

## Analytical Results

1500 Caton Center Dr Suite G  
Baltimore MD 21227  
410-247-7600  
www.mdspectral.com  
VELAP ID 460040

Project: **RF-72**

Project Number: 05-056RF072

Project Manager: James Wolf

Report Issued: 08/27/13 10:18

Advantage Environmental Consultants, LLC

8610 Baltimore Washington Blvd, Suite 217

Jessup MD, 20794

CLIENT SAMPLE ID:	PW-1	PW-2A	PW-2B	PW-2C	PW-3	PW-2907
LAB SAMPLE ID:	3082011-01	3082011-02	3082011-03	3082011-04	3082011-05	3082011-06
SAMPLE DATE:	08/20/13	08/20/13	08/20/13	08/20/13	08/20/13	08/20/13
RECEIVED DATE:	08/20/13	08/20/13	08/20/13	08/20/13	08/20/13	08/20/13
MATRIX	Water	Water	Water	Water	Water	Water

### VOLATILE ORGANICS BY EPA METHOD 524.2 (GC/MS) (Water)

Compound	Units	PW-1	PW-2A	PW-2B	PW-2C	PW-3	PW-2907
tert-Amyl alcohol (TAA)	ug/L	<250	<10.0	<10.0	<10.0	<10.0	<10.0
tert-Amyl methyl ether (TAME)	ug/L	<b>13.1</b>	<0.50	<0.50	<0.50	<0.50	<b>8.18</b>
Benzene	ug/L	<12.5	<0.50	<0.50	<0.50	<0.50	<0.50
Bromobenzene	ug/L	<12.5	<0.50	<0.50	<0.50	<0.50	<0.50
Bromochloromethane	ug/L	<12.5	<0.50	<0.50	<0.50	<0.50	<0.50
Bromodichloromethane	ug/L	<12.5	<0.50	<0.50	<0.50	<0.50	<0.50
Bromoform	ug/L	<12.5	<0.50	<0.50	<0.50	<0.50	<0.50
Bromomethane	ug/L	<12.5	<0.50	<0.50	<0.50	<0.50	<0.50
tert-Butanol (TBA)	ug/L	<250	<b>258 [1]</b>	<b>157</b>	<10.0	<10.0	<b>15.0</b>
n-Butylbenzene	ug/L	<12.5	<0.50	<0.50	<0.50	<0.50	<0.50
sec-Butylbenzene	ug/L	<12.5	<0.50	<0.50	<0.50	<0.50	<0.50
tert-Butylbenzene	ug/L	<12.5	<0.50	<0.50	<0.50	<0.50	<0.50
Carbon tetrachloride	ug/L	<12.5	<0.50	<0.50	<0.50	<0.50	<0.50
Chlorobenzene	ug/L	<12.5	<0.50	<0.50	<0.50	<0.50	<0.50
Chloroethane	ug/L	<12.5	<0.50	<0.50	<0.50	<0.50	<0.50
Chloroform	ug/L	<12.5	<0.50	<0.50	<0.50	<0.50	<0.50
Chloromethane	ug/L	<12.5	<0.50	<0.50	<0.50	<0.50	<0.50
2- & 4-Chlorotoluene	ug/L	<12.5	<0.50	<0.50	<0.50	<0.50	<0.50
Dibromochloromethane	ug/L	<12.5	<0.50	<0.50	<0.50	<0.50	<0.50
1,2-Dibromo-3-chloropropane	ug/L	<12.5	<0.50	<0.50	<0.50	<0.50	<0.50
1,2-Dibromoethane (EDB)	ug/L	<12.5	<0.50	<0.50	<0.50	<0.50	<0.50
Dibromomethane	ug/L	<12.5	<0.50	<0.50	<0.50	<0.50	<0.50
1,2-Dichlorobenzene	ug/L	<12.5	<0.50	<0.50	<0.50	<0.50	<0.50
1,3-Dichlorobenzene	ug/L	<12.5	<0.50	<0.50	<0.50	<0.50	<0.50
1,4-Dichlorobenzene	ug/L	<12.5	<0.50	<0.50	<0.50	<0.50	<0.50
Dichlorodifluoromethane	ug/L	<12.5	<0.50	<0.50	<0.50	<0.50	<0.50
1,1-Dichloroethane	ug/L	<12.5	<0.50	<0.50	<0.50	<0.50	<0.50
1,2-Dichloroethane	ug/L	<12.5	<0.50	<0.50	<0.50	<0.50	<b>2.30</b>
1,1-Dichloroethene	ug/L	<12.5	<0.50	<0.50	<0.50	<0.50	<0.50
cis-1,2-Dichloroethene	ug/L	<12.5	<0.50	<0.50	<0.50	<0.50	<0.50
trans-1,2-Dichloroethene	ug/L	<12.5	<0.50	<0.50	<0.50	<0.50	<0.50
1,2-Dichloropropane	ug/L	<12.5	<0.50	<0.50	<0.50	<0.50	<0.50
1,3-Dichloropropane	ug/L	<12.5	<0.50	<0.50	<0.50	<0.50	<0.50
2,2-Dichloropropane	ug/L	<12.5	<0.50	<0.50	<0.50	<0.50	<0.50
1,1-Dichloropropene	ug/L	<12.5	<0.50	<0.50	<0.50	<0.50	<0.50
cis-1,3-Dichloropropene	ug/L	<12.5	<0.50	<0.50	<0.50	<0.50	<0.50

1 = The concentration indicated for this analyte is an estimated value above the calibration range of the instrument. This value is considered an estimate (CLP E-flag).

2 = Detected but below the reporting limit; therefore, result is an estimated concentration (CLP J-Flag).

3 = Result taken from diluted analysis

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LAB SAMPLE ID:	3082011-01	3082011-02	3082011-03	3082011-04	3082011-05	3082011-06
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RECEIVED DATE:	08/20/13	08/20/13	08/20/13	08/20/13	08/20/13	08/20/13
MATRIX	Units	Water	Water	Water	Water	Water

### VOLATILE ORGANICS BY EPA METHOD 524.2 (GC/MS) (continued)

	Units	PW-1	PW-2A	PW-2B	PW-2C	PW-3	PW-2907
trans-1,3-Dichloropropene	ug/L	<12.5	<0.50	<0.50	<0.50	<0.50	<0.50
Diisopropyl ether (DIPE)	ug/L	<b>13.8</b>	<0.50	<0.50	<0.50	<0.50	<b>5.65</b>
Ethyl tert-butyl ether (ETBE)	ug/L	<12.5	<0.50	<0.50	<0.50	<0.50	<0.50
Ethylbenzene	ug/L	<12.5	<0.50	<0.50	<0.50	<0.50	<0.50
Hexachlorobutadiene	ug/L	<12.5	<0.50	<0.50	<0.50	<0.50	<0.50
Isopropylbenzene (Cumene)	ug/L	<12.5	<0.50	<0.50	<0.50	<0.50	<0.50
4-Isopropyltoluene	ug/L	<12.5	<0.50	<0.50	<0.50	<0.50	<0.50
Methyl tert-butyl ether (MTBE)	ug/L	<b>414</b>	<b>3.00</b>	<0.50	<0.50	<0.50	<b>242 [3]</b>
Methylene chloride	ug/L	<12.5	<0.50	<0.50	<0.50	<0.50	<0.50
Naphthalene	ug/L	<12.5	<0.50	<0.50	<0.50	<0.50	<0.50
n-Propylbenzene	ug/L	<12.5	<0.50	<0.50	<0.50	<0.50	<0.50
Styrene	ug/L	<12.5	<0.50	<0.50	<0.50	<0.50	<0.50
1,1,1,2-Tetrachloroethane	ug/L	<12.5	<0.50	<0.50	<0.50	<0.50	<0.50
1,1,2,2-Tetrachloroethane	ug/L	<12.5	<0.50	<0.50	<0.50	<0.50	<0.50
Tetrachloroethene	ug/L	<12.5	<0.50	<0.50	<0.50	<0.50	<0.50
Toluene	ug/L	<12.5	<0.50	<0.50	<0.50	<0.50	<0.50
1,2,3-Trichlorobenzene	ug/L	<12.5	<0.50	<0.50	<0.50	<0.50	<0.50
1,2,4-Trichlorobenzene	ug/L	<12.5	<0.50	<0.50	<0.50	<0.50	<0.50
1,1,1-Trichloroethane	ug/L	<12.5	<0.50	<0.50	<0.50	<0.50	<0.50
1,1,2-Trichloroethane	ug/L	<12.5	<0.50	<0.50	<0.50	<0.50	<0.50
Trichloroethene	ug/L	<12.5	<0.50	<0.50	<0.50	<0.50	<0.50
Trichlorofluoromethane (Freon 11)	ug/L	<12.5	<0.50	<0.50	<0.50	<0.50	<0.50
1,2,3-Trichloropropane	ug/L	<12.5	<0.50	<0.50	<0.50	<0.50	<0.50
1,2,4-Trimethylbenzene	ug/L	<12.5	<0.50	<0.50	<0.50	<0.50	<0.50
1,3,5-Trimethylbenzene	ug/L	<12.5	<0.50	<0.50	<0.50	<0.50	<0.50
Vinyl chloride	ug/L	<12.5	<0.50	<0.50	<0.50	<0.50	<0.50
o-Xylene	ug/L	<12.5	<0.50	<0.50	<0.50	<0.50	<0.50
m- & p-Xylenes	ug/L	<12.5	<0.50	<0.50	<0.50	<0.50	<0.50
4-Bromofluorobenzene	[surr]	<u>91.0%</u>	<u>90.1%</u>	<u>92.5%</u>	<u>94.3%</u>	<u>90.7%</u>	<u>95.9%</u>
1,2-Dichlorobenzene-d4	[surr]	<u>94.6%</u>	<u>94.4%</u>	<u>91.9%</u>	<u>95.3%</u>	<u>92.7%</u>	<u>100%</u>

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Jessup MD, 20794

CLIENT SAMPLE ID:	MW-1	MW-2	MW-6	MW-7	MW-8	TP-1
LAB SAMPLE ID:	3082011-07	3082011-08	3082011-09	3082011-10	3082011-11	3082011-12
SAMPLE DATE:	08/20/13	08/20/13	08/20/13	08/20/13	08/20/13	08/20/13
RECEIVED DATE:	08/20/13	08/20/13	08/20/13	08/20/13	08/20/13	08/20/13
MATRIX	Units	Water	Water	Water	Water	Water

### VOLATILE ORGANICS BY EPA METHOD 8260B (GC/MS) (Water)

	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Acetone	<10.0	<20.0	<10.0	<10.0	<10.0	<10.0
tert-Amyl alcohol (TAA)	<20.0	<b>542</b>	<20.0	<20.0	<20.0	<b>136</b>
tert-Amyl methyl ether (TAME)	<5.0	<b>10.0</b>	<5.0	<5.0	<5.0	<5.0
Benzene	<5.0	<b>32.5</b>	<5.0	<5.0	<5.0	<b>4.9 [2]</b>
Bromobenzene	<5.0	<10.0	<5.0	<5.0	<5.0	<5.0
Bromochloromethane	<5.0	<10.0	<5.0	<5.0	<5.0	<5.0
Bromodichloromethane	<5.0	<10.0	<5.0	<5.0	<5.0	<5.0
Bromoform	<5.0	<10.0	<5.0	<5.0	<5.0	<5.0
Bromomethane	<5.0	<10.0	<5.0	<5.0	<5.0	<5.0
tert-Butanol (TBA)	<15.0	<b>1040</b>	<15.0	<b>56.3</b>	<15.0	<b>177</b>
2-Butanone (MEK)	<10.0	<20.0	<10.0	<10.0	<10.0	<10.0
n-Butylbenzene	<5.0	<b>9.1 [2]</b>	<5.0	<5.0	<5.0	<5.0
sec-Butylbenzene	<5.0	<b>6.7 [2]</b>	<5.0	<5.0	<5.0	<5.0
tert-Butylbenzene	<5.0	<10.0	<5.0	<5.0	<5.0	<5.0
Carbon disulfide	<5.0	<10.0	<5.0	<5.0	<5.0	<5.0
Carbon tetrachloride	<5.0	<10.0	<5.0	<5.0	<5.0	<5.0
Chlorobenzene	<5.0	<10.0	<5.0	<5.0	<5.0	<5.0
Chloroethane	<5.0	<10.0	<5.0	<5.0	<5.0	<5.0
Chloroform	<5.0	<10.0	<5.0	<5.0	<5.0	<5.0
Chloromethane	<5.0	<10.0	<5.0	<5.0	<5.0	<5.0
2-Chlorotoluene	<5.0	<10.0	<5.0	<5.0	<5.0	<5.0
4-Chlorotoluene	<5.0	<10.0	<5.0	<5.0	<5.0	<5.0
Dibromochloromethane	<5.0	<10.0	<5.0	<5.0	<5.0	<5.0
1,2-Dibromo-3-chloropropane	<5.0	<10.0	<5.0	<5.0	<5.0	<5.0
1,2-Dibromoethane (EDB)	<5.0	<10.0	<5.0	<5.0	<5.0	<5.0
Dibromomethane	<5.0	<10.0	<5.0	<5.0	<5.0	<5.0
1,2-Dichlorobenzene	<5.0	<10.0	<5.0	<5.0	<5.0	<5.0
1,3-Dichlorobenzene	<5.0	<10.0	<5.0	<5.0	<5.0	<5.0
1,4-Dichlorobenzene	<5.0	<10.0	<5.0	<5.0	<5.0	<5.0
Dichlorodifluoromethane	<5.0	<10.0	<5.0	<5.0	<5.0	<5.0
1,1-Dichloroethane	<5.0	<10.0	<5.0	<5.0	<5.0	<5.0
1,2-Dichloroethane	<5.0	<10.0	<5.0	<5.0	<5.0	<5.0
1,1-Dichloroethene	<5.0	<10.0	<5.0	<5.0	<5.0	<5.0
cis-1,2-Dichloroethene	<5.0	<10.0	<5.0	<5.0	<5.0	<5.0
trans-1,2-Dichloroethene	<5.0	<10.0	<5.0	<5.0	<5.0	<5.0
Dichlorofluoromethane	<5.0	<10.0	<5.0	<5.0	<5.0	<5.0

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LAB SAMPLE ID:	3082011-07	3082011-08	3082011-09	3082011-10	3082011-11	3082011-12
SAMPLE DATE:	08/20/13	08/20/13	08/20/13	08/20/13	08/20/13	08/20/13
RECEIVED DATE:	08/20/13	08/20/13	08/20/13	08/20/13	08/20/13	08/20/13
MATRIX	Units	Water	Water	Water	Water	Water

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

1,2-Dichloropropane	ug/L	<5.0	<10.0	<5.0	<5.0	<5.0	<5.0
1,3-Dichloropropane	ug/L	<5.0	<10.0	<5.0	<5.0	<5.0	<5.0
2,2-Dichloropropane	ug/L	<5.0	<10.0	<5.0	<5.0	<5.0	<5.0
1,1-Dichloropropene	ug/L	<5.0	<10.0	<5.0	<5.0	<5.0	<5.0
cis-1,3-Dichloropropene	ug/L	<5.0	<10.0	<5.0	<5.0	<5.0	<5.0
trans-1,3-Dichloropropene	ug/L	<5.0	<10.0	<5.0	<5.0	<5.0	<5.0
Diisopropyl ether (DIPE)	ug/L	<5.0	<10.0	<5.0	<5.0	<5.0	<b>2.8 [2]</b>
Ethyl tert-butyl ether (ETBE)	ug/L	<5.0	<10.0	<5.0	<5.0	<5.0	<5.0
Ethylbenzene	ug/L	<5.0	<b>79.9</b>	<5.0	<5.0	<5.0	<5.0
Hexachlorobutadiene	ug/L	<5.0	<10.0	<5.0	<5.0	<5.0	<5.0
2-Hexanone	ug/L	<10.0	<20.0	<10.0	<10.0	<10.0	<10.0
Isopropylbenzene (Cumene)	ug/L	<5.0	<b>36.1</b>	<5.0	<5.0	<5.0	<5.0
4-Isopropyltoluene	ug/L	<5.0	<10.0	<5.0	<5.0	<5.0	<5.0
Methyl tert-butyl ether (MTBE)	ug/L	<5.0	<b>261</b>	<5.0	<b>16.2</b>	<5.0	<b>4.5 [2]</b>
4-Methyl-2-pentanone	ug/L	<10.0	<20.0	<10.0	<10.0	<10.0	<10.0
Methylene chloride	ug/L	<10.0	<20.0	<10.0	<10.0	<10.0	<10.0
Naphthalene	ug/L	<5.0	<b>71.9</b>	<5.0	<5.0	<5.0	<5.0
n-Propylbenzene	ug/L	<5.0	<b>32.5</b>	<5.0	<5.0	<5.0	<5.0
Styrene	ug/L	<5.0	<10.0	<5.0	<5.0	<5.0	<5.0
1,1,1,2-Tetrachloroethane	ug/L	<5.0	<10.0	<5.0	<5.0	<5.0	<5.0
1,1,2,2-Tetrachloroethane	ug/L	<5.0	<10.0	<5.0	<5.0	<5.0	<5.0
Tetrachloroethene	ug/L	<5.0	<10.0	<5.0	<5.0	<5.0	<5.0
Toluene	ug/L	<5.0	<b>7.9 [2]</b>	<5.0	<5.0	<5.0	<b>17.1</b>
1,2,3-Trichlorobenzene	ug/L	<5.0	<10.0	<5.0	<5.0	<5.0	<5.0
1,2,4-Trichlorobenzene	ug/L	<5.0	<10.0	<5.0	<5.0	<5.0	<5.0
1,1,1-Trichloroethane	ug/L	<5.0	<10.0	<5.0	<5.0	<5.0	<5.0
1,1,2-Trichloroethane	ug/L	<5.0	<10.0	<5.0	<5.0	<5.0	<5.0
Trichloroethene	ug/L	<5.0	<10.0	<5.0	<5.0	<5.0	<5.0
Trichlorofluoromethane (Freon 11)	ug/L	<5.0	<10.0	<5.0	<5.0	<5.0	<5.0
1,2,3-Trichloropropane	ug/L	<5.0	<10.0	<5.0	<5.0	<5.0	<5.0
1,2,4-Trimethylbenzene	ug/L	<5.0	<b>135</b>	<5.0	<5.0	<5.0	<5.0
1,3,5-Trimethylbenzene	ug/L	<5.0	<b>141</b>	<5.0	<5.0	<5.0	<5.0
Vinyl chloride	ug/L	<5.0	<10.0	<5.0	<5.0	<5.0	<5.0
o-Xylene	ug/L	<5.0	<b>69.0</b>	<5.0	<5.0	<5.0	<b>3.5 [2]</b>
m- & p-Xylenes	ug/L	<5.0	<b>111</b>	<5.0	<5.0	<5.0	<5.0
1,2-Dichloroethane-d4	[surr]	<b>105%</b>	<b>102%</b>	<b>98.2%</b>	<b>109%</b>	<b>107%</b>	<b>110%</b>

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RECEIVED DATE:	08/20/13	08/20/13	08/20/13	08/20/13	08/20/13	08/20/13
MATRIX	Units	Water	Water	Water	Water	Water

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

Toluene-d8	[surr]	<u>102%</u>	<u>98.7%</u>	<u>97.7%</u>	<u>101%</u>	<u>101%</u>	<u>103%</u>
4-Bromofluorobenzene	[surr]	<u>99.6%</u>	<u>99.7%</u>	<u>97.9%</u>	<u>102%</u>	<u>100%</u>	<u>101%</u>

### GASOLINE RANGE ORGANICS BY EPA 8015B (Water)

Gasoline-Range Organics	ug/L	<100	<b>1750</b>	<100	<100	<100	<100
alpha,alpha,alpha-Trifluorotoluene	[surr]	<u>101%</u>	<u>107%</u>	<u>104%</u>	<u>103%</u>	<u>107%</u>	<u>101%</u>

### DIESEL RANGE ORGANICS BY EPA 3510/8015B (Water)

Diesel-Range Organics	mg/L	<0.20	<b>4.04</b>	<0.20	<b>0.46</b>	<0.20	<b>0.35</b>
o-Terphenyl	[surr]	<u>81.1%</u>	<u>88.1%</u>	<u>84.5%</u>	<u>92.7%</u>	<u>88.0%</u>	<u>87.1%</u>

### DISSOLVED GASES BY RSK-175 / EPA SM6211B/EPA8015M (HEADSPACE/GC/FID) (Water)

Methane	mg/L	<0.0055	<b>0.213</b>	<b>0.0135</b>	<b>0.0140</b>	<b>0.0072</b>	<b>0.0119</b>
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### ANIONS BY EPA 300.0 PERFORMED AT ECL INC (Water)

Nitrate (as N)	mg/L	<b>7.9</b>	<0.2	<b>1.8</b>	<0.2	<b>12.8</b>	<b>0.6</b>
Sulfate	mg/L	<b>37.5</b>	<1.0	<b>1.4</b>	<b>81.7</b>	<b>27.8</b>	<b>17.9</b>

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2 = Detected but below the reporting limit; therefore, result is an estimated concentration (CLP J-Flag).

3 = Result taken from diluted analysis

## Analytical Results

1500 Caton Center Dr Suite G  
Baltimore MD 21227  
410-247-7600  
www.mdspectral.com  
VELAP ID 460040

**Project: RF-72**

Project Number: 05-056RF072

Project Manager: James Wolf

Advantage Environmental Consultants, LLC

8610 Baltimore Washington Blvd, Suite 217

Report Issued: 08/27/13 10:18

Jessup MD, 20794

**CLIENT SAMPLE ID:** TP-2  
**LAB SAMPLE ID:** 3082011-13  
**SAMPLE DATE:** 08/20/13  
**RECEIVED DATE:** 08/20/13  
**MATRIX** Units Water

### VOLATILE ORGANICS BY EPA METHOD 8260B (GC/MS) (Water)

Acetone	ug/L	<20.0
tert-Amyl alcohol (TAA)	ug/L	<b>99.1</b>
tert-Amyl methyl ether (TAME)	ug/L	<10.0
Benzene	ug/L	<b>51.0</b>
Bromobenzene	ug/L	<10.0
Bromochloromethane	ug/L	<10.0
Bromodichloromethane	ug/L	<10.0
Bromoform	ug/L	<10.0
Bromomethane	ug/L	<10.0
tert-Butanol (TBA)	ug/L	<b>159</b>
2-Butanone (MEK)	ug/L	<20.0
n-Butylbenzene	ug/L	<10.0
sec-Butylbenzene	ug/L	<10.0
tert-Butylbenzene	ug/L	<10.0
Carbon disulfide	ug/L	<10.0
Carbon tetrachloride	ug/L	<10.0
Chlorobenzene	ug/L	<10.0
Chloroethane	ug/L	<10.0
Chloroform	ug/L	<10.0
Chloromethane	ug/L	<10.0
2-Chlorotoluene	ug/L	<10.0
4-Chlorotoluene	ug/L	<10.0
Dibromochloromethane	ug/L	<10.0
1,2-Dibromo-3-chloropropane	ug/L	<10.0
1,2-Dibromoethane (EDB)	ug/L	<10.0
Dibromomethane	ug/L	<10.0
1,2-Dichlorobenzene	ug/L	<10.0
1,3-Dichlorobenzene	ug/L	<10.0
1,4-Dichlorobenzene	ug/L	<10.0
Dichlorodifluoromethane	ug/L	<10.0
1,1-Dichloroethane	ug/L	<10.0
1,2-Dichloroethane	ug/L	<10.0
1,1-Dichloroethene	ug/L	<10.0
cis-1,2-Dichloroethene	ug/L	<10.0
trans-1,2-Dichloroethene	ug/L	<10.0
Dichlorofluoromethane	ug/L	<10.0

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## Analytical Results

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**Project: RF-72**

Project Number: 05-056RF072

Advantage Environmental Consultants, LLC

Project Manager: James Wolf

8610 Baltimore Washington Blvd, Suite 217

Report Issued: 08/27/13 10:18

Jessup MD, 20794

**CLIENT SAMPLE ID:** TP-2  
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**SAMPLE DATE:** 08/20/13  
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**MATRIX** Units Water

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

1,2-Dichloropropane	ug/L	<10.0
1,3-Dichloropropane	ug/L	<10.0
2,2-Dichloropropane	ug/L	<10.0
1,1-Dichloropropene	ug/L	<10.0
cis-1,3-Dichloropropene	ug/L	<10.0
trans-1,3-Dichloropropene	ug/L	<10.0
Diisopropyl ether (DIPE)	ug/L	<b>8.6 [2]</b>
Ethyl tert-butyl ether (ETBE)	ug/L	<10.0
Ethylbenzene	ug/L	<b>4.1 [2]</b>
Hexachlorobutadiene	ug/L	<10.0
2-Hexanone	ug/L	<20.0
Isopropylbenzene (Cumene)	ug/L	<10.0
4-Isopropyltoluene	ug/L	<10.0
Methyl tert-butyl ether (MTBE)	ug/L	<b>18.0</b>
4-Methyl-2-pentanone	ug/L	<20.0
Methylene chloride	ug/L	<20.0
Naphthalene	ug/L	<10.0
n-Propylbenzene	ug/L	<10.0
Styrene	ug/L	<10.0
1,1,1,2-Tetrachloroethane	ug/L	<10.0
1,1,2,2-Tetrachloroethane	ug/L	<10.0
Tetrachloroethene	ug/L	<10.0
Toluene	ug/L	<b>221</b>
1,2,3-Trichlorobenzene	ug/L	<10.0
1,2,4-Trichlorobenzene	ug/L	<10.0
1,1,1-Trichloroethane	ug/L	<10.0
1,1,2-Trichloroethane	ug/L	<10.0
Trichloroethene	ug/L	<10.0
Trichlorofluoromethane (Freon 11)	ug/L	<10.0
1,2,3-Trichloropropane	ug/L	<10.0
1,2,4-Trimethylbenzene	ug/L	<10.0
1,3,5-Trimethylbenzene	ug/L	<10.0
Vinyl chloride	ug/L	<10.0
o-Xylene	ug/L	<b>23.5</b>
m- & p-Xylenes	ug/L	<b>17.7</b>
1,2-Dichloroethane-d4	[surr]	<b>100%</b>

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## Analytical Results

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VELAP ID 460040

**Project: RF-72**

Project Number: 05-056RF072

Advantage Environmental Consultants, LLC

Project Manager: James Wolf

8610 Baltimore Washington Blvd, Suite 217

Report Issued: 08/27/13 10:18

Jessup MD, 20794

**CLIENT SAMPLE ID:** TP-2  
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**MATRIX** Units Water

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

Toluene-d8 [surr] 98.3%  
 4-Bromofluorobenzene [surr] 98.6%

### GASOLINE RANGE ORGANICS BY EPA 8015B (Water)

Gasoline-Range Organics ug/L 264  
 alpha,alpha,alpha-Trifluorotoluene [surr] 100%

### DIESEL RANGE ORGANICS BY EPA 3510/8015B (Water)

Diesel-Range Organics mg/L 0.39  
 o-Terphenyl [surr] 90.7%

### DISSOLVED GASES BY RSK-175 / EPA SM6211B/EPA8015M (HEADSPACE/GC/FID) (Water)

Methane mg/L 0.356

### ANIONS BY EPA 300.0 PERFORMED AT ECL INC (Water)

Nitrate (as N) mg/L 0.5  
 Sulfate mg/L 1.7

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**CHAIN-OF-CUSTODY RECORD**

<b>Company Name:</b> AEC		<b>Project Manager:</b> James Wolf		<b>Analysis Requested</b>		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	
<b>Project Name:</b> RF-72		<b>Project ID:</b> 05-056-RF72		VOCs + oxy 54.2 VOCs + oxy 86.0 TPH GRO 8015B TPH DRO 8015B Methane 8015 Nitrates 35.1 300.0 Sulfates 37.5 300.0		Matrix Codes: NW (nonpotable water) PW (potable water)			
<b>Sampler(s):</b> S. Dessel		<b>P.O. Number:</b> 05-056-RF72		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>			
<b>Field Sample ID</b>		<b>Date</b>		<b>Time</b>		Field pH, Residual Chlorine, QC Request, Trip Blank, Field Blank			
PW-1		8/20/13		11:54		1+1 HCL/-		3082011-d	
PW-2a				11:49				-02	
PW-2b				11:46				-03	
PW-2c				11:41				-04	
PW-3				11:37				-05	
PW- <del>4</del> 2907				11:25				-06	
MW-1				12:35				-07	
MW-2				12:53				-08	
MW-6				15:16				-09	
MW-7				13:18				-10	
<b>Relinquished by: (Signature)</b> Stephen Dessel		<b>Date/Time</b> 8/20/13		<b>Received by: (Signature)</b> [Signature]		<b>Relinquished by: (Signature)</b> [Signature]		<b>Date/Time</b> [Blank]	
<b>Relinquished by: (Signature)</b> Stephen Dessel		<b>Date/Time</b> 17:14		<b>Received by: (Signature)</b> [Signature]		<b>Relinquished by: (Signature)</b> [Signature]		<b>Date/Time</b> [Blank]	
<b>Relinquished by: (Signature)</b> [Blank]		<b>Date/Time</b> [Blank]		<b>Received by: (Signature)</b> [Blank]		<b>Relinquished by: (Signature)</b> [Blank]		<b>Date/Time</b> [Blank]	
<b>Lab Use:</b> Temp: 2.0°C <input checked="" type="checkbox"/> Received on Ice <input checked="" type="checkbox"/> Received same day <input checked="" type="checkbox"/> Preservation Appropriate		<b>Turn Around Time:</b> <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: _____		<b>Sample Disposal:</b> <input type="checkbox"/> Return to Client <input checked="" type="checkbox"/> Disposal by lab <input type="checkbox"/> Archive for _____ days		<b>Special Instructions/QC Requirements &amp; Comments:</b> Results to: jstein@aec-env.com    sdesse@aec-env.com jwolf@aec-env.com		<b>Delivery Method:</b> <input type="checkbox"/> Courier <input checked="" type="checkbox"/> Client <input type="checkbox"/> UPS <input type="checkbox"/> FedEx <input type="checkbox"/> USPS <input type="checkbox"/> Other: _____	



**SUBCONTRACT ORDER**  
Maryland Spectral Services

**3082011**

**SENDING LABORATORY:**

Maryland Spectral Services  
1500 Caton Center Dr Suite G  
Baltimore, MD 21227  
Phone: 410.247.7600  
Project Manager: Sam Hamner

**RECEIVING LABORATORY:**

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

**Due EOB 8/29/2013**

**Laboratory ID**      **Comments**

Sample ID: 3082011-07      MW-1      Water      Sampled: 08/20/13 12:35

**Nitrogen, Nitrate**      **Sulfate**

*Containers Supplied:*  
Plastic, 250mL (E)

Sample ID: 3082011-08      MW-2      Water      Sampled: 08/20/13 12:53

**Nitrogen, Nitrate**      **Sulfate**

*Containers Supplied:*  
Plastic, 250mL (E)

Sample ID: 3082011-09      MW-6      Water      Sampled: 08/20/13 15:16

**Nitrogen, Nitrate**      **Sulfate**

*Containers Supplied:*  
Plastic, 250mL (E)

Sample ID: 3082011-10      MW-7      Water      Sampled: 08/20/13 13:18

**Nitrogen, Nitrate**      **Sulfate**

*Containers Supplied:*  
Plastic, 250mL (E)

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

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

SUBCONTRACT ORDER  
Maryland Spectral Services

3082011

Due EOB 8/29/2013

Laboratory ID

Comments

Sample ID: 3082011-11

MW-8

Water

Sampled: 08/20/13 13:42

Nitrogen, Nitrate

Sulfate

Containers Supplied:

Plastic, 250mL (E)

Sample ID: 3082011-12

TP-1

Water

Sampled: 08/20/13 14:38

Nitrogen, Nitrate

Sulfate

Containers Supplied:

Plastic, 250mL (E)

Sample ID: 3082011-13

TP-2

Water


Sampled: 08/20/13 14:16


Nitrogen, Nitrate

Sulfate

Containers Supplied:

Plastic, 250mL (E)

Received By:  Date: 8/21/13 0810

Received By:  Date: 8/21/13 0810

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

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