrial Soil RSLs	DOEE Tier 0 Soil Standards	DDOE Residential Surface Soil Tier 1 RBSLs	DDOE Residential Subsurface Soil Tier 1 RBSLs	DDOE Commercial Surface Soil Tier 1 RBSLs	DDOE Commercial Subsurface Soil Tier 1 RBSLs		Lab Sample ID	8050317-07	8050317-08	8050317-09	8050317-11	8050317-10	8050317-12	8050317-17	8050317-13	
(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	Sample Collection Date	04/30/18	04/30/18	04/30/18	04/30/18	04/30/18	04/30/18	04/30/18	04/30/18		
-	-	1.00E+02	2.30E+05	2.12E+03	2.02E+06	1.46E+04	Sample Collection Depth (feet BG)	7	15.5	21	0	7.5	12	12	19		
-	-	1.00E+02	2.02E+05	na	1.78E+06	na	Sample Type	Subsurface Soil	Subsurface Soil	Subsurface Soil	Surface Soil	Subsurface Soil	Subsurface Soil	Subsurface Soil	Subsurface Soil		
3.6E+03	4.5E+04	-	-	-	-	-	Rationale for Soil Sample Collection Depth	Top	High PID	Bottom	SS	Top	High PID	High PID Duplicate	Bottom		
na	na	-	-	-	-	-	Soil Sample PID Reading (ppm)	0	92.6	0.1	0	0	34.6	34.6	0.8		
1.8E+04	2.3E+05	-	-	-	-	-	Dilution Factor (TPH)	1	1	1	5	1	100	100	1		
1.1E+00	2.1E+01	-	-	-	-	-	Dilution Factor (PAHs and PCBs)	NA	NA	NA	1	NA	NA	NA	NA		
1.1E+00	2.1E+01	-	-	-	-	-	Dilution Factor (Metals)	NA	2	NA	NA	NA	2	NA	NA		
1.1E+01	2.1E+02	-	-	-	-	-	Analyte Name	Concentration (mg/kg)								-	-
na	na	-	-	-	-	-	Diesel-Range Organics	9.9 U	9.4 U	9.9 U	<b>399</b>	9.4 U	<b>4,550</b> *	<b>4,830</b> *	9.6 U		
1.1E-01	2.1E+00	-	-	-	-	-	Oil-Range Organics C28-C36	10 U	9 U	10 U	<b>407</b>	9 U	<b>2,330</b>	<b>2,510</b>	10 U		
1.1E+02	2.1E+03	-	-	-	-	-	Acenaphthene	NA	NA	NA	0.294 U	NA	NA	NA	NA		
1.1E-01	2.1E+00	-	-	-	-	-	Acenaphthylene	NA	NA	NA	0.294 U	NA	NA	NA	NA		
2.4E+03	3.0E+04	-	-	-	-	-	Anthracene	NA	NA	NA	0.294 U	NA	NA	NA	NA		
2.4E+03	3.0E+04	-	-	-	-	-	Benzo[a]anthracene	NA	NA	NA	0.294 U	NA	NA	NA	NA		
1.1E+00	2.1E+01	-	-	-	-	-	Benzo[b]fluoranthene	NA	NA	NA	0.294 U	NA	NA	NA	NA		
1.1E+01	2.1E+02	-	-	-	-	-	Benzo[k]fluoranthene	NA	NA	NA	0.294 U	NA	NA	NA	NA		
na	na	-	-	-	-	-	Benzo[ghi]perylene	NA	NA	NA	0.294 U	NA	NA	NA	NA		
1.1E-01	2.1E+00	-	-	-	-	-	Benzo[a]pyrene	NA	NA	NA	0.294 U	NA	NA	NA	NA		
1.1E+02	2.1E+03	-	-	-	-	-	Chrysene	NA	NA	NA	0.294 U	NA	NA	NA	NA		
1.1E-01	2.1E+00	-	-	-	-	-	Dibenzo[a,h]anthracene	NA	NA	NA	0.294 U	NA	NA	NA	NA		
2.4E+03	3.0E+04	-	-	-	-	-	Fluoranthene	NA	NA	NA	0.294 U	NA	NA	NA	NA		
2.4E+03	3.0E+04	-	-	-	-	-	Fluorene	NA	NA	NA	0.294 U	NA	NA	NA	NA		
1.1E+00	2.1E+01	-	-	-	-	-	Indeno[1,2,3-cd]pyrene	NA	NA	NA	0.294 U	NA	NA	NA	NA		
2.4E+02	3.0E+03	-	-	-	-	-	2-Methylnaphthalene	NA	NA	NA	0.294 U	NA	NA	NA	NA		
3.8E+00	1.7E+01	-	-	-	-	-	Naphthalene	NA	NA	NA	0.294 U	NA	NA	NA	NA		
na	na	-	-	-	-	-	Phenanthrene	NA	NA	NA	0.294 U	NA	NA	NA	NA		
1.8E+03	2.3E+04	-	-	-	-	-	Pyrene	NA	NA	NA	0.294 U	NA	NA	NA	NA		
4.1E+00	2.7E+01	-	-	-	-	-	Aroclor-1016	NA	NA	NA	0.0976 U	NA	NA	NA	NA		
2.0E-01	8.3E-01	-	-	-	-	-	Aroclor-1221	NA	NA	NA	0.200 U	NA	NA	NA	NA		
1.7E-01	7.2E-01	-	-	-	-	-	Aroclor-1232	NA	NA	NA	0.0976 U	NA	NA	NA	NA		
2.3E-01	9.5E-01	-	-	-	-	-	Aroclor-1242	NA	NA	NA	0.0976 U	NA	NA	NA	NA		
2.3E-01	9.5E-01	-	-	-	-	-	Aroclor-1248	NA	NA	NA	0.0976 U	NA	NA	NA	NA		
2.4E-01	9.7E-01	-	-	-	-	-	Aroclor-1254	NA	NA	NA	0.0976 U	NA	NA	NA	NA		
2.4E-01	9.9E-01	-	-	-	-	-	Aroclor-1260	NA	NA	NA	0.0976 U	NA	NA	NA	NA		
na	na	-	-	-	-	-	Aroclor-1262	NA	NA	NA	0.0976 U	NA	NA	NA	NA		
na	na	-	-	-	-	-	Aroclor-1268	NA	NA	NA	0.0976 U	NA	NA	NA	NA		
6.8E-01	3.0E+00	-	-	-	-	-	Arsenic	NA	<b>0.857</b>	NA	NA	NA	<b>1.96</b>	NA	NA		
1.5E+04	2.2E+05	-	-	-	-	-	Barium	NA	<b>9.85</b>	NA	NA	NA	<b>57.4</b>	NA	NA		
7.1E+01	9.8E+02	-	-	-	-	-	Cadmium	NA	0.412 U	NA	NA	NA	0.423 U	NA	NA		
1.2E+05	1.8E+06	-	-	-	-	-	Chromium	NA	<b>6.33</b>	NA	NA	NA	<b>17.7</b>	NA	NA		
4.0E+02	8.0E+02	-	-	-	-	-	Lead	NA	<b>2.53</b>	NA	NA	NA	<b>7.91</b>	NA	NA		
1.1E+01	4.6E+01	-	-	-	-	-	Mercury	NA	0.0823 U	NA	NA	NA	0.0845 U	NA	NA		
3.9E+02	5.8E+03	-	-	-	-	-	Selenium	NA	<b>0.651</b>	NA	NA	NA	<b>2.02</b>	NA	NA		
3.9E+02	5.8E+03	-	-	-	-	-	Silver	NA	0.412 U	NA	NA	NA	0.423 U	NA	NA		

**Table Notes:**  
 TPH Analytical Method: EPA Method 8015M  
 PAH Analytical Method: EPA Method 8270D  
 PCB Analytical Method: EPA Method 8082  
 Metals Analytical Method: EPA Method 6020A  
 [Sample ID] - Sample Identification as shown on COC and in Lab Report for duplicate samples.  
 mg/kg - milligrams per kilogram or parts per million (ppm)  
 BG - Below Grade  
 CR - Cancer Risk  
 HI - Hazard Index  
 U - Analyte not detected above specified Method Reporting Limit (MRL) (shown as a gray tone).  
 J - Detected above the Method Detection Limit (MDL) but below the MRL; result is an estimated concentration.  
 na - not applicable  
 NA - not analyzed  
**Bold** - Detected analyte concentration

**Screening Levels:**  
 EPA Residential Soil Regional Screening Levels (RSLs) (at CR = 1x10<sup>-6</sup> or HI = 1.0) (May 2018)  
 EPA Industrial Soil RSLs (at CR = 1x10<sup>-6</sup> or HI = 1.0) (May 2018)  
 DOEE Tier 0 Soil Standard (June 2011)  
 DDOE Residential Surface Soil Tier 1 Risk-Based Screening Levels (RBSLs) - Resident Child - Ingestion, Inhalation, and Dermal Contact Exposure Pathways (June 2011)  
 DDOE Residential Subsurface Soil Tier 1 RBSLs - Resident Child - Indoor Inhalation Exposure Pathway (June 2011)  
 DDOE Commercial Surface Soil Tier 1 RBSLs - Commercial Worker - Ingestion, Inhalation, and Dermal Contact Exposure Pathways (June 2011)  
 DDOE Commercial Subsurface Soil Tier 1 RBSLs - Commercial Worker - Indoor Inhalation Exposure Pathway (June 2011)

**Screening Evaluation Notes for TPH:**  
**Red, bold, and underline** - Detected analyte concentration exceeds the DOEE Tier 0 Soil Standard.  
**Underline** - MRL exceeds the DOEE Tier 0 Soil Standard. (None on this table.)  
 \* - Detected analyte concentration also exceeds the DDOE Residential Surface Soil or Subsurface Soil Tier 1 RBSL.  
 \*\* - Detected analyte concentration also exceeds the DDOE Commercial Surface Soil or Subsurface Soil Tier 1 RBSL. (None on this table.)

**Screening Evaluation Notes for PAHs, PCBs, and Metals:**  
**Red, bold, and underline** - Detected analyte concentration exceeds the respective Residential Screening Level.  
**Underline** - MRL exceeds the respective Residential Screening Level.  
 \* - Detected analyte concentration also exceeds the respective Industrial/Commercial Screening Level.

**Additional Screening Level Notes:**

Analyte	EPA RSL	DDOE RBSL
Chromium	Trivalent Chromium	na for this table
Mercury	Mercury (elemental)	

**Table K-3**  
**Additional Phase II Environmental Site Assessment (ESA) at Buildings 46 and 76**  
**Armed Forces Retirement Home (AFRH) - Main Campus**  
**3700 N. Capital Street, NW, Washington, DC 20011**

**Building 76 - Soil Sample Laboratory Analytical Data**  
**TPH-DRO, TPH-ORO, PAHs, PCBs, and Metals**

PAH, PCB, and Metals Screening Levels		TPH Screening Levels					Analytical Suite	Sample ID	SB-76-07 (1')	SB-76-07 (12')	SB-76-07 (23')	SB-76-08 (8')	SB-76-08 (17.5')	SB-76-08 (25')
EPA Residential Soil RSLs	EPA Industrial Soil RSLs	DOEE Tier 0 Soil Standards	DDOE Residential Surface Soil Tier 1 RBSLs	DDOE Residential Subsurface Soil Tier 1 RBSLs	DDOE Commercial Surface Soil Tier 1 RBSLs	DDOE Commercial Subsurface Soil Tier 1 RBSLs		Lab Sample ID	8050317-14	8050317-15	8050317-16	8050317-01	8050317-02	8050317-03
(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	Sample Collection Date	04/30/18	04/30/18	04/30/18	04/30/18	04/30/18	04/30/18	
-	-	1.00E+02	2.30E+05	2.12E+03	2.02E+06	1.46E+04	Sample Collection Depth (feet BG)	1	12	23	8	17.5	25	
-	-	1.00E+02	2.02E+05	na	1.78E+06	na	Sample Type	Surface Soil	Subsurface Soil	Subsurface Soil	Subsurface Soil	Subsurface Soil	Subsurface Soil	
3.6E+03	4.5E+04	-	-	-	-	-	Rationale for Soil Sample Collection Depth	High PID	Middle	Bottom	Top	High PID	Bottom of boring	
na	na	-	-	-	-	-	Soil Sample PID Reading (ppm)	28.8	3	0	0	31.4	6.3	
1.8E+04	2.3E+05	-	-	-	-	-	Dilution Factor (TPH)	1	100	1	1	1	1	
1.1E+00	2.1E+01	-	-	-	-	-	Dilution Factor (PAHs and PCBs)	NA	NA	NA	NA	NA	NA	
1.1E+00	2.1E+01	-	-	-	-	-	Dilution Factor (Metals)	2	NA	NA	NA	2	NA	
1.1E+01	2.1E+02	-	-	-	-	-	Analyte Name	Concentration (mg/kg)						
na	na	-	-	-	-	-	Diesel-Range Organics	9.8 U	<b>3.750</b> *	11.0 U	9.2 U	9.5 U	9.8 U	
1.1E-01	2.1E+00	-	-	-	-	-	Oil-Range Organics C28-C36	10 U	<b>2.050</b>	11 U	9 U	10 U	10 U	
1.1E+02	2.1E+03	-	-	-	-	-	Acenaphthene	NA	NA	NA	NA	NA	NA	
1.1E-01	2.1E+00	-	-	-	-	-	Acenaphthylene	NA	NA	NA	NA	NA	NA	
2.4E+03	3.0E+04	-	-	-	-	-	Anthracene	NA	NA	NA	NA	NA	NA	
2.4E+03	3.0E+04	-	-	-	-	-	Benzo[a]anthracene	NA	NA	NA	NA	NA	NA	
1.1E+00	2.1E+01	-	-	-	-	-	Benzo[b]fluoranthene	NA	NA	NA	NA	NA	NA	
2.4E+02	3.0E+03	-	-	-	-	-	Benzo[k]fluoranthene	NA	NA	NA	NA	NA	NA	
3.8E+00	1.7E+01	-	-	-	-	-	Benzo[ghi]perylene	NA	NA	NA	NA	NA	NA	
na	na	-	-	-	-	-	Benzo[a]pyrene	NA	NA	NA	NA	NA	NA	
1.8E+03	2.3E+04	-	-	-	-	-	Chrysene	NA	NA	NA	NA	NA	NA	
4.1E+00	2.7E+01	-	-	-	-	-	Dibenz[a,h]anthracene	NA	NA	NA	NA	NA	NA	
2.0E-01	8.3E-01	-	-	-	-	-	Fluoranthene	NA	NA	NA	NA	NA	NA	
1.7E-01	7.2E-01	-	-	-	-	-	Fluorene	NA	NA	NA	NA	NA	NA	
2.3E-01	9.5E-01	-	-	-	-	-	Indeno[1,2,3-cd]pyrene	NA	NA	NA	NA	NA	NA	
2.3E-01	9.5E-01	-	-	-	-	-	2-Methylnaphthalene	NA	NA	NA	NA	NA	NA	
2.4E-01	9.7E-01	-	-	-	-	-	Naphthalene	NA	NA	NA	NA	NA	NA	
2.4E-01	9.9E-01	-	-	-	-	-	Phenanthrene	NA	NA	NA	NA	NA	NA	
na	na	-	-	-	-	-	Pyrene	NA	NA	NA	NA	NA	NA	
na	na	-	-	-	-	-	Aroclor-1016	NA	NA	NA	NA	NA	NA	
6.8E-01	3.0E+00	-	-	-	-	-	Aroclor-1221	NA	NA	NA	NA	NA	NA	
1.5E+04	2.2E+05	-	-	-	-	-	Aroclor-1232	NA	NA	NA	NA	NA	NA	
7.1E+01	9.8E+02	-	-	-	-	-	Aroclor-1242	NA	NA	NA	NA	NA	NA	
1.2E+05	1.8E+06	-	-	-	-	-	Aroclor-1248	NA	NA	NA	NA	NA	NA	
4.0E+02	8.0E+02	-	-	-	-	-	Aroclor-1254	NA	NA	NA	NA	NA	NA	
1.1E+01	4.6E+01	-	-	-	-	-	Aroclor-1260	NA	NA	NA	NA	NA	NA	
3.9E+02	5.8E+03	-	-	-	-	-	Aroclor-1262	NA	NA	NA	NA	NA	NA	
3.9E+02	5.8E+03	-	-	-	-	-	Aroclor-1268	NA	NA	NA	NA	NA	NA	
							Arsenic	<b>3.12</b> *	NA	NA	NA	<b>0.816</b>	NA	
							Barium	<b>22.3</b>	NA	NA	NA	<b>15.5</b>	NA	
							Cadmium	0.511 U	NA	NA	NA	0.460 U	NA	
							Chromium	<b>15.2</b>	NA	NA	NA	<b>8.04</b>	NA	
							Lead	<b>5.82</b>	NA	NA	NA	<b>2.17</b>	NA	
							Mercury	0.102 U	NA	NA	NA	0.0920 U	NA	
							Selenium	<b>1.14</b>	NA	NA	NA	<b>1.65</b>	NA	
							Silver	0.511 U	NA	NA	NA	0.460 U	NA	

**Table Notes:**  
TPH Analytical Method: EPA Method 8015M  
PAH Analytical Method: EPA Method 8270D  
PCB Analytical Method: EPA Method 8082  
Metals Analytical Method: EPA Method 6020A  
[Sample ID] - Sample Identification as shown on COC and in Lab Report for duplicate samples.  
mg/kg - milligrams per kilogram or parts per million (ppm)  
BG - Below Grade  
CR - Cancer Risk  
HI - Hazard Index  
U - Analyte not detected above specified Method Reporting Limit (MRL) (shown as a gray tone).  
J - Detected above the Method Detection Limit (MDL) but below the MRL; result is an estimated concentration.  
na - not applicable  
NA - not analyzed  
**Bold** - Detected analyte concentration

**Screening Levels:**  
EPA Residential Soil Regional Screening Levels (RSLs) (at CR = 1x10<sup>-6</sup> or HI = 1.0) (May 2018)  
EPA Industrial Soil RSLs (at CR = 1x10<sup>-6</sup> or HI = 1.0) (May 2018)  
DOEE Tier 0 Soil Standard (June 2011)  
DDOE Residential Surface Soil Tier 1 Risk-Based Screening Levels (RBSLs) - Resident Child - Ingestion, Inhalation, and Dermal Contact Exposure Pathways (June 2011)  
DDOE Residential Subsurface Soil Tier 1 RBSLs - Resident Child - Indoor Inhalation Exposure Pathway (June 2011)  
DDOE Commercial Surface Soil Tier 1 RBSLs - Commercial Worker - Ingestion, Inhalation, and Dermal Contact Exposure Pathways (June 2011)  
DDOE Commercial Subsurface Soil Tier 1 RBSLs - Commercial Worker - Indoor Inhalation Exposure Pathway (June 2011)

**Screening Evaluation Notes for TPH:**  
**Red, bold, and underline** - Detected analyte concentration exceeds the DOEE Tier 0 Soil Standard.  
**Underline** - MRL exceeds the DOEE Tier 0 Soil Standard. (None on this table.)  
\* - Detected analyte concentration also exceeds the DOOE Residential Surface Soil or Subsurface Soil Tier 1 RBSL.  
\*\* - Detected analyte concentration also exceeds the DOOE Commercial Surface Soil or Subsurface Soil Tier 1 RBSL. (None on this table.)

**Screening Evaluation Notes for PAHs, PCBs, and Metals:**  
**Red, bold, and underline** - Detected analyte concentration exceeds the respective Residential Screening Level.  
**Underline** - MRL exceeds the respective Residential Screening Level.  
\* - Detected analyte concentration also exceeds the respective Industrial/Commercial Screening Level.

**Additional Screening Level Notes:**

Analyte	EPA RSL	DDOE RBSL
Chromium	Trivalent Chromium	na for this table
Mercury	Mercury (elemental)	



**Table K-3**  
**Additional Phase II Environmental Site Assessment (ESA) at Buildings 46 and 76**  
**Armed Forces Retirement Home (AFRH) - Main Campus**  
**3700 N. Capital Street, NW, Washington, DC 20011**

**Building 76 - Soil Sample Laboratory Analytical Data**  
**TPH-DRO, TPH-ORO, PAHs, PCBs, and Metals**

PAH, PCB, and Metals Screening Levels		TPH Screening Levels					Analytical Suite	Sample ID	SB-76-09 (SS)	SB-76-09 (0.5')	SB-76-09 (0.5') [SB-76-D3]	SB-76-09 (5')	SB-76-09 (12')	SB-76-10 (8.5')	SB-76-10 (10')	SB-76-10 (19.5')	
EPA Residential Soil RSLs	EPA Industrial Soil RSLs	DOEE Tier 0 Standards	DDOE Residential Surface Soil Tier 1 RBSLs	DDOE Residential Subsurface Soil Tier 1 RBSLs	DDOE Commercial Surface Soil Tier 1 RBSLs	DDOE Commercial Subsurface Soil Tier 1 RBSLs		Lab Sample ID	8050316-01	8050316-02	8050316-08	8050316-03	8050316-04	8050316-05	8050316-06	8050316-07	
(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	Sample Collection Date	05/01/18	05/01/18	05/01/18	05/01/18	05/01/18	05/01/18	05/01/18	05/01/18		
-	-	1.00E+02	2.30E+05	2.12E+03	2.02E+06	1.46E+04	Sample Collection Depth (feet BG)	0	0.5	0.5	5	12	8.5	10	19.5		
-	-	1.00E+02	2.02E+05	na	1.78E+06	na	Sample Type	Surface Soil	Surface Soil	Surface Soil	Subsurface Soil	Subsurface Soil	Subsurface Soil	Subsurface Soil	Subsurface Soil		
3.6E+03	4.5E+04	-	-	-	-	-	Rationale for Soil Sample Collection Depth	SS/High PID	2nd High PID	2nd High PID Duplicate	Middle	Bottom	Top	High PID	Bottom		
na	na	-	-	-	-	-	Soil Sample PID Reading (ppm)	4159	211	211	10.2	0	0	11.3	0.5		
1.8E+04	2.3E+05	-	-	-	-	-	Dilution Factor (TPH)	1	1	1	1	1	5	100	1		
1.1E+00	2.1E+01	-	-	-	-	-	Dilution Factor (PAHs and PCBs)	1	NA	NA	NA	NA	NA	NA	NA		
1.1E+00	2.1E+01	-	-	-	-	-	Dilution Factor (Metals)	NA	2	NA	NA	NA	NA	2	NA		
1.1E+01	2.1E+02	-	-	-	-	-	Analyte Name	Concentration (mg/kg)								-	-
na	na	-	-	-	-	-	Diesel-Range Organics	9.1 U	13.0	9.0 U	9.4 U	9.9 U	524	5,140 *	9.6 U		
1.1E-01	2.1E+00	-	-	-	-	-	Oil-Range Organics C28-C36	9 U	9 U	9 U	9 U	10 U	239	1,890	10 U		
1.1E+02	2.1E+03	-	-	-	-	-	Acenaphthene	0.284 U	NA	NA	NA	NA	NA	NA	NA		
1.1E-01	2.1E+00	-	-	-	-	-	Acenaphthylene	0.284 U	NA	NA	NA	NA	NA	NA	NA		
2.4E+03	3.0E+04	-	-	-	-	-	Anthracene	0.284 U	NA	NA	NA	NA	NA	NA	NA		
2.4E+03	3.0E+04	-	-	-	-	-	Benzo[a]anthracene	0.284 U	NA	NA	NA	NA	NA	NA	NA		
1.1E+00	2.1E+01	-	-	-	-	-	Benzo[b]fluoranthene	0.284 U	NA	NA	NA	NA	NA	NA	NA		
2.4E+03	3.0E+04	-	-	-	-	-	Benzo[k]fluoranthene	0.284 U	NA	NA	NA	NA	NA	NA	NA		
1.1E+00	2.1E+01	-	-	-	-	-	Benzo[ghi]perylene	0.284 U	NA	NA	NA	NA	NA	NA	NA		
2.4E+02	3.0E+03	-	-	-	-	-	Benzo[a]pyrene	0.284 U	NA	NA	NA	NA	NA	NA	NA		
3.8E+00	1.7E+01	-	-	-	-	-	Chrysene	0.284 U	NA	NA	NA	NA	NA	NA	NA		
na	na	-	-	-	-	-	Dibenzo[a,h]anthracene	0.284 U	NA	NA	NA	NA	NA	NA	NA		
1.8E+03	2.3E+04	-	-	-	-	-	Fluoranthene	0.284 U	NA	NA	NA	NA	NA	NA	NA		
4.1E+00	2.7E+01	-	-	-	-	-	Fluorene	0.284 U	NA	NA	NA	NA	NA	NA	NA		
2.0E-01	8.3E-01	-	-	-	-	-	Indeno[1,2,3-cd]pyrene	0.284 U	NA	NA	NA	NA	NA	NA	NA		
1.7E-01	7.2E-01	-	-	-	-	-	2-Methylnaphthalene	0.284 U	NA	NA	NA	NA	NA	NA	NA		
2.3E-01	9.5E-01	-	-	-	-	-	Naphthalene	0.284 U	NA	NA	NA	NA	NA	NA	NA		
2.3E-01	9.5E-01	-	-	-	-	-	Phenanthrene	0.284 U	NA	NA	NA	NA	NA	NA	NA		
2.4E-01	9.7E-01	-	-	-	-	-	Pyrene	0.284 U	NA	NA	NA	NA	NA	NA	NA		
2.4E-01	9.9E-01	-	-	-	-	-	Aroclor-1016	0.0943 U	NA	NA	NA	NA	NA	NA	NA		
na	na	-	-	-	-	-	Aroclor-1221	0.193 U	NA	NA	NA	NA	NA	NA	NA		
6.8E-01	3.0E+00	-	-	-	-	-	Aroclor-1232	0.0943 U	NA	NA	NA	NA	NA	NA	NA		
1.5E+04	2.2E+05	-	-	-	-	-	Aroclor-1242	0.0943 U	NA	NA	NA	NA	NA	NA	NA		
7.1E+01	9.8E+02	-	-	-	-	-	Aroclor-1248	0.0943 U	NA	NA	NA	NA	NA	NA	NA		
1.2E+05	1.8E+06	-	-	-	-	-	Aroclor-1254	0.0943 U	NA	NA	NA	NA	NA	NA	NA		
4.0E+02	8.0E+02	-	-	-	-	-	Aroclor-1260	0.0943 U	NA	NA	NA	NA	NA	NA	NA		
1.1E+01	4.6E+01	-	-	-	-	-	Aroclor-1262	0.0943 U	NA	NA	NA	NA	NA	NA	NA		
3.9E+02	5.8E+03	-	-	-	-	-	Aroclor-1268	0.0943 U	NA	NA	NA	NA	NA	NA	NA		
3.9E+02	5.8E+03	-	-	-	-	-	Arsenic	NA	5.15 *	NA	NA	NA	NA	4.24 *	NA		
							Barium	NA	36.9	NA	NA	NA	NA	168	NA		
							Cadmium	NA	0.380 U	NA	NA	NA	NA	0.461 U	NA		
							Chromium	NA	19.2	NA	NA	NA	NA	35.9	NA		
							Lead	NA	8.40	NA	NA	NA	NA	11.9	NA		
							Mercury	NA	0.0761 U	NA	NA	NA	NA	0.0921 U	NA		
							Selenium	NA	2.32	NA	NA	NA	NA	4.07	NA		
							Silver	NA	0.380 U	NA	NA	NA	NA	0.461 U	NA		

**Table Notes:**  
 TPH Analytical Method: EPA Method 8015M  
 PAH Analytical Method: EPA Method 8270D  
 PCB Analytical Method: EPA Method 8082  
 Metals Analytical Method: EPA Method 6020A  
 [Sample ID] - Sample Identification as shown on COC and in Lab Report for duplicate samples.  
 mg/kg - milligrams per kilogram or parts per million (ppm)  
 BG - Below Grade  
 CR - Cancer Risk  
 HI - Hazard Index  
 U - Analyte not detected above specified Method Reporting Limit (MRL) (shown as a gray tone).  
 J - Detected above the Method Detection Limit (MDL) but below the MRL; result is an estimated concentration.  
 na - not applicable  
 NA - not analyzed  
**Bold** - Detected analyte concentration

**Screening Levels:**  
 EPA Residential Soil Regional Screening Levels (RSLs) (at CR = 1x10<sup>-6</sup> or HI = 1.0) (May 2018)  
 EPA Industrial Soil RSLs (at CR = 1x10<sup>-6</sup> or HI = 1.0) (May 2018)  
 DOEE Tier 0 Soil Standard (June 2011)  
 DDOE Residential Surface Soil Tier 1 Risk-Based Screening Levels (RBSLs) - Resident Child - Ingestion, Inhalation, and Dermal Contact Exposure Pathways (June 2011)  
 DDOE Residential Subsurface Soil Tier 1 RBSLs - Resident Child - Indoor Inhalation Exposure Pathway (June 2011)  
 DDOE Commercial Surface Soil Tier 1 RBSLs - Commercial Worker - Ingestion, Inhalation, and Dermal Contact Exposure Pathways (June 2011)  
 DDOE Commercial Subsurface Soil Tier 1 RBSLs - Commercial Worker - Indoor Inhalation Exposure Pathway (June 2011)

**Screening Evaluation Notes for TPH:**  
**Red, bold, and underline** - Detected analyte concentration exceeds the DOEE Tier 0 Soil Standard.  
**Underline** - MRL exceeds the DOEE Tier 0 Soil Standard. (None on this table).  
 \* - Detected analyte concentration also exceeds the DDOE Residential Surface Soil or Subsurface Soil Tier 1 RBSL.  
 \*\* - Detected analyte concentration also exceeds the DDOE Commercial Surface Soil or Subsurface Soil Tier 1 RBSL. (None on this table.)

**Screening Evaluation Notes for PAHs, PCBs, and Metals:**  
**Red, bold, and underline** - Detected analyte concentration exceeds the respective Residential Screening Level.  
**Underline** - MRL exceeds the respective Residential Screening Level.  
 \* - Detected analyte concentration also exceeds the respective Industrial/Commercial Screening Level.

**Additional Screening Level Notes:**

Analyte	EPA RSL	DDOE RBSL
Chromium	Trivalent Chromium	na for this table
Mercury	Mercury (elemental)	

**Table K-4**  
**Additional Phase II Environmental Site Assessment (ESA) at Buildings 46 and 76**  
**Armed Forces Retirement Home (AFRH) - Main Campus**  
**3700 N. Capital Street, NW, Washington, DC 20011**

**Building 46 – Subsurface Vapor Sample Laboratory Analytical Data**  
**VOCs**

Screening Levels		Sample ID	VMP-01	VMP-02	VMP-03	VMP-04	VMP-05	VMP-06
EPA Residential Soil Vapor VISLs	EPA Commercial Soil Vapor VISLs	Lab Sample ID	8052901-01	8052901-02	8061501-01	8052901-03	8052901-04	8052901-05
		Sample Collection Date	05/24/18	05/24/18	06/13/18	05/24/18	05/24/18	05/24/18
		Sample Collection Depth (feet BG)	0.4	2.5-3	2.5-3	0.5	0.5	0.4
		Sample Type	Sub-Slab Vapor	Soil Vapor	Soil Vapor	Sub-Slab Vapor	Sub-Slab Vapor	Sub-Slab Vapor
		Dilution Factor	10	4	2	4	4	20
(ug/m³)	(ug/m³)	Analyte Name	Concentration (ug/m³)					
1.1E+06	4.5E+06	Acetone	24.0 U	11.2	24.9	9.60 U	9.60 U	48.0 U
1.2E+01	5.2E+01	Benzene	6.40 U	2.56 U	1.02 J	2.56 U	2.56 U	12.8 U
1.9E+00	8.3E+00	Benzyl chloride	10.0 U	4.00 U	2.00 U	4.00 U	4.00 U	20.0 U
2.5E+00	1.1E+01	Bromodichloromethane	13.0 U	4.82 J	2.60 U	5.20 U	5.20 U	26.0 U
8.5E+01	3.7E+02	Bromoform	21.0 U	8.40 U	4.20 U	8.40 U	8.40 U	42.0 U
1.7E+02	7.3E+02	Bromomethane	7.80 U	3.12 U	1.56 U	3.12 U	3.12 U	15.6 U
3.1E+00	1.4E+01	1,3-Butadiene	4.40 U	1.76 U	0.88 U	1.76 U	1.76 U	8.80 U
2.4E+04	1.0E+05	Carbon disulfide	6.20 U	3.49	2.43	2.48 U	2.48 U	12.4 U
1.6E+01	6.8E+01	Carbon tetrachloride	13.0 U	5.20 U	2.60 U	5.20 U	5.20 U	26.0 U
1.7E+03	7.3E+03	Chlorobenzene	9.20 U	3.68 U	1.84 U	3.68 U	3.68 U	18.4 U
na	na	Chloroethane	5.30 U	2.12 U	1.06 U	2.12 U	2.12 U	10.6 U
4.1E+00	1.8E+01	Chloroform	14.2	79.7 *	1.17 J	3.88 U	3.88 U	19.4 U
3.1E+03	1.3E+04	Chloromethane	4.10 U	1.64 U	0.82 U	1.64 U	1.64 U	8.20 U
1.6E+01	6.8E+01	3-Chloropropene	6.30 U	2.52 U	1.26 U	2.52 U	2.52 U	12.6 U
2.1E+05	8.8E+05	Cyclohexane	6.90 U	2.76 U	1.38 U	2.76 U	2.76 U	13.8 U
na	na	Dibromochloromethane	13.0 U	5.20 U	2.60 U	5.20 U	5.20 U	26.0 U
1.6E-01	6.8E-01	1,2-Dibromoethane (EDB)	14.0 U	5.60 U	2.80 U	5.60 U	5.60 U	28.0 U
7.0E+03	2.9E+04	1,2-Dichlorobenzene	12.0 U	4.80 U	2.40 U	4.80 U	4.80 U	24.0 U
na	na	1,3-Dichlorobenzene	12.0 U	4.80 U	2.40 U	4.80 U	4.80 U	24.0 U
8.5E+00	3.7E+01	1,4-Dichlorobenzene	12.0 U	4.80 U	2.40 U	4.80 U	4.80 U	24.0 U
3.5E+03	1.5E+04	Dichlorodifluoromethane	9.90 U	3.96 U	2.77	3.96 U	3.96 U	19.8 U
5.9E+01	2.6E+02	1,1-Dichloroethane	8.10 U	3.24 U	1.62 U	3.24 U	3.24 U	16.2 U
3.6E+00	1.6E+01	1,2-Dichloroethane	8.10 U	3.24 U	1.62 U	3.24 U	3.24 U	16.2 U
7.0E+03	2.9E+04	1,1-Dichloroethene	7.90 U	3.16 U	1.58 U	3.16 U	3.16 U	15.8 U
na	na	cis-1,2-Dichloroethene	7.90 U	3.16 U	1.58 U	3.16 U	3.16 U	15.8 U
na	na	trans-1,2-Dichloroethene	7.90 U	3.16 U	1.58 U	3.16 U	3.16 U	15.8 U
2.5E+01	1.1E+02	1,2-Dichloropropane	9.20 U	3.68 U	1.84 U	3.68 U	3.68 U	18.4 U
na	na	cis-1,3-Dichloropropene	9.10 U	3.64 U	1.82 U	3.64 U	3.64 U	18.2 U
na	na	trans-1,3-Dichloropropene	9.10 U	3.64 U	1.82 U	3.64 U	3.64 U	18.2 U
1.9E+01	8.2E+01	1,4-Dioxane	7.20 U	2.88 U	1.44 U	2.88 U	2.88 U	14.4 U
2.4E+03	1.0E+04	Ethyl acetate	36.0 U	14.4 U	7.20 U	14.4 U	14.4 U	72.0 U
3.7E+01	1.6E+02	Ethylbenzene	8.70 U	3.48 U	1.74 U	3.48 U	3.48 U	17.4 U
na	na	4-Ethyltoluene	9.80 U	3.92 U	1.96 U	3.92 U	3.92 U	19.6 U
1.7E+05	7.3E+05	Freon 113	15.0 U	6.00 U	3.00 U	6.00 U	6.00 U	30.0 U
na	na	Freon 114	14.0 U	5.60 U	2.80 U	5.60 U	5.60 U	28.0 U
1.4E+04	5.8E+04	n-Heptane	8.20 U	3.28 U	0.49 J	3.28 U	3.28 U	16.4 U
4.3E+00	1.9E+01	Hexachlorobutadiene	21.0 U	8.40 U	4.20 U	8.40 U	8.40 U	42.0 U
2.4E+04	1.0E+05	Hexane	140 U	56.0 U	28.0 U	56.0 U	56.0 U	280 U
1.0E+03	4.4E+03	2-Hexanone	8.20 U	3.28 U	0.41 J	3.28 U	3.28 U	16.4 U
1.4E+04	5.8E+04	Isopropylbenzene (Cumene)	11.0 U	4.40 U	2.20 U	4.40 U	4.40 U	22.0 U
3.6E+02	1.6E+03	Methyl tert-butyl ether (MTBE)	7.20 U	2.88 U	1.44 U	2.88 U	2.88 U	14.4 U
3.4E+03	4.1E+04	Methylene chloride	180 U	72.0 U	36.0 U	72.0 U	72.0 U	360 U
1.7E+05	7.3E+05	Methyl ethyl ketone (2-Butanone)	5.90 U	2.36 U	1.89	2.36 U	2.36 U	11.8 U
1.0E+05	4.4E+05	Methyl isobutyl ketone	8.20 U	3.28 U	1.64 U	3.28 U	3.28 U	16.4 U
2.8E+00	1.2E+01	Naphthalene	11.0 U	4.40 U	2.20 U	4.40 U	4.40 U	22.0 U
1.0E+05	4.4E+05	Propene	3.40 U	1.36 U	0.68 U	1.36 U	1.36 U	6.80 U
3.5E+04	1.5E+05	n-Propylbenzene	9.80 U	3.92 U	1.96 U	3.92 U	3.92 U	19.6 U
3.5E+04	1.5E+05	Styrene	8.50 U	3.40 U	1.70 U	3.40 U	3.40 U	17.0 U
1.6E+00	7.1E+00	1,1,2,2-Tetrachloroethane	14.0 U	5.60 U	2.80 U	5.60 U	5.60 U	28.0 U
3.6E+02	1.6E+03	Tetrachloroethene	691	268	319	9.22	14.1	3.350 *
7.0E+04	2.9E+05	Tetrahydrofuran	5.90 U	2.36 U	3.36	2.36 U	2.36 U	11.8 U
1.7E+05	7.3E+05	Toluene	7.50 U	3.00 U	0.60 J	3.00 U	3.00 U	15.0 U
7.0E+01	2.9E+02	1,2,4-Trichlorobenzene	15.0 U	6.00 U	3.00 U	6.00 U	6.00 U	30.0 U
1.7E+05	7.3E+05	1,1,1-Trichloroethane	11.0 U	4.40 U	2.20 U	4.40 U	4.40 U	22.0 U
5.9E+00	2.6E+01	1,1,2-Trichloroethane	11.0 U	4.40 U	2.20 U	4.40 U	4.40 U	22.0 U
1.6E+01	1.0E+02	Trichloroethene	4.30 J	3.44 J	0.97 J	4.40 U	4.40 U	22.0 U
na	na	Trichlorofluoromethane (Freon 11)	11.0 U	2.47 J	2.02 J	2.70 J	2.70 J	22.0 U
2.1E+03	8.8E+03	1,2,4-Trimethylbenzene	9.80 U	3.92 U	1.96 U	3.92 U	3.92 U	19.6 U
2.1E+03	8.8E+03	1,3,5-Trimethylbenzene	9.80 U	3.92 U	1.96 U	3.92 U	3.92 U	19.6 U
na	na	2,2,4-Trimethylpentane	9.30 U	3.72 U	1.86 U	3.72 U	3.72 U	18.6 U
7.0E+03	2.9E+04	Vinyl acetate	7.00 U	2.80 U	1.40 U	2.80 U	2.80 U	14.0 U
2.9E+00	1.3E+01	Vinyl bromide	8.70 U	3.48 U	1.74 U	3.48 U	3.48 U	17.4 U
5.6E+00	9.3E+01	Vinyl chloride	5.10 U	2.04 U	1.02 U	2.04 U	2.04 U	10.2 U
3.5E+03	1.5E+04	o-Xylene	8.70 U	3.48 U	1.74 U	3.48 U	3.48 U	17.4 U
3.5E+03	1.5E+04	m- & p-Xylenes	17.0 U	6.80 U	3.40 U	6.80 U	6.80 U	34.0 U

**Table Notes:**

VOC Analytical Method: EPA TO-15

ug/m³ - micrograms per cubic meter

BG - Below Grade

CR - Cancer Risk

HI - Hazard Index

U - Analyte not detected above specified Method Reporting Limit (MRL) (shown as a gray tone).

J - Detected above the Method Detection Limit (MDL) but below the MRL; result is an estimated concentration.

na - not applicable

**Bold** - Detected analyte concentration

**Screening Levels:**

EPA Residential Soil Vapor Intrusion Screening Levels (VISLs) (at CR = 1x10<sup>-6</sup> or HI = 1.0) (May 2018)

EPA Commercial Soil VISLs (at CR = 1x10<sup>-6</sup> or HI = 1.0) (May 2018)

**Screening Evaluation Notes:**

**Red, bold, and underline** - Detected analyte concentration exceeds the respective Residential Screening Level.

**Underline** - MRL exceeds the respective Residential Screening Level.

\* - Detected analyte concentration also exceeds the respective Industrial/Commercial Screening Level.

**Additional Screening Level Notes:**

**Analyte**                      **EPA VISL**

m- & p-Xylenes              Total Xylenes

Table K-5  
 Additional Phase II Environmental Site Assessment (ESA) at Buildings 46 and 76  
 Armed Forces Retirement Home (AFRH) - Main Campus  
 3700 N. Capital Street, NW, Washington, DC 20011

Building 46 – Groundwater Sample Laboratory Analytical Data  
 VOCs and TPH- C7-C12

VOCs Screening Levels	TPH Screening Level	Analytical Suite	Sample ID	W46-2	W46-2 [MW-D]	W46-3 (23-28')	W46-3	W71-1	W71-2	W72-1	AFRH-TB-1	MW-TB	MW-ERB
EPA Tapwater RSLs	DDOE Tier 1 RBSL		Lab Sample ID	8060711-04	8060711-06	8051713-01	8060711-08	8060711-03	8060711-07	8060711-02	8051713-02	8060711-01	8060711-05
(ug/L)	(ug/L)		Sample Collection Date	06/06/18	06/06/18	05/14/18	06/07/18	06/06/18	06/07/18	06/06/18	05/14/18	06/05/18	06/06/18
			Sample Collection Depth (feet BG)	112	112	23-28	107.7	109.3	106.5	98.3	NA	NA	NA
			Sample Type	Groundwater	Groundwater	Grab-Groundwater	Groundwater	Groundwater	Groundwater	Groundwater	Blank Water	Blank Water	Blank Water
			Dilution Factor (VOCs)	1	1	1	1	1	1	1	1	1	1
			Dilution Factor (TPH)	1	NA	1	NA	1	1	1	NA	NA	NA
			Concentration (ug/L)										
1.4E+04	-	VOCs	Acetone	10.0 U	10.0 U	10.0 U	67.9	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U
6.3E+00	-		tert-Amyl alcohol (TAA)	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U
na	-		tert-Amyl methyl ether (TAME)	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
4.6E-01	-		Benzene	5.0 U	5.0 U	5.0 U	63.9	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
6.2E+01	-		Bromobenzene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
8.3E+01	-		Bromochloromethane	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1.3E-01	-		Bromodichloromethane	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
3.3E+00	-		Bromoform	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
7.5E+00	-		Bromomethane	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
na	-		tert-Butanol (TBA)	15.0 U	15.0 U	15.0 U	15.0 U	15.0 U	15.0 U	15.0 U	15.0 U	15.0 U	15.0 U
5.6E+03	-		2-Butanone (MEK)	10.0 U	10.0 U	10.0 U	15.2	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U
1.0E+03	-		n-Butylbenzene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2.0E+03	-		sec-Butylbenzene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
6.9E+02	-		tert-Butylbenzene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
8.1E+02	-		Carbon disulfide	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
4.6E-01	-		Carbon tetrachloride	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
7.8E+01	-		Chlorobenzene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2.1E+04	-		Chloroethane	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2.2E-01	-		Chloroform	9.6	9.5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1.9E+02	-		Chloromethane	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2.4E+02	-		2-Chlorotoluene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2.5E+02	-		4-Chlorotoluene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
8.7E-01	-		Dibromochloromethane	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
3.3E-04	-		1,2-Dibromo-3-chloropropane	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
7.5E-03	-		1,2-Dibromoethane (EDB)	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
8.3E+00	-		Dibromomethane	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
3.0E+02	-		1,2-Dichlorobenzene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
na	-		1,3-Dichlorobenzene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
4.8E-01	-		1,4-Dichlorobenzene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2.0E+02	-		Dichlorodifluoromethane	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2.8E+00	-		1,1-Dichloroethane	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1.7E-01	-		1,2-Dichloroethane	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2.8E+02	-		1,1-Dichloroethene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
3.6E+01	-		cis-1,2-Dichloroethene	5.0 U	5.0 U	3.4 J	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
3.6E+02	-		trans-1,2-Dichloroethene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1.0E+05	-		Dichlorofluoromethane	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
8.5E-01	-		1,2-Dichloropropane	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
3.7E+02	-		1,3-Dichloropropane	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
na	-		2,2-Dichloropropane	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
na	-		1,1-Dichloropropene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
na	-		cis-1,3-Dichloropropene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
na	-		trans-1,3-Dichloropropene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1.5E+03	-		Diisopropyl ether (DIPE)	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
na	-		Ethyl tert-butyl ether (ETBE)	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1.5E+00	-		Ethylbenzene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1.4E-01	-		Hexachlorobutadiene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
3.8E+01	-		2-Hexanone	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U
4.5E+02	-		Isopropylbenzene (Cumene)	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
na	-		4-Isopropyltoluene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1.4E+01	-		Methyl tert-butyl ether (MTBE)	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
6.3E+03	-	4-Methyl-2-pentanone	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	
1.1E+01	-	Methylene chloride	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	
1.7E-01	-	Naphthalene	5.0 U	5.0 U	5.0 U	5.5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	
6.6E+02	-	n-Propylbenzene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	
1.2E+03	-	Styrene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	
5.7E-01	-	1,1,1,2-Tetrachloroethane	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	
7.6E-02	-	1,1,2,2-Tetrachloroethane	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	
1.1E+01	-	Tetrachloroethene	4.4 J	4.5 J	10.7	5.0 U	2.1 J	2.4 J	2.4 J	5.0 U	5.0 U	5.0 U	
1.1E+03	-	Toluene	5.0 U	5.0 U	5.0 U	26.5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	
7.0E+00	-	1,2,3-Trichlorobenzene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	
1.2E+00	-	1,2,4-Trichlorobenzene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	
8.0E+03	-	1,1,1-Trichloroethane	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	
2.8E-01	-	1,1,2-Trichloroethane	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	
4.9E-01	-	Trichloroethene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	
5.2E+03	-	Trichlorofluoromethane (Freon 11)	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	
7.5E-04	-	1,2,3-Trichloropropane	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	
5.6E+01	-	1,2,4-Trimethylbenzene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	
6.0E+01	-	1,3,5-Trimethylbenzene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	
1.9E-02	-	Vinyl chloride	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	
1.9E+02	-	o-Xylene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	
1.9E+02	-	m- & p-Xylenes	5.0 U	5.0 U	5.0 U	2.4 J	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	
-	3.45E+04	TPH	C7-C12	500 U	NA	500 U	500 U	500 U	500 U	500 U	NA	NA	NA

**Table Notes:**  
 VOCs Analytical Method: EPA Method 8260B  
 TPH Analytical Method: EPA Method 8015M  
 [Sample ID] - Sample Identification as shown on COC and in Lab Report for duplicate samples.  
 ug/L - micrograms per liter or parts per billion (ppb)  
 BG - Below Grade  
 CR - Cancer Risk  
 HI - Hazard Index  
 U - Analyte not detected above specified Method Reporting Limit (MRL) (shown as a gray tone).  
 J - Detected above the Method Detection Limit (MDL) but below the MRL; result is an estimated concentration.  
 na - not applicable  
 NA - not analyzed  
**Bold** - Detected analyte concentration

**Screening Levels:**  
 EPA Tapwater Regional Screening Levels (RSLs) (at CR = 1x10<sup>6</sup> or HI = 1.0) (May 2018)  
 DDOE Tier 1 Risk-Based Screening Level (RBSL) - Protection of Groundwater: Domestic Use of Water (Ingestion and Inhalation) Exposure Pathway (June 2011)

**Screening Evaluation Notes:**  
**Red, bold, and underline** - Detected analyte concentration exceeds the respective Screening Level.  
**Underline** - MRL exceeds the respective Screening Level.

**Additional Screening Level Notes:**  
**Analyte**      **EPA RSL**      **DDOE RBSL**  
 m- & p-Xylenes      Total Xylenes      na for this table



**APPENDIX L**

**BUILDING 46 – SOIL SAMPLE LABORATORY ANALYTICAL REPORTS**

07 May 2018

Nancy Love  
Chesapeake GeoSciences, Inc.  
5405 Twin Knolls Rd, Suite 1  
Columbia, MD 21045  
RE: ARMED FORCES RETIREMENT HOME

Enclosed are the results of analyses for samples received by the laboratory on 04/27/18 14:30.

A more detailed report format is available upon request, which lists the accreditation status for all analytical methods performed.

Please visit our website at [www.mdspectral.com](http://www.mdspectral.com) for a complete listing of our accreditations.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Rabecka Koons  
Quality Assurance Officer

**Analytical Results**

1500 Caton Center Dr Suite G  
Baltimore MD 21227  
410-247-7600  
www.mdspectral.com  
Reported:  
05/07/18 09:47

**Project: ARMED FORCES RETIREMENT HOME**

Project Number: CG-17-1111

Project Manager: Nancy Love

Client Sample ID	Alternate Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
SB-01 (0.5')		8042710-01	Soil	04/23/18 11:30	04/27/18 14:30
SB-01 (3')		8042710-02	Soil	04/23/18 11:40	04/27/18 14:30
SB-07 (3')		8042710-03	Soil	04/24/18 14:18	04/27/18 14:30



Rabecka Koons, Quality Assurance Officer

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*

**Analytical Results**

**Project: ARMED FORCES RETIREMENT HOME**

Project Number: CG-17-1111  
Project Manager: Nancy Love

www.mdspectral.com  
Reported:  
05/07/18 09:47

**SB-01 (0.5')**

**8042710-01 (Soil)**  
**Sample Date: 04/23/18**

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Quantitation Limit (LOQ)	Dilution	Prepared	Analyzed	Analyst
<b>SEMIVOLATILE ORGANICS BY EPA METHOD 8270D (GC/MS)</b>									
Acenaphthene	62400		ug/kg dry	53800	21500	20	04/30/18	05/02/18 13:02	WB
Acenaphthylene	34400	J	ug/kg dry	53800	21500	20	04/30/18	05/02/18 13:02	WB
Anthracene	194000		ug/kg dry	53800	21500	20	04/30/18	05/02/18 13:02	WB
Benzo[a]anthracene	237000		ug/kg dry	53800	21500	20	04/30/18	05/02/18 13:02	WB
Benzo[b]fluoranthene	223000		ug/kg dry	53800	21500	20	04/30/18	05/02/18 13:02	WB
Benzo[k]fluoranthene	77200		ug/kg dry	53800	21500	20	04/30/18	05/02/18 13:02	WB
Benzo[ghi]perylene	106000		ug/kg dry	53800	21500	20	04/30/18	05/02/18 13:02	WB
Benzo[a]pyrene	197000		ug/kg dry	53800	21500	20	04/30/18	05/02/18 13:02	WB
Chrysene	220000		ug/kg dry	53800	21500	20	04/30/18	05/02/18 13:02	WB
Dibenzo[a,h]anthracene	35500	J	ug/kg dry	53800	21500	20	04/30/18	05/02/18 13:02	WB
Fluoranthene	717000		ug/kg dry	53800	21500	20	04/30/18	05/02/18 13:02	WB
Fluorene	156000		ug/kg dry	53800	21500	20	04/30/18	05/02/18 13:02	WB
Indeno[1,2,3-cd]pyrene	114000		ug/kg dry	53800	21500	20	04/30/18	05/02/18 13:02	WB
2-Methylnaphthalene	105000		ug/kg dry	53800	21500	20	04/30/18	05/02/18 13:02	WB
Naphthalene	300000		ug/kg dry	53800	21500	20	04/30/18	05/02/18 13:02	WB
Phenanthrene	749000		ug/kg dry	53800	21500	20	04/30/18	05/02/18 13:02	WB
Pyrene	387000		ug/kg dry	53800	21500	20	04/30/18	05/02/18 13:02	WB
Surrogate: 2-Fluorophenol		21-110	%		04/30/18		05/02/18 13:02		S-01
Surrogate: Phenol-d5		10-110	%		04/30/18		05/02/18 13:02		S-01
Surrogate: Nitrobenzene-d5		35-114	%		04/30/18		05/02/18 13:02		S-01
Surrogate: 2,4,6-Tribromophenol		10-123	%		04/30/18		05/02/18 13:02		S-01
Surrogate: 2-Fluorobiphenyl		43-116	%		04/30/18		05/02/18 13:02		S-01
Surrogate: Terphenyl-d14		33-141	%		04/30/18		05/02/18 13:02		S-01
<b>PERCENT SOLIDS BY ASTM D2216-05</b>									
Percent Solids	93		%			1	05/04/18	05/04/18 13:03	GM

*Rabecka Koons*

Rabecka Koons, Quality Assurance Officer

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

**Analytical Results**

**Project: ARMED FORCES RETIREMENT HOME**

Project Number: CG-17-1111  
Project Manager: Nancy Love

www.mdspectral.com  
Reported:  
05/07/18 09:47

**SB-01 (3')**

**8042710-02 (Soil)**

**Sample Date: 04/23/18**

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Quantitation Limit (LOQ)	Dilution	Prepared	Analyzed	Analyst
<b>SEMIVOLATILE ORGANICS BY EPA METHOD 8270D (GC/MS)</b>									
Acenaphthene	ND		ug/kg dry	298	119	1	04/30/18	05/02/18 13:46	WB
Acenaphthylene	ND		ug/kg dry	298	119	1	04/30/18	05/02/18 13:46	WB
Anthracene	ND		ug/kg dry	298	119	1	04/30/18	05/02/18 13:46	WB
Benzo[a]anthracene	ND		ug/kg dry	298	119	1	04/30/18	05/02/18 13:46	WB
Benzo[b]fluoranthene	ND		ug/kg dry	298	119	1	04/30/18	05/02/18 13:46	WB
Benzo[k]fluoranthene	ND		ug/kg dry	298	119	1	04/30/18	05/02/18 13:46	WB
Benzo[ghi]perylene	ND		ug/kg dry	298	119	1	04/30/18	05/02/18 13:46	WB
Benzo[a]pyrene	ND		ug/kg dry	298	119	1	04/30/18	05/02/18 13:46	WB
Chrysene	ND		ug/kg dry	298	119	1	04/30/18	05/02/18 13:46	WB
Dibenzo[a,h]anthracene	ND		ug/kg dry	298	119	1	04/30/18	05/02/18 13:46	WB
Fluoranthene	ND		ug/kg dry	298	119	1	04/30/18	05/02/18 13:46	WB
Fluorene	ND		ug/kg dry	298	119	1	04/30/18	05/02/18 13:46	WB
Indeno[1,2,3-cd]pyrene	ND		ug/kg dry	298	119	1	04/30/18	05/02/18 13:46	WB
2-Methylnaphthalene	ND		ug/kg dry	298	119	1	04/30/18	05/02/18 13:46	WB
Naphthalene	ND		ug/kg dry	298	119	1	04/30/18	05/02/18 13:46	WB
Phenanthrene	ND		ug/kg dry	298	119	1	04/30/18	05/02/18 13:46	WB
Pyrene	ND		ug/kg dry	298	119	1	04/30/18	05/02/18 13:46	WB
Surrogate: 2-Fluorophenol		21-110		83 %	04/30/18		05/02/18 13:46		
Surrogate: Phenol-d5		10-110		85 %	04/30/18		05/02/18 13:46		
Surrogate: Nitrobenzene-d5		35-114		94 %	04/30/18		05/02/18 13:46		
Surrogate: 2,4,6-Tribromophenol		10-123		79 %	04/30/18		05/02/18 13:46		
Surrogate: 2-Fluorobiphenyl		43-116		82 %	04/30/18		05/02/18 13:46		
Surrogate: Terphenyl-d14		33-141		75 %	04/30/18		05/02/18 13:46		
<b>PERCENT SOLIDS BY ASTM D2216-05</b>									
Percent Solids	84		%			1	05/04/18	05/04/18 13:03	GM



Rabecka Koons, Quality Assurance Officer

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

**Analytical Results**

**Project: ARMED FORCES RETIREMENT HOME**

Project Number: CG-17-1111  
Project Manager: Nancy Love

www.mdspectral.com  
Reported:  
05/07/18 09:47

**SB-07 (3')**

**8042710-03 (Soil)**  
**Sample Date: 04/24/18**

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Quantitation Limit (LOQ)	Dilution	Prepared	Analyzed	Analyst
<b>SEMIVOLATILE ORGANICS BY EPA METHOD 8270D (GC/MS)</b>									
Acenaphthene	ND		ug/kg dry	321	128	1	04/30/18	05/02/18 14:31	WB
Acenaphthylene	ND		ug/kg dry	321	128	1	04/30/18	05/02/18 14:31	WB
Anthracene	ND		ug/kg dry	321	128	1	04/30/18	05/02/18 14:31	WB
Benzo[a]anthracene	ND		ug/kg dry	321	128	1	04/30/18	05/02/18 14:31	WB
Benzo[b]fluoranthene	ND		ug/kg dry	321	128	1	04/30/18	05/02/18 14:31	WB
Benzo[k]fluoranthene	ND		ug/kg dry	321	128	1	04/30/18	05/02/18 14:31	WB
Benzo[ghi]perylene	ND		ug/kg dry	321	128	1	04/30/18	05/02/18 14:31	WB
Benzo[a]pyrene	ND		ug/kg dry	321	128	1	04/30/18	05/02/18 14:31	WB
Chrysene	ND		ug/kg dry	321	128	1	04/30/18	05/02/18 14:31	WB
Dibenzo[a,h]anthracene	ND		ug/kg dry	321	128	1	04/30/18	05/02/18 14:31	WB
Fluoranthene	ND		ug/kg dry	321	128	1	04/30/18	05/02/18 14:31	WB
Fluorene	ND		ug/kg dry	321	128	1	04/30/18	05/02/18 14:31	WB
Indeno[1,2,3-cd]pyrene	ND		ug/kg dry	321	128	1	04/30/18	05/02/18 14:31	WB
2-Methylnaphthalene	ND		ug/kg dry	321	128	1	04/30/18	05/02/18 14:31	WB
Naphthalene	ND		ug/kg dry	321	128	1	04/30/18	05/02/18 14:31	WB
Phenanthrene	ND		ug/kg dry	321	128	1	04/30/18	05/02/18 14:31	WB
Pyrene	ND		ug/kg dry	321	128	1	04/30/18	05/02/18 14:31	WB
Surrogate: 2-Fluorophenol		21-110		84 %	04/30/18		05/02/18 14:31		
Surrogate: Phenol-d5		10-110		86 %	04/30/18		05/02/18 14:31		
Surrogate: Nitrobenzene-d5		35-114		97 %	04/30/18		05/02/18 14:31		
Surrogate: 2,4,6-Tribromophenol		10-123		80 %	04/30/18		05/02/18 14:31		
Surrogate: 2-Fluorobiphenyl		43-116		83 %	04/30/18		05/02/18 14:31		
Surrogate: Terphenyl-d14		33-141		76 %	04/30/18		05/02/18 14:31		
<b>PERCENT SOLIDS BY ASTM D2216-05</b>									
Percent Solids	78		%			1	05/04/18	05/04/18 13:03	GM



Rabecka Koons, Quality Assurance Officer

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

## Analytical Results

1500 Caton Center Dr Suite G

Baltimore MD 21227

410-247-7600

www.mdspectral.com

Reported:

05/07/18 09:47

**Project: ARMED FORCES RETIREMENT HOME**

Project Number: CG-17-1111

Project Manager: Nancy Love

### Notes and Definitions

- S-01 The surrogate recovery for this sample is not available due to sample dilution required from high analyte concentration and/or matrix interference.
- J Detected but below the reporting limit; therefore, result is an estimated concentration (CLP J-Flag).
- DET Analyte DETECTED
- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- dry Sample results reported on a dry weight basis
- RPD Relative Percent Difference



Rabecka Koons, Quality Assurance Officer

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*

Company Name: Chesapeake GeoSciences, Inc.			Project Manager: Nancy Love			Analysis Requested						CHAIN-OF-CUSTODY RECORD		
Project Name: Armed Forces Retirement Home			Project ID: CG-17-1111			TPH-GRO EPA 8015M	TPH-DRO EPA 8015M	TPH-ORO EPA 8015M	RCRA 8 Metals EPA 6020	PCBs EPA 8082	TPH-C7-12 EPA 8015M	Matrix Codes: NW (nonpotable water)	Maryland Spectral Services, Inc. 1500 Caton Center Drive, Suite G Baltimore, MD 21227 410-247-7600 • Fax 410-247-7602 labman@mdspectral.com	MSS Lab ID
Sampler(s): Meg Staines			P.O. Number: CG171111MS			VOCs EPA 8260	PAHs EPA 8270	No. of Containers	Field pH, Residual Chlorine, QC Request, Trip Blank, Field Blank	Preservative: 1+1 HCL, H <sub>2</sub> SO <sub>4</sub> , Methanol, Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> , NaHCO <sub>3</sub>	PW (potable water)	410-247-7600 • Fax 410-247-7602	8042710-01	
Field Sample ID	Date	Time	Water	Soil	Other									
SB-01 (0.5')	4/20/18	11:30	X			X		2			4°C			
SB-01 (3')	4/20/18	11:40	X			X		1			4°C		-02	
SB-07 (3')	4/21/18	14:18	X			X		1			4°C		-03	
Relinquished by: (Signature) <i>Devin Glancy</i> (Printed) Devin Glancy			Date/Time 4/27/18 14:30			Received by: (Signature) <i>Adrian M. Jaeken</i> (Printed) Adrian M. Jaeken			Date/Time			Received by: (Signature) (Printed)		
Relinquished by: (Signature) (Printed)			Date/Time			Received by: (Signature) (Printed)			Date/Time			Received by: (Signature) (Printed)		
Delivery Method: <input checked="" type="checkbox"/> Courier <input type="checkbox"/> Client <input type="checkbox"/> UPS <input type="checkbox"/> FedEx <input type="checkbox"/> USPS <input type="checkbox"/> Other:			Special Instructions/QC Requirements & Comments:			Turn Around Time: <input checked="" type="checkbox"/> Normal (7 day) <input type="checkbox"/> 5 day <input type="checkbox"/> 4 day <input type="checkbox"/> 3 day <input type="checkbox"/> Rush (2 day) <input type="checkbox"/> Next Day <input type="checkbox"/> Other: _____ Specific Due Date: _____			Lab Use: Temp: <u>6.0</u> °C <input checked="" type="checkbox"/> Received on Ice <input type="checkbox"/> Received same day <input type="checkbox"/> Preservation Appropriate			Sample Disposal: <input type="checkbox"/> Return to Client <input type="checkbox"/> Disposal by lab <input type="checkbox"/> Archive for _____ days		



10 May 2018

Nancy Love

Chesapeake GeoSciences, Inc.

5405 Twin Knolls Rd, Suite 1

Columbia, MD 21045

RE: ARMED FORCES RETIREMENT HOME

Enclosed are the results of analyses for samples received by the laboratory on 04/30/18 16:00.

A more detailed report format is available upon request, which lists the accreditation status for all analytical methods performed.

Please visit our website at [www.mdspectral.com](http://www.mdspectral.com) for a complete listing of our accreditations.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Rabecka Koons

Quality Assurance Officer

**Analytical Results**

1500 Caton Center Dr Suite G  
Baltimore MD 21227  
410-247-7600  
www.mdspectral.com

**Project: ARMED FORCES RETIREMENT HOME**

Project Number: CG-17-1111  
Project Manager: Nancy Love

Reported:

05/10/18 16:23

Report revised. Original report ID 8043007 05 09 18 1623.

Client Sample ID	Alternate Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
SB-01(5')		8043007-01	Soil	04/23/18 11:50	04/30/18 16:00
SB-03 (17')		8043007-02	Soil	04/25/18 15:30	04/30/18 16:00
SB-04 (29.5')		8043007-03	Soil	04/23/18 15:45	04/30/18 16:00
SB-05 (5')		8043007-04	Soil	04/24/18 11:45	04/30/18 16:00
SB-06 (5')		8043007-05	Soil	04/24/18 09:50	04/30/18 16:00
SB-07 (32.5')		8043007-06	Soil	04/24/18 15:40	04/30/18 16:00
SB-12 (24')		8043007-07	Soil	04/25/18 09:45	04/30/18 16:00
SB-13 (36')		8043007-08	Soil	04/25/18 14:00	04/30/18 16:00
SB-D1 (5')		8043007-09	Soil	04/24/18 00:00	04/30/18 16:00

The sample IDs for 8043007-07 and 8043007-08 were revised as requested by Chesapeake GeoSciences, Inc. A copy of the COC with the requested changes is attached.



Rabecka Koons, Quality Assurance Officer

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*

**Analytical Results**

**Project: ARMED FORCES RETIREMENT HOME**

Project Number: CG-17-1111  
Project Manager: Nancy Love

Reported:  
05/10/18 16:23

Report revised. Original report ID 8043007 05 09 18 1623.

**SB-01(5')**

**8043007-01 (Soil)**  
**Sample Date: 04/23/18**

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Quantitation Limit (LOQ)	Dilution	Prepared	Analyzed	Analyst
<b>VOLATILE ORGANICS BY EPA METHOD 5035/8260B (GC/MS)</b>									
Acetone	ND		ug/kg dry	9.5	9.5	1	05/01/18	05/01/18 13:51	GM
tert-Amyl alcohol (TAA)	ND		ug/kg dry	47.3	47.3	1	05/01/18	05/01/18 13:51	GM
tert-Amyl methyl ether (TAME)	ND		ug/kg dry	4.7	1.9	1	05/01/18	05/01/18 13:51	GM
Benzene	ND		ug/kg dry	4.7	1.9	1	05/01/18	05/01/18 13:51	GM
Bromobenzene	ND		ug/kg dry	4.7	1.9	1	05/01/18	05/01/18 13:51	GM
Bromochloromethane	ND		ug/kg dry	4.7	1.9	1	05/01/18	05/01/18 13:51	GM
Bromodichloromethane	ND		ug/kg dry	4.7	1.9	1	05/01/18	05/01/18 13:51	GM
Bromoform	ND		ug/kg dry	4.7	1.9	1	05/01/18	05/01/18 13:51	GM
Bromomethane	ND		ug/kg dry	4.7	4.7	1	05/01/18	05/01/18 13:51	GM
tert-Butanol (TBA)	ND		ug/kg dry	47.3	47.3	1	05/01/18	05/01/18 13:51	GM
2-Butanone (MEK)	ND		ug/kg dry	9.5	9.5	1	05/01/18	05/01/18 13:51	GM
n-Butylbenzene	ND		ug/kg dry	4.7	1.9	1	05/01/18	05/01/18 13:51	GM
sec-Butylbenzene	ND		ug/kg dry	4.7	1.9	1	05/01/18	05/01/18 13:51	GM
tert-Butylbenzene	ND		ug/kg dry	4.7	1.9	1	05/01/18	05/01/18 13:51	GM
Carbon disulfide	ND		ug/kg dry	4.7	1.9	1	05/01/18	05/01/18 13:51	GM
Carbon tetrachloride	ND		ug/kg dry	4.7	1.9	1	05/01/18	05/01/18 13:51	GM
Chlorobenzene	ND		ug/kg dry	4.7	1.9	1	05/01/18	05/01/18 13:51	GM
Chloroethane	ND		ug/kg dry	4.7	4.7	1	05/01/18	05/01/18 13:51	GM
Chloroform	ND		ug/kg dry	4.7	1.9	1	05/01/18	05/01/18 13:51	GM
Chloromethane	ND		ug/kg dry	4.7	4.7	1	05/01/18	05/01/18 13:51	GM
2-Chlorotoluene	ND		ug/kg dry	4.7	1.9	1	05/01/18	05/01/18 13:51	GM
4-Chlorotoluene	ND		ug/kg dry	4.7	1.9	1	05/01/18	05/01/18 13:51	GM
1,2-Dibromo-3-chloropropane	ND		ug/kg dry	4.7	1.9	1	05/01/18	05/01/18 13:51	GM
Dibromochloromethane	ND		ug/kg dry	4.7	1.9	1	05/01/18	05/01/18 13:51	GM
1,2-Dibromoethane (EDB)	ND		ug/kg dry	4.7	1.9	1	05/01/18	05/01/18 13:51	GM
Dibromomethane	ND		ug/kg dry	4.7	1.9	1	05/01/18	05/01/18 13:51	GM
1,2-Dichlorobenzene	ND		ug/kg dry	4.7	1.9	1	05/01/18	05/01/18 13:51	GM
1,3-Dichlorobenzene	ND		ug/kg dry	4.7	1.9	1	05/01/18	05/01/18 13:51	GM
1,4-Dichlorobenzene	ND		ug/kg dry	4.7	1.9	1	05/01/18	05/01/18 13:51	GM
Dichlorodifluoromethane	ND		ug/kg dry	4.7	1.9	1	05/01/18	05/01/18 13:51	GM
1,1-Dichloroethane	ND		ug/kg dry	4.7	1.9	1	05/01/18	05/01/18 13:51	GM
1,2-Dichloroethane	ND		ug/kg dry	4.7	1.9	1	05/01/18	05/01/18 13:51	GM
1,1-Dichloroethene	ND		ug/kg dry	4.7	1.9	1	05/01/18	05/01/18 13:51	GM
cis-1,2-Dichloroethene	ND		ug/kg dry	4.7	1.9	1	05/01/18	05/01/18 13:51	GM



Rabecka Koons, Quality Assurance Officer

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*

## Analytical Results

**Project: ARMED FORCES RETIREMENT HOME**

Project Number: CG-17-1111

Project Manager: Nancy Love

Reported:

05/10/18 16:23

Report revised. Original report ID 8043007 05 09 18 1623.

**SB-01(5')**

**8043007-01 (Soil)**

**Sample Date: 04/23/18**

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Quantitation Limit (LOQ)	Dilution	Prepared	Analyzed	Analyst
<b>VOLATILE ORGANICS BY EPA METHOD 5035/8260B (GC/MS) (continued)</b>									
trans-1,2-Dichloroethene	ND		ug/kg dry	4.7	1.9	1	05/01/18	05/01/18 13:51	GM
Dichlorofluoromethane	ND		ug/kg dry	4.7	1.9	1	05/01/18	05/01/18 13:51	GM
1,2-Dichloropropane	ND		ug/kg dry	4.7	1.9	1	05/01/18	05/01/18 13:51	GM
1,3-Dichloropropane	ND		ug/kg dry	4.7	1.9	1	05/01/18	05/01/18 13:51	GM
2,2-Dichloropropane	ND		ug/kg dry	4.7	1.9	1	05/01/18	05/01/18 13:51	GM
1,1-Dichloropropene	ND		ug/kg dry	4.7	1.9	1	05/01/18	05/01/18 13:51	GM
cis-1,3-Dichloropropene	ND		ug/kg dry	4.7	1.9	1	05/01/18	05/01/18 13:51	GM
trans-1,3-Dichloropropene	ND		ug/kg dry	4.7	1.9	1	05/01/18	05/01/18 13:51	GM
Diisopropyl ether (DIPE)	ND		ug/kg dry	4.7	1.9	1	05/01/18	05/01/18 13:51	GM
Ethyl tert-butyl ether (ETBE)	ND		ug/kg dry	4.7	1.9	1	05/01/18	05/01/18 13:51	GM
Ethylbenzene	ND		ug/kg dry	4.7	1.9	1	05/01/18	05/01/18 13:51	GM
Hexachlorobutadiene	ND		ug/kg dry	4.7	1.9	1	05/01/18	05/01/18 13:51	GM
2-Hexanone	ND		ug/kg dry	9.5	9.5	1	05/01/18	05/01/18 13:51	GM
Isopropylbenzene (Cumene)	ND		ug/kg dry	4.7	1.9	1	05/01/18	05/01/18 13:51	GM
4-Isopropyltoluene	ND		ug/kg dry	4.7	1.9	1	05/01/18	05/01/18 13:51	GM
Methyl tert-butyl ether (MTBE)	ND		ug/kg dry	4.7	1.9	1	05/01/18	05/01/18 13:51	GM
4-Methyl-2-pentanone	ND		ug/kg dry	9.5	9.5	1	05/01/18	05/01/18 13:51	GM
Methylene chloride	ND		ug/kg dry	9.5	9.5	1	05/01/18	05/01/18 13:51	GM
Naphthalene	ND		ug/kg dry	4.7	1.9	1	05/01/18	05/01/18 13:51	GM
n-Propylbenzene	ND		ug/kg dry	4.7	1.9	1	05/01/18	05/01/18 13:51	GM
Styrene	ND		ug/kg dry	4.7	1.9	1	05/01/18	05/01/18 13:51	GM
1,1,1,2-Tetrachloroethane	ND		ug/kg dry	4.7	1.9	1	05/01/18	05/01/18 13:51	GM
1,1,2,2-Tetrachloroethane	ND		ug/kg dry	4.7	1.9	1	05/01/18	05/01/18 13:51	GM
Tetrachloroethene	ND		ug/kg dry	4.7	1.9	1	05/01/18	05/01/18 13:51	GM
Toluene	ND		ug/kg dry	4.7	1.9	1	05/01/18	05/01/18 13:51	GM
1,2,3-Trichlorobenzene	ND		ug/kg dry	4.7	1.9	1	05/01/18	05/01/18 13:51	GM
1,2,4-Trichlorobenzene	ND		ug/kg dry	4.7	1.9	1	05/01/18	05/01/18 13:51	GM
1,1,1-Trichloroethane	ND		ug/kg dry	4.7	1.9	1	05/01/18	05/01/18 13:51	GM
1,1,2-Trichloroethane	ND		ug/kg dry	4.7	1.9	1	05/01/18	05/01/18 13:51	GM
Trichloroethene	ND		ug/kg dry	4.7	1.9	1	05/01/18	05/01/18 13:51	GM
Trichlorofluoromethane (Freon 11)	ND		ug/kg dry	4.7	1.9	1	05/01/18	05/01/18 13:51	GM
1,2,3-Trichloropropane	ND		ug/kg dry	4.7	1.9	1	05/01/18	05/01/18 13:51	GM
1,2,4-Trimethylbenzene	ND		ug/kg dry	4.7	1.9	1	05/01/18	05/01/18 13:51	GM
1,3,5-Trimethylbenzene	ND		ug/kg dry	4.7	1.9	1	05/01/18	05/01/18 13:51	GM

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*



Rabecka Koons, Quality Assurance Officer

**Analytical Results**

**Project: ARMED FORCES RETIREMENT HOME**

Project Number: CG-17-1111

Project Manager: Nancy Love

Reported:

05/10/18 16:23

Report revised. Original report ID 8043007 05 09 18 1623.

**SB-01(5')**

**8043007-01 (Soil)**

**Sample Date: 04/23/18**

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Quantitation Limit (LOQ)	Dilution	Prepared	Analyzed	Analyst
<b>VOLATILE ORGANICS BY EPA METHOD 5035/8260B (GC/MS) (continued)</b>									
Vinyl chloride	ND		ug/kg dry	4.7	1.9	1	05/01/18	05/01/18 13:51	GM
o-Xylene	ND		ug/kg dry	4.7	1.9	1	05/01/18	05/01/18 13:51	GM
m- & p-Xylenes	ND		ug/kg dry	4.7	1.9	1	05/01/18	05/01/18 13:51	GM
Surrogate: 1,2-Dichloroethane-d4		70-130		109 %	05/01/18		05/01/18 13:51		
Surrogate: Toluene-d8		75-120		103 %	05/01/18		05/01/18 13:51		
Surrogate: 4-Bromofluorobenzene		70-120		102 %	05/01/18		05/01/18 13:51		
<b>GASOLINE RANGE ORGANICS BY EPA 8015B</b>									
C7-C12	ND		mg/kg dry	0.43	0.43	1	05/07/18	05/07/18 16:28	GM
Surrogate: a,a,a-Trifluorotoluene		85-115		103 %	05/07/18		05/07/18 16:28		
<b>PERCENT SOLIDS BY ASTM D2216-05</b>									
Percent Solids	80		%			1	05/04/18	05/07/18 09:37	GM



Rabecka Koons, Quality Assurance Officer

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*

**Analytical Results**

**Project: ARMED FORCES RETIREMENT HOME**

Project Number: CG-17-1111

Project Manager: Nancy Love

Reported:

05/10/18 16:23

Report revised. Original report ID 8043007 05 09 18 1623.

**SB-03 (17')**

**8043007-02 (Soil)**

**Sample Date: 04/25/18**

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Quantitation Limit (LOQ)	Dilution	Prepared	Analyzed	Analyst
<b>PERCENT SOLIDS BY ASTM D2216-05</b>									
Percent Solids	84		%			1	05/04/18	05/07/18 09:37	GM



Rabecka Koons, Quality Assurance Officer

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*

**Analytical Results**

**Project: ARMED FORCES RETIREMENT HOME**

Project Number: CG-17-1111  
Project Manager: Nancy Love

Reported:  
05/10/18 16:23

Report revised. Original report ID 8043007 05 09 18 1623.

**SB-03 (17')**

**8043007-02RE1 (Soil)**  
**Sample Date: 04/25/18**

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Quantitation Limit (LOQ)	Dilution	Prepared	Analyzed	Analyst
<b>VOLATILE ORGANICS BY EPA METHOD 5035/8260B (GC/MS)</b>									
Acetone	ND		ug/kg dry	363	363	30.5	05/08/18	05/08/18 16:18	GM
tert-Amyl alcohol (TAA)	ND		ug/kg dry	1820	1820	30.5	05/08/18	05/08/18 16:18	GM
tert-Amyl methyl ether (TAME)	ND		ug/kg dry	182	72.6	30.5	05/08/18	05/08/18 16:18	GM
Benzene	ND		ug/kg dry	182	72.6	30.5	05/08/18	05/08/18 16:18	GM
Bromobenzene	ND		ug/kg dry	182	72.6	30.5	05/08/18	05/08/18 16:18	GM
Bromochloromethane	ND		ug/kg dry	182	72.6	30.5	05/08/18	05/08/18 16:18	GM
Bromodichloromethane	ND		ug/kg dry	182	72.6	30.5	05/08/18	05/08/18 16:18	GM
Bromoform	ND		ug/kg dry	182	72.6	30.5	05/08/18	05/08/18 16:18	GM
Bromomethane	ND		ug/kg dry	182	182	30.5	05/08/18	05/08/18 16:18	GM
tert-Butanol (TBA)	ND		ug/kg dry	1820	1820	30.5	05/08/18	05/08/18 16:18	GM
2-Butanone (MEK)	ND		ug/kg dry	363	363	30.5	05/08/18	05/08/18 16:18	GM
n-Butylbenzene	ND		ug/kg dry	182	72.6	30.5	05/08/18	05/08/18 16:18	GM
sec-Butylbenzene	ND		ug/kg dry	182	72.6	30.5	05/08/18	05/08/18 16:18	GM
tert-Butylbenzene	ND		ug/kg dry	182	72.6	30.5	05/08/18	05/08/18 16:18	GM
Carbon disulfide	ND		ug/kg dry	182	72.6	30.5	05/08/18	05/08/18 16:18	GM
Carbon tetrachloride	ND		ug/kg dry	182	72.6	30.5	05/08/18	05/08/18 16:18	GM
Chlorobenzene	ND		ug/kg dry	182	72.6	30.5	05/08/18	05/08/18 16:18	GM
Chloroethane	ND		ug/kg dry	182	182	30.5	05/08/18	05/08/18 16:18	GM
Chloroform	ND		ug/kg dry	182	72.6	30.5	05/08/18	05/08/18 16:18	GM
Chloromethane	ND		ug/kg dry	182	182	30.5	05/08/18	05/08/18 16:18	GM
2-Chlorotoluene	ND		ug/kg dry	182	72.6	30.5	05/08/18	05/08/18 16:18	GM
4-Chlorotoluene	ND		ug/kg dry	182	72.6	30.5	05/08/18	05/08/18 16:18	GM
1,2-Dibromo-3-chloropropane	ND		ug/kg dry	182	72.6	30.5	05/08/18	05/08/18 16:18	GM
Dibromochloromethane	ND		ug/kg dry	182	72.6	30.5	05/08/18	05/08/18 16:18	GM
1,2-Dibromoethane (EDB)	ND		ug/kg dry	182	72.6	30.5	05/08/18	05/08/18 16:18	GM
Dibromomethane	ND		ug/kg dry	182	72.6	30.5	05/08/18	05/08/18 16:18	GM
1,2-Dichlorobenzene	ND		ug/kg dry	182	72.6	30.5	05/08/18	05/08/18 16:18	GM
1,3-Dichlorobenzene	ND		ug/kg dry	182	72.6	30.5	05/08/18	05/08/18 16:18	GM
1,4-Dichlorobenzene	ND		ug/kg dry	182	72.6	30.5	05/08/18	05/08/18 16:18	GM
Dichlorodifluoromethane	ND		ug/kg dry	182	72.6	30.5	05/08/18	05/08/18 16:18	GM
1,1-Dichloroethane	ND		ug/kg dry	182	72.6	30.5	05/08/18	05/08/18 16:18	GM
1,2-Dichloroethane	ND		ug/kg dry	182	72.6	30.5	05/08/18	05/08/18 16:18	GM
1,1-Dichloroethene	ND		ug/kg dry	182	72.6	30.5	05/08/18	05/08/18 16:18	GM
<b>cis-1,2-Dichloroethene</b>	<b>613</b>		ug/kg dry	182	72.6	30.5	05/08/18	05/08/18 16:18	GM



Rabecka Koons, Quality Assurance Officer

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*

**Analytical Results**

**Project: ARMED FORCES RETIREMENT HOME**

Project Number: CG-17-1111  
Project Manager: Nancy Love

Reported:

05/10/18 16:23

Report revised. Original report ID 8043007 05 09 18 1623.

**SB-03 (17')**

**8043007-02RE1 (Soil)**

**Sample Date: 04/25/18**

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Quantitation Limit (LOQ)	Dilution	Prepared	Analyzed	Analyst
<b>VOLATILE ORGANICS BY EPA METHOD 5035/8260B (GC/MS) (continued)</b>									
trans-1,2-Dichloroethene	ND		ug/kg dry	182	72.6	30.5	05/08/18	05/08/18 16:18	GM
Dichlorofluoromethane	ND		ug/kg dry	182	72.6	30.5	05/08/18	05/08/18 16:18	GM
1,2-Dichloropropane	ND		ug/kg dry	182	72.6	30.5	05/08/18	05/08/18 16:18	GM
1,3-Dichloropropane	ND		ug/kg dry	182	72.6	30.5	05/08/18	05/08/18 16:18	GM
2,2-Dichloropropane	ND		ug/kg dry	182	72.6	30.5	05/08/18	05/08/18 16:18	GM
1,1-Dichloropropene	ND		ug/kg dry	182	72.6	30.5	05/08/18	05/08/18 16:18	GM
cis-1,3-Dichloropropene	ND		ug/kg dry	182	72.6	30.5	05/08/18	05/08/18 16:18	GM
trans-1,3-Dichloropropene	ND		ug/kg dry	182	72.6	30.5	05/08/18	05/08/18 16:18	GM
Diisopropyl ether (DIPE)	ND		ug/kg dry	182	72.6	30.5	05/08/18	05/08/18 16:18	GM
Ethyl tert-butyl ether (ETBE)	ND		ug/kg dry	182	72.6	30.5	05/08/18	05/08/18 16:18	GM
Ethylbenzene	ND		ug/kg dry	182	72.6	30.5	05/08/18	05/08/18 16:18	GM
Hexachlorobutadiene	ND		ug/kg dry	182	72.6	30.5	05/08/18	05/08/18 16:18	GM
2-Hexanone	ND		ug/kg dry	363	363	30.5	05/08/18	05/08/18 16:18	GM
Isopropylbenzene (Cumene)	ND		ug/kg dry	182	72.6	30.5	05/08/18	05/08/18 16:18	GM
4-Isopropyltoluene	ND		ug/kg dry	182	72.6	30.5	05/08/18	05/08/18 16:18	GM
Methyl tert-butyl ether (MTBE)	ND		ug/kg dry	182	72.6	30.5	05/08/18	05/08/18 16:18	GM
4-Methyl-2-pentanone	ND		ug/kg dry	363	363	30.5	05/08/18	05/08/18 16:18	GM
Methylene chloride	ND		ug/kg dry	363	363	30.5	05/08/18	05/08/18 16:18	GM
Naphthalene	ND		ug/kg dry	182	72.6	30.5	05/08/18	05/08/18 16:18	GM
n-Propylbenzene	ND		ug/kg dry	182	72.6	30.5	05/08/18	05/08/18 16:18	GM
Styrene	ND		ug/kg dry	182	72.6	30.5	05/08/18	05/08/18 16:18	GM
1,1,1,2-Tetrachloroethane	ND		ug/kg dry	182	72.6	30.5	05/08/18	05/08/18 16:18	GM
1,1,2,2-Tetrachloroethane	ND		ug/kg dry	182	72.6	30.5	05/08/18	05/08/18 16:18	GM
<b>Tetrachloroethene</b>	<b>1250</b>		ug/kg dry	182	72.6	30.5	05/08/18	05/08/18 16:18	GM
Toluene	ND		ug/kg dry	182	72.6	30.5	05/08/18	05/08/18 16:18	GM
1,2,3-Trichlorobenzene	ND		ug/kg dry	182	72.6	30.5	05/08/18	05/08/18 16:18	GM
1,2,4-Trichlorobenzene	ND		ug/kg dry	182	72.6	30.5	05/08/18	05/08/18 16:18	GM
1,1,1-Trichloroethane	ND		ug/kg dry	182	72.6	30.5	05/08/18	05/08/18 16:18	GM
1,1,2-Trichloroethane	ND		ug/kg dry	182	72.6	30.5	05/08/18	05/08/18 16:18	GM
<b>Trichloroethene</b>	<b>85.7</b>	J	ug/kg dry	182	72.6	30.5	05/08/18	05/08/18 16:18	GM
Trichlorofluoromethane (Freon 11)	ND		ug/kg dry	182	72.6	30.5	05/08/18	05/08/18 16:18	GM
1,2,3-Trichloropropane	ND		ug/kg dry	182	72.6	30.5	05/08/18	05/08/18 16:18	GM
1,2,4-Trimethylbenzene	ND		ug/kg dry	182	72.6	30.5	05/08/18	05/08/18 16:18	GM
1,3,5-Trimethylbenzene	ND		ug/kg dry	182	72.6	30.5	05/08/18	05/08/18 16:18	GM

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*



Rabecka Koons, Quality Assurance Officer



**Analytical Results**

**Project: ARMED FORCES RETIREMENT HOME**

Project Number: CG-17-1111  
Project Manager: Nancy Love

Reported:

05/10/18 16:23

Report revised. Original report ID 8043007 05 09 18 1623.

**SB-03 (17')**

**8043007-02RE1 (Soil)**

**Sample Date: 04/25/18**

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Quantitation Limit (LOQ)	Dilution	Prepared	Analyzed	Analyst
<b>VOLATILE ORGANICS BY EPA METHOD 5035/8260B (GC/MS) (continued)</b>									
Vinyl chloride	ND		ug/kg dry	182	72.6	30.5	05/08/18	05/08/18 16:18	GM
o-Xylene	ND		ug/kg dry	182	72.6	30.5	05/08/18	05/08/18 16:18	GM
m- & p-Xylenes	ND		ug/kg dry	182	72.6	30.5	05/08/18	05/08/18 16:18	GM
<i>Surrogate: 1,2-Dichloroethane-d4</i>									
			70-130	103 %	05/08/18		05/08/18 16:18		
<i>Surrogate: Toluene-d8</i>			75-120	105 %	05/08/18		05/08/18 16:18		
<i>Surrogate: 4-Bromofluorobenzene</i>			70-120	102 %	05/08/18		05/08/18 16:18		



Rabecka Koons, Quality Assurance Officer

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*

**Analytical Results**

**Project: ARMED FORCES RETIREMENT HOME**

Project Number: CG-17-1111  
Project Manager: Nancy Love

Reported:  
05/10/18 16:23

Report revised. Original report ID 8043007 05 09 18 1623.

**SB-04 (29.5')**

**8043007-03 (Soil)**

**Sample Date: 04/23/18**

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Quantitation Limit (LOQ)	Dilution	Prepared	Analyzed	Analyst
<b>VOLATILE ORGANICS BY EPA METHOD 5035/8260B (GC/MS)</b>									
Acetone	ND		ug/kg dry	7.9	7.9	1	05/01/18	05/01/18 14:41	GM
tert-Amyl alcohol (TAA)	ND		ug/kg dry	39.7	39.7	1	05/01/18	05/01/18 14:41	GM
tert-Amyl methyl ether (TAME)	ND		ug/kg dry	4.0	1.6	1	05/01/18	05/01/18 14:41	GM
Benzene	ND		ug/kg dry	4.0	1.6	1	05/01/18	05/01/18 14:41	GM
Bromobenzene	ND		ug/kg dry	4.0	1.6	1	05/01/18	05/01/18 14:41	GM
Bromochloromethane	ND		ug/kg dry	4.0	1.6	1	05/01/18	05/01/18 14:41	GM
Bromodichloromethane	ND		ug/kg dry	4.0	1.6	1	05/01/18	05/01/18 14:41	GM
Bromoform	ND		ug/kg dry	4.0	1.6	1	05/01/18	05/01/18 14:41	GM
Bromomethane	ND		ug/kg dry	4.0	4.0	1	05/01/18	05/01/18 14:41	GM
tert-Butanol (TBA)	ND		ug/kg dry	39.7	39.7	1	05/01/18	05/01/18 14:41	GM
2-Butanone (MEK)	ND		ug/kg dry	7.9	7.9	1	05/01/18	05/01/18 14:41	GM
n-Butylbenzene	ND		ug/kg dry	4.0	1.6	1	05/01/18	05/01/18 14:41	GM
sec-Butylbenzene	ND		ug/kg dry	4.0	1.6	1	05/01/18	05/01/18 14:41	GM
tert-Butylbenzene	ND		ug/kg dry	4.0	1.6	1	05/01/18	05/01/18 14:41	GM
<b>Carbon disulfide</b>	<b>1.6</b>	J	ug/kg dry	4.0	1.6	1	05/01/18	05/01/18 14:41	GM
Carbon tetrachloride	ND		ug/kg dry	4.0	1.6	1	05/01/18	05/01/18 14:41	GM
Chlorobenzene	ND		ug/kg dry	4.0	1.6	1	05/01/18	05/01/18 14:41	GM
Chloroethane	ND		ug/kg dry	4.0	4.0	1	05/01/18	05/01/18 14:41	GM
Chloroform	ND		ug/kg dry	4.0	1.6	1	05/01/18	05/01/18 14:41	GM
Chloromethane	ND		ug/kg dry	4.0	4.0	1	05/01/18	05/01/18 14:41	GM
2-Chlorotoluene	ND		ug/kg dry	4.0	1.6	1	05/01/18	05/01/18 14:41	GM
4-Chlorotoluene	ND		ug/kg dry	4.0	1.6	1	05/01/18	05/01/18 14:41	GM
1,2-Dibromo-3-chloropropane	ND		ug/kg dry	4.0	1.6	1	05/01/18	05/01/18 14:41	GM
Dibromochloromethane	ND		ug/kg dry	4.0	1.6	1	05/01/18	05/01/18 14:41	GM
1,2-Dibromoethane (EDB)	ND		ug/kg dry	4.0	1.6	1	05/01/18	05/01/18 14:41	GM
Dibromomethane	ND		ug/kg dry	4.0	1.6	1	05/01/18	05/01/18 14:41	GM
1,2-Dichlorobenzene	ND		ug/kg dry	4.0	1.6	1	05/01/18	05/01/18 14:41	GM
1,3-Dichlorobenzene	ND		ug/kg dry	4.0	1.6	1	05/01/18	05/01/18 14:41	GM
1,4-Dichlorobenzene	ND		ug/kg dry	4.0	1.6	1	05/01/18	05/01/18 14:41	GM
Dichlorodifluoromethane	ND		ug/kg dry	4.0	1.6	1	05/01/18	05/01/18 14:41	GM
1,1-Dichloroethane	ND		ug/kg dry	4.0	1.6	1	05/01/18	05/01/18 14:41	GM
1,2-Dichloroethane	ND		ug/kg dry	4.0	1.6	1	05/01/18	05/01/18 14:41	GM
1,1-Dichloroethene	ND		ug/kg dry	4.0	1.6	1	05/01/18	05/01/18 14:41	GM
cis-1,2-Dichloroethene	ND		ug/kg dry	4.0	1.6	1	05/01/18	05/01/18 14:41	GM



Rabecka Koons, Quality Assurance Officer

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*

**Analytical Results**

**Project: ARMED FORCES RETIREMENT HOME**

Project Number: CG-17-1111  
Project Manager: Nancy Love

Reported:

05/10/18 16:23

Report revised. Original report ID 8043007 05 09 18 1623.

**SB-04 (29.5')**

**8043007-03 (Soil)**

**Sample Date: 04/23/18**

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Quantitation Limit (LOQ)	Dilution	Prepared	Analyzed	Analyst
<b>VOLATILE ORGANICS BY EPA METHOD 5035/8260B (GC/MS) (continued)</b>									
trans-1,2-Dichloroethene	ND		ug/kg dry	4.0	1.6	1	05/01/18	05/01/18 14:41	GM
Dichlorofluoromethane	ND		ug/kg dry	4.0	1.6	1	05/01/18	05/01/18 14:41	GM
1,2-Dichloropropane	ND		ug/kg dry	4.0	1.6	1	05/01/18	05/01/18 14:41	GM
1,3-Dichloropropane	ND		ug/kg dry	4.0	1.6	1	05/01/18	05/01/18 14:41	GM
2,2-Dichloropropane	ND		ug/kg dry	4.0	1.6	1	05/01/18	05/01/18 14:41	GM
1,1-Dichloropropene	ND		ug/kg dry	4.0	1.6	1	05/01/18	05/01/18 14:41	GM
cis-1,3-Dichloropropene	ND		ug/kg dry	4.0	1.6	1	05/01/18	05/01/18 14:41	GM
trans-1,3-Dichloropropene	ND		ug/kg dry	4.0	1.6	1	05/01/18	05/01/18 14:41	GM
Diisopropyl ether (DIPE)	ND		ug/kg dry	4.0	1.6	1	05/01/18	05/01/18 14:41	GM
Ethyl tert-butyl ether (ETBE)	ND		ug/kg dry	4.0	1.6	1	05/01/18	05/01/18 14:41	GM
Ethylbenzene	ND		ug/kg dry	4.0	1.6	1	05/01/18	05/01/18 14:41	GM
Hexachlorobutadiene	ND		ug/kg dry	4.0	1.6	1	05/01/18	05/01/18 14:41	GM
2-Hexanone	ND		ug/kg dry	7.9	7.9	1	05/01/18	05/01/18 14:41	GM
Isopropylbenzene (Cumene)	ND		ug/kg dry	4.0	1.6	1	05/01/18	05/01/18 14:41	GM
4-Isopropyltoluene	ND		ug/kg dry	4.0	1.6	1	05/01/18	05/01/18 14:41	GM
Methyl tert-butyl ether (MTBE)	ND		ug/kg dry	4.0	1.6	1	05/01/18	05/01/18 14:41	GM
4-Methyl-2-pentanone	ND		ug/kg dry	7.9	7.9	1	05/01/18	05/01/18 14:41	GM
Methylene chloride	ND		ug/kg dry	7.9	7.9	1	05/01/18	05/01/18 14:41	GM
<b>Naphthalene</b>	<b>16.1</b>		ug/kg dry	4.0	1.6	1	05/01/18	05/01/18 14:41	GM
n-Propylbenzene	ND		ug/kg dry	4.0	1.6	1	05/01/18	05/01/18 14:41	GM
Styrene	ND		ug/kg dry	4.0	1.6	1	05/01/18	05/01/18 14:41	GM
1,1,1,2-Tetrachloroethane	ND		ug/kg dry	4.0	1.6	1	05/01/18	05/01/18 14:41	GM
1,1,2,2-Tetrachloroethane	ND		ug/kg dry	4.0	1.6	1	05/01/18	05/01/18 14:41	GM
<b>Tetrachloroethene</b>	<b>2.2</b>	J	ug/kg dry	4.0	1.6	1	05/01/18	05/01/18 14:41	GM
Toluene	ND		ug/kg dry	4.0	1.6	1	05/01/18	05/01/18 14:41	GM
1,2,3-Trichlorobenzene	ND		ug/kg dry	4.0	1.6	1	05/01/18	05/01/18 14:41	GM
1,2,4-Trichlorobenzene	ND		ug/kg dry	4.0	1.6	1	05/01/18	05/01/18 14:41	GM
1,1,1-Trichloroethane	ND		ug/kg dry	4.0	1.6	1	05/01/18	05/01/18 14:41	GM
1,1,2-Trichloroethane	ND		ug/kg dry	4.0	1.6	1	05/01/18	05/01/18 14:41	GM
Trichloroethene	ND		ug/kg dry	4.0	1.6	1	05/01/18	05/01/18 14:41	GM
Trichlorofluoromethane (Freon 11)	ND		ug/kg dry	4.0	1.6	1	05/01/18	05/01/18 14:41	GM
1,2,3-Trichloropropane	ND		ug/kg dry	4.0	1.6	1	05/01/18	05/01/18 14:41	GM
1,2,4-Trimethylbenzene	ND		ug/kg dry	4.0	1.6	1	05/01/18	05/01/18 14:41	GM
1,3,5-Trimethylbenzene	ND		ug/kg dry	4.0	1.6	1	05/01/18	05/01/18 14:41	GM

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*



Rabecka Koons, Quality Assurance Officer

**Analytical Results**

**Project: ARMED FORCES RETIREMENT HOME**

Project Number: CG-17-1111  
Project Manager: Nancy Love

Reported:

05/10/18 16:23

Report revised. Original report ID 8043007 05 09 18 1623.

**SB-04 (29.5')**

**8043007-03 (Soil)**

**Sample Date: 04/23/18**

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Quantitation Limit (LOQ)	Dilution	Prepared	Analyzed	Analyst
<b>VOLATILE ORGANICS BY EPA METHOD 5035/8260B (GC/MS) (continued)</b>									
Vinyl chloride	ND		ug/kg dry	4.0	1.6	1	05/01/18	05/01/18 14:41	GM
o-Xylene	ND		ug/kg dry	4.0	1.6	1	05/01/18	05/01/18 14:41	GM
m- & p-Xylenes	ND		ug/kg dry	4.0	1.6	1	05/01/18	05/01/18 14:41	GM
Surrogate: 1,2-Dichloroethane-d4		70-130		111 %	05/01/18		05/01/18 14:41		
Surrogate: Toluene-d8		75-120		108 %	05/01/18		05/01/18 14:41		
Surrogate: 4-Bromofluorobenzene		70-120		106 %	05/01/18		05/01/18 14:41		
<b>PERCENT SOLIDS BY ASTM D2216-05</b>									
Percent Solids	84		%			1	05/04/18	05/07/18 09:37	GM



Rabecka Koons, Quality Assurance Officer

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*

## Analytical Results

**Project: ARMED FORCES RETIREMENT HOME**

Project Number: CG-17-1111

Project Manager: Nancy Love

Reported:

05/10/18 16:23

Report revised. Original report ID 8043007 05 09 18 1623.

**SB-05 (5')**

**8043007-04 (Soil)**

**Sample Date: 04/24/18**

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Quantitation Limit (LOQ)	Dilution	Prepared	Analyzed	Analyst
<b>VOLATILE ORGANICS BY EPA METHOD 5035/8260B (GC/MS)</b>									
Acetone	ND		ug/kg dry	7.8	7.8	1	05/01/18	05/01/18 15:06	GM
tert-Amyl alcohol (TAA)	ND		ug/kg dry	39.1	39.1	1	05/01/18	05/01/18 15:06	GM
tert-Amyl methyl ether (TAME)	ND		ug/kg dry	3.9	1.6	1	05/01/18	05/01/18 15:06	GM
Benzene	ND		ug/kg dry	3.9	1.6	1	05/01/18	05/01/18 15:06	GM
Bromobenzene	ND		ug/kg dry	3.9	1.6	1	05/01/18	05/01/18 15:06	GM
Bromochloromethane	ND		ug/kg dry	3.9	1.6	1	05/01/18	05/01/18 15:06	GM
Bromodichloromethane	ND		ug/kg dry	3.9	1.6	1	05/01/18	05/01/18 15:06	GM
Bromoform	ND		ug/kg dry	3.9	1.6	1	05/01/18	05/01/18 15:06	GM
Bromomethane	ND		ug/kg dry	3.9	3.9	1	05/01/18	05/01/18 15:06	GM
tert-Butanol (TBA)	ND		ug/kg dry	39.1	39.1	1	05/01/18	05/01/18 15:06	GM
2-Butanone (MEK)	ND		ug/kg dry	7.8	7.8	1	05/01/18	05/01/18 15:06	GM
n-Butylbenzene	ND		ug/kg dry	3.9	1.6	1	05/01/18	05/01/18 15:06	GM
sec-Butylbenzene	ND		ug/kg dry	3.9	1.6	1	05/01/18	05/01/18 15:06	GM
tert-Butylbenzene	ND		ug/kg dry	3.9	1.6	1	05/01/18	05/01/18 15:06	GM
Carbon disulfide	ND		ug/kg dry	3.9	1.6	1	05/01/18	05/01/18 15:06	GM
Carbon tetrachloride	ND		ug/kg dry	3.9	1.6	1	05/01/18	05/01/18 15:06	GM
Chlorobenzene	ND		ug/kg dry	3.9	1.6	1	05/01/18	05/01/18 15:06	GM
Chloroethane	ND		ug/kg dry	3.9	3.9	1	05/01/18	05/01/18 15:06	GM
Chloroform	ND		ug/kg dry	3.9	1.6	1	05/01/18	05/01/18 15:06	GM
Chloromethane	ND		ug/kg dry	3.9	3.9	1	05/01/18	05/01/18 15:06	GM
2-Chlorotoluene	ND		ug/kg dry	3.9	1.6	1	05/01/18	05/01/18 15:06	GM
4-Chlorotoluene	ND		ug/kg dry	3.9	1.6	1	05/01/18	05/01/18 15:06	GM
1,2-Dibromo-3-chloropropane	ND		ug/kg dry	3.9	1.6	1	05/01/18	05/01/18 15:06	GM
Dibromochloromethane	ND		ug/kg dry	3.9	1.6	1	05/01/18	05/01/18 15:06	GM
1,2-Dibromoethane (EDB)	ND		ug/kg dry	3.9	1.6	1	05/01/18	05/01/18 15:06	GM
Dibromomethane	ND		ug/kg dry	3.9	1.6	1	05/01/18	05/01/18 15:06	GM
1,2-Dichlorobenzene	ND		ug/kg dry	3.9	1.6	1	05/01/18	05/01/18 15:06	GM
1,3-Dichlorobenzene	ND		ug/kg dry	3.9	1.6	1	05/01/18	05/01/18 15:06	GM
1,4-Dichlorobenzene	ND		ug/kg dry	3.9	1.6	1	05/01/18	05/01/18 15:06	GM
Dichlorodifluoromethane	ND		ug/kg dry	3.9	1.6	1	05/01/18	05/01/18 15:06	GM
1,1-Dichloroethane	ND		ug/kg dry	3.9	1.6	1	05/01/18	05/01/18 15:06	GM
1,2-Dichloroethane	ND		ug/kg dry	3.9	1.6	1	05/01/18	05/01/18 15:06	GM
1,1-Dichloroethene	ND		ug/kg dry	3.9	1.6	1	05/01/18	05/01/18 15:06	GM
cis-1,2-Dichloroethene	ND		ug/kg dry	3.9	1.6	1	05/01/18	05/01/18 15:06	GM

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*



Rabecka Koons, Quality Assurance Officer

**Analytical Results**

**Project: ARMED FORCES RETIREMENT HOME**

Project Number: CG-17-1111  
Project Manager: Nancy Love

Reported:  
05/10/18 16:23

Report revised. Original report ID 8043007 05 09 18 1623.

**SB-05 (5')**

**8043007-04 (Soil)**  
**Sample Date: 04/24/18**

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Quantitation Limit (LOQ)	Dilution	Prepared	Analyzed	Analyst
<b>VOLATILE ORGANICS BY EPA METHOD 5035/8260B (GC/MS) (continued)</b>									
trans-1,2-Dichloroethene	ND		ug/kg dry	3.9	1.6	1	05/01/18	05/01/18 15:06	GM
Dichlorofluoromethane	ND		ug/kg dry	3.9	1.6	1	05/01/18	05/01/18 15:06	GM
1,2-Dichloropropane	ND		ug/kg dry	3.9	1.6	1	05/01/18	05/01/18 15:06	GM
1,3-Dichloropropane	ND		ug/kg dry	3.9	1.6	1	05/01/18	05/01/18 15:06	GM
2,2-Dichloropropane	ND		ug/kg dry	3.9	1.6	1	05/01/18	05/01/18 15:06	GM
1,1-Dichloropropene	ND		ug/kg dry	3.9	1.6	1	05/01/18	05/01/18 15:06	GM
cis-1,3-Dichloropropene	ND		ug/kg dry	3.9	1.6	1	05/01/18	05/01/18 15:06	GM
trans-1,3-Dichloropropene	ND		ug/kg dry	3.9	1.6	1	05/01/18	05/01/18 15:06	GM
Diisopropyl ether (DIPE)	ND		ug/kg dry	3.9	1.6	1	05/01/18	05/01/18 15:06	GM
Ethyl tert-butyl ether (ETBE)	ND		ug/kg dry	3.9	1.6	1	05/01/18	05/01/18 15:06	GM
Ethylbenzene	ND		ug/kg dry	3.9	1.6	1	05/01/18	05/01/18 15:06	GM
Hexachlorobutadiene	ND		ug/kg dry	3.9	1.6	1	05/01/18	05/01/18 15:06	GM
2-Hexanone	ND		ug/kg dry	7.8	7.8	1	05/01/18	05/01/18 15:06	GM
Isopropylbenzene (Cumene)	ND		ug/kg dry	3.9	1.6	1	05/01/18	05/01/18 15:06	GM
4-Isopropyltoluene	ND		ug/kg dry	3.9	1.6	1	05/01/18	05/01/18 15:06	GM
Methyl tert-butyl ether (MTBE)	ND		ug/kg dry	3.9	1.6	1	05/01/18	05/01/18 15:06	GM
4-Methyl-2-pentanone	ND		ug/kg dry	7.8	7.8	1	05/01/18	05/01/18 15:06	GM
Methylene chloride	ND		ug/kg dry	7.8	7.8	1	05/01/18	05/01/18 15:06	GM
<b>Naphthalene</b>	<b>47.3</b>		ug/kg dry	3.9	1.6	1	05/01/18	05/01/18 15:06	GM
n-Propylbenzene	ND		ug/kg dry	3.9	1.6	1	05/01/18	05/01/18 15:06	GM
Styrene	ND		ug/kg dry	3.9	1.6	1	05/01/18	05/01/18 15:06	GM
1,1,1,2-Tetrachloroethane	ND		ug/kg dry	3.9	1.6	1	05/01/18	05/01/18 15:06	GM
1,1,2,2-Tetrachloroethane	ND		ug/kg dry	3.9	1.6	1	05/01/18	05/01/18 15:06	GM
Tetrachloroethene	ND		ug/kg dry	3.9	1.6	1	05/01/18	05/01/18 15:06	GM
Toluene	ND		ug/kg dry	3.9	1.6	1	05/01/18	05/01/18 15:06	GM
1,2,3-Trichlorobenzene	ND		ug/kg dry	3.9	1.6	1	05/01/18	05/01/18 15:06	GM
1,2,4-Trichlorobenzene	ND		ug/kg dry	3.9	1.6	1	05/01/18	05/01/18 15:06	GM
1,1,1-Trichloroethane	ND		ug/kg dry	3.9	1.6	1	05/01/18	05/01/18 15:06	GM
1,1,2-Trichloroethane	ND		ug/kg dry	3.9	1.6	1	05/01/18	05/01/18 15:06	GM
Trichloroethene	ND		ug/kg dry	3.9	1.6	1	05/01/18	05/01/18 15:06	GM
Trichlorofluoromethane (Freon 11)	ND		ug/kg dry	3.9	1.6	1	05/01/18	05/01/18 15:06	GM
1,2,3-Trichloropropane	ND		ug/kg dry	3.9	1.6	1	05/01/18	05/01/18 15:06	GM
1,2,4-Trimethylbenzene	ND		ug/kg dry	3.9	1.6	1	05/01/18	05/01/18 15:06	GM
1,3,5-Trimethylbenzene	ND		ug/kg dry	3.9	1.6	1	05/01/18	05/01/18 15:06	GM



Rabecka Koons, Quality Assurance Officer

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*

**Analytical Results**

**Project: ARMED FORCES RETIREMENT HOME**

Project Number: CG-17-1111  
Project Manager: Nancy Love

Reported:

05/10/18 16:23

Report revised. Original report ID 8043007 05 09 18 1623.

**SB-05 (5')**

**8043007-04 (Soil)**

**Sample Date: 04/24/18**

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Quantitation Limit (LOQ)	Dilution	Prepared	Analyzed	Analyst
<b>VOLATILE ORGANICS BY EPA METHOD 5035/8260B (GC/MS) (continued)</b>									
Vinyl chloride	ND		ug/kg dry	3.9	1.6	1	05/01/18	05/01/18 15:06	GM
o-Xylene	ND		ug/kg dry	3.9	1.6	1	05/01/18	05/01/18 15:06	GM
m- & p-Xylenes	ND		ug/kg dry	3.9	1.6	1	05/01/18	05/01/18 15:06	GM
Surrogate: 1,2-Dichloroethane-d4		70-130		104 %	05/01/18		05/01/18 15:06		
Surrogate: Toluene-d8		75-120		107 %	05/01/18		05/01/18 15:06		
Surrogate: 4-Bromofluorobenzene		70-120		106 %	05/01/18		05/01/18 15:06		
<b>PERCENT SOLIDS BY ASTM D2216-05</b>									
Percent Solids	82		%			1	05/04/18	05/07/18 09:37	GM



Rabecka Koons, Quality Assurance Officer

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*

**Analytical Results**

**Project: ARMED FORCES RETIREMENT HOME**

Project Number: CG-17-1111  
Project Manager: Nancy Love

Reported:  
05/10/18 16:23

Report revised. Original report ID 8043007 05 09 18 1623.

**SB-06 (5')**

**8043007-05 (Soil)**  
**Sample Date: 04/24/18**

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Quantitation Limit (LOQ)	Dilution	Prepared	Analyzed	Analyst
<b>VOLATILE ORGANICS BY EPA METHOD 5035/8260B (GC/MS)</b>									
Acetone	ND		ug/kg dry	8.4	8.4	1	05/01/18	05/01/18 15:31	GM
tert-Amyl alcohol (TAA)	ND		ug/kg dry	42.2	42.2	1	05/01/18	05/01/18 15:31	GM
tert-Amyl methyl ether (TAME)	ND		ug/kg dry	4.2	1.7	1	05/01/18	05/01/18 15:31	GM
Benzene	ND		ug/kg dry	4.2	1.7	1	05/01/18	05/01/18 15:31	GM
Bromobenzene	ND		ug/kg dry	4.2	1.7	1	05/01/18	05/01/18 15:31	GM
Bromochloromethane	ND		ug/kg dry	4.2	1.7	1	05/01/18	05/01/18 15:31	GM
Bromodichloromethane	ND		ug/kg dry	4.2	1.7	1	05/01/18	05/01/18 15:31	GM
Bromoform	ND		ug/kg dry	4.2	1.7	1	05/01/18	05/01/18 15:31	GM
Bromomethane	ND		ug/kg dry	4.2	4.2	1	05/01/18	05/01/18 15:31	GM
tert-Butanol (TBA)	ND		ug/kg dry	42.2	42.2	1	05/01/18	05/01/18 15:31	GM
2-Butanone (MEK)	ND		ug/kg dry	8.4	8.4	1	05/01/18	05/01/18 15:31	GM
n-Butylbenzene	ND		ug/kg dry	4.2	1.7	1	05/01/18	05/01/18 15:31	GM
sec-Butylbenzene	ND		ug/kg dry	4.2	1.7	1	05/01/18	05/01/18 15:31	GM
tert-Butylbenzene	ND		ug/kg dry	4.2	1.7	1	05/01/18	05/01/18 15:31	GM
Carbon disulfide	ND		ug/kg dry	4.2	1.7	1	05/01/18	05/01/18 15:31	GM
Carbon tetrachloride	ND		ug/kg dry	4.2	1.7	1	05/01/18	05/01/18 15:31	GM
Chlorobenzene	ND		ug/kg dry	4.2	1.7	1	05/01/18	05/01/18 15:31	GM
Chloroethane	ND		ug/kg dry	4.2	4.2	1	05/01/18	05/01/18 15:31	GM
Chloroform	ND		ug/kg dry	4.2	1.7	1	05/01/18	05/01/18 15:31	GM
Chloromethane	ND		ug/kg dry	4.2	4.2	1	05/01/18	05/01/18 15:31	GM
2-Chlorotoluene	ND		ug/kg dry	4.2	1.7	1	05/01/18	05/01/18 15:31	GM
4-Chlorotoluene	ND		ug/kg dry	4.2	1.7	1	05/01/18	05/01/18 15:31	GM
1,2-Dibromo-3-chloropropane	ND		ug/kg dry	4.2	1.7	1	05/01/18	05/01/18 15:31	GM
Dibromochloromethane	ND		ug/kg dry	4.2	1.7	1	05/01/18	05/01/18 15:31	GM
1,2-Dibromoethane (EDB)	ND		ug/kg dry	4.2	1.7	1	05/01/18	05/01/18 15:31	GM
Dibromomethane	ND		ug/kg dry	4.2	1.7	1	05/01/18	05/01/18 15:31	GM
1,2-Dichlorobenzene	ND		ug/kg dry	4.2	1.7	1	05/01/18	05/01/18 15:31	GM
1,3-Dichlorobenzene	ND		ug/kg dry	4.2	1.7	1	05/01/18	05/01/18 15:31	GM
1,4-Dichlorobenzene	ND		ug/kg dry	4.2	1.7	1	05/01/18	05/01/18 15:31	GM
Dichlorodifluoromethane	ND		ug/kg dry	4.2	1.7	1	05/01/18	05/01/18 15:31	GM
1,1-Dichloroethane	ND		ug/kg dry	4.2	1.7	1	05/01/18	05/01/18 15:31	GM
1,2-Dichloroethane	ND		ug/kg dry	4.2	1.7	1	05/01/18	05/01/18 15:31	GM
1,1-Dichloroethene	ND		ug/kg dry	4.2	1.7	1	05/01/18	05/01/18 15:31	GM
cis-1,2-Dichloroethene	ND		ug/kg dry	4.2	1.7	1	05/01/18	05/01/18 15:31	GM



Rabecka Koons, Quality Assurance Officer

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*



## Analytical Results

**Project: ARMED FORCES RETIREMENT HOME**

Project Number: CG-17-1111

Project Manager: Nancy Love

Reported:

05/10/18 16:23

Report revised. Original report ID 8043007 05 09 18 1623.

**SB-06 (5')**

**8043007-05 (Soil)**

**Sample Date: 04/24/18**

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Quantitation Limit (LOQ)	Dilution	Prepared	Analyzed	Analyst
<b>VOLATILE ORGANICS BY EPA METHOD 5035/8260B (GC/MS) (continued)</b>									
trans-1,2-Dichloroethene	ND		ug/kg dry	4.2	1.7	1	05/01/18	05/01/18 15:31	GM
Dichlorofluoromethane	ND		ug/kg dry	4.2	1.7	1	05/01/18	05/01/18 15:31	GM
1,2-Dichloropropane	ND		ug/kg dry	4.2	1.7	1	05/01/18	05/01/18 15:31	GM
1,3-Dichloropropane	ND		ug/kg dry	4.2	1.7	1	05/01/18	05/01/18 15:31	GM
2,2-Dichloropropane	ND		ug/kg dry	4.2	1.7	1	05/01/18	05/01/18 15:31	GM
1,1-Dichloropropene	ND		ug/kg dry	4.2	1.7	1	05/01/18	05/01/18 15:31	GM
cis-1,3-Dichloropropene	ND		ug/kg dry	4.2	1.7	1	05/01/18	05/01/18 15:31	GM
trans-1,3-Dichloropropene	ND		ug/kg dry	4.2	1.7	1	05/01/18	05/01/18 15:31	GM
Diisopropyl ether (DIPE)	ND		ug/kg dry	4.2	1.7	1	05/01/18	05/01/18 15:31	GM
Ethyl tert-butyl ether (ETBE)	ND		ug/kg dry	4.2	1.7	1	05/01/18	05/01/18 15:31	GM
Ethylbenzene	ND		ug/kg dry	4.2	1.7	1	05/01/18	05/01/18 15:31	GM
Hexachlorobutadiene	ND		ug/kg dry	4.2	1.7	1	05/01/18	05/01/18 15:31	GM
2-Hexanone	ND		ug/kg dry	8.4	8.4	1	05/01/18	05/01/18 15:31	GM
Isopropylbenzene (Cumene)	ND		ug/kg dry	4.2	1.7	1	05/01/18	05/01/18 15:31	GM
4-Isopropyltoluene	ND		ug/kg dry	4.2	1.7	1	05/01/18	05/01/18 15:31	GM
Methyl tert-butyl ether (MTBE)	ND		ug/kg dry	4.2	1.7	1	05/01/18	05/01/18 15:31	GM
4-Methyl-2-pentanone	ND		ug/kg dry	8.4	8.4	1	05/01/18	05/01/18 15:31	GM
Methylene chloride	ND		ug/kg dry	8.4	8.4	1	05/01/18	05/01/18 15:31	GM
<b>Naphthalene</b>	<b>18.9</b>		ug/kg dry	4.2	1.7	1	05/01/18	05/01/18 15:31	GM
n-Propylbenzene	ND		ug/kg dry	4.2	1.7	1	05/01/18	05/01/18 15:31	GM
Styrene	ND		ug/kg dry	4.2	1.7	1	05/01/18	05/01/18 15:31	GM
1,1,1,2-Tetrachloroethane	ND		ug/kg dry	4.2	1.7	1	05/01/18	05/01/18 15:31	GM
1,1,2,2-Tetrachloroethane	ND		ug/kg dry	4.2	1.7	1	05/01/18	05/01/18 15:31	GM
Tetrachloroethene	ND		ug/kg dry	4.2	1.7	1	05/01/18	05/01/18 15:31	GM
Toluene	ND		ug/kg dry	4.2	1.7	1	05/01/18	05/01/18 15:31	GM
1,2,3-Trichlorobenzene	ND		ug/kg dry	4.2	1.7	1	05/01/18	05/01/18 15:31	GM
1,2,4-Trichlorobenzene	ND		ug/kg dry	4.2	1.7	1	05/01/18	05/01/18 15:31	GM
1,1,1-Trichloroethane	ND		ug/kg dry	4.2	1.7	1	05/01/18	05/01/18 15:31	GM
1,1,2-Trichloroethane	ND		ug/kg dry	4.2	1.7	1	05/01/18	05/01/18 15:31	GM
Trichloroethene	ND		ug/kg dry	4.2	1.7	1	05/01/18	05/01/18 15:31	GM
Trichlorofluoromethane (Freon 11)	ND		ug/kg dry	4.2	1.7	1	05/01/18	05/01/18 15:31	GM
1,2,3-Trichloropropane	ND		ug/kg dry	4.2	1.7	1	05/01/18	05/01/18 15:31	GM
1,2,4-Trimethylbenzene	ND		ug/kg dry	4.2	1.7	1	05/01/18	05/01/18 15:31	GM
1,3,5-Trimethylbenzene	ND		ug/kg dry	4.2	1.7	1	05/01/18	05/01/18 15:31	GM

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*



Rabecka Koons, Quality Assurance Officer

**Analytical Results**

**Project: ARMED FORCES RETIREMENT HOME**

Project Number: CG-17-1111  
Project Manager: Nancy Love

Reported:

05/10/18 16:23

Report revised. Original report ID 8043007 05 09 18 1623.

**SB-06 (5')**

**8043007-05 (Soil)**

**Sample Date: 04/24/18**

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Quantitation Limit (LOQ)	Dilution	Prepared	Analyzed	Analyst
<b>VOLATILE ORGANICS BY EPA METHOD 5035/8260B (GC/MS) (continued)</b>									
Vinyl chloride	ND		ug/kg dry	4.2	1.7	1	05/01/18	05/01/18 15:31	GM
o-Xylene	ND		ug/kg dry	4.2	1.7	1	05/01/18	05/01/18 15:31	GM
m- & p-Xylenes	ND		ug/kg dry	4.2	1.7	1	05/01/18	05/01/18 15:31	GM
Surrogate: 1,2-Dichloroethane-d4		70-130		113 %	05/01/18		05/01/18 15:31		
Surrogate: Toluene-d8		75-120		102 %	05/01/18		05/01/18 15:31		
Surrogate: 4-Bromofluorobenzene		70-120		103 %	05/01/18		05/01/18 15:31		
<b>PERCENT SOLIDS BY ASTM D2216-05</b>									
Percent Solids	80		%			1	05/04/18	05/07/18 09:37	GM

*Rabecka Koons*

Rabecka Koons, Quality Assurance Officer

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*

## Analytical Results

**Project: ARMED FORCES RETIREMENT HOME**

Project Number: CG-17-1111

Project Manager: Nancy Love

Reported:

05/10/18 16:23

Report revised. Original report ID 8043007 05 09 18 1623.

**SB-07 (32.5')**

**8043007-06 (Soil)**

**Sample Date: 04/24/18**

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Quantitation Limit (LOQ)	Dilution	Prepared	Analyzed	Analyst
<b>VOLATILE ORGANICS BY EPA METHOD 5035/8260B (GC/MS)</b>									
Acetone	ND		ug/kg dry	11.5	11.5	1	05/01/18	05/01/18 15:55	GM
tert-Amyl alcohol (TAA)	ND		ug/kg dry	57.5	57.5	1	05/01/18	05/01/18 15:55	GM
tert-Amyl methyl ether (TAME)	ND		ug/kg dry	5.7	2.3	1	05/01/18	05/01/18 15:55	GM
Benzene	ND		ug/kg dry	5.7	2.3	1	05/01/18	05/01/18 15:55	GM
Bromobenzene	ND		ug/kg dry	5.7	2.3	1	05/01/18	05/01/18 15:55	GM
Bromochloromethane	ND		ug/kg dry	5.7	2.3	1	05/01/18	05/01/18 15:55	GM
Bromodichloromethane	ND		ug/kg dry	5.7	2.3	1	05/01/18	05/01/18 15:55	GM
Bromoform	ND		ug/kg dry	5.7	2.3	1	05/01/18	05/01/18 15:55	GM
Bromomethane	ND		ug/kg dry	5.7	5.7	1	05/01/18	05/01/18 15:55	GM
tert-Butanol (TBA)	ND		ug/kg dry	57.5	57.5	1	05/01/18	05/01/18 15:55	GM
2-Butanone (MEK)	ND		ug/kg dry	11.5	11.5	1	05/01/18	05/01/18 15:55	GM
n-Butylbenzene	ND		ug/kg dry	5.7	2.3	1	05/01/18	05/01/18 15:55	GM
sec-Butylbenzene	ND		ug/kg dry	5.7	2.3	1	05/01/18	05/01/18 15:55	GM
tert-Butylbenzene	ND		ug/kg dry	5.7	2.3	1	05/01/18	05/01/18 15:55	GM
Carbon disulfide	ND		ug/kg dry	5.7	2.3	1	05/01/18	05/01/18 15:55	GM
Carbon tetrachloride	ND		ug/kg dry	5.7	2.3	1	05/01/18	05/01/18 15:55	GM
Chlorobenzene	ND		ug/kg dry	5.7	2.3	1	05/01/18	05/01/18 15:55	GM
Chloroethane	ND		ug/kg dry	5.7	5.7	1	05/01/18	05/01/18 15:55	GM
Chloroform	ND		ug/kg dry	5.7	2.3	1	05/01/18	05/01/18 15:55	GM
Chloromethane	ND		ug/kg dry	5.7	5.7	1	05/01/18	05/01/18 15:55	GM
2-Chlorotoluene	ND		ug/kg dry	5.7	2.3	1	05/01/18	05/01/18 15:55	GM
4-Chlorotoluene	ND		ug/kg dry	5.7	2.3	1	05/01/18	05/01/18 15:55	GM
1,2-Dibromo-3-chloropropane	ND		ug/kg dry	5.7	2.3	1	05/01/18	05/01/18 15:55	GM
Dibromochloromethane	ND		ug/kg dry	5.7	2.3	1	05/01/18	05/01/18 15:55	GM
1,2-Dibromoethane (EDB)	ND		ug/kg dry	5.7	2.3	1	05/01/18	05/01/18 15:55	GM
Dibromomethane	ND		ug/kg dry	5.7	2.3	1	05/01/18	05/01/18 15:55	GM
1,2-Dichlorobenzene	ND		ug/kg dry	5.7	2.3	1	05/01/18	05/01/18 15:55	GM
1,3-Dichlorobenzene	ND		ug/kg dry	5.7	2.3	1	05/01/18	05/01/18 15:55	GM
1,4-Dichlorobenzene	ND		ug/kg dry	5.7	2.3	1	05/01/18	05/01/18 15:55	GM
Dichlorodifluoromethane	ND		ug/kg dry	5.7	2.3	1	05/01/18	05/01/18 15:55	GM
1,1-Dichloroethane	ND		ug/kg dry	5.7	2.3	1	05/01/18	05/01/18 15:55	GM
1,2-Dichloroethane	ND		ug/kg dry	5.7	2.3	1	05/01/18	05/01/18 15:55	GM
1,1-Dichloroethene	ND		ug/kg dry	5.7	2.3	1	05/01/18	05/01/18 15:55	GM
cis-1,2-Dichloroethene	ND		ug/kg dry	5.7	2.3	1	05/01/18	05/01/18 15:55	GM

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*



Rabecka Koons, Quality Assurance Officer

## Analytical Results

**Project: ARMED FORCES RETIREMENT HOME**

Project Number: CG-17-1111

Project Manager: Nancy Love

Reported:

05/10/18 16:23

Report revised. Original report ID 8043007 05 09 18 1623.

**SB-07 (32.5')**

**8043007-06 (Soil)**

**Sample Date: 04/24/18**

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Quantitation Limit (LOQ)	Dilution	Prepared	Analyzed	Analyst
<b>VOLATILE ORGANICS BY EPA METHOD 5035/8260B (GC/MS) (continued)</b>									
trans-1,2-Dichloroethene	ND		ug/kg dry	5.7	2.3	1	05/01/18	05/01/18 15:55	GM
Dichlorofluoromethane	ND		ug/kg dry	5.7	2.3	1	05/01/18	05/01/18 15:55	GM
1,2-Dichloropropane	ND		ug/kg dry	5.7	2.3	1	05/01/18	05/01/18 15:55	GM
1,3-Dichloropropane	ND		ug/kg dry	5.7	2.3	1	05/01/18	05/01/18 15:55	GM
2,2-Dichloropropane	ND		ug/kg dry	5.7	2.3	1	05/01/18	05/01/18 15:55	GM
1,1-Dichloropropene	ND		ug/kg dry	5.7	2.3	1	05/01/18	05/01/18 15:55	GM
cis-1,3-Dichloropropene	ND		ug/kg dry	5.7	2.3	1	05/01/18	05/01/18 15:55	GM
trans-1,3-Dichloropropene	ND		ug/kg dry	5.7	2.3	1	05/01/18	05/01/18 15:55	GM
Diisopropyl ether (DIPE)	ND		ug/kg dry	5.7	2.3	1	05/01/18	05/01/18 15:55	GM
Ethyl tert-butyl ether (ETBE)	ND		ug/kg dry	5.7	2.3	1	05/01/18	05/01/18 15:55	GM
Ethylbenzene	ND		ug/kg dry	5.7	2.3	1	05/01/18	05/01/18 15:55	GM
Hexachlorobutadiene	ND		ug/kg dry	5.7	2.3	1	05/01/18	05/01/18 15:55	GM
2-Hexanone	ND		ug/kg dry	11.5	11.5	1	05/01/18	05/01/18 15:55	GM
Isopropylbenzene (Cumene)	ND		ug/kg dry	5.7	2.3	1	05/01/18	05/01/18 15:55	GM
4-Isopropyltoluene	ND		ug/kg dry	5.7	2.3	1	05/01/18	05/01/18 15:55	GM
Methyl tert-butyl ether (MTBE)	ND		ug/kg dry	5.7	2.3	1	05/01/18	05/01/18 15:55	GM
4-Methyl-2-pentanone	ND		ug/kg dry	11.5	11.5	1	05/01/18	05/01/18 15:55	GM
Methylene chloride	ND		ug/kg dry	11.5	11.5	1	05/01/18	05/01/18 15:55	GM
<b>Naphthalene</b>	<b>146</b>		ug/kg dry	5.7	2.3	1	05/01/18	05/01/18 15:55	GM
n-Propylbenzene	ND		ug/kg dry	5.7	2.3	1	05/01/18	05/01/18 15:55	GM
Styrene	ND		ug/kg dry	5.7	2.3	1	05/01/18	05/01/18 15:55	GM
1,1,1,2-Tetrachloroethane	ND		ug/kg dry	5.7	2.3	1	05/01/18	05/01/18 15:55	GM
1,1,2,2-Tetrachloroethane	ND		ug/kg dry	5.7	2.3	1	05/01/18	05/01/18 15:55	GM
Tetrachloroethene	ND		ug/kg dry	5.7	2.3	1	05/01/18	05/01/18 15:55	GM
Toluene	ND		ug/kg dry	5.7	2.3	1	05/01/18	05/01/18 15:55	GM
1,2,3-Trichlorobenzene	ND		ug/kg dry	5.7	2.3	1	05/01/18	05/01/18 15:55	GM
1,2,4-Trichlorobenzene	ND		ug/kg dry	5.7	2.3	1	05/01/18	05/01/18 15:55	GM
1,1,1-Trichloroethane	ND		ug/kg dry	5.7	2.3	1	05/01/18	05/01/18 15:55	GM
1,1,2-Trichloroethane	ND		ug/kg dry	5.7	2.3	1	05/01/18	05/01/18 15:55	GM
Trichloroethene	ND		ug/kg dry	5.7	2.3	1	05/01/18	05/01/18 15:55	GM
Trichlorofluoromethane (Freon 11)	ND		ug/kg dry	5.7	2.3	1	05/01/18	05/01/18 15:55	GM
1,2,3-Trichloropropane	ND		ug/kg dry	5.7	2.3	1	05/01/18	05/01/18 15:55	GM
1,2,4-Trimethylbenzene	ND		ug/kg dry	5.7	2.3	1	05/01/18	05/01/18 15:55	GM
1,3,5-Trimethylbenzene	ND		ug/kg dry	5.7	2.3	1	05/01/18	05/01/18 15:55	GM

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*



Rabecka Koons, Quality Assurance Officer

**Analytical Results**

**Project: ARMED FORCES RETIREMENT HOME**

Project Number: CG-17-1111  
Project Manager: Nancy Love

Reported:

05/10/18 16:23

Report revised. Original report ID 8043007 05 09 18 1623.

**SB-07 (32.5')**

**8043007-06 (Soil)**

**Sample Date: 04/24/18**

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Quantitation Limit (LOQ)	Dilution	Prepared	Analyzed	Analyst
<b>VOLATILE ORGANICS BY EPA METHOD 5035/8260B (GC/MS) (continued)</b>									
Vinyl chloride	ND		ug/kg dry	5.7	2.3	1	05/01/18	05/01/18 15:55	GM
o-Xylene	ND		ug/kg dry	5.7	2.3	1	05/01/18	05/01/18 15:55	GM
m- & p-Xylenes	ND		ug/kg dry	5.7	2.3	1	05/01/18	05/01/18 15:55	GM
Surrogate: 1,2-Dichloroethane-d4		70-130		114 %	05/01/18		05/01/18 15:55		
Surrogate: Toluene-d8		75-120		104 %	05/01/18		05/01/18 15:55		
Surrogate: 4-Bromofluorobenzene		70-120		105 %	05/01/18		05/01/18 15:55		
<b>PERCENT SOLIDS BY ASTM D2216-05</b>									
Percent Solids	75		%			1	05/04/18	05/07/18 09:37	GM



Rabecka Koons, Quality Assurance Officer

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*

**Analytical Results**

**Project: ARMED FORCES RETIREMENT HOME**

Project Number: CG-17-1111  
Project Manager: Nancy Love

Reported:

05/10/18 16:23

Report revised. Original report ID 8043007 05 09 18 1623.

**SB-12 (24')**

**8043007-07 (Soil)**

**Sample Date: 04/25/18**

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Quantitation Limit (LOQ)	Dilution	Prepared	Analyzed	Analyst
<b>VOLATILE ORGANICS BY EPA METHOD 5035/8260B (GC/MS)</b>									
Acetone	ND		ug/kg dry	8.6	8.6	1	05/01/18	05/01/18 16:20	GM
tert-Amyl alcohol (TAA)	ND		ug/kg dry	42.8	42.8	1	05/01/18	05/01/18 16:20	GM
tert-Amyl methyl ether (TAME)	ND		ug/kg dry	4.3	1.7	1	05/01/18	05/01/18 16:20	GM
Benzene	ND		ug/kg dry	4.3	1.7	1	05/01/18	05/01/18 16:20	GM
Bromobenzene	ND		ug/kg dry	4.3	1.7	1	05/01/18	05/01/18 16:20	GM
Bromochloromethane	ND		ug/kg dry	4.3	1.7	1	05/01/18	05/01/18 16:20	GM
Bromodichloromethane	ND		ug/kg dry	4.3	1.7	1	05/01/18	05/01/18 16:20	GM
Bromoform	ND		ug/kg dry	4.3	1.7	1	05/01/18	05/01/18 16:20	GM
Bromomethane	ND		ug/kg dry	4.3	4.3	1	05/01/18	05/01/18 16:20	GM
tert-Butanol (TBA)	ND		ug/kg dry	42.8	42.8	1	05/01/18	05/01/18 16:20	GM
2-Butanone (MEK)	ND		ug/kg dry	8.6	8.6	1	05/01/18	05/01/18 16:20	GM
n-Butylbenzene	ND		ug/kg dry	4.3	1.7	1	05/01/18	05/01/18 16:20	GM
sec-Butylbenzene	ND		ug/kg dry	4.3	1.7	1	05/01/18	05/01/18 16:20	GM
tert-Butylbenzene	ND		ug/kg dry	4.3	1.7	1	05/01/18	05/01/18 16:20	GM
Carbon disulfide	ND		ug/kg dry	4.3	1.7	1	05/01/18	05/01/18 16:20	GM
Carbon tetrachloride	ND		ug/kg dry	4.3	1.7	1	05/01/18	05/01/18 16:20	GM
Chlorobenzene	ND		ug/kg dry	4.3	1.7	1	05/01/18	05/01/18 16:20	GM
Chloroethane	ND		ug/kg dry	4.3	4.3	1	05/01/18	05/01/18 16:20	GM
Chloroform	ND		ug/kg dry	4.3	1.7	1	05/01/18	05/01/18 16:20	GM
Chloromethane	ND		ug/kg dry	4.3	4.3	1	05/01/18	05/01/18 16:20	GM
2-Chlorotoluene	ND		ug/kg dry	4.3	1.7	1	05/01/18	05/01/18 16:20	GM
4-Chlorotoluene	ND		ug/kg dry	4.3	1.7	1	05/01/18	05/01/18 16:20	GM
1,2-Dibromo-3-chloropropane	ND		ug/kg dry	4.3	1.7	1	05/01/18	05/01/18 16:20	GM
Dibromochloromethane	ND		ug/kg dry	4.3	1.7	1	05/01/18	05/01/18 16:20	GM
1,2-Dibromoethane (EDB)	ND		ug/kg dry	4.3	1.7	1	05/01/18	05/01/18 16:20	GM
Dibromomethane	ND		ug/kg dry	4.3	1.7	1	05/01/18	05/01/18 16:20	GM
1,2-Dichlorobenzene	ND		ug/kg dry	4.3	1.7	1	05/01/18	05/01/18 16:20	GM
1,3-Dichlorobenzene	ND		ug/kg dry	4.3	1.7	1	05/01/18	05/01/18 16:20	GM
1,4-Dichlorobenzene	ND		ug/kg dry	4.3	1.7	1	05/01/18	05/01/18 16:20	GM
Dichlorodifluoromethane	ND		ug/kg dry	4.3	1.7	1	05/01/18	05/01/18 16:20	GM
1,1-Dichloroethane	ND		ug/kg dry	4.3	1.7	1	05/01/18	05/01/18 16:20	GM
1,2-Dichloroethane	ND		ug/kg dry	4.3	1.7	1	05/01/18	05/01/18 16:20	GM
1,1-Dichloroethene	ND		ug/kg dry	4.3	1.7	1	05/01/18	05/01/18 16:20	GM
cis-1,2-Dichloroethene	ND		ug/kg dry	4.3	1.7	1	05/01/18	05/01/18 16:20	GM

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*



Rabecka Koons, Quality Assurance Officer

**Analytical Results**

**Project: ARMED FORCES RETIREMENT HOME**

Project Number: CG-17-1111  
Project Manager: Nancy Love

Reported:

05/10/18 16:23

Report revised. Original report ID 8043007 05 09 18 1623.

**SB-12 (24')**

**8043007-07 (Soil)**

**Sample Date: 04/25/18**

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Quantitation Limit (LOQ)	Dilution	Prepared	Analyzed	Analyst
<b>VOLATILE ORGANICS BY EPA METHOD 5035/8260B (GC/MS) (continued)</b>									
trans-1,2-Dichloroethene	ND		ug/kg dry	4.3	1.7	1	05/01/18	05/01/18 16:20	GM
Dichlorofluoromethane	ND		ug/kg dry	4.3	1.7	1	05/01/18	05/01/18 16:20	GM
1,2-Dichloropropane	ND		ug/kg dry	4.3	1.7	1	05/01/18	05/01/18 16:20	GM
1,3-Dichloropropane	ND		ug/kg dry	4.3	1.7	1	05/01/18	05/01/18 16:20	GM
2,2-Dichloropropane	ND		ug/kg dry	4.3	1.7	1	05/01/18	05/01/18 16:20	GM
1,1-Dichloropropene	ND		ug/kg dry	4.3	1.7	1	05/01/18	05/01/18 16:20	GM
cis-1,3-Dichloropropene	ND		ug/kg dry	4.3	1.7	1	05/01/18	05/01/18 16:20	GM
trans-1,3-Dichloropropene	ND		ug/kg dry	4.3	1.7	1	05/01/18	05/01/18 16:20	GM
Diisopropyl ether (DIPE)	ND		ug/kg dry	4.3	1.7	1	05/01/18	05/01/18 16:20	GM
Ethyl tert-butyl ether (ETBE)	ND		ug/kg dry	4.3	1.7	1	05/01/18	05/01/18 16:20	GM
Ethylbenzene	ND		ug/kg dry	4.3	1.7	1	05/01/18	05/01/18 16:20	GM
Hexachlorobutadiene	ND		ug/kg dry	4.3	1.7	1	05/01/18	05/01/18 16:20	GM
2-Hexanone	ND		ug/kg dry	8.6	8.6	1	05/01/18	05/01/18 16:20	GM
Isopropylbenzene (Cumene)	ND		ug/kg dry	4.3	1.7	1	05/01/18	05/01/18 16:20	GM
4-Isopropyltoluene	ND		ug/kg dry	4.3	1.7	1	05/01/18	05/01/18 16:20	GM
Methyl tert-butyl ether (MTBE)	ND		ug/kg dry	4.3	1.7	1	05/01/18	05/01/18 16:20	GM
4-Methyl-2-pentanone	ND		ug/kg dry	8.6	8.6	1	05/01/18	05/01/18 16:20	GM
Methylene chloride	ND		ug/kg dry	8.6	8.6	1	05/01/18	05/01/18 16:20	GM
<b>Naphthalene</b>	<b>8.7</b>		ug/kg dry	4.3	1.7	1	05/01/18	05/01/18 16:20	GM
n-Propylbenzene	ND		ug/kg dry	4.3	1.7	1	05/01/18	05/01/18 16:20	GM
Styrene	ND		ug/kg dry	4.3	1.7	1	05/01/18	05/01/18 16:20	GM
1,1,1,2-Tetrachloroethane	ND		ug/kg dry	4.3	1.7	1	05/01/18	05/01/18 16:20	GM
1,1,2,2-Tetrachloroethane	ND		ug/kg dry	4.3	1.7	1	05/01/18	05/01/18 16:20	GM
Tetrachloroethene	ND		ug/kg dry	4.3	1.7	1	05/01/18	05/01/18 16:20	GM
Toluene	ND		ug/kg dry	4.3	1.7	1	05/01/18	05/01/18 16:20	GM
1,2,3-Trichlorobenzene	ND		ug/kg dry	4.3	1.7	1	05/01/18	05/01/18 16:20	GM
1,2,4-Trichlorobenzene	ND		ug/kg dry	4.3	1.7	1	05/01/18	05/01/18 16:20	GM
1,1,1-Trichloroethane	ND		ug/kg dry	4.3	1.7	1	05/01/18	05/01/18 16:20	GM
1,1,2-Trichloroethane	ND		ug/kg dry	4.3	1.7	1	05/01/18	05/01/18 16:20	GM
Trichloroethene	ND		ug/kg dry	4.3	1.7	1	05/01/18	05/01/18 16:20	GM
Trichlorofluoromethane (Freon 11)	ND		ug/kg dry	4.3	1.7	1	05/01/18	05/01/18 16:20	GM
1,2,3-Trichloropropane	ND		ug/kg dry	4.3	1.7	1	05/01/18	05/01/18 16:20	GM
1,2,4-Trimethylbenzene	ND		ug/kg dry	4.3	1.7	1	05/01/18	05/01/18 16:20	GM
1,3,5-Trimethylbenzene	ND		ug/kg dry	4.3	1.7	1	05/01/18	05/01/18 16:20	GM

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*



Rabecka Koons, Quality Assurance Officer

**Analytical Results**

**Project: ARMED FORCES RETIREMENT HOME**

Project Number: CG-17-1111  
Project Manager: Nancy Love

Reported:

05/10/18 16:23

Report revised. Original report ID 8043007 05 09 18 1623.

**SB-12 (24')**

**8043007-07 (Soil)**

**Sample Date: 04/25/18**

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Quantitation Limit (LOQ)	Dilution	Prepared	Analyzed	Analyst
<b>VOLATILE ORGANICS BY EPA METHOD 5035/8260B (GC/MS) (continued)</b>									
Vinyl chloride	ND		ug/kg dry	4.3	1.7	1	05/01/18	05/01/18 16:20	GM
o-Xylene	ND		ug/kg dry	4.3	1.7	1	05/01/18	05/01/18 16:20	GM
m- & p-Xylenes	ND		ug/kg dry	4.3	1.7	1	05/01/18	05/01/18 16:20	GM
<i>Surrogate: 1,2-Dichloroethane-d4</i>			<i>70-130</i>	<i>113 %</i>	<i>05/01/18</i>		<i>05/01/18 16:20</i>		
<i>Surrogate: Toluene-d8</i>			<i>75-120</i>	<i>109 %</i>	<i>05/01/18</i>		<i>05/01/18 16:20</i>		
<i>Surrogate: 4-Bromofluorobenzene</i>			<i>70-120</i>	<i>108 %</i>	<i>05/01/18</i>		<i>05/01/18 16:20</i>		
<b>PERCENT SOLIDS BY ASTM D2216-05</b>									
Percent Solids	80		%			1	05/04/18	05/07/18 09:37	GM



Rabecka Koons, Quality Assurance Officer

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*



**Analytical Results**

**Project: ARMED FORCES RETIREMENT HOME**

Project Number: CG-17-1111  
Project Manager: Nancy Love

Reported:  
05/10/18 16:23

Report revised. Original report ID 8043007 05 09 18 1623.

**SB-13 (36')**

**8043007-08 (Soil)**  
**Sample Date: 04/25/18**

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Quantitation Limit (LOQ)	Dilution	Prepared	Analyzed	Analyst
<b>VOLATILE ORGANICS BY EPA METHOD 5035/8260B (GC/MS)</b>									
Acetone	ND		ug/kg dry	8.0	8.0	1	05/01/18	05/01/18 16:45	GM
tert-Amyl alcohol (TAA)	ND		ug/kg dry	40.2	40.2	1	05/01/18	05/01/18 16:45	GM
tert-Amyl methyl ether (TAME)	ND		ug/kg dry	4.0	1.6	1	05/01/18	05/01/18 16:45	GM
Benzene	ND		ug/kg dry	4.0	1.6	1	05/01/18	05/01/18 16:45	GM
Bromobenzene	ND		ug/kg dry	4.0	1.6	1	05/01/18	05/01/18 16:45	GM
Bromochloromethane	ND		ug/kg dry	4.0	1.6	1	05/01/18	05/01/18 16:45	GM
Bromodichloromethane	ND		ug/kg dry	4.0	1.6	1	05/01/18	05/01/18 16:45	GM
Bromoform	ND		ug/kg dry	4.0	1.6	1	05/01/18	05/01/18 16:45	GM
Bromomethane	ND		ug/kg dry	4.0	4.0	1	05/01/18	05/01/18 16:45	GM
tert-Butanol (TBA)	ND		ug/kg dry	40.2	40.2	1	05/01/18	05/01/18 16:45	GM
2-Butanone (MEK)	ND		ug/kg dry	8.0	8.0	1	05/01/18	05/01/18 16:45	GM
n-Butylbenzene	ND		ug/kg dry	4.0	1.6	1	05/01/18	05/01/18 16:45	GM
sec-Butylbenzene	ND		ug/kg dry	4.0	1.6	1	05/01/18	05/01/18 16:45	GM
tert-Butylbenzene	ND		ug/kg dry	4.0	1.6	1	05/01/18	05/01/18 16:45	GM
Carbon disulfide	ND		ug/kg dry	4.0	1.6	1	05/01/18	05/01/18 16:45	GM
Carbon tetrachloride	ND		ug/kg dry	4.0	1.6	1	05/01/18	05/01/18 16:45	GM
Chlorobenzene	ND		ug/kg dry	4.0	1.6	1	05/01/18	05/01/18 16:45	GM
Chloroethane	ND		ug/kg dry	4.0	4.0	1	05/01/18	05/01/18 16:45	GM
Chloroform	ND		ug/kg dry	4.0	1.6	1	05/01/18	05/01/18 16:45	GM
Chloromethane	ND		ug/kg dry	4.0	4.0	1	05/01/18	05/01/18 16:45	GM
2-Chlorotoluene	ND		ug/kg dry	4.0	1.6	1	05/01/18	05/01/18 16:45	GM
4-Chlorotoluene	ND		ug/kg dry	4.0	1.6	1	05/01/18	05/01/18 16:45	GM
1,2-Dibromo-3-chloropropane	ND		ug/kg dry	4.0	1.6	1	05/01/18	05/01/18 16:45	GM
Dibromochloromethane	ND		ug/kg dry	4.0	1.6	1	05/01/18	05/01/18 16:45	GM
1,2-Dibromoethane (EDB)	ND		ug/kg dry	4.0	1.6	1	05/01/18	05/01/18 16:45	GM
Dibromomethane	ND		ug/kg dry	4.0	1.6	1	05/01/18	05/01/18 16:45	GM
1,2-Dichlorobenzene	ND		ug/kg dry	4.0	1.6	1	05/01/18	05/01/18 16:45	GM
1,3-Dichlorobenzene	ND		ug/kg dry	4.0	1.6	1	05/01/18	05/01/18 16:45	GM
1,4-Dichlorobenzene	ND		ug/kg dry	4.0	1.6	1	05/01/18	05/01/18 16:45	GM
Dichlorodifluoromethane	ND		ug/kg dry	4.0	1.6	1	05/01/18	05/01/18 16:45	GM
1,1-Dichloroethane	ND		ug/kg dry	4.0	1.6	1	05/01/18	05/01/18 16:45	GM
1,2-Dichloroethane	ND		ug/kg dry	4.0	1.6	1	05/01/18	05/01/18 16:45	GM
1,1-Dichloroethene	ND		ug/kg dry	4.0	1.6	1	05/01/18	05/01/18 16:45	GM
cis-1,2-Dichloroethene	ND		ug/kg dry	4.0	1.6	1	05/01/18	05/01/18 16:45	GM



Rabecka Koons, Quality Assurance Officer

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*

**Analytical Results**

**Project: ARMED FORCES RETIREMENT HOME**

Project Number: CG-17-1111  
Project Manager: Nancy Love

Reported:

05/10/18 16:23

Report revised. Original report ID 8043007 05 09 18 1623.

**SB-13 (36')**

**8043007-08 (Soil)**

**Sample Date: 04/25/18**

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Quantitation Limit (LOQ)	Dilution	Prepared	Analyzed	Analyst
<b>VOLATILE ORGANICS BY EPA METHOD 5035/8260B (GC/MS) (continued)</b>									
trans-1,2-Dichloroethene	ND		ug/kg dry	4.0	1.6	1	05/01/18	05/01/18 16:45	GM
Dichlorofluoromethane	ND		ug/kg dry	4.0	1.6	1	05/01/18	05/01/18 16:45	GM
1,2-Dichloropropane	ND		ug/kg dry	4.0	1.6	1	05/01/18	05/01/18 16:45	GM
1,3-Dichloropropane	ND		ug/kg dry	4.0	1.6	1	05/01/18	05/01/18 16:45	GM
2,2-Dichloropropane	ND		ug/kg dry	4.0	1.6	1	05/01/18	05/01/18 16:45	GM
1,1-Dichloropropene	ND		ug/kg dry	4.0	1.6	1	05/01/18	05/01/18 16:45	GM
cis-1,3-Dichloropropene	ND		ug/kg dry	4.0	1.6	1	05/01/18	05/01/18 16:45	GM
trans-1,3-Dichloropropene	ND		ug/kg dry	4.0	1.6	1	05/01/18	05/01/18 16:45	GM
Diisopropyl ether (DIPE)	ND		ug/kg dry	4.0	1.6	1	05/01/18	05/01/18 16:45	GM
Ethyl tert-butyl ether (ETBE)	ND		ug/kg dry	4.0	1.6	1	05/01/18	05/01/18 16:45	GM
Ethylbenzene	ND		ug/kg dry	4.0	1.6	1	05/01/18	05/01/18 16:45	GM
Hexachlorobutadiene	ND		ug/kg dry	4.0	1.6	1	05/01/18	05/01/18 16:45	GM
2-Hexanone	ND		ug/kg dry	8.0	8.0	1	05/01/18	05/01/18 16:45	GM
Isopropylbenzene (Cumene)	ND		ug/kg dry	4.0	1.6	1	05/01/18	05/01/18 16:45	GM
4-Isopropyltoluene	ND		ug/kg dry	4.0	1.6	1	05/01/18	05/01/18 16:45	GM
Methyl tert-butyl ether (MTBE)	ND		ug/kg dry	4.0	1.6	1	05/01/18	05/01/18 16:45	GM
4-Methyl-2-pentanone	ND		ug/kg dry	8.0	8.0	1	05/01/18	05/01/18 16:45	GM
Methylene chloride	ND		ug/kg dry	8.0	8.0	1	05/01/18	05/01/18 16:45	GM
Naphthalene	ND		ug/kg dry	4.0	1.6	1	05/01/18	05/01/18 16:45	GM
n-Propylbenzene	ND		ug/kg dry	4.0	1.6	1	05/01/18	05/01/18 16:45	GM
Styrene	ND		ug/kg dry	4.0	1.6	1	05/01/18	05/01/18 16:45	GM
1,1,1,2-Tetrachloroethane	ND		ug/kg dry	4.0	1.6	1	05/01/18	05/01/18 16:45	GM
1,1,2,2-Tetrachloroethane	ND		ug/kg dry	4.0	1.6	1	05/01/18	05/01/18 16:45	GM
<b>Tetrachloroethene</b>	<b>5.9</b>		ug/kg dry	4.0	1.6	1	05/01/18	05/01/18 16:45	GM
Toluene	ND		ug/kg dry	4.0	1.6	1	05/01/18	05/01/18 16:45	GM
1,2,3-Trichlorobenzene	ND		ug/kg dry	4.0	1.6	1	05/01/18	05/01/18 16:45	GM
1,2,4-Trichlorobenzene	ND		ug/kg dry	4.0	1.6	1	05/01/18	05/01/18 16:45	GM
1,1,1-Trichloroethane	ND		ug/kg dry	4.0	1.6	1	05/01/18	05/01/18 16:45	GM
1,1,2-Trichloroethane	ND		ug/kg dry	4.0	1.6	1	05/01/18	05/01/18 16:45	GM
Trichloroethene	ND		ug/kg dry	4.0	1.6	1	05/01/18	05/01/18 16:45	GM
Trichlorofluoromethane (Freon 11)	ND		ug/kg dry	4.0	1.6	1	05/01/18	05/01/18 16:45	GM
1,2,3-Trichloropropane	ND		ug/kg dry	4.0	1.6	1	05/01/18	05/01/18 16:45	GM
1,2,4-Trimethylbenzene	ND		ug/kg dry	4.0	1.6	1	05/01/18	05/01/18 16:45	GM
1,3,5-Trimethylbenzene	ND		ug/kg dry	4.0	1.6	1	05/01/18	05/01/18 16:45	GM

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*



Rabecka Koons, Quality Assurance Officer

**Analytical Results**

**Project: ARMED FORCES RETIREMENT HOME**

Project Number: CG-17-1111  
Project Manager: Nancy Love

Reported:

05/10/18 16:23

Report revised. Original report ID 8043007 05 09 18 1623.

**SB-13 (36')**

**8043007-08 (Soil)**

**Sample Date: 04/25/18**

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Quantitation Limit (LOQ)	Dilution	Prepared	Analyzed	Analyst
<b>VOLATILE ORGANICS BY EPA METHOD 5035/8260B (GC/MS) (continued)</b>									
Vinyl chloride	ND		ug/kg dry	4.0	1.6	1	05/01/18	05/01/18 16:45	GM
o-Xylene	ND		ug/kg dry	4.0	1.6	1	05/01/18	05/01/18 16:45	GM
m- & p-Xylenes	ND		ug/kg dry	4.0	1.6	1	05/01/18	05/01/18 16:45	GM
Surrogate: 1,2-Dichloroethane-d4		70-130		110 %	05/01/18		05/01/18 16:45		
Surrogate: Toluene-d8		75-120		105 %	05/01/18		05/01/18 16:45		
Surrogate: 4-Bromofluorobenzene		70-120		104 %	05/01/18		05/01/18 16:45		
<b>PERCENT SOLIDS BY ASTM D2216-05</b>									
Percent Solids	84		%			1	05/04/18	05/07/18 09:37	GM

*Rabecka Koons*

Rabecka Koons, Quality Assurance Officer

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*

**Analytical Results**

**Project: ARMED FORCES RETIREMENT HOME**

Project Number: CG-17-1111  
Project Manager: Nancy Love

Reported:  
05/10/18 16:23

Report revised. Original report ID 8043007 05 09 18 1623.

**SB-D1 (5')**

**8043007-09 (Soil)**  
**Sample Date: 04/24/18**

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Quantitation Limit (LOQ)	Dilution	Prepared	Analyzed	Analyst
<b>VOLATILE ORGANICS BY EPA METHOD 5035/8260B (GC/MS)</b>									
Acetone	ND		ug/kg dry	8.8	8.8	1	05/01/18	05/01/18 17:10	GM
tert-Amyl alcohol (TAA)	ND		ug/kg dry	43.9	43.9	1	05/01/18	05/01/18 17:10	GM
tert-Amyl methyl ether (TAME)	ND		ug/kg dry	4.4	1.8	1	05/01/18	05/01/18 17:10	GM
Benzene	ND		ug/kg dry	4.4	1.8	1	05/01/18	05/01/18 17:10	GM
Bromobenzene	ND		ug/kg dry	4.4	1.8	1	05/01/18	05/01/18 17:10	GM
Bromochloromethane	ND		ug/kg dry	4.4	1.8	1	05/01/18	05/01/18 17:10	GM
Bromodichloromethane	ND		ug/kg dry	4.4	1.8	1	05/01/18	05/01/18 17:10	GM
Bromoform	ND		ug/kg dry	4.4	1.8	1	05/01/18	05/01/18 17:10	GM
Bromomethane	ND		ug/kg dry	4.4	4.4	1	05/01/18	05/01/18 17:10	GM
tert-Butanol (TBA)	ND		ug/kg dry	43.9	43.9	1	05/01/18	05/01/18 17:10	GM
2-Butanone (MEK)	ND		ug/kg dry	8.8	8.8	1	05/01/18	05/01/18 17:10	GM
n-Butylbenzene	ND		ug/kg dry	4.4	1.8	1	05/01/18	05/01/18 17:10	GM
sec-Butylbenzene	ND		ug/kg dry	4.4	1.8	1	05/01/18	05/01/18 17:10	GM
tert-Butylbenzene	ND		ug/kg dry	4.4	1.8	1	05/01/18	05/01/18 17:10	GM
Carbon disulfide	ND		ug/kg dry	4.4	1.8	1	05/01/18	05/01/18 17:10	GM
Carbon tetrachloride	ND		ug/kg dry	4.4	1.8	1	05/01/18	05/01/18 17:10	GM
Chlorobenzene	ND		ug/kg dry	4.4	1.8	1	05/01/18	05/01/18 17:10	GM
Chloroethane	ND		ug/kg dry	4.4	4.4	1	05/01/18	05/01/18 17:10	GM
Chloroform	ND		ug/kg dry	4.4	1.8	1	05/01/18	05/01/18 17:10	GM
Chloromethane	ND		ug/kg dry	4.4	4.4	1	05/01/18	05/01/18 17:10	GM
2-Chlorotoluene	ND		ug/kg dry	4.4	1.8	1	05/01/18	05/01/18 17:10	GM
4-Chlorotoluene	ND		ug/kg dry	4.4	1.8	1	05/01/18	05/01/18 17:10	GM
1,2-Dibromo-3-chloropropane	ND		ug/kg dry	4.4	1.8	1	05/01/18	05/01/18 17:10	GM
Dibromochloromethane	ND		ug/kg dry	4.4	1.8	1	05/01/18	05/01/18 17:10	GM
1,2-Dibromoethane (EDB)	ND		ug/kg dry	4.4	1.8	1	05/01/18	05/01/18 17:10	GM
Dibromomethane	ND		ug/kg dry	4.4	1.8	1	05/01/18	05/01/18 17:10	GM
1,2-Dichlorobenzene	ND		ug/kg dry	4.4	1.8	1	05/01/18	05/01/18 17:10	GM
1,3-Dichlorobenzene	ND		ug/kg dry	4.4	1.8	1	05/01/18	05/01/18 17:10	GM
1,4-Dichlorobenzene	ND		ug/kg dry	4.4	1.8	1	05/01/18	05/01/18 17:10	GM
Dichlorodifluoromethane	ND		ug/kg dry	4.4	1.8	1	05/01/18	05/01/18 17:10	GM
1,1-Dichloroethane	ND		ug/kg dry	4.4	1.8	1	05/01/18	05/01/18 17:10	GM
1,2-Dichloroethane	ND		ug/kg dry	4.4	1.8	1	05/01/18	05/01/18 17:10	GM
1,1-Dichloroethene	ND		ug/kg dry	4.4	1.8	1	05/01/18	05/01/18 17:10	GM
cis-1,2-Dichloroethene	ND		ug/kg dry	4.4	1.8	1	05/01/18	05/01/18 17:10	GM



Rabecka Koons, Quality Assurance Officer

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*

### Analytical Results

**Project: ARMED FORCES RETIREMENT HOME**

Project Number: CG-17-1111  
Project Manager: Nancy Love

Reported:

05/10/18 16:23

Report revised. Original report ID 8043007 05 09 18 1623.

**SB-D1 (5')**

**8043007-09 (Soil)**

**Sample Date: 04/24/18**

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Quantitation Limit (LOQ)	Dilution	Prepared	Analyzed	Analyst
<b>VOLATILE ORGANICS BY EPA METHOD 5035/8260B (GC/MS) (continued)</b>									
trans-1,2-Dichloroethene	ND		ug/kg dry	4.4	1.8	1	05/01/18	05/01/18 17:10	GM
Dichlorofluoromethane	ND		ug/kg dry	4.4	1.8	1	05/01/18	05/01/18 17:10	GM
1,2-Dichloropropane	ND		ug/kg dry	4.4	1.8	1	05/01/18	05/01/18 17:10	GM
1,3-Dichloropropane	ND		ug/kg dry	4.4	1.8	1	05/01/18	05/01/18 17:10	GM
2,2-Dichloropropane	ND		ug/kg dry	4.4	1.8	1	05/01/18	05/01/18 17:10	GM
1,1-Dichloropropene	ND		ug/kg dry	4.4	1.8	1	05/01/18	05/01/18 17:10	GM
cis-1,3-Dichloropropene	ND		ug/kg dry	4.4	1.8	1	05/01/18	05/01/18 17:10	GM
trans-1,3-Dichloropropene	ND		ug/kg dry	4.4	1.8	1	05/01/18	05/01/18 17:10	GM
Diisopropyl ether (DIPE)	ND		ug/kg dry	4.4	1.8	1	05/01/18	05/01/18 17:10	GM
Ethyl tert-butyl ether (ETBE)	ND		ug/kg dry	4.4	1.8	1	05/01/18	05/01/18 17:10	GM
Ethylbenzene	ND		ug/kg dry	4.4	1.8	1	05/01/18	05/01/18 17:10	GM
Hexachlorobutadiene	ND		ug/kg dry	4.4	1.8	1	05/01/18	05/01/18 17:10	GM
2-Hexanone	ND		ug/kg dry	8.8	8.8	1	05/01/18	05/01/18 17:10	GM
Isopropylbenzene (Cumene)	ND		ug/kg dry	4.4	1.8	1	05/01/18	05/01/18 17:10	GM
4-Isopropyltoluene	ND		ug/kg dry	4.4	1.8	1	05/01/18	05/01/18 17:10	GM
Methyl tert-butyl ether (MTBE)	ND		ug/kg dry	4.4	1.8	1	05/01/18	05/01/18 17:10	GM
4-Methyl-2-pentanone	ND		ug/kg dry	8.8	8.8	1	05/01/18	05/01/18 17:10	GM
Methylene chloride	ND		ug/kg dry	8.8	8.8	1	05/01/18	05/01/18 17:10	GM
Naphthalene	ND		ug/kg dry	4.4	1.8	1	05/01/18	05/01/18 17:10	GM
n-Propylbenzene	ND		ug/kg dry	4.4	1.8	1	05/01/18	05/01/18 17:10	GM
Styrene	ND		ug/kg dry	4.4	1.8	1	05/01/18	05/01/18 17:10	GM
1,1,1,2-Tetrachloroethane	ND		ug/kg dry	4.4	1.8	1	05/01/18	05/01/18 17:10	GM
1,1,2,2-Tetrachloroethane	ND		ug/kg dry	4.4	1.8	1	05/01/18	05/01/18 17:10	GM
Tetrachloroethene	ND		ug/kg dry	4.4	1.8	1	05/01/18	05/01/18 17:10	GM
Toluene	ND		ug/kg dry	4.4	1.8	1	05/01/18	05/01/18 17:10	GM
1,2,3-Trichlorobenzene	ND		ug/kg dry	4.4	1.8	1	05/01/18	05/01/18 17:10	GM
1,2,4-Trichlorobenzene	ND		ug/kg dry	4.4	1.8	1	05/01/18	05/01/18 17:10	GM
1,1,1-Trichloroethane	ND		ug/kg dry	4.4	1.8	1	05/01/18	05/01/18 17:10	GM
1,1,2-Trichloroethane	ND		ug/kg dry	4.4	1.8	1	05/01/18	05/01/18 17:10	GM
Trichloroethene	ND		ug/kg dry	4.4	1.8	1	05/01/18	05/01/18 17:10	GM
Trichlorofluoromethane (Freon 11)	ND		ug/kg dry	4.4	1.8	1	05/01/18	05/01/18 17:10	GM
1,2,3-Trichloropropane	ND		ug/kg dry	4.4	1.8	1	05/01/18	05/01/18 17:10	GM
1,2,4-Trimethylbenzene	ND		ug/kg dry	4.4	1.8	1	05/01/18	05/01/18 17:10	GM
1,3,5-Trimethylbenzene	ND		ug/kg dry	4.4	1.8	1	05/01/18	05/01/18 17:10	GM

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*



Rabecka Koons, Quality Assurance Officer

**Analytical Results**

**Project: ARMED FORCES RETIREMENT HOME**

Project Number: CG-17-1111  
Project Manager: Nancy Love

Reported:

05/10/18 16:23

Report revised. Original report ID 8043007 05 09 18 1623.

**SB-D1 (5')**

**8043007-09 (Soil)**

**Sample Date: 04/24/18**

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Quantitation Limit (LOQ)	Dilution	Prepared	Analyzed	Analyst
<b>VOLATILE ORGANICS BY EPA METHOD 5035/8260B (GC/MS) (continued)</b>									
Vinyl chloride	ND		ug/kg dry	4.4	1.8	1	05/01/18	05/01/18 17:10	GM
o-Xylene	ND		ug/kg dry	4.4	1.8	1	05/01/18	05/01/18 17:10	GM
m- & p-Xylenes	ND		ug/kg dry	4.4	1.8	1	05/01/18	05/01/18 17:10	GM
Surrogate: 1,2-Dichloroethane-d4		70-130		115 %	05/01/18		05/01/18 17:10		
Surrogate: Toluene-d8		75-120		107 %	05/01/18		05/01/18 17:10		
Surrogate: 4-Bromofluorobenzene		70-120		98 %	05/01/18		05/01/18 17:10		
<b>PERCENT SOLIDS BY ASTM D2216-05</b>									
Percent Solids	74		%			1	05/04/18	05/07/18 09:37	GM



Rabecka Koons, Quality Assurance Officer

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*

## Analytical Results

**Project: ARMED FORCES RETIREMENT HOME**

Project Number: CG-17-1111

Project Manager: Nancy Love

Reported:

05/10/18 16:23

Report revised. Original report ID 8043007 05 09 18 1623.

### Notes and Definitions

J	Detected but below the reporting limit; therefore, result is an estimated concentration (CLP J-Flag).
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference



Rabecka Koons, Quality Assurance Officer

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*

Company Name: Chesapeake GeoSciences, Inc.		Project Manager: Nancy Love		CHAIN-OF-CUSTODY RECORD									
Project Name: Armed Forces Retirement Home		Project ID: CG-17-1111		Maryland Spectral Services, Inc. 1500 Caton Center Drive, Suite G Baltimore, MD 21227 410-247-7600 • Fax 410-247-7602 labman@mdspectral.com									
Sampler(s): Meg Staines		P.O. Number: CG171111MS		Matrix Codes: NW (nonpotable water) PW (potable water)									
Field Sample ID	Date	Time	No. of Containers			Analysis Requested						MSS Lab ID	
			Water	Soil	Other	TPH-GRO EPA 8015M	TPH-DRO EPA 8015M	TPH-ORO EPA 8015M	RCRA 8 Metals EPA 6020	PCBs EPA 8082	TPH-C7-12 EPA 8015M		
SB-01 (5')	4/23/14	11:50	X	X	X	X	X	X	X	X	X	X	8043007-01
SB-03 (17')	4/25/14	15:30	X	X	X	X	X	X	X	X	X	X	-02
SB-04 (29.5')	4/23/14	15:45	X	X	X	X	X	X	X	X	X	X	-03
SB-05 (5')	4/24/14	11:45	X	X	X	X	X	X	X	X	X	X	-04
SB-06 (5')	4/24/14	9:50	X	X	X	X	X	X	X	X	X	X	-05
SB-07 (32.5')	4/24/14	15:40	X	X	X	X	X	X	X	X	X	X	-06
SB-12 (24')	4/25/14	9:45	X	X	X	X	X	X	X	X	X	X	-07
SB-12 (36')	4/25/14	14:00	X	X	X	X	X	X	X	X	X	X	-08
SB-D1 (5')	4/24/14	00:00	X	X	X	X	X	X	X	X	X	X	-0A
Relinquished by: (Signature) <i>Meg Staines</i> (Printed) Meg Staines		Date/Time 04/29/14 22:00		Received by: (Signature) <i>Nancy Love</i> (Printed) Nancy Love			Relinquished by: (Signature) <i>Nancy Love</i> (Printed) Nancy Love			Date/Time 4/30/14 15:20		Received by: (Signature) <i>Meg + C. Lo/ke-Fall</i> (Printed)	
Relinquished by: (Signature) <i>Meg Staines</i> (Printed)		Date/Time 16:00 04/30/14		Received by: (Signature) <i>Gary Koons</i> (Printed) Gary Koons			Turn Around Time: Normal (7 day) 5 day 4 day 3 day Rush (2 day) Next Day Other: Specific Due Date: _____			Lab Use: Temp: 2.0 °C <input type="checkbox"/> Received on ice <input type="checkbox"/> Received same day <input type="checkbox"/> Preservation Appropriate		Sample Disposal: <input type="checkbox"/> Return to Client <input type="checkbox"/> Disposal by lab <input type="checkbox"/> Archive for _____ days	
Delivery Method: <input type="checkbox"/> Courier <input type="checkbox"/> Client <input type="checkbox"/> UPS <input type="checkbox"/> FedEx <input type="checkbox"/> USPS <input type="checkbox"/> Other:		Special Instructions/QC Requirements & Comments:											

Report revised: Original report ID 8043007 05 09 18 1623.



Company Name: Chesapeake GeoSciences, Inc. Project Manager: Nancy Love

Project Name: Armed Forces Retirement Home Project ID: CG-17-1111

Sampler(s): Meg Staines P.O. Number: CG171111MS

Field Sample ID Date Time Water Soil Other

SB-01 (6') 4/23/16 11:50 X X 5 X

SB-03 (10') 4/25/16 15:30 X X 4 X

SB-04 (29.5') 4/23/16 15:45 X X 4 X

SB-05 (5') 4/24/16 11:45 X X 4 X

SB-06 (5') 4/24/16 9:50 X X 4 X

SB-07 (32.5') 4/24/16 15:40 X X 4 X

SB-12 (24') 4/25/16 9:45 X X 4 X

SB-13 (36') 4/25/16 14:00 X X 4 X

SB-04 (5') 4/24/16 00:00 X X 4 X

Relinquished by: (Signature) Date/Time Received by: (Signature) No. of Containers

Relinquished by: (Signature) Date/Time Received by Lab: (Signature) VOCs EPA 8260

Relinquished by: (Signature) Date/Time Received by: (Signature) PAHs EPA 8270

Analysis Requested

CHAIN-OF-CUSTODY RECORD

Maryland Spectral Services, Inc.  
1500 Caton Center Drive, Suite G  
Baltimore, MD 21227  
410-247-7600 • Fax 410-247-7602  
labman@mdspectral.com

Matrix Codes: NW (nonpotable water)  
PW (potable water)

Preservative: 1+1 HCl, H<sub>2</sub>SO<sub>4</sub>, Methanol, Na<sub>2</sub>S<sub>2</sub>O<sub>8</sub>, NaHCO<sub>3</sub> Field pH, Residual Chlorine, QC Request, Trip Blank, Field Blank MSS Lab ID

4°C TereosKit

Turn Around Time: Normal (7 day)

5 day

4 day

3 day

Rush (2 day)

Next Day

Other: \_\_\_\_\_

Specific Due Date: \_\_\_\_\_

Lab Use: \_\_\_\_\_

Temp: 20 °C

Received on Ice

Received same day

Preservation Appropriate

Sample Disposal: \_\_\_\_\_

Return to Client

Disposal by lab

Archive for \_\_\_\_\_ days

10 May 2018

Nancy Love  
Chesapeake GeoSciences, Inc.  
5405 Twin Knolls Rd, Suite 1  
Columbia, MD 21045  
RE: ARMED FORCES RETIREMENT HOME

Enclosed are the results of analyses for samples received by the laboratory on 05/01/18 16:30.

A more detailed report format is available upon request, which lists the accreditation status for all analytical methods performed.

Please visit our website at [www.mdspectral.com](http://www.mdspectral.com) for a complete listing of our accreditations.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Rabecka Koons  
Quality Assurance Officer

**Analytical Results**

1500 Caton Center Dr Suite G  
Baltimore MD 21227  
410-247-7600  
www.mdspectral.com

**Project: ARMED FORCES RETIREMENT HOME**

Project Number: CG-17-1111

Project Manager: Nancy Love

Reported:

05/10/18 09:07

Client Sample ID	Alternate Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
SB-09 (14')		8050107-01	Soil	04/26/18 14:30	05/01/18 16:30
SB-10 (7')		8050107-02	Soil	04/26/18 12:20	05/01/18 16:30
SB-14 (5')		8050107-03	Soil	04/26/18 09:00	05/01/18 16:30
SB-D2		8050107-04	Soil	04/26/18 00:00	05/01/18 16:30



Rabecka Koons, Quality Assurance Officer

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*

**Analytical Results**

**Project: ARMED FORCES RETIREMENT HOME**

Project Number: CG-17-1111  
Project Manager: Nancy Love

Reported:  
05/10/18 09:07

**SB-09 (14')**

**8050107-01 (Soil)**  
**Sample Date: 04/26/18**

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Quantitation Limit (LOQ)	Dilution	Prepared	Analyzed	Analyst
<b>VOLATILE ORGANICS BY EPA METHOD 5035/8260B (GC/MS)</b>									
Acetone	ND		ug/kg dry	8.3	8.3	1	05/07/18	05/07/18 15:40	GM
tert-Amyl alcohol (TAA)	ND		ug/kg dry	41.3	41.3	1	05/07/18	05/07/18 15:40	GM
tert-Amyl methyl ether (TAME)	ND		ug/kg dry	4.1	1.7	1	05/07/18	05/07/18 15:40	GM
Benzene	ND		ug/kg dry	4.1	1.7	1	05/07/18	05/07/18 15:40	GM
Bromobenzene	ND		ug/kg dry	4.1	1.7	1	05/07/18	05/07/18 15:40	GM
Bromochloromethane	ND		ug/kg dry	4.1	1.7	1	05/07/18	05/07/18 15:40	GM
Bromodichloromethane	ND		ug/kg dry	4.1	1.7	1	05/07/18	05/07/18 15:40	GM
Bromoform	ND		ug/kg dry	4.1	1.7	1	05/07/18	05/07/18 15:40	GM
Bromomethane	ND		ug/kg dry	4.1	4.1	1	05/07/18	05/07/18 15:40	GM
tert-Butanol (TBA)	ND		ug/kg dry	41.3	41.3	1	05/07/18	05/07/18 15:40	GM
2-Butanone (MEK)	ND		ug/kg dry	8.3	8.3	1	05/07/18	05/07/18 15:40	GM
n-Butylbenzene	ND		ug/kg dry	4.1	1.7	1	05/07/18	05/07/18 15:40	GM
<b>sec-Butylbenzene</b>	<b>5.8</b>		ug/kg dry	4.1	1.7	1	05/07/18	05/07/18 15:40	GM
tert-Butylbenzene	ND		ug/kg dry	4.1	1.7	1	05/07/18	05/07/18 15:40	GM
Carbon disulfide	ND		ug/kg dry	4.1	1.7	1	05/07/18	05/07/18 15:40	GM
Carbon tetrachloride	ND		ug/kg dry	4.1	1.7	1	05/07/18	05/07/18 15:40	GM
Chlorobenzene	ND		ug/kg dry	4.1	1.7	1	05/07/18	05/07/18 15:40	GM
Chloroethane	ND		ug/kg dry	4.1	4.1	1	05/07/18	05/07/18 15:40	GM
Chloroform	ND		ug/kg dry	4.1	1.7	1	05/07/18	05/07/18 15:40	GM
Chloromethane	ND		ug/kg dry	4.1	4.1	1	05/07/18	05/07/18 15:40	GM
2-Chlorotoluene	ND		ug/kg dry	4.1	1.7	1	05/07/18	05/07/18 15:40	GM
4-Chlorotoluene	ND		ug/kg dry	4.1	1.7	1	05/07/18	05/07/18 15:40	GM
1,2-Dibromo-3-chloropropane	ND		ug/kg dry	4.1	1.7	1	05/07/18	05/07/18 15:40	GM
Dibromochloromethane	ND		ug/kg dry	4.1	1.7	1	05/07/18	05/07/18 15:40	GM
1,2-Dibromoethane (EDB)	ND		ug/kg dry	4.1	1.7	1	05/07/18	05/07/18 15:40	GM
Dibromomethane	ND		ug/kg dry	4.1	1.7	1	05/07/18	05/07/18 15:40	GM
1,2-Dichlorobenzene	ND		ug/kg dry	4.1	1.7	1	05/07/18	05/07/18 15:40	GM
1,3-Dichlorobenzene	ND		ug/kg dry	4.1	1.7	1	05/07/18	05/07/18 15:40	GM
1,4-Dichlorobenzene	ND		ug/kg dry	4.1	1.7	1	05/07/18	05/07/18 15:40	GM
Dichlorodifluoromethane	ND		ug/kg dry	4.1	1.7	1	05/07/18	05/07/18 15:40	GM
1,1-Dichloroethane	ND		ug/kg dry	4.1	1.7	1	05/07/18	05/07/18 15:40	GM
1,2-Dichloroethane	ND		ug/kg dry	4.1	1.7	1	05/07/18	05/07/18 15:40	GM
1,1-Dichloroethene	ND		ug/kg dry	4.1	1.7	1	05/07/18	05/07/18 15:40	GM
<b>cis-1,2-Dichloroethene</b>	<b>7.5</b>		ug/kg dry	4.1	1.7	1	05/07/18	05/07/18 15:40	GM

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*



Rabecka Koons, Quality Assurance Officer

**Analytical Results**

**Project: ARMED FORCES RETIREMENT HOME**

Project Number: CG-17-1111

Project Manager: Nancy Love

Reported:

05/10/18 09:07

**SB-09 (14')**

**8050107-01 (Soil)**

**Sample Date: 04/26/18**

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Quantitation Limit (LOQ)	Dilution	Prepared	Analyzed	Analyst
<b>VOLATILE ORGANICS BY EPA METHOD 5035/8260B (GC/MS) (continued)</b>									
trans-1,2-Dichloroethene	ND		ug/kg dry	4.1	1.7	1	05/07/18	05/07/18 15:40	GM
Dichlorofluoromethane	ND		ug/kg dry	4.1	1.7	1	05/07/18	05/07/18 15:40	GM
1,2-Dichloropropane	ND		ug/kg dry	4.1	1.7	1	05/07/18	05/07/18 15:40	GM
1,3-Dichloropropane	ND		ug/kg dry	4.1	1.7	1	05/07/18	05/07/18 15:40	GM
2,2-Dichloropropane	ND		ug/kg dry	4.1	1.7	1	05/07/18	05/07/18 15:40	GM
1,1-Dichloropropene	ND		ug/kg dry	4.1	1.7	1	05/07/18	05/07/18 15:40	GM
cis-1,3-Dichloropropene	ND		ug/kg dry	4.1	1.7	1	05/07/18	05/07/18 15:40	GM
trans-1,3-Dichloropropene	ND		ug/kg dry	4.1	1.7	1	05/07/18	05/07/18 15:40	GM
Diisopropyl ether (DIPE)	ND		ug/kg dry	4.1	1.7	1	05/07/18	05/07/18 15:40	GM
Ethyl tert-butyl ether (ETBE)	ND		ug/kg dry	4.1	1.7	1	05/07/18	05/07/18 15:40	GM
Ethylbenzene	ND		ug/kg dry	4.1	1.7	1	05/07/18	05/07/18 15:40	GM
Hexachlorobutadiene	ND		ug/kg dry	4.1	1.7	1	05/07/18	05/07/18 15:40	GM
2-Hexanone	ND		ug/kg dry	8.3	8.3	1	05/07/18	05/07/18 15:40	GM
Isopropylbenzene (Cumene)	ND		ug/kg dry	4.1	1.7	1	05/07/18	05/07/18 15:40	GM
4-Isopropyltoluene	ND		ug/kg dry	4.1	1.7	1	05/07/18	05/07/18 15:40	GM
Methyl tert-butyl ether (MTBE)	ND		ug/kg dry	4.1	1.7	1	05/07/18	05/07/18 15:40	GM
4-Methyl-2-pentanone	ND		ug/kg dry	8.3	8.3	1	05/07/18	05/07/18 15:40	GM
Methylene chloride	ND		ug/kg dry	8.3	8.3	1	05/07/18	05/07/18 15:40	GM
Naphthalene	ND		ug/kg dry	4.1	1.7	1	05/07/18	05/07/18 15:40	GM
n-Propylbenzene	ND		ug/kg dry	4.1	1.7	1	05/07/18	05/07/18 15:40	GM
Styrene	ND		ug/kg dry	4.1	1.7	1	05/07/18	05/07/18 15:40	GM
1,1,1,2-Tetrachloroethane	ND		ug/kg dry	4.1	1.7	1	05/07/18	05/07/18 15:40	GM
1,1,2,2-Tetrachloroethane	ND		ug/kg dry	4.1	1.7	1	05/07/18	05/07/18 15:40	GM
<b>Tetrachloroethene</b>	<b>32.1</b>		ug/kg dry	4.1	1.7	1	05/07/18	05/07/18 15:40	GM
Toluene	ND		ug/kg dry	4.1	1.7	1	05/07/18	05/07/18 15:40	GM
1,2,3-Trichlorobenzene	ND		ug/kg dry	4.1	1.7	1	05/07/18	05/07/18 15:40	GM
<b>1,2,4-Trichlorobenzene</b>	<b>3.3</b>	J	ug/kg dry	4.1	1.7	1	05/07/18	05/07/18 15:40	GM
1,1,1-Trichloroethane	ND		ug/kg dry	4.1	1.7	1	05/07/18	05/07/18 15:40	GM
1,1,2-Trichloroethane	ND		ug/kg dry	4.1	1.7	1	05/07/18	05/07/18 15:40	GM
Trichloroethene	ND		ug/kg dry	4.1	1.7	1	05/07/18	05/07/18 15:40	GM
Trichlorofluoromethane (Freon 11)	ND		ug/kg dry	4.1	1.7	1	05/07/18	05/07/18 15:40	GM
1,2,3-Trichloropropane	ND		ug/kg dry	4.1	1.7	1	05/07/18	05/07/18 15:40	GM
1,2,4-Trimethylbenzene	ND		ug/kg dry	4.1	1.7	1	05/07/18	05/07/18 15:40	GM
1,3,5-Trimethylbenzene	ND		ug/kg dry	4.1	1.7	1	05/07/18	05/07/18 15:40	GM

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*



Rabecka Koons, Quality Assurance Officer

**Analytical Results**

1500 Caton Center Dr Suite G  
Baltimore MD 21227  
410-247-7600  
www.mdspectral.com

**Project: ARMED FORCES RETIREMENT HOME**

Project Number: CG-17-1111  
Project Manager: Nancy Love

Reported:  
05/10/18 09:07

**SB-09 (14')**

**8050107-01 (Soil)**  
**Sample Date: 04/26/18**

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Quantitation Limit (LOQ)	Dilution	Prepared	Analyzed	Analyst
<b>VOLATILE ORGANICS BY EPA METHOD 5035/8260B (GC/MS) (continued)</b>									
Vinyl chloride	ND		ug/kg dry	4.1	1.7	1	05/07/18	05/07/18 15:40	GM
o-Xylene	ND		ug/kg dry	4.1	1.7	1	05/07/18	05/07/18 15:40	GM
m- & p-Xylenes	ND		ug/kg dry	4.1	1.7	1	05/07/18	05/07/18 15:40	GM
Surrogate: 1,2-Dichloroethane-d4		70-130		102 %	05/07/18		05/07/18 15:40		
Surrogate: Toluene-d8		75-120		102 %	05/07/18		05/07/18 15:40		
Surrogate: 4-Bromofluorobenzene		70-120		141 %	05/07/18		05/07/18 15:40		S-07
<b>GASOLINE RANGE ORGANICS BY EPA 8015B</b>									
<b>C7-C12</b>	<b>15.1</b>		mg/kg dry	0.39	0.39	1	05/07/18	05/07/18 16:58	GM
Surrogate: a,a,a-Trifluorotoluene		85-115		105 %	05/07/18		05/07/18 16:58		
<b>PERCENT SOLIDS BY ASTM D2216-05</b>									
<b>Percent Solids</b>	<b>83</b>		%			1	05/09/18	05/10/18 08:08	WB



Rabecka Koons, Quality Assurance Officer

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

**Analytical Results**

**Project: ARMED FORCES RETIREMENT HOME**

Project Number: CG-17-1111  
Project Manager: Nancy Love

Reported:  
05/10/18 09:07

**SB-10 (7')**

**8050107-02 (Soil)**  
**Sample Date: 04/26/18**

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Quantitation Limit (LOQ)	Dilution	Prepared	Analyzed	Analyst
<b>GASOLINE RANGE ORGANICS BY EPA 8015B</b>									
<b>C7-C12</b>	<b>1760</b>		mg/kg dry	15.8	15.8	28.1	05/07/18	05/07/18 17:58	GM
<i>Surrogate: a,a,a-Trifluorotoluene</i>			85-115	100 %	05/07/18		05/07/18 17:58		
<b>PERCENT SOLIDS BY ASTM D2216-05</b>									
<b>Percent Solids</b>	<b>89</b>		%			1	05/09/18	05/10/18 08:08	WB



Rabecka Koons, Quality Assurance Officer

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*



## Analytical Results

**Project: ARMED FORCES RETIREMENT HOME**

Project Number: CG-17-1111

Project Manager: Nancy Love

Reported:

05/10/18 09:07

**SB-10 (7')**

**8050107-02RE1 (Soil)**

**Sample Date: 04/26/18**

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Quantitation Limit (LOQ)	Dilution	Prepared	Analyzed	Analyst
<b>VOLATILE ORGANICS BY EPA METHOD 5035/8260B (GC/MS)</b>									
Acetone	ND		ug/kg dry	6310	6310	562	05/08/18	05/08/18 16:42	GM
tert-Amyl alcohol (TAA)	ND		ug/kg dry	31600	31600	562	05/08/18	05/08/18 16:42	GM
tert-Amyl methyl ether (TAME)	ND		ug/kg dry	3160	1260	562	05/08/18	05/08/18 16:42	GM
Benzene	ND		ug/kg dry	3160	1260	562	05/08/18	05/08/18 16:42	GM
Bromobenzene	ND		ug/kg dry	3160	1260	562	05/08/18	05/08/18 16:42	GM
Bromochloromethane	ND		ug/kg dry	3160	1260	562	05/08/18	05/08/18 16:42	GM
Bromodichloromethane	ND		ug/kg dry	3160	1260	562	05/08/18	05/08/18 16:42	GM
Bromoform	ND		ug/kg dry	3160	1260	562	05/08/18	05/08/18 16:42	GM
Bromomethane	ND		ug/kg dry	3160	3160	562	05/08/18	05/08/18 16:42	GM
tert-Butanol (TBA)	ND		ug/kg dry	31600	31600	562	05/08/18	05/08/18 16:42	GM
2-Butanone (MEK)	ND		ug/kg dry	6310	6310	562	05/08/18	05/08/18 16:42	GM
n-Butylbenzene	ND		ug/kg dry	3160	1260	562	05/08/18	05/08/18 16:42	GM
sec-Butylbenzene	ND		ug/kg dry	3160	1260	562	05/08/18	05/08/18 16:42	GM
tert-Butylbenzene	ND		ug/kg dry	3160	1260	562	05/08/18	05/08/18 16:42	GM
Carbon disulfide	ND		ug/kg dry	3160	1260	562	05/08/18	05/08/18 16:42	GM
Carbon tetrachloride	ND		ug/kg dry	3160	1260	562	05/08/18	05/08/18 16:42	GM
Chlorobenzene	ND		ug/kg dry	3160	1260	562	05/08/18	05/08/18 16:42	GM
Chloroethane	ND		ug/kg dry	3160	3160	562	05/08/18	05/08/18 16:42	GM
Chloroform	ND		ug/kg dry	3160	1260	562	05/08/18	05/08/18 16:42	GM
Chloromethane	ND		ug/kg dry	3160	3160	562	05/08/18	05/08/18 16:42	GM
2-Chlorotoluene	ND		ug/kg dry	3160	1260	562	05/08/18	05/08/18 16:42	GM
4-Chlorotoluene	ND		ug/kg dry	3160	1260	562	05/08/18	05/08/18 16:42	GM
1,2-Dibromo-3-chloropropane	ND		ug/kg dry	3160	1260	562	05/08/18	05/08/18 16:42	GM
Dibromochloromethane	ND		ug/kg dry	3160	1260	562	05/08/18	05/08/18 16:42	GM
1,2-Dibromoethane (EDB)	ND		ug/kg dry	3160	1260	562	05/08/18	05/08/18 16:42	GM
Dibromomethane	ND		ug/kg dry	3160	1260	562	05/08/18	05/08/18 16:42	GM
1,2-Dichlorobenzene	ND		ug/kg dry	3160	1260	562	05/08/18	05/08/18 16:42	GM
1,3-Dichlorobenzene	ND		ug/kg dry	3160	1260	562	05/08/18	05/08/18 16:42	GM
1,4-Dichlorobenzene	ND		ug/kg dry	3160	1260	562	05/08/18	05/08/18 16:42	GM
Dichlorodifluoromethane	ND		ug/kg dry	3160	1260	562	05/08/18	05/08/18 16:42	GM
1,1-Dichloroethane	ND		ug/kg dry	3160	1260	562	05/08/18	05/08/18 16:42	GM
1,2-Dichloroethane	ND		ug/kg dry	3160	1260	562	05/08/18	05/08/18 16:42	GM
1,1-Dichloroethene	ND		ug/kg dry	3160	1260	562	05/08/18	05/08/18 16:42	GM
cis-1,2-Dichloroethene	ND		ug/kg dry	3160	1260	562	05/08/18	05/08/18 16:42	GM

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*



Rabecka Koons, Quality Assurance Officer



**Analytical Results**

**Project: ARMED FORCES RETIREMENT HOME**

Project Number: CG-17-1111  
Project Manager: Nancy Love

Reported:  
05/10/18 09:07

**SB-10 (7')**

**8050107-02RE1 (Soil)**

**Sample Date: 04/26/18**

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Quantitation Limit (LOQ)	Dilution	Prepared	Analyzed	Analyst
<b>VOLATILE ORGANICS BY EPA METHOD 5035/8260B (GC/MS) (continued)</b>									
trans-1,2-Dichloroethene	ND		ug/kg dry	3160	1260	562	05/08/18	05/08/18 16:42	GM
Dichlorofluoromethane	ND		ug/kg dry	3160	1260	562	05/08/18	05/08/18 16:42	GM
1,2-Dichloropropane	ND		ug/kg dry	3160	1260	562	05/08/18	05/08/18 16:42	GM
1,3-Dichloropropane	ND		ug/kg dry	3160	1260	562	05/08/18	05/08/18 16:42	GM
2,2-Dichloropropane	ND		ug/kg dry	3160	1260	562	05/08/18	05/08/18 16:42	GM
1,1-Dichloropropene	ND		ug/kg dry	3160	1260	562	05/08/18	05/08/18 16:42	GM
cis-1,3-Dichloropropene	ND		ug/kg dry	3160	1260	562	05/08/18	05/08/18 16:42	GM
trans-1,3-Dichloropropene	ND		ug/kg dry	3160	1260	562	05/08/18	05/08/18 16:42	GM
Diisopropyl ether (DIPE)	ND		ug/kg dry	3160	1260	562	05/08/18	05/08/18 16:42	GM
Ethyl tert-butyl ether (ETBE)	ND		ug/kg dry	3160	1260	562	05/08/18	05/08/18 16:42	GM
Ethylbenzene	ND		ug/kg dry	3160	1260	562	05/08/18	05/08/18 16:42	GM
Hexachlorobutadiene	ND		ug/kg dry	3160	1260	562	05/08/18	05/08/18 16:42	GM
2-Hexanone	ND		ug/kg dry	6310	6310	562	05/08/18	05/08/18 16:42	GM
Isopropylbenzene (Cumene)	ND		ug/kg dry	3160	1260	562	05/08/18	05/08/18 16:42	GM
4-Isopropyltoluene	ND		ug/kg dry	3160	1260	562	05/08/18	05/08/18 16:42	GM
Methyl tert-butyl ether (MTBE)	ND		ug/kg dry	3160	1260	562	05/08/18	05/08/18 16:42	GM
4-Methyl-2-pentanone	ND		ug/kg dry	6310	6310	562	05/08/18	05/08/18 16:42	GM
Methylene chloride	ND		ug/kg dry	6310	6310	562	05/08/18	05/08/18 16:42	GM
Naphthalene	ND		ug/kg dry	3160	1260	562	05/08/18	05/08/18 16:42	GM
n-Propylbenzene	ND		ug/kg dry	3160	1260	562	05/08/18	05/08/18 16:42	GM
Styrene	ND		ug/kg dry	3160	1260	562	05/08/18	05/08/18 16:42	GM
1,1,1,2-Tetrachloroethane	ND		ug/kg dry	3160	1260	562	05/08/18	05/08/18 16:42	GM
1,1,2,2-Tetrachloroethane	ND		ug/kg dry	3160	1260	562	05/08/18	05/08/18 16:42	GM
<b>Tetrachloroethene</b>	<b>13100</b>		ug/kg dry	3160	1260	562	05/08/18	05/08/18 16:42	GM
Toluene	ND		ug/kg dry	3160	1260	562	05/08/18	05/08/18 16:42	GM
<b>1,2,3-Trichlorobenzene</b>	<b>19500</b>		ug/kg dry	3160	1260	562	05/08/18	05/08/18 16:42	GM
<b>1,2,4-Trichlorobenzene</b>	<b>86800</b>		ug/kg dry	3160	1260	562	05/08/18	05/08/18 16:42	GM
1,1,1-Trichloroethane	ND		ug/kg dry	3160	1260	562	05/08/18	05/08/18 16:42	GM
1,1,2-Trichloroethane	ND		ug/kg dry	3160	1260	562	05/08/18	05/08/18 16:42	GM
Trichloroethene	ND		ug/kg dry	3160	1260	562	05/08/18	05/08/18 16:42	GM
Trichlorofluoromethane (Freon 11)	ND		ug/kg dry	3160	1260	562	05/08/18	05/08/18 16:42	GM
1,2,3-Trichloropropane	ND		ug/kg dry	3160	1260	562	05/08/18	05/08/18 16:42	GM
1,2,4-Trimethylbenzene	ND		ug/kg dry	3160	1260	562	05/08/18	05/08/18 16:42	GM
1,3,5-Trimethylbenzene	ND		ug/kg dry	3160	1260	562	05/08/18	05/08/18 16:42	GM

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*



Rabecka Koons, Quality Assurance Officer

**Analytical Results**

**Project: ARMED FORCES RETIREMENT HOME**

Project Number: CG-17-1111  
Project Manager: Nancy Love

Reported:  
05/10/18 09:07

**SB-10 (7')**

**8050107-02RE1 (Soil)**  
**Sample Date: 04/26/18**

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Quantitation Limit (LOQ)	Dilution	Prepared	Analyzed	Analyst
<b>VOLATILE ORGANICS BY EPA METHOD 5035/8260B (GC/MS) (continued)</b>									
Vinyl chloride	ND		ug/kg dry	3160	1260	562	05/08/18	05/08/18 16:42	GM
o-Xylene	ND		ug/kg dry	3160	1260	562	05/08/18	05/08/18 16:42	GM
m- & p-Xylenes	ND		ug/kg dry	3160	1260	562	05/08/18	05/08/18 16:42	GM
Surrogate: 1,2-Dichloroethane-d4		70-130		103 %		05/08/18	05/08/18 16:42		
Surrogate: Toluene-d8		75-120		100 %		05/08/18	05/08/18 16:42		
Surrogate: 4-Bromofluorobenzene		70-120		123 %		05/08/18	05/08/18 16:42		S-07

*Rabecka Koons*

Rabecka Koons, Quality Assurance Officer

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*

**Analytical Results**

**Project: ARMED FORCES RETIREMENT HOME**

Project Number: CG-17-1111  
Project Manager: Nancy Love

Reported:  
05/10/18 09:07

**SB-14 (5')**

**8050107-03 (Soil)**  
**Sample Date: 04/26/18**

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Quantitation Limit (LOQ)	Dilution	Prepared	Analyzed	Analyst
<b>VOLATILE ORGANICS BY EPA METHOD 5035/8260B (GC/MS)</b>									
Acetone	ND		ug/kg dry	7.7	7.7	1	05/07/18	05/07/18 16:04	GM
tert-Amyl alcohol (TAA)	ND		ug/kg dry	38.6	38.6	1	05/07/18	05/07/18 16:04	GM
tert-Amyl methyl ether (TAME)	ND		ug/kg dry	3.9	1.5	1	05/07/18	05/07/18 16:04	GM
Benzene	ND		ug/kg dry	3.9	1.5	1	05/07/18	05/07/18 16:04	GM
Bromobenzene	ND		ug/kg dry	3.9	1.5	1	05/07/18	05/07/18 16:04	GM
Bromochloromethane	ND		ug/kg dry	3.9	1.5	1	05/07/18	05/07/18 16:04	GM
Bromodichloromethane	ND		ug/kg dry	3.9	1.5	1	05/07/18	05/07/18 16:04	GM
Bromoform	ND		ug/kg dry	3.9	1.5	1	05/07/18	05/07/18 16:04	GM
Bromomethane	ND		ug/kg dry	3.9	3.9	1	05/07/18	05/07/18 16:04	GM
tert-Butanol (TBA)	ND		ug/kg dry	38.6	38.6	1	05/07/18	05/07/18 16:04	GM
2-Butanone (MEK)	ND		ug/kg dry	7.7	7.7	1	05/07/18	05/07/18 16:04	GM
n-Butylbenzene	ND		ug/kg dry	3.9	1.5	1	05/07/18	05/07/18 16:04	GM
sec-Butylbenzene	ND		ug/kg dry	3.9	1.5	1	05/07/18	05/07/18 16:04	GM
tert-Butylbenzene	ND		ug/kg dry	3.9	1.5	1	05/07/18	05/07/18 16:04	GM
Carbon disulfide	ND		ug/kg dry	3.9	1.5	1	05/07/18	05/07/18 16:04	GM
Carbon tetrachloride	ND		ug/kg dry	3.9	1.5	1	05/07/18	05/07/18 16:04	GM
Chlorobenzene	ND		ug/kg dry	3.9	1.5	1	05/07/18	05/07/18 16:04	GM
Chloroethane	ND		ug/kg dry	3.9	3.9	1	05/07/18	05/07/18 16:04	GM
Chloroform	ND		ug/kg dry	3.9	1.5	1	05/07/18	05/07/18 16:04	GM
Chloromethane	ND		ug/kg dry	3.9	3.9	1	05/07/18	05/07/18 16:04	GM
2-Chlorotoluene	ND		ug/kg dry	3.9	1.5	1	05/07/18	05/07/18 16:04	GM
4-Chlorotoluene	ND		ug/kg dry	3.9	1.5	1	05/07/18	05/07/18 16:04	GM
1,2-Dibromo-3-chloropropane	ND		ug/kg dry	3.9	1.5	1	05/07/18	05/07/18 16:04	GM
Dibromochloromethane	ND		ug/kg dry	3.9	1.5	1	05/07/18	05/07/18 16:04	GM
1,2-Dibromoethane (EDB)	ND		ug/kg dry	3.9	1.5	1	05/07/18	05/07/18 16:04	GM
Dibromomethane	ND		ug/kg dry	3.9	1.5	1	05/07/18	05/07/18 16:04	GM
1,2-Dichlorobenzene	ND		ug/kg dry	3.9	1.5	1	05/07/18	05/07/18 16:04	GM
1,3-Dichlorobenzene	ND		ug/kg dry	3.9	1.5	1	05/07/18	05/07/18 16:04	GM
1,4-Dichlorobenzene	ND		ug/kg dry	3.9	1.5	1	05/07/18	05/07/18 16:04	GM
Dichlorodifluoromethane	ND		ug/kg dry	3.9	1.5	1	05/07/18	05/07/18 16:04	GM
1,1-Dichloroethane	ND		ug/kg dry	3.9	1.5	1	05/07/18	05/07/18 16:04	GM
1,2-Dichloroethane	ND		ug/kg dry	3.9	1.5	1	05/07/18	05/07/18 16:04	GM
1,1-Dichloroethene	ND		ug/kg dry	3.9	1.5	1	05/07/18	05/07/18 16:04	GM
cis-1,2-Dichloroethene	ND		ug/kg dry	3.9	1.5	1	05/07/18	05/07/18 16:04	GM



Rabecka Koons, Quality Assurance Officer

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*

**Analytical Results**

**Project: ARMED FORCES RETIREMENT HOME**

Project Number: CG-17-1111  
Project Manager: Nancy Love

Reported:  
05/10/18 09:07

**SB-14 (5')**

**8050107-03 (Soil)**  
**Sample Date: 04/26/18**

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Quantitation Limit (LOQ)	Dilution	Prepared	Analyzed	Analyst
<b>VOLATILE ORGANICS BY EPA METHOD 5035/8260B (GC/MS) (continued)</b>									
trans-1,2-Dichloroethene	ND		ug/kg dry	3.9	1.5	1	05/07/18	05/07/18 16:04	GM
Dichlorofluoromethane	ND		ug/kg dry	3.9	1.5	1	05/07/18	05/07/18 16:04	GM
1,2-Dichloropropane	ND		ug/kg dry	3.9	1.5	1	05/07/18	05/07/18 16:04	GM
1,3-Dichloropropane	ND		ug/kg dry	3.9	1.5	1	05/07/18	05/07/18 16:04	GM
2,2-Dichloropropane	ND		ug/kg dry	3.9	1.5	1	05/07/18	05/07/18 16:04	GM
1,1-Dichloropropene	ND		ug/kg dry	3.9	1.5	1	05/07/18	05/07/18 16:04	GM
cis-1,3-Dichloropropene	ND		ug/kg dry	3.9	1.5	1	05/07/18	05/07/18 16:04	GM
trans-1,3-Dichloropropene	ND		ug/kg dry	3.9	1.5	1	05/07/18	05/07/18 16:04	GM
Diisopropyl ether (DIPE)	ND		ug/kg dry	3.9	1.5	1	05/07/18	05/07/18 16:04	GM
Ethyl tert-butyl ether (ETBE)	ND		ug/kg dry	3.9	1.5	1	05/07/18	05/07/18 16:04	GM
Ethylbenzene	ND		ug/kg dry	3.9	1.5	1	05/07/18	05/07/18 16:04	GM
Hexachlorobutadiene	ND		ug/kg dry	3.9	1.5	1	05/07/18	05/07/18 16:04	GM
2-Hexanone	ND		ug/kg dry	7.7	7.7	1	05/07/18	05/07/18 16:04	GM
Isopropylbenzene (Cumene)	ND		ug/kg dry	3.9	1.5	1	05/07/18	05/07/18 16:04	GM
4-Isopropyltoluene	ND		ug/kg dry	3.9	1.5	1	05/07/18	05/07/18 16:04	GM
Methyl tert-butyl ether (MTBE)	ND		ug/kg dry	3.9	1.5	1	05/07/18	05/07/18 16:04	GM
4-Methyl-2-pentanone	ND		ug/kg dry	7.7	7.7	1	05/07/18	05/07/18 16:04	GM
Methylene chloride	ND		ug/kg dry	7.7	7.7	1	05/07/18	05/07/18 16:04	GM
Naphthalene	ND		ug/kg dry	3.9	1.5	1	05/07/18	05/07/18 16:04	GM
n-Propylbenzene	ND		ug/kg dry	3.9	1.5	1	05/07/18	05/07/18 16:04	GM
Styrene	ND		ug/kg dry	3.9	1.5	1	05/07/18	05/07/18 16:04	GM
1,1,1,2-Tetrachloroethane	ND		ug/kg dry	3.9	1.5	1	05/07/18	05/07/18 16:04	GM
1,1,2,2-Tetrachloroethane	ND		ug/kg dry	3.9	1.5	1	05/07/18	05/07/18 16:04	GM
Tetrachloroethene	ND		ug/kg dry	3.9	1.5	1	05/07/18	05/07/18 16:04	GM
Toluene	ND		ug/kg dry	3.9	1.5	1	05/07/18	05/07/18 16:04	GM
1,2,3-Trichlorobenzene	ND		ug/kg dry	3.9	1.5	1	05/07/18	05/07/18 16:04	GM
1,2,4-Trichlorobenzene	ND		ug/kg dry	3.9	1.5	1	05/07/18	05/07/18 16:04	GM
1,1,1-Trichloroethane	ND		ug/kg dry	3.9	1.5	1	05/07/18	05/07/18 16:04	GM
1,1,2-Trichloroethane	ND		ug/kg dry	3.9	1.5	1	05/07/18	05/07/18 16:04	GM
Trichloroethene	ND		ug/kg dry	3.9	1.5	1	05/07/18	05/07/18 16:04	GM
Trichlorofluoromethane (Freon 11)	ND		ug/kg dry	3.9	1.5	1	05/07/18	05/07/18 16:04	GM
1,2,3-Trichloropropane	ND		ug/kg dry	3.9	1.5	1	05/07/18	05/07/18 16:04	GM
1,2,4-Trimethylbenzene	ND		ug/kg dry	3.9	1.5	1	05/07/18	05/07/18 16:04	GM
1,3,5-Trimethylbenzene	ND		ug/kg dry	3.9	1.5	1	05/07/18	05/07/18 16:04	GM

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*



Rabecka Koons, Quality Assurance Officer

**Analytical Results**

1500 Caton Center Dr Suite G  
Baltimore MD 21227  
410-247-7600  
www.mdspectral.com

**Project: ARMED FORCES RETIREMENT HOME**

Project Number: CG-17-1111  
Project Manager: Nancy Love

Reported:  
05/10/18 09:07

**SB-14 (5')**

**8050107-03 (Soil)**  
**Sample Date: 04/26/18**

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Quantitation Limit (LOQ)	Dilution	Prepared	Analyzed	Analyst
<b>VOLATILE ORGANICS BY EPA METHOD 5035/8260B (GC/MS) (continued)</b>									
Vinyl chloride	ND		ug/kg dry	3.9	1.5	1	05/07/18	05/07/18 16:04	GM
o-Xylene	ND		ug/kg dry	3.9	1.5	1	05/07/18	05/07/18 16:04	GM
m- & p-Xylenes	ND		ug/kg dry	3.9	1.5	1	05/07/18	05/07/18 16:04	GM
Surrogate: 1,2-Dichloroethane-d4		70-130		111 %	05/07/18		05/07/18 16:04		
Surrogate: Toluene-d8		75-120		99 %	05/07/18		05/07/18 16:04		
Surrogate: 4-Bromofluorobenzene		70-120		103 %	05/07/18		05/07/18 16:04		
<b>GASOLINE RANGE ORGANICS BY EPA 8015B</b>									
C7-C12	ND		mg/kg dry	0.38	0.38	1	05/07/18	05/07/18 17:28	GM
Surrogate: a,a,a-Trifluorotoluene		85-115		128 %	05/07/18		05/07/18 17:28		S-07
<b>PERCENT SOLIDS BY ASTM D2216-05</b>									
Percent Solids	83		%			1	05/09/18	05/10/18 08:08	WB



Rabecka Koons, Quality Assurance Officer

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

**Analytical Results**

**Project: ARMED FORCES RETIREMENT HOME**

Project Number: CG-17-1111  
Project Manager: Nancy Love

Reported:  
05/10/18 09:07

**SB-D2**

**8050107-04 (Soil)**  
**Sample Date: 04/26/18**

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Quantitation Limit (LOQ)	Dilution	Prepared	Analyzed	Analyst
<b>VOLATILE ORGANICS BY EPA METHOD 5035/8260B (GC/MS)</b>									
Acetone	ND		ug/kg dry	739	739	65.8	05/07/18	05/07/18 16:54	GM
tert-Amyl alcohol (TAA)	ND		ug/kg dry	3700	3700	65.8	05/07/18	05/07/18 16:54	GM
tert-Amyl methyl ether (TAME)	ND		ug/kg dry	370	148	65.8	05/07/18	05/07/18 16:54	GM
Benzene	ND		ug/kg dry	370	148	65.8	05/07/18	05/07/18 16:54	GM
Bromobenzene	ND		ug/kg dry	370	148	65.8	05/07/18	05/07/18 16:54	GM
Bromochloromethane	ND		ug/kg dry	370	148	65.8	05/07/18	05/07/18 16:54	GM
Bromodichloromethane	ND		ug/kg dry	370	148	65.8	05/07/18	05/07/18 16:54	GM
Bromoform	ND		ug/kg dry	370	148	65.8	05/07/18	05/07/18 16:54	GM
Bromomethane	ND		ug/kg dry	370	370	65.8	05/07/18	05/07/18 16:54	GM
tert-Butanol (TBA)	ND		ug/kg dry	3700	3700	65.8	05/07/18	05/07/18 16:54	GM
2-Butanone (MEK)	ND		ug/kg dry	739	739	65.8	05/07/18	05/07/18 16:54	GM
n-Butylbenzene	ND		ug/kg dry	370	148	65.8	05/07/18	05/07/18 16:54	GM
sec-Butylbenzene	ND		ug/kg dry	370	148	65.8	05/07/18	05/07/18 16:54	GM
tert-Butylbenzene	ND		ug/kg dry	370	148	65.8	05/07/18	05/07/18 16:54	GM
Carbon disulfide	ND		ug/kg dry	370	148	65.8	05/07/18	05/07/18 16:54	GM
Carbon tetrachloride	ND		ug/kg dry	370	148	65.8	05/07/18	05/07/18 16:54	GM
Chlorobenzene	ND		ug/kg dry	370	148	65.8	05/07/18	05/07/18 16:54	GM
Chloroethane	ND		ug/kg dry	370	370	65.8	05/07/18	05/07/18 16:54	GM
Chloroform	ND		ug/kg dry	370	148	65.8	05/07/18	05/07/18 16:54	GM
Chloromethane	ND		ug/kg dry	370	370	65.8	05/07/18	05/07/18 16:54	GM
2-Chlorotoluene	ND		ug/kg dry	370	148	65.8	05/07/18	05/07/18 16:54	GM
4-Chlorotoluene	ND		ug/kg dry	370	148	65.8	05/07/18	05/07/18 16:54	GM
1,2-Dibromo-3-chloropropane	ND		ug/kg dry	370	148	65.8	05/07/18	05/07/18 16:54	GM
Dibromochloromethane	ND		ug/kg dry	370	148	65.8	05/07/18	05/07/18 16:54	GM
1,2-Dibromoethane (EDB)	ND		ug/kg dry	370	148	65.8	05/07/18	05/07/18 16:54	GM
Dibromomethane	ND		ug/kg dry	370	148	65.8	05/07/18	05/07/18 16:54	GM
1,2-Dichlorobenzene	ND		ug/kg dry	370	148	65.8	05/07/18	05/07/18 16:54	GM
1,3-Dichlorobenzene	ND		ug/kg dry	370	148	65.8	05/07/18	05/07/18 16:54	GM
<b>1,4-Dichlorobenzene</b>	<b>5550</b>		ug/kg dry	370	148	65.8	05/07/18	05/07/18 16:54	GM
Dichlorodifluoromethane	ND		ug/kg dry	370	148	65.8	05/07/18	05/07/18 16:54	GM
1,1-Dichloroethane	ND		ug/kg dry	370	148	65.8	05/07/18	05/07/18 16:54	GM
1,2-Dichloroethane	ND		ug/kg dry	370	148	65.8	05/07/18	05/07/18 16:54	GM
1,1-Dichloroethene	ND		ug/kg dry	370	148	65.8	05/07/18	05/07/18 16:54	GM
cis-1,2-Dichloroethene	ND		ug/kg dry	370	148	65.8	05/07/18	05/07/18 16:54	GM



Rabecka Koons, Quality Assurance Officer

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*

### Analytical Results

**Project: ARMED FORCES RETIREMENT HOME**

Project Number: CG-17-1111  
Project Manager: Nancy Love

Reported:  
05/10/18 09:07

**SB-D2**

**8050107-04 (Soil)**  
**Sample Date: 04/26/18**

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Quantitation Limit (LOQ)	Dilution	Prepared	Analyzed	Analyst
<b>VOLATILE ORGANICS BY EPA METHOD 5035/8260B (GC/MS) (continued)</b>									
trans-1,2-Dichloroethene	ND		ug/kg dry	370	148	65.8	05/07/18	05/07/18 16:54	GM
Dichlorofluoromethane	ND		ug/kg dry	370	148	65.8	05/07/18	05/07/18 16:54	GM
1,2-Dichloropropane	ND		ug/kg dry	370	148	65.8	05/07/18	05/07/18 16:54	GM
1,3-Dichloropropane	ND		ug/kg dry	370	148	65.8	05/07/18	05/07/18 16:54	GM
2,2-Dichloropropane	ND		ug/kg dry	370	148	65.8	05/07/18	05/07/18 16:54	GM
1,1-Dichloropropene	ND		ug/kg dry	370	148	65.8	05/07/18	05/07/18 16:54	GM
cis-1,3-Dichloropropene	ND		ug/kg dry	370	148	65.8	05/07/18	05/07/18 16:54	GM
trans-1,3-Dichloropropene	ND		ug/kg dry	370	148	65.8	05/07/18	05/07/18 16:54	GM
Diisopropyl ether (DIPE)	ND		ug/kg dry	370	148	65.8	05/07/18	05/07/18 16:54	GM
Ethyl tert-butyl ether (ETBE)	ND		ug/kg dry	370	148	65.8	05/07/18	05/07/18 16:54	GM
Ethylbenzene	ND		ug/kg dry	370	148	65.8	05/07/18	05/07/18 16:54	GM
Hexachlorobutadiene	ND		ug/kg dry	370	148	65.8	05/07/18	05/07/18 16:54	GM
2-Hexanone	ND		ug/kg dry	739	739	65.8	05/07/18	05/07/18 16:54	GM
Isopropylbenzene (Cumene)	ND		ug/kg dry	370	148	65.8	05/07/18	05/07/18 16:54	GM
<b>4-Isopropyltoluene</b>	<b>849</b>		ug/kg dry	370	148	65.8	05/07/18	05/07/18 16:54	GM
Methyl tert-butyl ether (MTBE)	ND		ug/kg dry	370	148	65.8	05/07/18	05/07/18 16:54	GM
4-Methyl-2-pentanone	ND		ug/kg dry	739	739	65.8	05/07/18	05/07/18 16:54	GM
Methylene chloride	ND		ug/kg dry	739	739	65.8	05/07/18	05/07/18 16:54	GM
Naphthalene	ND		ug/kg dry	370	148	65.8	05/07/18	05/07/18 16:54	GM
n-Propylbenzene	ND		ug/kg dry	370	148	65.8	05/07/18	05/07/18 16:54	GM
Styrene	ND		ug/kg dry	370	148	65.8	05/07/18	05/07/18 16:54	GM
1,1,1,2-Tetrachloroethane	ND		ug/kg dry	370	148	65.8	05/07/18	05/07/18 16:54	GM
1,1,2,2-Tetrachloroethane	ND		ug/kg dry	370	148	65.8	05/07/18	05/07/18 16:54	GM
Tetrachloroethene	ND		ug/kg dry	370	148	65.8	05/07/18	05/07/18 16:54	GM
Toluene	ND		ug/kg dry	370	148	65.8	05/07/18	05/07/18 16:54	GM
<b>1,2,3-Trichlorobenzene</b>	<b>336</b>	J	ug/kg dry	370	148	65.8	05/07/18	05/07/18 16:54	GM
<b>1,2,4-Trichlorobenzene</b>	<b>654</b>		ug/kg dry	370	148	65.8	05/07/18	05/07/18 16:54	GM
1,1,1-Trichloroethane	ND		ug/kg dry	370	148	65.8	05/07/18	05/07/18 16:54	GM
1,1,2-Trichloroethane	ND		ug/kg dry	370	148	65.8	05/07/18	05/07/18 16:54	GM
Trichloroethene	ND		ug/kg dry	370	148	65.8	05/07/18	05/07/18 16:54	GM
Trichlorofluoromethane (Freon 11)	ND		ug/kg dry	370	148	65.8	05/07/18	05/07/18 16:54	GM
1,2,3-Trichloropropane	ND		ug/kg dry	370	148	65.8	05/07/18	05/07/18 16:54	GM
<b>1,2,4-Trimethylbenzene</b>	<b>410</b>		ug/kg dry	370	148	65.8	05/07/18	05/07/18 16:54	GM
1,3,5-Trimethylbenzene	ND		ug/kg dry	370	148	65.8	05/07/18	05/07/18 16:54	GM

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*



Rabecka Koons, Quality Assurance Officer

**Analytical Results**

1500 Caton Center Dr Suite G  
Baltimore MD 21227  
410-247-7600  
www.mdspectral.com

**Project: ARMED FORCES RETIREMENT HOME**

Project Number: CG-17-1111  
Project Manager: Nancy Love

Reported:  
05/10/18 09:07

**SB-D2**

**8050107-04 (Soil)**  
**Sample Date: 04/26/18**

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Quantitation Limit (LOQ)	Dilution	Prepared	Analyzed	Analyst
<b>VOLATILE ORGANICS BY EPA METHOD 5035/8260B (GC/MS) (continued)</b>									
Vinyl chloride	ND		ug/kg dry	370	148	65.8	05/07/18	05/07/18 16:54	GM
o-Xylene	ND		ug/kg dry	370	148	65.8	05/07/18	05/07/18 16:54	GM
m- & p-Xylenes	ND		ug/kg dry	370	148	65.8	05/07/18	05/07/18 16:54	GM
Surrogate: 1,2-Dichloroethane-d4		70-130		99 %	05/07/18		05/07/18 16:54		
Surrogate: Toluene-d8		75-120		100 %	05/07/18		05/07/18 16:54		
Surrogate: 4-Bromofluorobenzene		70-120		146 %	05/07/18		05/07/18 16:54		S-07
<b>GASOLINE RANGE ORGANICS BY EPA 8015B</b>									
<b>C7-C12</b>	<b>566</b>		mg/kg dry	18.5	18.5	32.9	05/07/18	05/07/18 18:29	GM
Surrogate: a,a,a-Trifluorotoluene		85-115		99 %	05/07/18		05/07/18 18:29		
<b>PERCENT SOLIDS BY ASTM D2216-05</b>									
<b>Percent Solids</b>	<b>89</b>		%			1	05/09/18	05/10/18 08:08	WB



Rabecka Koons, Quality Assurance Officer

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



## Analytical Results

1500 Caton Center Dr Suite G  
Baltimore MD 21227  
410-247-7600  
www.mdspectral.com

**Project: ARMED FORCES RETIREMENT HOME**

Project Number: CG-17-1111

Project Manager: Nancy Love

Reported:

05/10/18 09:07

### Notes and Definitions

S-07	Surrogate recovery outside control limits due to sample matrix effect.
J	Detected but below the reporting limit; therefore, result is an estimated concentration (CLP J-Flag).
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference



Rabecka Koons, Quality Assurance Officer

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*

Company Name: Chesapeake GeoSciences, Inc.			Project Manager: Nancy Love				CHAIN-OF-CUSTODY RECORD										
Project Name: Armed Forces Retirement Home			Project ID: CG-17-1111				Analysis Requested										
Sampler(s): Meg Staines			P.O. Number: CG171111MS				Maryland Spectral Services, Inc. 1500 Caton Center Drive, Suite G Baltimore, MD 21227 410-247-7600 • Fax 410-247-7602 labman@mdspectral.com										
Field Sample ID			Date	Time	Water	Soil	Other	No. of Containers	VOCs EPA 8260	PAHs EPA 8270	TPH-GRO EPA 8015M	TPH-DRO EPA 8015M	TPH-ORO EPA 8015M	RCRA 8 Metals EPA 6020	PCBs EPA 8082	TPH-C7-12 EPA 8015M	MSS Lab ID
SB-09 (14')			4/24/18	14:30	X			5	X					X			8056107-01
SB-10 (7')				2:20	X			5	X					X			-02
SB-14 (5')				4:00	X			5	X					X			-03
SB-D2				00:00	X			5	X					X			-04
Relinquished by: (Signature) <i>Meg Staines</i>			Date/Time 4/29/18 22:00	Received by: (Signature) <i>Nancy Love</i> (Printed) Nancy Love	Relinquished by: (Signature) <i>Nancy Love</i> (Printed) Nancy Love	Date/Time 5/1/18 10:30	Received by Lab: (Signature) <i>Grady Mulheal</i> (Printed) Grady Mulheal	Turn Around Time: <input checked="" type="checkbox"/> Normal (7 day) <input type="checkbox"/> 5 day <input type="checkbox"/> 4 day <input type="checkbox"/> 3 day <input type="checkbox"/> Rush (2 day) <input type="checkbox"/> Next Day <input type="checkbox"/> Other: _____ <input type="checkbox"/> Specific Due Date: _____	Temp: 4.0 °C <input checked="" type="checkbox"/> Received on Ice <input type="checkbox"/> Received same day <input type="checkbox"/> Preservation Appropriate	Lab Use:	Received by: (Signature) <i>MIA-C-601620</i> (Printed) MIA-C-601620	Date/Time 5/1/18 12:05	Received by: (Signature)				
Delivery Method: Courier Client UPS FedEx USPS Other:			Special Instructions/QC Requirements & Comments:														

14 May 2018

Nancy Love

Chesapeake GeoSciences, Inc.

5405 Twin Knolls Rd, Suite 1

Columbia, MD 21045

RE: ARMED FORCES RETIREMENT HOME

Enclosed are the results of analyses for samples received by the laboratory on 05/03/18 16:00.

A more detailed report format is available upon request, which lists the accreditation status for all analytical methods performed.

Please visit our website at [www.mdspectral.com](http://www.mdspectral.com) for a complete listing of our accreditations.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Rabecka Koons

Quality Assurance Officer

**Analytical Results**

1500 Caton Center Dr Suite G  
Baltimore MD 21227  
410-247-7600  
www.mdspectral.com

**Project: ARMED FORCES RETIREMENT HOME**

Project Number: CG-17-1111

Project Manager: Nancy Love

Reported:

05/14/18 11:26

Client Sample ID	Alternate Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
SB-02 1 (6.5')		8050315-01	Soil	05/01/18 15:10	05/03/18 16:00
SB-08 (5')		8050315-02	Soil	05/01/18 12:25	05/03/18 16:00
SB-11(21.5')		8050315-03	Soil	05/01/18 10:05	05/03/18 16:00



Rabecka Koons, Quality Assurance Officer

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*

**Analytical Results**

**Project: ARMED FORCES RETIREMENT HOME**

Project Number: CG-17-1111  
Project Manager: Nancy Love

Reported:  
05/14/18 11:26

**SB-02 1 (6.5')**

**8050315-01 (Soil)**  
**Sample Date: 05/01/18**

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Quantitation Limit (LOQ)	Dilution	Prepared	Analyzed	Analyst
<b>VOLATILE ORGANICS BY EPA METHOD 5035/8260B (GC/MS)</b>									
Acetone	ND		ug/kg dry	439	439	32.9	05/08/18	05/08/18 17:32	GM
tert-Amyl alcohol (TAA)	ND		ug/kg dry	2190	2190	32.9	05/08/18	05/08/18 17:32	GM
tert-Amyl methyl ether (TAME)	ND		ug/kg dry	219	87.7	32.9	05/08/18	05/08/18 17:32	GM
Benzene	ND		ug/kg dry	219	87.7	32.9	05/08/18	05/08/18 17:32	GM
Bromobenzene	ND		ug/kg dry	219	87.7	32.9	05/08/18	05/08/18 17:32	GM
Bromochloromethane	ND		ug/kg dry	219	87.7	32.9	05/08/18	05/08/18 17:32	GM
Bromodichloromethane	ND		ug/kg dry	219	87.7	32.9	05/08/18	05/08/18 17:32	GM
Bromoform	ND		ug/kg dry	219	87.7	32.9	05/08/18	05/08/18 17:32	GM
Bromomethane	ND		ug/kg dry	219	219	32.9	05/08/18	05/08/18 17:32	GM
tert-Butanol (TBA)	ND		ug/kg dry	2190	2190	32.9	05/08/18	05/08/18 17:32	GM
2-Butanone (MEK)	ND		ug/kg dry	439	439	32.9	05/08/18	05/08/18 17:32	GM
n-Butylbenzene	ND		ug/kg dry	219	87.7	32.9	05/08/18	05/08/18 17:32	GM
sec-Butylbenzene	ND		ug/kg dry	219	87.7	32.9	05/08/18	05/08/18 17:32	GM
tert-Butylbenzene	ND		ug/kg dry	219	87.7	32.9	05/08/18	05/08/18 17:32	GM
Carbon disulfide	ND		ug/kg dry	219	87.7	32.9	05/08/18	05/08/18 17:32	GM
Carbon tetrachloride	ND		ug/kg dry	219	87.7	32.9	05/08/18	05/08/18 17:32	GM
Chlorobenzene	ND		ug/kg dry	219	87.7	32.9	05/08/18	05/08/18 17:32	GM
Chloroethane	ND		ug/kg dry	219	219	32.9	05/08/18	05/08/18 17:32	GM
Chloroform	ND		ug/kg dry	219	87.7	32.9	05/08/18	05/08/18 17:32	GM
Chloromethane	ND		ug/kg dry	219	219	32.9	05/08/18	05/08/18 17:32	GM
2-Chlorotoluene	ND		ug/kg dry	219	87.7	32.9	05/08/18	05/08/18 17:32	GM
4-Chlorotoluene	ND		ug/kg dry	219	87.7	32.9	05/08/18	05/08/18 17:32	GM
1,2-Dibromo-3-chloropropane	ND		ug/kg dry	219	87.7	32.9	05/08/18	05/08/18 17:32	GM
Dibromochloromethane	ND		ug/kg dry	219	87.7	32.9	05/08/18	05/08/18 17:32	GM
1,2-Dibromoethane (EDB)	ND		ug/kg dry	219	87.7	32.9	05/08/18	05/08/18 17:32	GM
Dibromomethane	ND		ug/kg dry	219	87.7	32.9	05/08/18	05/08/18 17:32	GM
1,2-Dichlorobenzene	ND		ug/kg dry	219	87.7	32.9	05/08/18	05/08/18 17:32	GM
1,3-Dichlorobenzene	ND		ug/kg dry	219	87.7	32.9	05/08/18	05/08/18 17:32	GM
1,4-Dichlorobenzene	ND		ug/kg dry	219	87.7	32.9	05/08/18	05/08/18 17:32	GM
Dichlorodifluoromethane	ND		ug/kg dry	219	87.7	32.9	05/08/18	05/08/18 17:32	GM
1,1-Dichloroethane	ND		ug/kg dry	219	87.7	32.9	05/08/18	05/08/18 17:32	GM
1,2-Dichloroethane	ND		ug/kg dry	219	87.7	32.9	05/08/18	05/08/18 17:32	GM
1,1-Dichloroethene	ND		ug/kg dry	219	87.7	32.9	05/08/18	05/08/18 17:32	GM
cis-1,2-Dichloroethene	ND		ug/kg dry	219	87.7	32.9	05/08/18	05/08/18 17:32	GM

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*



Rabecka Koons, Quality Assurance Officer

## Analytical Results

**Project: ARMED FORCES RETIREMENT HOME**

Project Number: CG-17-1111

Project Manager: Nancy Love

Reported:

05/14/18 11:26

**SB-02 1 (6.5')**

**8050315-01 (Soil)**

**Sample Date: 05/01/18**

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Quantitation Limit (LOQ)	Dilution	Prepared	Analyzed	Analyst
<b>VOLATILE ORGANICS BY EPA METHOD 5035/8260B (GC/MS) (continued)</b>									
trans-1,2-Dichloroethene	ND		ug/kg dry	219	87.7	32.9	05/08/18	05/08/18 17:32	GM
Dichlorofluoromethane	ND		ug/kg dry	219	87.7	32.9	05/08/18	05/08/18 17:32	GM
1,2-Dichloropropane	ND		ug/kg dry	219	87.7	32.9	05/08/18	05/08/18 17:32	GM
1,3-Dichloropropane	ND		ug/kg dry	219	87.7	32.9	05/08/18	05/08/18 17:32	GM
2,2-Dichloropropane	ND		ug/kg dry	219	87.7	32.9	05/08/18	05/08/18 17:32	GM
1,1-Dichloropropene	ND		ug/kg dry	219	87.7	32.9	05/08/18	05/08/18 17:32	GM
cis-1,3-Dichloropropene	ND		ug/kg dry	219	87.7	32.9	05/08/18	05/08/18 17:32	GM
trans-1,3-Dichloropropene	ND		ug/kg dry	219	87.7	32.9	05/08/18	05/08/18 17:32	GM
Diisopropyl ether (DIPE)	ND		ug/kg dry	219	87.7	32.9	05/08/18	05/08/18 17:32	GM
Ethyl tert-butyl ether (ETBE)	ND		ug/kg dry	219	87.7	32.9	05/08/18	05/08/18 17:32	GM
Ethylbenzene	ND		ug/kg dry	219	87.7	32.9	05/08/18	05/08/18 17:32	GM
Hexachlorobutadiene	ND		ug/kg dry	219	87.7	32.9	05/08/18	05/08/18 17:32	GM
2-Hexanone	ND		ug/kg dry	439	439	32.9	05/08/18	05/08/18 17:32	GM
Isopropylbenzene (Cumene)	ND		ug/kg dry	219	87.7	32.9	05/08/18	05/08/18 17:32	GM
4-Isopropyltoluene	ND		ug/kg dry	219	87.7	32.9	05/08/18	05/08/18 17:32	GM
Methyl tert-butyl ether (MTBE)	ND		ug/kg dry	219	87.7	32.9	05/08/18	05/08/18 17:32	GM
4-Methyl-2-pentanone	ND		ug/kg dry	439	439	32.9	05/08/18	05/08/18 17:32	GM
Methylene chloride	ND		ug/kg dry	439	439	32.9	05/08/18	05/08/18 17:32	GM
Naphthalene	ND		ug/kg dry	219	87.7	32.9	05/08/18	05/08/18 17:32	GM
n-Propylbenzene	ND		ug/kg dry	219	87.7	32.9	05/08/18	05/08/18 17:32	GM
Styrene	ND		ug/kg dry	219	87.7	32.9	05/08/18	05/08/18 17:32	GM
1,1,1,2-Tetrachloroethane	ND		ug/kg dry	219	87.7	32.9	05/08/18	05/08/18 17:32	GM
1,1,2,2-Tetrachloroethane	ND		ug/kg dry	219	87.7	32.9	05/08/18	05/08/18 17:32	GM
Tetrachloroethene	ND		ug/kg dry	219	87.7	32.9	05/08/18	05/08/18 17:32	GM
Toluene	ND		ug/kg dry	219	87.7	32.9	05/08/18	05/08/18 17:32	GM
1,2,3-Trichlorobenzene	ND		ug/kg dry	219	87.7	32.9	05/08/18	05/08/18 17:32	GM
1,2,4-Trichlorobenzene	ND		ug/kg dry	219	87.7	32.9	05/08/18	05/08/18 17:32	GM
1,1,1-Trichloroethane	ND		ug/kg dry	219	87.7	32.9	05/08/18	05/08/18 17:32	GM
1,1,2-Trichloroethane	ND		ug/kg dry	219	87.7	32.9	05/08/18	05/08/18 17:32	GM
Trichloroethene	ND		ug/kg dry	219	87.7	32.9	05/08/18	05/08/18 17:32	GM
Trichlorofluoromethane (Freon 11)	ND		ug/kg dry	219	87.7	32.9	05/08/18	05/08/18 17:32	GM
1,2,3-Trichloropropane	ND		ug/kg dry	219	87.7	32.9	05/08/18	05/08/18 17:32	GM
1,2,4-Trimethylbenzene	ND		ug/kg dry	219	87.7	32.9	05/08/18	05/08/18 17:32	GM
1,3,5-Trimethylbenzene	ND		ug/kg dry	219	87.7	32.9	05/08/18	05/08/18 17:32	GM

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*



Rabecka Koons, Quality Assurance Officer

**Analytical Results**

**Project: ARMED FORCES RETIREMENT HOME**

Project Number: CG-17-1111  
Project Manager: Nancy Love

Reported:  
05/14/18 11:26

**SB-02 1 (6.5')**

**8050315-01 (Soil)**  
**Sample Date: 05/01/18**

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Quantitation Limit (LOQ)	Dilution	Prepared	Analyzed	Analyst
<b>VOLATILE ORGANICS BY EPA METHOD 5035/8260B (GC/MS) (continued)</b>									
Vinyl chloride	ND		ug/kg dry	219	87.7	32.9	05/08/18	05/08/18 17:32	GM
o-Xylene	ND		ug/kg dry	219	87.7	32.9	05/08/18	05/08/18 17:32	GM
m- & p-Xylenes	ND		ug/kg dry	219	87.7	32.9	05/08/18	05/08/18 17:32	GM
<i>Surrogate: 1,2-Dichloroethane-d4</i>									
			70-130	102 %	05/08/18		05/08/18 17:32		
<i>Surrogate: Toluene-d8</i>			75-120	102 %	05/08/18		05/08/18 17:32		
<i>Surrogate: 4-Bromofluorobenzene</i>			70-120	118 %	05/08/18		05/08/18 17:32		
<b>PERCENT SOLIDS BY ASTM D2216-05</b>									
Percent Solids	75		%			1	05/10/18	05/11/18 10:31	GM



Rabecka Koons, Quality Assurance Officer

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*

**Analytical Results**

**Project: ARMED FORCES RETIREMENT HOME**

Project Number: CG-17-1111  
Project Manager: Nancy Love

Reported:  
05/14/18 11:26

**SB-08 (5')**

**8050315-02 (Soil)**  
**Sample Date: 05/01/18**

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Quantitation Limit (LOQ)	Dilution	Prepared	Analyzed	Analyst
<b>VOLATILE ORGANICS BY EPA METHOD 5035/8260B (GC/MS)</b>									
Acetone	ND		ug/kg dry	7.2	7.2	1	05/07/18	05/07/18 20:12	GM
tert-Amyl alcohol (TAA)	ND		ug/kg dry	35.9	35.9	1	05/07/18	05/07/18 20:12	GM
tert-Amyl methyl ether (TAME)	ND		ug/kg dry	3.6	1.4	1	05/07/18	05/07/18 20:12	GM
Benzene	ND		ug/kg dry	3.6	1.4	1	05/07/18	05/07/18 20:12	GM
Bromobenzene	ND		ug/kg dry	3.6	1.4	1	05/07/18	05/07/18 20:12	GM
Bromochloromethane	ND		ug/kg dry	3.6	1.4	1	05/07/18	05/07/18 20:12	GM
Bromodichloromethane	ND		ug/kg dry	3.6	1.4	1	05/07/18	05/07/18 20:12	GM
Bromoform	ND		ug/kg dry	3.6	1.4	1	05/07/18	05/07/18 20:12	GM
Bromomethane	ND		ug/kg dry	3.6	3.6	1	05/07/18	05/07/18 20:12	GM
tert-Butanol (TBA)	ND		ug/kg dry	35.9	35.9	1	05/07/18	05/07/18 20:12	GM
2-Butanone (MEK)	ND		ug/kg dry	7.2	7.2	1	05/07/18	05/07/18 20:12	GM
n-Butylbenzene	ND		ug/kg dry	3.6	1.4	1	05/07/18	05/07/18 20:12	GM
sec-Butylbenzene	ND		ug/kg dry	3.6	1.4	1	05/07/18	05/07/18 20:12	GM
tert-Butylbenzene	ND		ug/kg dry	3.6	1.4	1	05/07/18	05/07/18 20:12	GM
Carbon disulfide	ND		ug/kg dry	3.6	1.4	1	05/07/18	05/07/18 20:12	GM
Carbon tetrachloride	ND		ug/kg dry	3.6	1.4	1	05/07/18	05/07/18 20:12	GM
Chlorobenzene	ND		ug/kg dry	3.6	1.4	1	05/07/18	05/07/18 20:12	GM
Chloroethane	ND		ug/kg dry	3.6	3.6	1	05/07/18	05/07/18 20:12	GM
Chloroform	ND		ug/kg dry	3.6	1.4	1	05/07/18	05/07/18 20:12	GM
Chloromethane	ND		ug/kg dry	3.6	3.6	1	05/07/18	05/07/18 20:12	GM
2-Chlorotoluene	ND		ug/kg dry	3.6	1.4	1	05/07/18	05/07/18 20:12	GM
4-Chlorotoluene	ND		ug/kg dry	3.6	1.4	1	05/07/18	05/07/18 20:12	GM
1,2-Dibromo-3-chloropropane	ND		ug/kg dry	3.6	1.4	1	05/07/18	05/07/18 20:12	GM
Dibromochloromethane	ND		ug/kg dry	3.6	1.4	1	05/07/18	05/07/18 20:12	GM
1,2-Dibromoethane (EDB)	ND		ug/kg dry	3.6	1.4	1	05/07/18	05/07/18 20:12	GM
Dibromomethane	ND		ug/kg dry	3.6	1.4	1	05/07/18	05/07/18 20:12	GM
1,2-Dichlorobenzene	ND		ug/kg dry	3.6	1.4	1	05/07/18	05/07/18 20:12	GM
1,3-Dichlorobenzene	ND		ug/kg dry	3.6	1.4	1	05/07/18	05/07/18 20:12	GM
1,4-Dichlorobenzene	ND		ug/kg dry	3.6	1.4	1	05/07/18	05/07/18 20:12	GM
Dichlorodifluoromethane	ND		ug/kg dry	3.6	1.4	1	05/07/18	05/07/18 20:12	GM
1,1-Dichloroethane	ND		ug/kg dry	3.6	1.4	1	05/07/18	05/07/18 20:12	GM
1,2-Dichloroethane	ND		ug/kg dry	3.6	1.4	1	05/07/18	05/07/18 20:12	GM
1,1-Dichloroethene	ND		ug/kg dry	3.6	1.4	1	05/07/18	05/07/18 20:12	GM
cis-1,2-Dichloroethene	ND		ug/kg dry	3.6	1.4	1	05/07/18	05/07/18 20:12	GM



Rabecka Koons, Quality Assurance Officer

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*



### Analytical Results

**Project: ARMED FORCES RETIREMENT HOME**

Project Number: CG-17-1111

Project Manager: Nancy Love

Reported:

05/14/18 11:26

**SB-08 (5')**

**8050315-02 (Soil)**

**Sample Date: 05/01/18**

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Quantitation Limit (LOQ)	Dilution	Prepared	Analyzed	Analyst
<b>VOLATILE ORGANICS BY EPA METHOD 5035/8260B (GC/MS) (continued)</b>									
trans-1,2-Dichloroethene	ND		ug/kg dry	3.6	1.4	1	05/07/18	05/07/18 20:12	GM
Dichlorofluoromethane	ND		ug/kg dry	3.6	1.4	1	05/07/18	05/07/18 20:12	GM
1,2-Dichloropropane	ND		ug/kg dry	3.6	1.4	1	05/07/18	05/07/18 20:12	GM
1,3-Dichloropropane	ND		ug/kg dry	3.6	1.4	1	05/07/18	05/07/18 20:12	GM
2,2-Dichloropropane	ND		ug/kg dry	3.6	1.4	1	05/07/18	05/07/18 20:12	GM
1,1-Dichloropropene	ND		ug/kg dry	3.6	1.4	1	05/07/18	05/07/18 20:12	GM
cis-1,3-Dichloropropene	ND		ug/kg dry	3.6	1.4	1	05/07/18	05/07/18 20:12	GM
trans-1,3-Dichloropropene	ND		ug/kg dry	3.6	1.4	1	05/07/18	05/07/18 20:12	GM
Diisopropyl ether (DIPE)	ND		ug/kg dry	3.6	1.4	1	05/07/18	05/07/18 20:12	GM
Ethyl tert-butyl ether (ETBE)	ND		ug/kg dry	3.6	1.4	1	05/07/18	05/07/18 20:12	GM
<b>Ethylbenzene</b>	<b>2.0</b>	J	ug/kg dry	3.6	1.4	1	05/07/18	05/07/18 20:12	GM
Hexachlorobutadiene	ND		ug/kg dry	3.6	1.4	1	05/07/18	05/07/18 20:12	GM
2-Hexanone	ND		ug/kg dry	7.2	7.2	1	05/07/18	05/07/18 20:12	GM
Isopropylbenzene (Cumene)	ND		ug/kg dry	3.6	1.4	1	05/07/18	05/07/18 20:12	GM
4-Isopropyltoluene	ND		ug/kg dry	3.6	1.4	1	05/07/18	05/07/18 20:12	GM
Methyl tert-butyl ether (MTBE)	ND		ug/kg dry	3.6	1.4	1	05/07/18	05/07/18 20:12	GM
4-Methyl-2-pentanone	ND		ug/kg dry	7.2	7.2	1	05/07/18	05/07/18 20:12	GM
Methylene chloride	ND		ug/kg dry	7.2	7.2	1	05/07/18	05/07/18 20:12	GM
Naphthalene	ND		ug/kg dry	3.6	1.4	1	05/07/18	05/07/18 20:12	GM
n-Propylbenzene	ND		ug/kg dry	3.6	1.4	1	05/07/18	05/07/18 20:12	GM
Styrene	ND		ug/kg dry	3.6	1.4	1	05/07/18	05/07/18 20:12	GM
1,1,1,2-Tetrachloroethane	ND		ug/kg dry	3.6	1.4	1	05/07/18	05/07/18 20:12	GM
1,1,2,2-Tetrachloroethane	ND		ug/kg dry	3.6	1.4	1	05/07/18	05/07/18 20:12	GM
Tetrachloroethene	ND		ug/kg dry	3.6	1.4	1	05/07/18	05/07/18 20:12	GM
<b>Toluene</b>	<b>1.7</b>	J	ug/kg dry	3.6	1.4	1	05/07/18	05/07/18 20:12	GM
1,2,3-Trichlorobenzene	ND		ug/kg dry	3.6	1.4	1	05/07/18	05/07/18 20:12	GM
1,2,4-Trichlorobenzene	ND		ug/kg dry	3.6	1.4	1	05/07/18	05/07/18 20:12	GM
1,1,1-Trichloroethane	ND		ug/kg dry	3.6	1.4	1	05/07/18	05/07/18 20:12	GM
1,1,2-Trichloroethane	ND		ug/kg dry	3.6	1.4	1	05/07/18	05/07/18 20:12	GM
Trichloroethene	ND		ug/kg dry	3.6	1.4	1	05/07/18	05/07/18 20:12	GM
Trichlorofluoromethane (Freon 11)	ND		ug/kg dry	3.6	1.4	1	05/07/18	05/07/18 20:12	GM
1,2,3-Trichloropropane	ND		ug/kg dry	3.6	1.4	1	05/07/18	05/07/18 20:12	GM
1,2,4-Trimethylbenzene	ND		ug/kg dry	3.6	1.4	1	05/07/18	05/07/18 20:12	GM
1,3,5-Trimethylbenzene	ND		ug/kg dry	3.6	1.4	1	05/07/18	05/07/18 20:12	GM

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*



Rabecka Koons, Quality Assurance Officer

**Analytical Results**

1500 Caton Center Dr Suite G  
Baltimore MD 21227  
410-247-7600  
www.mdspectral.com

**Project: ARMED FORCES RETIREMENT HOME**

Project Number: CG-17-1111  
Project Manager: Nancy Love

Reported:  
05/14/18 11:26

**SB-08 (5')**

**8050315-02 (Soil)**  
**Sample Date: 05/01/18**

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Quantitation Limit (LOQ)	Dilution	Prepared	Analyzed	Analyst
<b>VOLATILE ORGANICS BY EPA METHOD 5035/8260B (GC/MS) (continued)</b>									
Vinyl chloride	ND		ug/kg dry	3.6	1.4	1	05/07/18	05/07/18 20:12	GM
<b>o-Xylene</b>	<b>3.3</b>	J	ug/kg dry	3.6	1.4	1	05/07/18	05/07/18 20:12	GM
<b>m- &amp; p-Xylenes</b>	<b>8.4</b>		ug/kg dry	3.6	1.4	1	05/07/18	05/07/18 20:12	GM
<i>Surrogate: 1,2-Dichloroethane-d4</i>			70-130	103 %	05/07/18		05/07/18 20:12		
<i>Surrogate: Toluene-d8</i>			75-120	102 %	05/07/18		05/07/18 20:12		
<i>Surrogate: 4-Bromofluorobenzene</i>			70-120	110 %	05/07/18		05/07/18 20:12		
<b>GASOLINE RANGE ORGANICS BY EPA 8015B</b>									
C7-C12	ND		mg/kg dry	0.36	0.36	1	05/11/18	05/11/18 13:18	ZZZ
<i>Surrogate: a,a,a-Trifluorotoluene</i>			85-115	89 %	05/11/18		05/11/18 13:18		
<b>PERCENT SOLIDS BY ASTM D2216-05</b>									
<b>Percent Solids</b>	<b>84</b>		%			1	05/10/18	05/11/18 10:31	GM



Rabecka Koons, Quality Assurance Officer

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*

**Analytical Results**

**Project: ARMED FORCES RETIREMENT HOME**

Project Number: CG-17-1111  
Project Manager: Nancy Love

Reported:  
05/14/18 11:26

**SB-11(21.5')**

**8050315-03 (Soil)**  
**Sample Date: 05/01/18**

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Quantitation Limit (LOQ)	Dilution	Prepared	Analyzed	Analyst
<b>VOLATILE ORGANICS BY EPA METHOD 5035/8260B (GC/MS)</b>									
Acetone	ND		ug/kg dry	7.4	7.4	1	05/07/18	05/07/18 20:37	GM
tert-Amyl alcohol (TAA)	ND		ug/kg dry	36.8	36.8	1	05/07/18	05/07/18 20:37	GM
tert-Amyl methyl ether (TAME)	ND		ug/kg dry	3.7	1.5	1	05/07/18	05/07/18 20:37	GM
Benzene	ND		ug/kg dry	3.7	1.5	1	05/07/18	05/07/18 20:37	GM
Bromobenzene	ND		ug/kg dry	3.7	1.5	1	05/07/18	05/07/18 20:37	GM
Bromochloromethane	ND		ug/kg dry	3.7	1.5	1	05/07/18	05/07/18 20:37	GM
Bromodichloromethane	ND		ug/kg dry	3.7	1.5	1	05/07/18	05/07/18 20:37	GM
Bromoform	ND		ug/kg dry	3.7	1.5	1	05/07/18	05/07/18 20:37	GM
Bromomethane	ND		ug/kg dry	3.7	3.7	1	05/07/18	05/07/18 20:37	GM
tert-Butanol (TBA)	ND		ug/kg dry	36.8	36.8	1	05/07/18	05/07/18 20:37	GM
2-Butanone (MEK)	ND		ug/kg dry	7.4	7.4	1	05/07/18	05/07/18 20:37	GM
n-Butylbenzene	ND		ug/kg dry	3.7	1.5	1	05/07/18	05/07/18 20:37	GM
sec-Butylbenzene	ND		ug/kg dry	3.7	1.5	1	05/07/18	05/07/18 20:37	GM
tert-Butylbenzene	ND		ug/kg dry	3.7	1.5	1	05/07/18	05/07/18 20:37	GM
Carbon disulfide	ND		ug/kg dry	3.7	1.5	1	05/07/18	05/07/18 20:37	GM
Carbon tetrachloride	ND		ug/kg dry	3.7	1.5	1	05/07/18	05/07/18 20:37	GM
Chlorobenzene	ND		ug/kg dry	3.7	1.5	1	05/07/18	05/07/18 20:37	GM
Chloroethane	ND		ug/kg dry	3.7	3.7	1	05/07/18	05/07/18 20:37	GM
Chloroform	ND		ug/kg dry	3.7	1.5	1	05/07/18	05/07/18 20:37	GM
Chloromethane	ND		ug/kg dry	3.7	3.7	1	05/07/18	05/07/18 20:37	GM
2-Chlorotoluene	ND		ug/kg dry	3.7	1.5	1	05/07/18	05/07/18 20:37	GM
4-Chlorotoluene	ND		ug/kg dry	3.7	1.5	1	05/07/18	05/07/18 20:37	GM
1,2-Dibromo-3-chloropropane	ND		ug/kg dry	3.7	1.5	1	05/07/18	05/07/18 20:37	GM
Dibromochloromethane	ND		ug/kg dry	3.7	1.5	1	05/07/18	05/07/18 20:37	GM
1,2-Dibromoethane (EDB)	ND		ug/kg dry	3.7	1.5	1	05/07/18	05/07/18 20:37	GM
Dibromomethane	ND		ug/kg dry	3.7	1.5	1	05/07/18	05/07/18 20:37	GM
1,2-Dichlorobenzene	ND		ug/kg dry	3.7	1.5	1	05/07/18	05/07/18 20:37	GM
1,3-Dichlorobenzene	ND		ug/kg dry	3.7	1.5	1	05/07/18	05/07/18 20:37	GM
1,4-Dichlorobenzene	ND		ug/kg dry	3.7	1.5	1	05/07/18	05/07/18 20:37	GM
Dichlorodifluoromethane	ND		ug/kg dry	3.7	1.5	1	05/07/18	05/07/18 20:37	GM
1,1-Dichloroethane	ND		ug/kg dry	3.7	1.5	1	05/07/18	05/07/18 20:37	GM
1,2-Dichloroethane	ND		ug/kg dry	3.7	1.5	1	05/07/18	05/07/18 20:37	GM
1,1-Dichloroethene	ND		ug/kg dry	3.7	1.5	1	05/07/18	05/07/18 20:37	GM
cis-1,2-Dichloroethene	3.5	J	ug/kg dry	3.7	1.5	1	05/07/18	05/07/18 20:37	GM



Rabecka Koons, Quality Assurance Officer

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*

**Analytical Results**

**Project: ARMED FORCES RETIREMENT HOME**

Project Number: CG-17-1111  
Project Manager: Nancy Love

Reported:  
05/14/18 11:26

**SB-11(21.5')**

**8050315-03 (Soil)**  
**Sample Date: 05/01/18**

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Quantitation Limit (LOQ)	Dilution	Prepared	Analyzed	Analyst
<b>VOLATILE ORGANICS BY EPA METHOD 5035/8260B (GC/MS) (continued)</b>									
trans-1,2-Dichloroethene	ND		ug/kg dry	3.7	1.5	1	05/07/18	05/07/18 20:37	GM
Dichlorofluoromethane	ND		ug/kg dry	3.7	1.5	1	05/07/18	05/07/18 20:37	GM
1,2-Dichloropropane	ND		ug/kg dry	3.7	1.5	1	05/07/18	05/07/18 20:37	GM
1,3-Dichloropropane	ND		ug/kg dry	3.7	1.5	1	05/07/18	05/07/18 20:37	GM
2,2-Dichloropropane	ND		ug/kg dry	3.7	1.5	1	05/07/18	05/07/18 20:37	GM
1,1-Dichloropropene	ND		ug/kg dry	3.7	1.5	1	05/07/18	05/07/18 20:37	GM
cis-1,3-Dichloropropene	ND		ug/kg dry	3.7	1.5	1	05/07/18	05/07/18 20:37	GM
trans-1,3-Dichloropropene	ND		ug/kg dry	3.7	1.5	1	05/07/18	05/07/18 20:37	GM
Diisopropyl ether (DIPE)	ND		ug/kg dry	3.7	1.5	1	05/07/18	05/07/18 20:37	GM
Ethyl tert-butyl ether (ETBE)	ND		ug/kg dry	3.7	1.5	1	05/07/18	05/07/18 20:37	GM
Ethylbenzene	ND		ug/kg dry	3.7	1.5	1	05/07/18	05/07/18 20:37	GM
Hexachlorobutadiene	ND		ug/kg dry	3.7	1.5	1	05/07/18	05/07/18 20:37	GM
2-Hexanone	ND		ug/kg dry	7.4	7.4	1	05/07/18	05/07/18 20:37	GM
Isopropylbenzene (Cumene)	ND		ug/kg dry	3.7	1.5	1	05/07/18	05/07/18 20:37	GM
4-Isopropyltoluene	ND		ug/kg dry	3.7	1.5	1	05/07/18	05/07/18 20:37	GM
Methyl tert-butyl ether (MTBE)	ND		ug/kg dry	3.7	1.5	1	05/07/18	05/07/18 20:37	GM
4-Methyl-2-pentanone	ND		ug/kg dry	7.4	7.4	1	05/07/18	05/07/18 20:37	GM
Methylene chloride	ND		ug/kg dry	7.4	7.4	1	05/07/18	05/07/18 20:37	GM
Naphthalene	ND		ug/kg dry	3.7	1.5	1	05/07/18	05/07/18 20:37	GM
n-Propylbenzene	ND		ug/kg dry	3.7	1.5	1	05/07/18	05/07/18 20:37	GM
Styrene	ND		ug/kg dry	3.7	1.5	1	05/07/18	05/07/18 20:37	GM
1,1,1,2-Tetrachloroethane	ND		ug/kg dry	3.7	1.5	1	05/07/18	05/07/18 20:37	GM
1,1,2,2-Tetrachloroethane	ND		ug/kg dry	3.7	1.5	1	05/07/18	05/07/18 20:37	GM
<b>Tetrachloroethene</b>	<b>11.5</b>		ug/kg dry	3.7	1.5	1	05/07/18	05/07/18 20:37	GM
Toluene	ND		ug/kg dry	3.7	1.5	1	05/07/18	05/07/18 20:37	GM
1,2,3-Trichlorobenzene	ND		ug/kg dry	3.7	1.5	1	05/07/18	05/07/18 20:37	GM
1,2,4-Trichlorobenzene	ND		ug/kg dry	3.7	1.5	1	05/07/18	05/07/18 20:37	GM
1,1,1-Trichloroethane	ND		ug/kg dry	3.7	1.5	1	05/07/18	05/07/18 20:37	GM
1,1,2-Trichloroethane	ND		ug/kg dry	3.7	1.5	1	05/07/18	05/07/18 20:37	GM
Trichloroethene	ND		ug/kg dry	3.7	1.5	1	05/07/18	05/07/18 20:37	GM
Trichlorofluoromethane (Freon 11)	ND		ug/kg dry	3.7	1.5	1	05/07/18	05/07/18 20:37	GM
1,2,3-Trichloropropane	ND		ug/kg dry	3.7	1.5	1	05/07/18	05/07/18 20:37	GM
1,2,4-Trimethylbenzene	ND		ug/kg dry	3.7	1.5	1	05/07/18	05/07/18 20:37	GM
1,3,5-Trimethylbenzene	ND		ug/kg dry	3.7	1.5	1	05/07/18	05/07/18 20:37	GM



Rabecka Koons, Quality Assurance Officer

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*

**Analytical Results**

1500 Caton Center Dr Suite G  
Baltimore MD 21227  
410-247-7600  
www.mdspectral.com

**Project: ARMED FORCES RETIREMENT HOME**

Project Number: CG-17-1111  
Project Manager: Nancy Love

Reported:  
05/14/18 11:26

**SB-11(21.5')**

**8050315-03 (Soil)**  
**Sample Date: 05/01/18**

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Quantitation Limit (LOQ)	Dilution	Prepared	Analyzed	Analyst
<b>VOLATILE ORGANICS BY EPA METHOD 5035/8260B (GC/MS) (continued)</b>									
Vinyl chloride	ND		ug/kg dry	3.7	1.5	1	05/07/18	05/07/18 20:37	GM
o-Xylene	ND		ug/kg dry	3.7	1.5	1	05/07/18	05/07/18 20:37	GM
m- & p-Xylenes	ND		ug/kg dry	3.7	1.5	1	05/07/18	05/07/18 20:37	GM
<i>Surrogate: 1,2-Dichloroethane-d4</i>									
			70-130	114 %	05/07/18		05/07/18 20:37		
<i>Surrogate: Toluene-d8</i>			75-120	102 %	05/07/18		05/07/18 20:37		
<i>Surrogate: 4-Bromofluorobenzene</i>			70-120	112 %	05/07/18		05/07/18 20:37		
<b>GASOLINE RANGE ORGANICS BY EPA 8015B</b>									
C7-C12	ND		mg/kg dry	0.38	0.38	1	05/11/18	05/11/18 13:48	ZZZ
<i>Surrogate: a,a,a-Trifluorotoluene</i>			85-115	104 %	05/11/18		05/11/18 13:48		
<b>PERCENT SOLIDS BY ASTM D2216-05</b>									
Percent Solids	86		%			1	05/10/18	05/11/18 10:31	GM

*Rabecka Koons*

Rabecka Koons, Quality Assurance Officer

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*

## Analytical Results

1500 Caton Center Dr Suite G  
Baltimore MD 21227  
410-247-7600  
www.mdspectral.com

**Project: ARMED FORCES RETIREMENT HOME**

Project Number: CG-17-1111

Project Manager: Nancy Love

Reported:

05/14/18 11:26

### Notes and Definitions

J	Detected but below the reporting limit; therefore, result is an estimated concentration (CLP J-Flag).
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference



Rabecka Koons, Quality Assurance Officer

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*

Company Name: Chesapeake GeoSciences, Inc.			Project Manager: Nancy Love			Analysis Requested								CHAIN-OF-CUSTODY RECORD							
Project Name: Armed Forces Retirement Home			Project ID: CG-17-1111			TPH-GRO EPA 8015M		TPH-DRO EPA 8015M		TPH-ORO EPA 8015M		RCRA 8 Metals EPA 6020		PCBs EPA 8082		TPH-C7-12 EPA 8015M		Maryland Spectral Services, Inc. 1500 Caton Center Drive, Suite G Baltimore, MD 21227 410-247-7600 • Fax 410-247-7602 labman@mdspectral.com			
Sampler(s): Meg Staines			P.O. Number: CG171111MS			PAHs EPA 8270		VOCs EPA 8260		No. of Containers		Field pH, Residual Chlorine, QC Request, Trip Blank, Field Blank		MSS Lab ID		Matrix Codes: NW (nonpotable water) PW (potable water)					
Field Sample ID	Date	Time	Water	Soil	Other																
SB-02 1 (6.5')	5/1/18	15:10	X			4	X													8050315-01	
SB-02 4 (7')	↓	16:00	X			4	X														
SB-08 (5')	↓	12:25	X			5	X													-02	
SB-11 (21.5')	↓	10:05	X			5	X													-03	
Relinquished by (Signature): <i>Meg Staines</i>			Date/Time: 05/03/18 15:15			Received by (Signature): <i>Devin Glancy</i>		Relinquished by (Signature): <i>Devin Glancy</i>		Date/Time: 5/3/18 10:06		Received by (Signature): <i>Devin Glancy</i>		Date/Time: 5/3/18 10:06		Received by (Signature): <i>Devin Glancy</i>					
Relinquished by (Signature): <i>Meg Staines</i>			Date/Time: 05/03/18 16:00			Received by Lab (Signature): <i>Grady Mulholland</i>		Turn Around Time: Normal (7 day) <input checked="" type="checkbox"/> 5 day <input type="checkbox"/> 4 day <input type="checkbox"/> 3 day <input type="checkbox"/> Rush (2 day) <input type="checkbox"/> Next Day <input type="checkbox"/> Other: <input type="checkbox"/> Specific Due Date: _____		Lab Use: Temp: 4.0 °C <input checked="" type="checkbox"/> Received on Ice <input type="checkbox"/> Received same day <input type="checkbox"/> Preservation Appropriate		Sample Disposal: <input type="checkbox"/> Return to Client <input type="checkbox"/> Disposal by lab <input type="checkbox"/> Archive for _____ days									
Delivery Method: Courier Client UPS FedEx USPS Other:			Special Instructions/QC Requirements & Comments: These samples go with previous 9 samples on AFRH project 4/23-4/30/18																		

16 May 2018

Nancy Love

Chesapeake GeoSciences, Inc.

5405 Twin Knolls Rd, Suite 1

Columbia, MD 21045

RE: ARMED FORCES RETIREMENT HOME

Enclosed are the results of analyses for samples received by the laboratory on 05/14/18 17:10.

A more detailed report format is available upon request, which lists the accreditation status for all analytical methods performed.

Please visit our website at [www.mdspectral.com](http://www.mdspectral.com) for a complete listing of our accreditations.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Will Brewington

President



**Analytical Results**

1500 Caton Center Dr Suite G  
Baltimore MD 21227  
410-247-7600  
www.mdspectral.com

**Project: ARMED FORCES RETIREMENT HOME**

Project Number: CG-17-1111

Project Manager: Nancy Love

Reported:

05/16/18 11:32

Client Sample ID	Alternate Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
SB-02 1(6.5')		8051413-01	Soil	05/01/18 15:10	05/14/18 17:10

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*



Will Brewington, President

## Analytical Results

**Project: ARMED FORCES RETIREMENT HOME**

Project Number: CG-17-1111

Project Manager: Nancy Love

Reported:

05/16/18 11:32

**SB-02 1(6.5')**

**8051413-01 (Soil)**

**Sample Date: 05/01/18**

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Quantitation Limit (LOQ)	Dilution	Prepared	Analyzed	Analyst
<b>VOLATILE ORGANICS BY EPA METHOD 8260B (GC/MS)</b>									
Acetone	ND		ug/kg dry	64.1	64.1	5	05/15/18	05/15/18 12:34	GM
tert-Amyl alcohol (TAA)	ND		ug/kg dry	321	321	5	05/15/18	05/15/18 12:34	GM
tert-Amyl methyl ether (TAME)	ND		ug/kg dry	32.1	12.8	5	05/15/18	05/15/18 12:34	GM
Benzene	ND		ug/kg dry	32.1	12.8	5	05/15/18	05/15/18 12:34	GM
Bromobenzene	ND		ug/kg dry	32.1	12.8	5	05/15/18	05/15/18 12:34	GM
Bromochloromethane	ND		ug/kg dry	32.1	12.8	5	05/15/18	05/15/18 12:34	GM
Bromodichloromethane	ND		ug/kg dry	32.1	12.8	5	05/15/18	05/15/18 12:34	GM
Bromoform	ND		ug/kg dry	32.1	12.8	5	05/15/18	05/15/18 12:34	GM
Bromomethane	ND		ug/kg dry	32.1	32.1	5	05/15/18	05/15/18 12:34	GM
tert-Butanol (TBA)	ND		ug/kg dry	321	321	5	05/15/18	05/15/18 12:34	GM
2-Butanone (MEK)	ND		ug/kg dry	64.1	64.1	5	05/15/18	05/15/18 12:34	GM
<b>n-Butylbenzene</b>	<b>43.4</b>		ug/kg dry	32.1	12.8	5	05/15/18	05/15/18 12:34	GM
<b>sec-Butylbenzene</b>	<b>62.2</b>		ug/kg dry	32.1	12.8	5	05/15/18	05/15/18 12:34	GM
tert-Butylbenzene	ND		ug/kg dry	32.1	12.8	5	05/15/18	05/15/18 12:34	GM
Carbon disulfide	ND		ug/kg dry	32.1	12.8	5	05/15/18	05/15/18 12:34	GM
Carbon tetrachloride	ND		ug/kg dry	32.1	12.8	5	05/15/18	05/15/18 12:34	GM
Chlorobenzene	ND		ug/kg dry	32.1	12.8	5	05/15/18	05/15/18 12:34	GM
Chloroethane	ND		ug/kg dry	32.1	32.1	5	05/15/18	05/15/18 12:34	GM
Chloroform	ND		ug/kg dry	32.1	12.8	5	05/15/18	05/15/18 12:34	GM
Chloromethane	ND		ug/kg dry	32.1	32.1	5	05/15/18	05/15/18 12:34	GM
2-Chlorotoluene	ND		ug/kg dry	32.1	12.8	5	05/15/18	05/15/18 12:34	GM
4-Chlorotoluene	ND		ug/kg dry	32.1	12.8	5	05/15/18	05/15/18 12:34	GM
1,2-Dibromo-3-chloropropane	ND		ug/kg dry	32.1	12.8	5	05/15/18	05/15/18 12:34	GM
Dibromochloromethane	ND		ug/kg dry	32.1	12.8	5	05/15/18	05/15/18 12:34	GM
1,2-Dibromoethane (EDB)	ND		ug/kg dry	32.1	12.8	5	05/15/18	05/15/18 12:34	GM
Dibromomethane	ND		ug/kg dry	32.1	12.8	5	05/15/18	05/15/18 12:34	GM
1,2-Dichlorobenzene	ND		ug/kg dry	32.1	12.8	5	05/15/18	05/15/18 12:34	GM
1,3-Dichlorobenzene	ND		ug/kg dry	32.1	12.8	5	05/15/18	05/15/18 12:34	GM
1,4-Dichlorobenzene	ND		ug/kg dry	32.1	12.8	5	05/15/18	05/15/18 12:34	GM
Dichlorodifluoromethane	ND		ug/kg dry	32.1	12.8	5	05/15/18	05/15/18 12:34	GM
1,1-Dichloroethane	ND		ug/kg dry	32.1	12.8	5	05/15/18	05/15/18 12:34	GM
1,2-Dichloroethane	ND		ug/kg dry	32.1	12.8	5	05/15/18	05/15/18 12:34	GM
1,1-Dichloroethene	ND		ug/kg dry	32.1	12.8	5	05/15/18	05/15/18 12:34	GM
cis-1,2-Dichloroethene	ND		ug/kg dry	32.1	12.8	5	05/15/18	05/15/18 12:34	GM

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*



Will Brewington, President

**Analytical Results**

**Project: ARMED FORCES RETIREMENT HOME**

Project Number: CG-17-1111  
Project Manager: Nancy Love

Reported:  
05/16/18 11:32

**SB-02 1(6.5')**

**8051413-01 (Soil)**  
**Sample Date: 05/01/18**

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Quantitation Limit (LOQ)	Dilution	Prepared	Analyzed	Analyst
<b>VOLATILE ORGANICS BY EPA METHOD 8260B (GC/MS) (continued)</b>									
trans-1,2-Dichloroethene	ND		ug/kg dry	32.1	12.8	5	05/15/18	05/15/18 12:34	GM
Dichlorofluoromethane	ND		ug/kg dry	32.1	12.8	5	05/15/18	05/15/18 12:34	GM
1,2-Dichloropropane	ND		ug/kg dry	32.1	12.8	5	05/15/18	05/15/18 12:34	GM
1,3-Dichloropropane	ND		ug/kg dry	32.1	12.8	5	05/15/18	05/15/18 12:34	GM
2,2-Dichloropropane	ND		ug/kg dry	32.1	12.8	5	05/15/18	05/15/18 12:34	GM
1,1-Dichloropropene	ND		ug/kg dry	32.1	12.8	5	05/15/18	05/15/18 12:34	GM
cis-1,3-Dichloropropene	ND		ug/kg dry	32.1	12.8	5	05/15/18	05/15/18 12:34	GM
trans-1,3-Dichloropropene	ND		ug/kg dry	32.1	12.8	5	05/15/18	05/15/18 12:34	GM
Diisopropyl ether (DIPE)	ND		ug/kg dry	32.1	12.8	5	05/15/18	05/15/18 12:34	GM
Ethyl tert-butyl ether (ETBE)	ND		ug/kg dry	32.1	12.8	5	05/15/18	05/15/18 12:34	GM
Ethylbenzene	ND		ug/kg dry	32.1	12.8	5	05/15/18	05/15/18 12:34	GM
Hexachlorobutadiene	ND		ug/kg dry	32.1	12.8	5	05/15/18	05/15/18 12:34	GM
2-Hexanone	ND		ug/kg dry	64.1	64.1	5	05/15/18	05/15/18 12:34	GM
Isopropylbenzene (Cumene)	ND		ug/kg dry	32.1	12.8	5	05/15/18	05/15/18 12:34	GM
4-Isopropyltoluene	ND		ug/kg dry	32.1	12.8	5	05/15/18	05/15/18 12:34	GM
Methyl tert-butyl ether (MTBE)	ND		ug/kg dry	32.1	12.8	5	05/15/18	05/15/18 12:34	GM
4-Methyl-2-pentanone	ND		ug/kg dry	64.1	64.1	5	05/15/18	05/15/18 12:34	GM
Methylene chloride	ND		ug/kg dry	128	128	5	05/15/18	05/15/18 12:34	GM
Naphthalene	ND		ug/kg dry	32.1	12.8	5	05/15/18	05/15/18 12:34	GM
n-Propylbenzene	ND		ug/kg dry	32.1	12.8	5	05/15/18	05/15/18 12:34	GM
Styrene	ND		ug/kg dry	32.1	12.8	5	05/15/18	05/15/18 12:34	GM
1,1,1,2-Tetrachloroethane	ND		ug/kg dry	32.1	12.8	5	05/15/18	05/15/18 12:34	GM
1,1,2,2-Tetrachloroethane	ND		ug/kg dry	32.1	12.8	5	05/15/18	05/15/18 12:34	GM
Tetrachloroethene	ND		ug/kg dry	32.1	12.8	5	05/15/18	05/15/18 12:34	GM
Toluene	ND		ug/kg dry	32.1	12.8	5	05/15/18	05/15/18 12:34	GM
1,2,3-Trichlorobenzene	ND		ug/kg dry	32.1	12.8	5	05/15/18	05/15/18 12:34	GM
1,2,4-Trichlorobenzene	ND		ug/kg dry	32.1	12.8	5	05/15/18	05/15/18 12:34	GM
1,1,1-Trichloroethane	ND		ug/kg dry	32.1	12.8	5	05/15/18	05/15/18 12:34	GM
1,1,2-Trichloroethane	ND		ug/kg dry	32.1	12.8	5	05/15/18	05/15/18 12:34	GM
Trichloroethene	ND		ug/kg dry	32.1	12.8	5	05/15/18	05/15/18 12:34	GM
Trichlorofluoromethane (Freon 11)	ND		ug/kg dry	32.1	12.8	5	05/15/18	05/15/18 12:34	GM
1,2,3-Trichloropropane	ND		ug/kg dry	32.1	12.8	5	05/15/18	05/15/18 12:34	GM
1,2,4-Trimethylbenzene	ND		ug/kg dry	32.1	12.8	5	05/15/18	05/15/18 12:34	GM
1,3,5-Trimethylbenzene	ND		ug/kg dry	32.1	12.8	5	05/15/18	05/15/18 12:34	GM

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*



Will Brewington, President

**Analytical Results**

1500 Caton Center Dr Suite G  
Baltimore MD 21227  
410-247-7600  
www.mdspectral.com

**Project: ARMED FORCES RETIREMENT HOME**

Project Number: CG-17-1111  
Project Manager: Nancy Love

Reported:  
05/16/18 11:32

**SB-02 1(6.5')**

**8051413-01 (Soil)**  
**Sample Date: 05/01/18**

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Quantitation Limit (LOQ)	Dilution	Prepared	Analyzed	Analyst
<b>VOLATILE ORGANICS BY EPA METHOD 8260B (GC/MS) (continued)</b>									
Vinyl chloride	ND		ug/kg dry	32.1	12.8	5	05/15/18	05/15/18 12:34	GM
o-Xylene	ND		ug/kg dry	32.1	12.8	5	05/15/18	05/15/18 12:34	GM
m- & p-Xylenes	ND		ug/kg dry	32.1	12.8	5	05/15/18	05/15/18 12:34	GM
Surrogate: 1,2-Dichloroethane-d4		70-130		100 %	05/15/18		05/15/18 12:34		
Surrogate: Toluene-d8		75-120		102 %	05/15/18		05/15/18 12:34		
Surrogate: 4-Bromofluorobenzene		65-120		127 %	05/15/18		05/15/18 12:34		S-07
<b>GASOLINE RANGE ORGANICS BY EPA 8015B</b>									
<b>C7-C12</b>	<b>79.0</b>		mg/kg dry	3.21	3.21	5	05/15/18	05/15/18 16:11	ZZZ
Surrogate: a,a,a-Trifluorotoluene		85-115		102 %	05/15/18		05/15/18 16:11		
<b>PERCENT SOLIDS BY ASTM D2216-05</b>									
<b>Percent Solids</b>	<b>78</b>		%			1	05/15/18	05/16/18 10:26	GM



Will Brewington, President

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

## Analytical Results

1500 Caton Center Dr Suite G  
Baltimore MD 21227  
410-247-7600  
www.mdspectral.com

**Project: ARMED FORCES RETIREMENT HOME**

Project Number: CG-17-1111

Project Manager: Nancy Love

Reported:

05/16/18 11:32

### Notes and Definitions

- S-07 Surrogate recovery outside control limits due to sample matrix effect.
- J Detected but below the reporting limit; therefore, result is an estimated concentration (CLP J-Flag).
- DET Analyte DETECTED
- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- dry Sample results reported on a dry weight basis
- RPD Relative Percent Difference

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*



Will Brewington, President



**CHAIN-OF-CUSTODY RECORD**

<b>Company Name:</b> Chesapeake GeoSciences, Inc.		<b>Project Manager:</b> Nancy Love		<b>Analysis Requested</b>		<b>Received by: (Signature)</b> <i>[Signature]</i>		<b>Date/Time</b> 5/13/18		<b>Received by: (Signature)</b> <i>[Signature]</i>		<b>Date/Time</b> 5/13/18	
<b>Project Name:</b> Armed Forces Retirement Home		<b>Project ID:</b> CG-17-1111		TPH-C7-12 EPA 8015M		<b>Received by: (Signature)</b> <i>[Signature]</i>		<b>Date/Time</b> 10:06		<b>Received by: (Signature)</b> <i>[Signature]</i>		<b>Date/Time</b> 10:06	
<b>Sampler(s):</b> Meg Staines		<b>P.O. Number:</b> CG171111MS		PCBs EPA 8082		<b>Received by: (Signature)</b> <i>[Signature]</i>		<b>Lab Use:</b>		Temp: 4.0 °C		<input checked="" type="checkbox"/> Received on ice	
<b>Field Sample ID</b>		<b>Date</b>		RCRA 8 Metals EPA 6020		<b>Received by: (Signature)</b> <i>[Signature]</i>		<input checked="" type="checkbox"/> Received same day		<input type="checkbox"/> Preservation Appropriate		Sample Disposal:	
SB-02-1 (6.5')		5/1/18 15:10		TPH-ORO EPA 8015M		<b>Received by: (Signature)</b> <i>[Signature]</i>		<input type="checkbox"/> Rush (2 day)		<input type="checkbox"/> Next Day		<input type="checkbox"/> Return to Client	
SB-02-4 (7')		16:00		TPH-DRO EPA 8015M		<b>Received by: (Signature)</b> <i>[Signature]</i>		<input type="checkbox"/> 5 day		<input type="checkbox"/> 4 day		<input type="checkbox"/> Disposal by lab	
SB-08 (5')		12:25		TPH-GRO EPA 8015M		<b>Received by: (Signature)</b> <i>[Signature]</i>		<input type="checkbox"/> 3 day		<input type="checkbox"/> Rush (2 day)		<input type="checkbox"/> Other:	
SB-11 (21.5')		10:05		PAHs EPA 8270		<b>Received by: (Signature)</b> <i>[Signature]</i>		<input type="checkbox"/> Specific Due Date:		<input type="checkbox"/> Specific Due Date:		<input type="checkbox"/> Archive for ___ days	
No. of Containers		Water		VOCs EPA 8260		<b>Received by: (Signature)</b> <i>[Signature]</i>		Turn Around Time:		Normal (7 day)		<input checked="" type="checkbox"/> Normal (7 day)	
Soil		Other		Vocs EPA 8260		<b>Received by: (Signature)</b> <i>[Signature]</i>		5 day		4 day		3 day	
X		X		4 X		<b>Received by: (Signature)</b> <i>[Signature]</i>		Rush (2 day)		Next Day		Other:	
X		X		4 X		<b>Received by: (Signature)</b> <i>[Signature]</i>		5 day		4 day		Specific Due Date:	
X		X		5 X		<b>Received by: (Signature)</b> <i>[Signature]</i>		4 day		3 day		Other:	
X		X		5 X		<b>Received by: (Signature)</b> <i>[Signature]</i>		Rush (2 day)		Next Day		Specific Due Date:	

**Delivery Method:**  
 Courier  
 Client  
 UPS  
 FedEx  
 USPS  
 Other:

**Special Instructions/QC Requirements & Comments:**  
 These samples go with previous samples on AFRRH project 4/23-4/30/18