## Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

**Lab Sample ID: MB 320-33192/1-A**
**Matrix: Water**
**Analysis Batch: 35054**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**
**Prep Batch: 33192**

| Analyte | MB Result | MB Qualifier | RL | EDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| PCB-153/168 | 6.80 | J | 400 | 1.4 | pg/L | | 01/04/14 11:43 | 01/29/14 18:12 | 1 |
| PCB-154 | 1.5 | U | 200 | 1.5 | pg/L | | 01/04/14 11:43 | 01/29/14 18:12 | 1 |
| PCB-155 | 1.3 | U | 200 | 1.3 | pg/L | | 01/04/14 11:43 | 01/29/14 18:12 | 1 |
| PCB-156/157 | 1.3 | U | 40 | 1.3 | pg/L | | 01/04/14 11:43 | 01/29/14 18:12 | 1 |
| PCB-158 | 1.3 | U | 200 | 1.3 | pg/L | | 01/04/14 11:43 | 01/29/14 18:12 | 1 |
| PCB-159 | 1.1 | U | 200 | 1.1 | pg/L | | 01/04/14 11:43 | 01/29/14 18:12 | 1 |
| PCB-160 | 1.5 | U | 200 | 1.5 | pg/L | | 01/04/14 11:43 | 01/29/14 18:12 | 1 |
| PCB-161 | 1.3 | U | 200 | 1.3 | pg/L | | 01/04/14 11:43 | 01/29/14 18:12 | 1 |
| PCB-162 | 1.1 | U | 200 | 1.1 | pg/L | | 01/04/14 11:43 | 01/29/14 18:12 | 1 |
| PCB-164 | 1.4 | U | 200 | 1.4 | pg/L | | 01/04/14 11:43 | 01/29/14 18:12 | 1 |
| PCB-165 | 1.5 | U | 200 | 1.5 | pg/L | | 01/04/14 11:43 | 01/29/14 18:12 | 1 |
| PCB-167 | 1.0 | U | 20 | 1.0 | pg/L | | 01/04/14 11:43 | 01/29/14 18:12 | 1 |
| PCB-169 | 1.4 | U | 20 | 1.4 | pg/L | | 01/04/14 11:43 | 01/29/14 18:12 | 1 |
| PCB-170 | 1.3 | U | 200 | 1.3 | pg/L | | 01/04/14 11:43 | 01/29/14 18:12 | 1 |
| PCB-171/173 | 1.2 | U | 400 | 1.2 | pg/L | | 01/04/14 11:43 | 01/29/14 18:12 | 1 |
| PCB-172 | 1.2 | U | 200 | 1.2 | pg/L | | 01/04/14 11:43 | 01/29/14 18:12 | 1 |
| PCB-174 | 1.74 | J | 200 | 1.2 | pg/L | | 01/04/14 11:43 | 01/29/14 18:12 | 1 |
| PCB-175 | 1.9 | U | 200 | 1.9 | pg/L | | 01/04/14 11:43 | 01/29/14 18:12 | 1 |
| PCB-176 | 1.2 | U | 200 | 1.2 | pg/L | | 01/04/14 11:43 | 01/29/14 18:12 | 1 |
| PCB-177 | 1.2 | U | 200 | 1.2 | pg/L | | 01/04/14 11:43 | 01/29/14 18:12 | 1 |
| PCB-178 | 1.9 | U | 200 | 1.9 | pg/L | | 01/04/14 11:43 | 01/29/14 18:12 | 1 |
| PCB-179 | 1.4 | U | 200 | 1.4 | pg/L | | 01/04/14 11:43 | 01/29/14 18:12 | 1 |
| PCB-180/193 | 2.00 | J | 400 | 0.98 | pg/L | | 01/04/14 11:43 | 01/29/14 18:12 | 1 |
| PCB-181 | 1.0 | U | 200 | 1.0 | pg/L | | 01/04/14 11:43 | 01/29/14 18:12 | 1 |
| PCB-182 | 1.7 | U | 200 | 1.7 | pg/L | | 01/04/14 11:43 | 01/29/14 18:12 | 1 |
| PCB-183 | 1.92 | J | 200 | 0.90 | pg/L | | 01/04/14 11:43 | 01/29/14 18:12 | 1 |
| PCB-184 | 1.4 | U | 200 | 1.4 | pg/L | | 01/04/14 11:43 | 01/29/14 18:12 | 1 |
| PCB-185 | 1.1 | U | 200 | 1.1 | pg/L | | 01/04/14 11:43 | 01/29/14 18:12 | 1 |
| PCB-186 | 1.3 | U | 200 | 1.3 | pg/L | | 01/04/14 11:43 | 01/29/14 18:12 | 1 |
| PCB-187 | 1.8 | U | 200 | 1.8 | pg/L | | 01/04/14 11:43 | 01/29/14 18:12 | 1 |
| PCB-188 | 1.4 | U | 200 | 1.4 | pg/L | | 01/04/14 11:43 | 01/29/14 18:12 | 1 |
| PCB-189 | 1.7 | U | 20 | 1.7 | pg/L | | 01/04/14 11:43 | 01/29/14 18:12 | 1 |
| PCB-190 | 0.91 | U | 200 | 0.91 | pg/L | | 01/04/14 11:43 | 01/29/14 18:12 | 1 |
| PCB-191 | 0.88 | U | 200 | 0.88 | pg/L | | 01/04/14 11:43 | 01/29/14 18:12 | 1 |
| PCB-192 | 0.92 | U | 200 | 0.92 | pg/L | | 01/04/14 11:43 | 01/29/14 18:12 | 1 |
| PCB-194 | 1.9 | U | 200 | 1.9 | pg/L | | 01/04/14 11:43 | 01/29/14 18:12 | 1 |
| PCB-195 | 1.7 | U | 200 | 1.7 | pg/L | | 01/04/14 11:43 | 01/29/14 18:12 | 1 |
| PCB-196 | 1.3 | U | 200 | 1.3 | pg/L | | 01/04/14 11:43 | 01/29/14 18:12 | 1 |
| PCB-197 | 0.88 | U | 200 | 0.88 | pg/L | | 01/04/14 11:43 | 01/29/14 18:12 | 1 |
| PCB-198/199 | 1.4 | U | 400 | 1.4 | pg/L | | 01/04/14 11:43 | 01/29/14 18:12 | 1 |
| PCB-200 | 0.89 | U | 200 | 0.89 | pg/L | | 01/04/14 11:43 | 01/29/14 18:12 | 1 |
| PCB-201 | 0.88 | U | 200 | 0.88 | pg/L | | 01/04/14 11:43 | 01/29/14 18:12 | 1 |
| PCB-202 | 1.1 | U | 200 | 1.1 | pg/L | | 01/04/14 11:43 | 01/29/14 18:12 | 1 |
| PCB-203 | 1.2 | U | 200 | 1.2 | pg/L | | 01/04/14 11:43 | 01/29/14 18:12 | 1 |
| PCB-204 | 0.92 | U | 200 | 0.92 | pg/L | | 01/04/14 11:43 | 01/29/14 18:12 | 1 |
| PCB-205 | 1.3 | U | 200 | 1.3 | pg/L | | 01/04/14 11:43 | 01/29/14 18:12 | 1 |
| PCB-206 | 1.5 | U | 200 | 1.5 | pg/L | | 01/04/14 11:43 | 01/29/14 18:12 | 1 |
| PCB-207 | 1.1 | U | 200 | 1.1 | pg/L | | 01/04/14 11:43 | 01/29/14 18:12 | 1 |

## Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

**Lab Sample ID: MB 320-33192/1-A**
**Matrix: Water**
**Analysis Batch: 35054**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**
**Prep Batch: 33192**

| Analyte | MB Result | MB Qualifier | RL | EDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| PCB-208 | 1.3 | U | 200 | 1.3 | pg/L | | 01/04/14 11:43 | 01/29/14 18:12 | 1 |
| PCB-209 | 1.2 | U | 200 | 1.2 | pg/L | | 01/04/14 11:43 | 01/29/14 18:12 | 1 |

| *Isotope Dilution* | *MB %Recovery* | *MB Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *PCB-4L* | *56* | | *5 - 145* | *01/04/14 11:43* | *01/29/14 18:12* | *1* |
| *PCB-15L* | *73* | | *5 - 145* | *01/04/14 11:43* | *01/29/14 18:12* | *1* |
| *PCB-123L* | *75* | | *10 - 145* | *01/04/14 11:43* | *01/29/14 18:12* | *1* |
| *PCB-114L* | *75* | | *10 - 145* | *01/04/14 11:43* | *01/29/14 18:12* | *1* |
| *PCB-3L* | *60* | | *5 - 145* | *01/04/14 11:43* | *01/29/14 18:12* | *1* |
| *PCB-118L* | *77* | | *10 - 145* | *01/04/14 11:43* | *01/29/14 18:12* | *1* |
| *PCB-126L* | *77* | | *10 - 145* | *01/04/14 11:43* | *01/29/14 18:12* | *1* |
| *PCB-202L* | *77* | | *10 - 145* | *01/04/14 11:43* | *01/29/14 18:12* | *1* |
| *PCB-169L* | *83* | | *10 - 145* | *01/04/14 11:43* | *01/29/14 18:12* | *1* |
| *PCB-206L* | *89* | | *10 - 145* | *01/04/14 11:43* | *01/29/14 18:12* | *1* |
| *PCB-37L* | *70* | | *5 - 145* | *01/04/14 11:43* | *01/29/14 18:12* | *1* |
| *PCB-19L* | *61* | | *5 - 145* | *01/04/14 11:43* | *01/29/14 18:12* | *1* |
| *PCB-188L* | *65* | | *10 - 145* | *01/04/14 11:43* | *01/29/14 18:12* | *1* |
| *PCB-54L* | *55* | | *5 - 145* | *01/04/14 11:43* | *01/29/14 18:12* | *1* |
| *PCB-156L/157L* | *84* | | *10 - 145* | *01/04/14 11:43* | *01/29/14 18:12* | *1* |
| *PCB-167L* | *83* | | *10 - 145* | *01/04/14 11:43* | *01/29/14 18:12* | *1* |
| *PCB-209L* | *86* | | *10 - 145* | *01/04/14 11:43* | *01/29/14 18:12* | *1* |
| *PCB-189L* | *80* | | *10 - 145* | *01/04/14 11:43* | *01/29/14 18:12* | *1* |
| *PCB-105L* | *75* | | *10 - 145* | *01/04/14 11:43* | *01/29/14 18:12* | *1* |
| *PCB-208L* | *87* | | *10 - 145* | *01/04/14 11:43* | *01/29/14 18:12* | *1* |
| *PCB-1L* | *51* | | *5 - 145* | *01/04/14 11:43* | *01/29/14 18:12* | *1* |
| *PCB-104L* | *59* | | *10 - 145* | *01/04/14 11:43* | *01/29/14 18:12* | *1* |
| *PCB-81L* | *76* | | *10 - 145* | *01/04/14 11:43* | *01/29/14 18:12* | *1* |
| *PCB-77L* | *79* | | *10 - 145* | *01/04/14 11:43* | *01/29/14 18:12* | *1* |
| *PCB-205L* | *88* | | *10 - 145* | *01/04/14 11:43* | *01/29/14 18:12* | *1* |
| *PCB-155L* | *62* | | *10 - 145* | *01/04/14 11:43* | *01/29/14 18:12* | *1* |

| *Surrogate* | *MB %Recovery* | *MB Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *PCB-28L* | *75* | | *5 - 145* | *01/04/14 11:43* | *01/29/14 18:12* | *1* |
| *PCB-111L* | *79* | | *10 - 145* | *01/04/14 11:43* | *01/29/14 18:12* | *1* |
| *PCB-178L* | *81* | | *10 - 145* | *01/04/14 11:43* | *01/29/14 18:12* | *1* |

**Lab Sample ID: LCS 320-33192/2-A**
**Matrix: Water**
**Analysis Batch: 35054**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**
**Prep Batch: 33192**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|
| PCB-1 | 2000 | 2040 | | pg/L | | 102 | 60 - 135 |
| PCB-3 | 2000 | 2070 | | pg/L | | 104 | 60 - 135 |
| PCB-4 | 2000 | 2140 | | pg/L | | 107 | 60 - 135 |
| PCB-15 | 2000 | 1940 | | pg/L | | 97 | 60 - 135 |
| PCB-19 | 2000 | 2340 | | pg/L | | 117 | 60 - 135 |
| PCB-37 | 2000 | 2000 | | pg/L | | 100 | 60 - 135 |
| PCB-54 | 2000 | 2330 | | pg/L | | 117 | 60 - 135 |

## Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

**Lab Sample ID: LCS 320-33192/2-A**
**Matrix: Water**
**Analysis Batch: 35054**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**
**Prep Batch: 33192**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|
| PCB-77 | 2000 | 2120 | | pg/L | | 106 | 60 - 135 |
| PCB-81 | 2000 | 2070 | | pg/L | | 104 | 60 - 135 |
| PCB-104 | 2000 | 2170 | | pg/L | | 108 | 60 - 135 |
| PCB-105 | 2000 | 2200 | | pg/L | | 110 | 60 - 135 |
| PCB-114 | 2000 | 2170 | | pg/L | | 109 | 60 - 135 |
| PCB-118 | 2000 | 2320 | | pg/L | | 116 | 60 - 135 |
| PCB-123 | 2000 | 2170 | | pg/L | | 109 | 60 - 135 |
| PCB-126 | 2000 | 2140 | | pg/L | | 107 | 60 - 135 |
| PCB-155 | 2000 | 2260 | | pg/L | | 113 | 60 - 135 |
| PCB-156/157 | 4000 | 4300 | | pg/L | | 108 | 60 - 135 |
| PCB-167 | 2000 | 2170 | G | pg/L | | 108 | 60 - 135 |
| PCB-169 | 2000 | 2220 | G | pg/L | | 111 | 60 - 135 |
| PCB-188 | 2000 | 2180 | | pg/L | | 109 | 60 - 135 |
| PCB-189 | 2000 | 2060 | | pg/L | | 103 | 60 - 135 |
| PCB-202 | 2000 | 2200 | | pg/L | | 110 | 60 - 135 |
| PCB-205 | 2000 | 2090 | | pg/L | | 104 | 60 - 135 |
| PCB-206 | 2000 | 2160 | | pg/L | | 108 | 60 - 135 |
| PCB-208 | 2000 | 2140 | | pg/L | | 107 | 60 - 135 |
| PCB-209 | 2000 | 2100 | | pg/L | | 105 | 60 - 135 |

| *Isotope Dilution* | *LCS %Recovery* | *LCS Qualifier* | *Limits* |
|---|---|---|---|
| *PCB-4L* | *44* | | *15 - 145* |
| *PCB-15L* | *58* | | *15 - 145* |
| *PCB-123L* | *67* | | *40 - 145* |
| *PCB-114L* | *68* | | *40 - 145* |
| *PCB-3L* | *48* | | *15 - 145* |
| *PCB-118L* | *67* | | *40 - 145* |
| *PCB-126L* | *69* | | *40 - 145* |
| *PCB-202L* | *74* | | *40 - 145* |
| *PCB-169L* | *79* | | *40 - 145* |
| *PCB-206L* | *88* | | *40 - 145* |
| *PCB-37L* | *60* | | *15 - 145* |
| *PCB-19L* | *48* | | *15 - 145* |
| *PCB-188L* | *63* | | *40 - 145* |
| *PCB-54L* | *44* | | *15 - 145* |
| *PCB-156L/157L* | *80* | | *40 - 145* |
| *PCB-167L* | *78* | | *40 - 145* |
| *PCB-209L* | *86* | | *40 - 145* |
| *PCB-189L* | *78* | | *40 - 145* |
| *PCB-105L* | *69* | | *40 - 145* |
| *PCB-208L* | *85* | | *40 - 145* |
| *PCB-1L* | *39* | | *15 - 145* |
| *PCB-104L* | *52* | | *40 - 145* |
| *PCB-81L* | *68* | | *40 - 145* |
| *PCB-77L* | *68* | | *40 - 145* |
| *PCB-205L* | *87* | | *40 - 145* |
| *PCB-155L* | *59* | | *40 - 145* |

## Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

**Lab Sample ID: LCS 320-33192/2-A**
**Matrix: Water**
**Analysis Batch: 35054**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**
**Prep Batch: 33192**

| *Surrogate* | *LCS %Recovery* | *LCS Qualifier* | *Limits* |
|---|---|---|---|
| *PCB-28L* | *64* | | *5 - 145* |
| *PCB-111L* | *70* | | *10 - 145* |
| *PCB-178L* | *78* | | *10 - 145* |

**Lab Sample ID: MB 320-34244/1-A**
**Matrix: Solid**
**Analysis Batch: 35733**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**
**Prep Batch: 34244**

| Analyte | MB Result | MB Qualifier | RL | EDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| PCB-1 | 3.26 | J | 40 | 0.27 | pg/g | | 01/20/14 12:06 | 02/07/14 02:55 | 1 |
| PCB-2 | 0.988 | J | 40 | 0.26 | pg/g | | 01/20/14 12:06 | 02/07/14 02:55 | 1 |
| PCB-3 | 0.381 | J q | 40 | 0.26 | pg/g | | 01/20/14 12:06 | 02/07/14 02:55 | 1 |
| PCB-4 | 7.5 | U | 40 | 7.5 | pg/g | | 01/20/14 12:06 | 02/07/14 02:55 | 1 |
| PCB-5 | 6.0 | U | 40 | 6.0 | pg/g | | 01/20/14 12:06 | 02/07/14 02:55 | 1 |
| PCB-6 | 6.0 | U | 40 | 6.0 | pg/g | | 01/20/14 12:06 | 02/07/14 02:55 | 1 |
| PCB-7 | 5.6 | U | 40 | 5.6 | pg/g | | 01/20/14 12:06 | 02/07/14 02:55 | 1 |
| PCB-8 | 5.9 | U | 40 | 5.9 | pg/g | | 01/20/14 12:06 | 02/07/14 02:55 | 1 |
| PCB-9 | 6.3 | U | 40 | 6.3 | pg/g | | 01/20/14 12:06 | 02/07/14 02:55 | 1 |
| PCB-10 | 4.4 | U | 40 | 4.4 | pg/g | | 01/20/14 12:06 | 02/07/14 02:55 | 1 |
| PCB-11 | 6.2 | U | 40 | 6.2 | pg/g | | 01/20/14 12:06 | 02/07/14 02:55 | 1 |
| PCB-12/13 | 6.3 | U | 80 | 6.3 | pg/g | | 01/20/14 12:06 | 02/07/14 02:55 | 1 |
| PCB-14 | 5.2 | U | 40 | 5.2 | pg/g | | 01/20/14 12:06 | 02/07/14 02:55 | 1 |
| PCB-15 | 6.1 | U | 40 | 6.1 | pg/g | | 01/20/14 12:06 | 02/07/14 02:55 | 1 |
| PCB-16 | 0.96 | U | 40 | 0.96 | pg/g | | 01/20/14 12:06 | 02/07/14 02:55 | 1 |
| PCB-17 | 0.68 | U | 40 | 0.68 | pg/g | | 01/20/14 12:06 | 02/07/14 02:55 | 1 |
| PCB-18/30 | 0.58 | U | 80 | 0.58 | pg/g | | 01/20/14 12:06 | 02/07/14 02:55 | 1 |
| PCB-19 | 0.86 | U | 40 | 0.86 | pg/g | | 01/20/14 12:06 | 02/07/14 02:55 | 1 |
| PCB-20/28 | 0.597 | J q | 80 | 0.36 | pg/g | | 01/20/14 12:06 | 02/07/14 02:55 | 1 |
| PCB-21/33 | 0.33 | U | 80 | 0.33 | pg/g | | 01/20/14 12:06 | 02/07/14 02:55 | 1 |
| PCB-22 | 0.38 | U | 40 | 0.38 | pg/g | | 01/20/14 12:06 | 02/07/14 02:55 | 1 |
| PCB-23 | 0.33 | U | 40 | 0.33 | pg/g | | 01/20/14 12:06 | 02/07/14 02:55 | 1 |
| PCB-24 | 0.50 | U | 40 | 0.50 | pg/g | | 01/20/14 12:06 | 02/07/14 02:55 | 1 |
| PCB-25 | 0.34 | U | 40 | 0.34 | pg/g | | 01/20/14 12:06 | 02/07/14 02:55 | 1 |
| PCB-26/29 | 0.34 | U | 80 | 0.34 | pg/g | | 01/20/14 12:06 | 02/07/14 02:55 | 1 |
| PCB-27 | 0.51 | U | 40 | 0.51 | pg/g | | 01/20/14 12:06 | 02/07/14 02:55 | 1 |
| PCB-31 | 0.638 | J | 40 | 0.33 | pg/g | | 01/20/14 12:06 | 02/07/14 02:55 | 1 |
| PCB-32 | 0.39 | U | 40 | 0.39 | pg/g | | 01/20/14 12:06 | 02/07/14 02:55 | 1 |
| PCB-34 | 0.34 | U | 40 | 0.34 | pg/g | | 01/20/14 12:06 | 02/07/14 02:55 | 1 |
| PCB-35 | 0.39 | U | 40 | 0.39 | pg/g | | 01/20/14 12:06 | 02/07/14 02:55 | 1 |
| PCB-36 | 0.34 | U | 40 | 0.34 | pg/g | | 01/20/14 12:06 | 02/07/14 02:55 | 1 |
| PCB-37 | 0.42 | U | 40 | 0.42 | pg/g | | 01/20/14 12:06 | 02/07/14 02:55 | 1 |
| PCB-38 | 0.37 | U | 40 | 0.37 | pg/g | | 01/20/14 12:06 | 02/07/14 02:55 | 1 |
| PCB-39 | 0.35 | U | 40 | 0.35 | pg/g | | 01/20/14 12:06 | 02/07/14 02:55 | 1 |
| PCB-40/71 | 0.36 | U | 80 | 0.36 | pg/g | | 01/20/14 12:06 | 02/07/14 02:55 | 1 |
| PCB-41 | 0.46 | U | 40 | 0.46 | pg/g | | 01/20/14 12:06 | 02/07/14 02:55 | 1 |
| PCB-42 | 0.40 | U | 40 | 0.40 | pg/g | | 01/20/14 12:06 | 02/07/14 02:55 | 1 |
| PCB-43 | 0.41 | U | 40 | 0.41 | pg/g | | 01/20/14 12:06 | 02/07/14 02:55 | 1 |
| PCB-44/47/65 | 1.74 | J q | 120 | 0.34 | pg/g | | 01/20/14 12:06 | 02/07/14 02:55 | 1 |

## Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

**Lab Sample ID: MB 320-34244/1-A**
**Matrix: Solid**
**Analysis Batch: 35733**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**
**Prep Batch: 34244**

| Analyte | MB Result | MB Qualifier | RL | EDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| PCB-45 | 0.40 | U | 40 | 0.40 | pg/g | | 01/20/14 12:06 | 02/07/14 02:55 | 1 |
| PCB-46 | 0.43 | U | 40 | 0.43 | pg/g | | 01/20/14 12:06 | 02/07/14 02:55 | 1 |
| PCB-48 | 0.36 | U | 40 | 0.36 | pg/g | | 01/20/14 12:06 | 02/07/14 02:55 | 1 |
| PCB-49/69 | 0.30 | U | 80 | 0.30 | pg/g | | 01/20/14 12:06 | 02/07/14 02:55 | 1 |
| PCB-50/53 | 0.34 | U | 80 | 0.34 | pg/g | | 01/20/14 12:06 | 02/07/14 02:55 | 1 |
| PCB-51 | 0.33 | U | 40 | 0.33 | pg/g | | 01/20/14 12:06 | 02/07/14 02:55 | 1 |
| PCB-52 | 0.749 | J | 40 | 0.37 | pg/g | | 01/20/14 12:06 | 02/07/14 02:55 | 1 |
| PCB-54 | 0.38 | U | 40 | 0.38 | pg/g | | 01/20/14 12:06 | 02/07/14 02:55 | 1 |
| PCB-55 | 0.37 | U | 40 | 0.37 | pg/g | | 01/20/14 12:06 | 02/07/14 02:55 | 1 |
| PCB-56 | 0.40 | U | 40 | 0.40 | pg/g | | 01/20/14 12:06 | 02/07/14 02:55 | 1 |
| PCB-57 | 0.37 | U | 40 | 0.37 | pg/g | | 01/20/14 12:06 | 02/07/14 02:55 | 1 |
| PCB-58 | 0.37 | U | 40 | 0.37 | pg/g | | 01/20/14 12:06 | 02/07/14 02:55 | 1 |
| PCB-59/62/75 | 0.26 | U | 120 | 0.26 | pg/g | | 01/20/14 12:06 | 02/07/14 02:55 | 1 |
| PCB-60 | 0.39 | U | 40 | 0.39 | pg/g | | 01/20/14 12:06 | 02/07/14 02:55 | 1 |
| PCB-61/70/74/76 | 0.36 | U | 160 | 0.36 | pg/g | | 01/20/14 12:06 | 02/07/14 02:55 | 1 |
| PCB-63 | 0.34 | U | 40 | 0.34 | pg/g | | 01/20/14 12:06 | 02/07/14 02:55 | 1 |
| PCB-64 | 0.25 | U | 40 | 0.25 | pg/g | | 01/20/14 12:06 | 02/07/14 02:55 | 1 |
| PCB-66 | 0.486 | J q | 40 | 0.41 | pg/g | | 01/20/14 12:06 | 02/07/14 02:55 | 1 |
| PCB-67 | 0.34 | U | 40 | 0.34 | pg/g | | 01/20/14 12:06 | 02/07/14 02:55 | 1 |
| PCB-68 | 0.33 | U | 40 | 0.33 | pg/g | | 01/20/14 12:06 | 02/07/14 02:55 | 1 |
| PCB-72 | 0.36 | U | 40 | 0.36 | pg/g | | 01/20/14 12:06 | 02/07/14 02:55 | 1 |
| PCB-73 | 0.28 | U | 40 | 0.28 | pg/g | | 01/20/14 12:06 | 02/07/14 02:55 | 1 |
| PCB-77 | 0.46 | U | 4.0 | 0.46 | pg/g | | 01/20/14 12:06 | 02/07/14 02:55 | 1 |
| PCB-78 | 0.42 | U | 40 | 0.42 | pg/g | | 01/20/14 12:06 | 02/07/14 02:55 | 1 |
| PCB-79 | 0.36 | U | 40 | 0.36 | pg/g | | 01/20/14 12:06 | 02/07/14 02:55 | 1 |
| PCB-80 | 0.35 | U | 40 | 0.35 | pg/g | | 01/20/14 12:06 | 02/07/14 02:55 | 1 |
| PCB-81 | 0.46 | U | 4.0 | 0.46 | pg/g | | 01/20/14 12:06 | 02/07/14 02:55 | 1 |
| PCB-82 | 0.78 | U | 40 | 0.78 | pg/g | | 01/20/14 12:06 | 02/07/14 02:55 | 1 |
| PCB-83 | 0.85 | U | 40 | 0.85 | pg/g | | 01/20/14 12:06 | 02/07/14 02:55 | 1 |
| PCB-84 | 0.71 | U | 40 | 0.71 | pg/g | | 01/20/14 12:06 | 02/07/14 02:55 | 1 |
| PCB-85/116/117 | 0.52 | U | 120 | 0.52 | pg/g | | 01/20/14 12:06 | 02/07/14 02:55 | 1 |
| PCB-86/87/97/108/119/125 | 0.54 | U | 240 | 0.54 | pg/g | | 01/20/14 12:06 | 02/07/14 02:55 | 1 |
| PCB-88/91 | 0.59 | U | 80 | 0.59 | pg/g | | 01/20/14 12:06 | 02/07/14 02:55 | 1 |
| PCB-89 | 0.67 | U | 40 | 0.67 | pg/g | | 01/20/14 12:06 | 02/07/14 02:55 | 1 |
| PCB-90/101/113 | 0.54 | U | 120 | 0.54 | pg/g | | 01/20/14 12:06 | 02/07/14 02:55 | 1 |
| PCB-92 | 0.63 | U | 40 | 0.63 | pg/g | | 01/20/14 12:06 | 02/07/14 02:55 | 1 |
| PCB-93/100 | 0.60 | U | 80 | 0.60 | pg/g | | 01/20/14 12:06 | 02/07/14 02:55 | 1 |
| PCB-107/124 | 0.49 | U | 80 | 0.49 | pg/g | | 01/20/14 12:06 | 02/07/14 02:55 | 1 |
| PCB-94 | 0.63 | U | 40 | 0.63 | pg/g | | 01/20/14 12:06 | 02/07/14 02:55 | 1 |
| PCB-95 | 0.59 | U | 40 | 0.59 | pg/g | | 01/20/14 12:06 | 02/07/14 02:55 | 1 |
| PCB-96 | 0.19 | U | 40 | 0.19 | pg/g | | 01/20/14 12:06 | 02/07/14 02:55 | 1 |
| PCB-98/102 | 0.56 | U | 80 | 0.56 | pg/g | | 01/20/14 12:06 | 02/07/14 02:55 | 1 |
| PCB-99 | 0.63 | U | 40 | 0.63 | pg/g | | 01/20/14 12:06 | 02/07/14 02:55 | 1 |
| PCB-103 | 0.55 | U | 40 | 0.55 | pg/g | | 01/20/14 12:06 | 02/07/14 02:55 | 1 |
| PCB-104 | 0.18 | U | 40 | 0.18 | pg/g | | 01/20/14 12:06 | 02/07/14 02:55 | 1 |
| PCB-105 | 0.58 | U | 4.0 | 0.58 | pg/g | | 01/20/14 12:06 | 02/07/14 02:55 | 1 |
| PCB-106 | 0.54 | U | 40 | 0.54 | pg/g | | 01/20/14 12:06 | 02/07/14 02:55 | 1 |
| PCB-110/115 | 0.48 | U | 80 | 0.48 | pg/g | | 01/20/14 12:06 | 02/07/14 02:55 | 1 |

## Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

**Lab Sample ID: MB 320-34244/1-A**
**Matrix: Solid**
**Analysis Batch: 35733**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**
**Prep Batch: 34244**

| Analyte | MB Result | MB Qualifier | RL | EDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| PCB-109 | 0.46 | U | 40 | 0.46 | pg/g | | 01/20/14 12:06 | 02/07/14 02:55 | 1 |
| PCB-111 | 0.44 | U | 40 | 0.44 | pg/g | | 01/20/14 12:06 | 02/07/14 02:55 | 1 |
| PCB-112 | 0.42 | U | 40 | 0.42 | pg/g | | 01/20/14 12:06 | 02/07/14 02:55 | 1 |
| PCB-114 | 0.53 | U | 4.0 | 0.53 | pg/g | | 01/20/14 12:06 | 02/07/14 02:55 | 1 |
| PCB-118 | 0.51 | U | 4.0 | 0.51 | pg/g | | 01/20/14 12:06 | 02/07/14 02:55 | 1 |
| PCB-120 | 0.47 | U | 40 | 0.47 | pg/g | | 01/20/14 12:06 | 02/07/14 02:55 | 1 |
| PCB-121 | 0.44 | U | 40 | 0.44 | pg/g | | 01/20/14 12:06 | 02/07/14 02:55 | 1 |
| PCB-122 | 0.55 | U | 40 | 0.55 | pg/g | | 01/20/14 12:06 | 02/07/14 02:55 | 1 |
| PCB-123 | 0.53 | U | 4.0 | 0.53 | pg/g | | 01/20/14 12:06 | 02/07/14 02:55 | 1 |
| PCB-126 | 0.65 | U | 4.0 | 0.65 | pg/g | | 01/20/14 12:06 | 02/07/14 02:55 | 1 |
| PCB-127 | 0.54 | U | 40 | 0.54 | pg/g | | 01/20/14 12:06 | 02/07/14 02:55 | 1 |
| PCB-128/166 | 0.41 | U | 80 | 0.41 | pg/g | | 01/20/14 12:06 | 02/07/14 02:55 | 1 |
| PCB-129/138/163 | 0.43 | U | 120 | 0.43 | pg/g | | 01/20/14 12:06 | 02/07/14 02:55 | 1 |
| PCB-130 | 0.54 | U | 40 | 0.54 | pg/g | | 01/20/14 12:06 | 02/07/14 02:55 | 1 |
| PCB-131 | 0.51 | U | 40 | 0.51 | pg/g | | 01/20/14 12:06 | 02/07/14 02:55 | 1 |
| PCB-132 | 0.48 | U | 40 | 0.48 | pg/g | | 01/20/14 12:06 | 02/07/14 02:55 | 1 |
| PCB-133 | 0.48 | U | 40 | 0.48 | pg/g | | 01/20/14 12:06 | 02/07/14 02:55 | 1 |
| PCB-134/143 | 0.49 | U | 80 | 0.49 | pg/g | | 01/20/14 12:06 | 02/07/14 02:55 | 1 |
| PCB-135/151 | 0.43 | U | 80 | 0.43 | pg/g | | 01/20/14 12:06 | 02/07/14 02:55 | 1 |
| PCB-136 | 0.31 | U | 40 | 0.31 | pg/g | | 01/20/14 12:06 | 02/07/14 02:55 | 1 |
| PCB-137 | 0.43 | U | 40 | 0.43 | pg/g | | 01/20/14 12:06 | 02/07/14 02:55 | 1 |
| PCB-139/140 | 0.41 | U | 80 | 0.41 | pg/g | | 01/20/14 12:06 | 02/07/14 02:55 | 1 |
| PCB-141 | 0.46 | U | 40 | 0.46 | pg/g | | 01/20/14 12:06 | 02/07/14 02:55 | 1 |
| PCB-142 | 0.47 | U | 40 | 0.47 | pg/g | | 01/20/14 12:06 | 02/07/14 02:55 | 1 |
| PCB-144 | 0.43 | U | 40 | 0.43 | pg/g | | 01/20/14 12:06 | 02/07/14 02:55 | 1 |
| PCB-145 | 0.30 | U | 40 | 0.30 | pg/g | | 01/20/14 12:06 | 02/07/14 02:55 | 1 |
| PCB-146 | 0.45 | U | 40 | 0.45 | pg/g | | 01/20/14 12:06 | 02/07/14 02:55 | 1 |
| PCB-147/149 | 0.42 | U | 80 | 0.42 | pg/g | | 01/20/14 12:06 | 02/07/14 02:55 | 1 |
| PCB-148 | 0.42 | U | 40 | 0.42 | pg/g | | 01/20/14 12:06 | 02/07/14 02:55 | 1 |
| PCB-150 | 0.28 | U | 40 | 0.28 | pg/g | | 01/20/14 12:06 | 02/07/14 02:55 | 1 |
| PCB-152 | 0.29 | U | 40 | 0.29 | pg/g | | 01/20/14 12:06 | 02/07/14 02:55 | 1 |
| PCB-153/168 | 0.36 | U | 80 | 0.36 | pg/g | | 01/20/14 12:06 | 02/07/14 02:55 | 1 |
| PCB-154 | 0.37 | U | 40 | 0.37 | pg/g | | 01/20/14 12:06 | 02/07/14 02:55 | 1 |
| PCB-155 | 0.30 | U | 40 | 0.30 | pg/g | | 01/20/14 12:06 | 02/07/14 02:55 | 1 |
| PCB-156/157 | 0.42 | U | 8.0 | 0.42 | pg/g | | 01/20/14 12:06 | 02/07/14 02:55 | 1 |
| PCB-158 | 0.32 | U | 40 | 0.32 | pg/g | | 01/20/14 12:06 | 02/07/14 02:55 | 1 |
| PCB-159 | 0.34 | U | 40 | 0.34 | pg/g | | 01/20/14 12:06 | 02/07/14 02:55 | 1 |
| PCB-160 | 0.37 | U | 40 | 0.37 | pg/g | | 01/20/14 12:06 | 02/07/14 02:55 | 1 |
| PCB-161 | 0.33 | U | 40 | 0.33 | pg/g | | 01/20/14 12:06 | 02/07/14 02:55 | 1 |
| PCB-162 | 0.33 | U | 40 | 0.33 | pg/g | | 01/20/14 12:06 | 02/07/14 02:55 | 1 |
| PCB-164 | 0.36 | U | 40 | 0.36 | pg/g | | 01/20/14 12:06 | 02/07/14 02:55 | 1 |
| PCB-165 | 0.38 | U | 40 | 0.38 | pg/g | | 01/20/14 12:06 | 02/07/14 02:55 | 1 |
| PCB-167 | 0.34 | U | 4.0 | 0.34 | pg/g | | 01/20/14 12:06 | 02/07/14 02:55 | 1 |
| PCB-169 | 0.39 | U | 4.0 | 0.39 | pg/g | | 01/20/14 12:06 | 02/07/14 02:55 | 1 |
| PCB-170 | 0.36 | U | 40 | 0.36 | pg/g | | 01/20/14 12:06 | 02/07/14 02:55 | 1 |
| PCB-171/173 | 0.33 | U | 80 | 0.33 | pg/g | | 01/20/14 12:06 | 02/07/14 02:55 | 1 |
| PCB-172 | 0.34 | U | 40 | 0.34 | pg/g | | 01/20/14 12:06 | 02/07/14 02:55 | 1 |
| PCB-174 | 0.34 | U | 40 | 0.34 | pg/g | | 01/20/14 12:06 | 02/07/14 02:55 | 1 |

## Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

**Lab Sample ID: MB 320-34244/1-A**
**Matrix: Solid**
**Analysis Batch: 35733**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**
**Prep Batch: 34244**

| Analyte | MB Result | MB Qualifier | RL | EDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| PCB-175 | 0.48 | U | 40 | 0.48 | pg/g | | 01/20/14 12:06 | 02/07/14 02:55 | 1 |
| PCB-176 | 0.32 | U | 40 | 0.32 | pg/g | | 01/20/14 12:06 | 02/07/14 02:55 | 1 |
| PCB-177 | 0.34 | U | 40 | 0.34 | pg/g | | 01/20/14 12:06 | 02/07/14 02:55 | 1 |
| PCB-178 | 0.50 | U | 40 | 0.50 | pg/g | | 01/20/14 12:06 | 02/07/14 02:55 | 1 |
| PCB-179 | 0.35 | U | 40 | 0.35 | pg/g | | 01/20/14 12:06 | 02/07/14 02:55 | 1 |
| PCB-180/193 | 0.27 | U | 80 | 0.27 | pg/g | | 01/20/14 12:06 | 02/07/14 02:55 | 1 |
| PCB-181 | 0.28 | U | 40 | 0.28 | pg/g | | 01/20/14 12:06 | 02/07/14 02:55 | 1 |
| PCB-182 | 0.45 | U | 40 | 0.45 | pg/g | | 01/20/14 12:06 | 02/07/14 02:55 | 1 |
| PCB-183 | 0.25 | U | 40 | 0.25 | pg/g | | 01/20/14 12:06 | 02/07/14 02:55 | 1 |
| PCB-184 | 0.36 | U | 40 | 0.36 | pg/g | | 01/20/14 12:06 | 02/07/14 02:55 | 1 |
| PCB-185 | 0.30 | U | 40 | 0.30 | pg/g | | 01/20/14 12:06 | 02/07/14 02:55 | 1 |
| PCB-186 | 0.34 | U | 40 | 0.34 | pg/g | | 01/20/14 12:06 | 02/07/14 02:55 | 1 |
| PCB-187 | 0.47 | U | 40 | 0.47 | pg/g | | 01/20/14 12:06 | 02/07/14 02:55 | 1 |
| PCB-188 | 0.38 | U | 40 | 0.38 | pg/g | | 01/20/14 12:06 | 02/07/14 02:55 | 1 |
| PCB-189 | 0.39 | U | 4.0 | 0.39 | pg/g | | 01/20/14 12:06 | 02/07/14 02:55 | 1 |
| PCB-190 | 0.25 | U | 40 | 0.25 | pg/g | | 01/20/14 12:06 | 02/07/14 02:55 | 1 |
| PCB-191 | 0.24 | U | 40 | 0.24 | pg/g | | 01/20/14 12:06 | 02/07/14 02:55 | 1 |
| PCB-192 | 0.25 | U | 40 | 0.25 | pg/g | | 01/20/14 12:06 | 02/07/14 02:55 | 1 |
| PCB-194 | 0.43 | U | 40 | 0.43 | pg/g | | 01/20/14 12:06 | 02/07/14 02:55 | 1 |
| PCB-195 | 0.40 | U | 40 | 0.40 | pg/g | | 01/20/14 12:06 | 02/07/14 02:55 | 1 |
| PCB-196 | 0.32 | U | 40 | 0.32 | pg/g | | 01/20/14 12:06 | 02/07/14 02:55 | 1 |
| PCB-197 | 0.21 | U | 40 | 0.21 | pg/g | | 01/20/14 12:06 | 02/07/14 02:55 | 1 |
| PCB-198/199 | 0.33 | U | 80 | 0.33 | pg/g | | 01/20/14 12:06 | 02/07/14 02:55 | 1 |
| PCB-200 | 0.21 | U | 40 | 0.21 | pg/g | | 01/20/14 12:06 | 02/07/14 02:55 | 1 |
| PCB-201 | 0.21 | U | 40 | 0.21 | pg/g | | 01/20/14 12:06 | 02/07/14 02:55 | 1 |
| PCB-202 | 0.27 | U | 40 | 0.27 | pg/g | | 01/20/14 12:06 | 02/07/14 02:55 | 1 |
| PCB-203 | 0.29 | U | 40 | 0.29 | pg/g | | 01/20/14 12:06 | 02/07/14 02:55 | 1 |
| PCB-204 | 0.22 | U | 40 | 0.22 | pg/g | | 01/20/14 12:06 | 02/07/14 02:55 | 1 |
| PCB-205 | 0.28 | U | 40 | 0.28 | pg/g | | 01/20/14 12:06 | 02/07/14 02:55 | 1 |
| PCB-206 | 0.42 | U | 40 | 0.42 | pg/g | | 01/20/14 12:06 | 02/07/14 02:55 | 1 |
| PCB-207 | 0.33 | U | 40 | 0.33 | pg/g | | 01/20/14 12:06 | 02/07/14 02:55 | 1 |
| PCB-208 | 0.42 | U | 40 | 0.42 | pg/g | | 01/20/14 12:06 | 02/07/14 02:55 | 1 |
| PCB-209 | 0.29 | U | 40 | 0.29 | pg/g | | 01/20/14 12:06 | 02/07/14 02:55 | 1 |
| Total Monochlorobiphenyls | 4.63 | J q | 400 | 0.26 | pg/g | | 01/20/14 12:06 | 02/07/14 02:55 | 1 |
| Total Dichlorobiphenyls | 7.5 | U | 400 | 7.5 | pg/g | | 01/20/14 12:06 | 02/07/14 02:55 | 1 |
| Total Trichlorobiphenyls | 1.23 | J q | 400 | 0.46 | pg/g | | 01/20/14 12:06 | 02/07/14 02:55 | 1 |
| Total Tetrachlorobiphenyls | 2.97 | J q | 400 | 0.37 | pg/g | | 01/20/14 12:06 | 02/07/14 02:55 | 1 |
| Total Pentachlorobiphenyls | 0.85 | U | 400 | 0.85 | pg/g | | 01/20/14 12:06 | 02/07/14 02:55 | 1 |
| Total Hexachlorobiphenyls | 0.54 | U | 400 | 0.54 | pg/g | | 01/20/14 12:06 | 02/07/14 02:55 | 1 |
| Total Heptachlorobiphenyls | 0.50 | U | 400 | 0.50 | pg/g | | 01/20/14 12:06 | 02/07/14 02:55 | 1 |
| Total Octachlorobiphenyls | 0.43 | U | 400 | 0.43 | pg/g | | 01/20/14 12:06 | 02/07/14 02:55 | 1 |
| Total Nonachlorobiphenyls | 0.42 | U | 400 | 0.42 | pg/g | | 01/20/14 12:06 | 02/07/14 02:55 | 1 |
| Polychlorinated biphenyls, Total | 8.83 | J q | 400 | 1.2 | pg/g | | 01/20/14 12:06 | 02/07/14 02:55 | 1 |

| *Isotope Dilution* | *MB %Recovery* | *MB Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *PCB-4L* | *67* | | *5 - 145* | *01/20/14 12:06* | *02/07/14 02:55* | *1* |
| *PCB-15L* | *94* | | *5 - 145* | *01/20/14 12:06* | *02/07/14 02:55* | *1* |
| *PCB-123L* | *108* | | *10 - 145* | *01/20/14 12:06* | *02/07/14 02:55* | *1* |

## Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

**Lab Sample ID: MB 320-34244/1-A**
**Matrix: Solid**
**Analysis Batch: 35733**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**
**Prep Batch: 34244**

| Isotope Dilution | MB %Recovery | MB Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|
| PCB-114L | 107 | | 10 - 145 | 01/20/14 12:06 | 02/07/14 02:55 | 1 |
| PCB-3L | 78 | | 5 - 145 | 01/20/14 12:06 | 02/07/14 02:55 | 1 |
| PCB-118L | 110 | | 10 - 145 | 01/20/14 12:06 | 02/07/14 02:55 | 1 |
| PCB-126L | 114 | | 10 - 145 | 01/20/14 12:06 | 02/07/14 02:55 | 1 |
| PCB-202L | 101 | | 10 - 145 | 01/20/14 12:06 | 02/07/14 02:55 | 1 |
| PCB-169L | 127 | | 10 - 145 | 01/20/14 12:06 | 02/07/14 02:55 | 1 |
| PCB-206L | 130 | | 10 - 145 | 01/20/14 12:06 | 02/07/14 02:55 | 1 |
| PCB-37L | 103 | | 5 - 145 | 01/20/14 12:06 | 02/07/14 02:55 | 1 |
| PCB-19L | 86 | | 5 - 145 | 01/20/14 12:06 | 02/07/14 02:55 | 1 |
| PCB-188L | 91 | | 10 - 145 | 01/20/14 12:06 | 02/07/14 02:55 | 1 |
| PCB-54L | 77 | | 5 - 145 | 01/20/14 12:06 | 02/07/14 02:55 | 1 |
| PCB-156L/157L | 119 | | 10 - 145 | 01/20/14 12:06 | 02/07/14 02:55 | 1 |
| PCB-167L | 112 | | 10 - 145 | 01/20/14 12:06 | 02/07/14 02:55 | 1 |
| PCB-209L | 128 | | 10 - 145 | 01/20/14 12:06 | 02/07/14 02:55 | 1 |
| PCB-189L | 114 | | 10 - 145 | 01/20/14 12:06 | 02/07/14 02:55 | 1 |
| PCB-105L | 108 | | 10 - 145 | 01/20/14 12:06 | 02/07/14 02:55 | 1 |
| PCB-208L | 117 | | 10 - 145 | 01/20/14 12:06 | 02/07/14 02:55 | 1 |
| PCB-1L | 60 | | 5 - 145 | 01/20/14 12:06 | 02/07/14 02:55 | 1 |
| PCB-104L | 83 | | 10 - 145 | 01/20/14 12:06 | 02/07/14 02:55 | 1 |
| PCB-81L | 105 | | 10 - 145 | 01/20/14 12:06 | 02/07/14 02:55 | 1 |
| PCB-77L | 111 | | 10 - 145 | 01/20/14 12:06 | 02/07/14 02:55 | 1 |
| PCB-205L | 124 | | 10 - 145 | 01/20/14 12:06 | 02/07/14 02:55 | 1 |
| PCB-155L | 92 | | 10 - 145 | 01/20/14 12:06 | 02/07/14 02:55 | 1 |

| Surrogate | MB %Recovery | MB Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|
| PCB-28L | 90 | | 5 - 145 | 01/20/14 12:06 | 02/07/14 02:55 | 1 |
| PCB-111L | 99 | | 10 - 145 | 01/20/14 12:06 | 02/07/14 02:55 | 1 |
| PCB-178L | 106 | | 10 - 145 | 01/20/14 12:06 | 02/07/14 02:55 | 1 |

**Lab Sample ID: LCS 320-34244/2-A**
**Matrix: Solid**
**Analysis Batch: 35733**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**
**Prep Batch: 34244**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|
| PCB-1 | 200 | 199 | | pg/g | | 99 | 60 - 135 |
| PCB-3 | 200 | 198 | | pg/g | | 99 | 60 - 135 |
| PCB-4 | 200 | 205 | | pg/g | | 102 | 60 - 135 |
| PCB-15 | 200 | 188 | | pg/g | | 94 | 60 - 135 |
| PCB-19 | 200 | 181 | | pg/g | | 91 | 60 - 135 |
| PCB-37 | 200 | 201 | | pg/g | | 100 | 60 - 135 |
| PCB-54 | 200 | 197 | | pg/g | | 98 | 60 - 135 |
| PCB-77 | 200 | 196 | | pg/g | | 98 | 60 - 135 |
| PCB-81 | 200 | 193 | | pg/g | | 96 | 60 - 135 |
| PCB-104 | 200 | 210 | | pg/g | | 105 | 60 - 135 |
| PCB-105 | 200 | 200 | | pg/g | | 100 | 60 - 135 |
| PCB-114 | 200 | 207 | | pg/g | | 104 | 60 - 135 |
| PCB-118 | 200 | 199 | | pg/g | | 99 | 60 - 135 |
| PCB-123 | 200 | 195 | | pg/g | | 97 | 60 - 135 |

## Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

**Lab Sample ID: LCS 320-34244/2-A**
**Matrix: Solid**
**Analysis Batch: 35733**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**
**Prep Batch: 34244**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|
| PCB-126 | 200 | 194 | | pg/g | | 97 | 60 - 135 |
| PCB-155 | 200 | 199 | | pg/g | | 99 | 60 - 135 |
| PCB-156/157 | 400 | 405 | | pg/g | | 101 | 60 - 135 |
| PCB-167 | 200 | 199 | | pg/g | | 100 | 60 - 135 |
| PCB-169 | 200 | 198 | | pg/g | | 99 | 60 - 135 |
| PCB-188 | 200 | 194 | | pg/g | | 97 | 60 - 135 |
| PCB-189 | 200 | 197 | | pg/g | | 99 | 60 - 135 |
| PCB-202 | 200 | 196 | | pg/g | | 98 | 60 - 135 |
| PCB-205 | 200 | 187 | | pg/g | | 94 | 60 - 135 |
| PCB-206 | 200 | 199 | | pg/g | | 99 | 60 - 135 |
| PCB-208 | 200 | 194 | | pg/g | | 97 | 60 - 135 |
| PCB-209 | 200 | 190 | | pg/g | | 95 | 60 - 135 |

| *Isotope Dilution* | *LCS %Recovery* | *LCS Qualifier* | *Limits* |
|---|---|---|---|
| *PCB-4L* | *49* | | *15 - 145* |
| *PCB-15L* | *59* | | *15 - 145* |
| *PCB-123L* | *51* | | *40 - 145* |
| *PCB-114L* | *50* | | *40 - 145* |
| *PCB-3L* | *56* | | *15 - 145* |
| *PCB-118L* | *52* | | *40 - 145* |
| *PCB-126L* | *57* | | *40 - 145* |
| *PCB-202L* | *50* | | *40 - 145* |
| *PCB-169L* | *64* | | *40 - 145* |
| *PCB-206L* | *62* | | *40 - 145* |
| *PCB-37L* | *53* | | *15 - 145* |
| *PCB-19L* | *57* | | *15 - 145* |
| *PCB-188L* | *45* | | *40 - 145* |
| *PCB-54L* | *46* | | *15 - 145* |
| *PCB-156L/157L* | *58* | | *40 - 145* |
| *PCB-167L* | *56* | | *40 - 145* |
| *PCB-209L* | *64* | | *40 - 145* |
| *PCB-189L* | *57* | | *40 - 145* |
| *PCB-105L* | *54* | | *40 - 145* |
| *PCB-208L* | *58* | | *40 - 145* |
| *PCB-1L* | *47* | | *15 - 145* |
| *PCB-104L* | *42* | | *40 - 145* |
| *PCB-81L* | *53* | | *40 - 145* |
| *PCB-77L* | *53* | | *40 - 145* |
| *PCB-205L* | *63* | | *40 - 145* |
| *PCB-155L* | *45* | | *40 - 145* |

| *Surrogate* | *LCS %Recovery* | *LCS Qualifier* | *Limits* |
|---|---|---|---|
| *PCB-28L* | *63* | | *5 - 145* |
| *PCB-111L* | *67* | | *10 - 145* |
| *PCB-178L* | *77* | | *10 - 145* |

## Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

**Lab Sample ID: MB 320-34661/1-A**
**Matrix: Solid**
**Analysis Batch: 35524**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**
**Prep Batch: 34661**

| Analyte | MB Result | MB Qualifier | RL | EDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| PCB-1 | 4.57 | J | 20 | 0.45 | pg/g | | 01/24/14 12:53 | 02/04/14 10:57 | 1 |
| PCB-2 | 0.49 | U | 20 | 0.49 | pg/g | | 01/24/14 12:53 | 02/04/14 10:57 | 1 |
| PCB-3 | 0.55 | U | 20 | 0.55 | pg/g | | 01/24/14 12:53 | 02/04/14 10:57 | 1 |
| PCB-4 | 12 | U | 20 | 12 | pg/g | | 01/24/14 12:53 | 02/04/14 10:57 | 1 |
| PCB-5 | 10 | U | 20 | 10 | pg/g | | 01/24/14 12:53 | 02/04/14 10:57 | 1 |
| PCB-6 | 10 | U | 20 | 10 | pg/g | | 01/24/14 12:53 | 02/04/14 10:57 | 1 |
| PCB-7 | 9.3 | U | 20 | 9.3 | pg/g | | 01/24/14 12:53 | 02/04/14 10:57 | 1 |
| PCB-8 | 9.8 | U | 20 | 9.8 | pg/g | | 01/24/14 12:53 | 02/04/14 10:57 | 1 |
| PCB-9 | 11 | U | 20 | 11 | pg/g | | 01/24/14 12:53 | 02/04/14 10:57 | 1 |
| PCB-10 | 9.2 | U | 20 | 9.2 | pg/g | | 01/24/14 12:53 | 02/04/14 10:57 | 1 |
| PCB-11 | 10 | U | 20 | 10 | pg/g | | 01/24/14 12:53 | 02/04/14 10:57 | 1 |
| PCB-12/13 | 10 | U | 40 | 10 | pg/g | | 01/24/14 12:53 | 02/04/14 10:57 | 1 |
| PCB-14 | 8.7 | U | 20 | 8.7 | pg/g | | 01/24/14 12:53 | 02/04/14 10:57 | 1 |
| PCB-15 | 12 | U | 20 | 12 | pg/g | | 01/24/14 12:53 | 02/04/14 10:57 | 1 |
| PCB-16 | 1.9 | U | 20 | 1.9 | pg/g | | 01/24/14 12:53 | 02/04/14 10:57 | 1 |
| PCB-17 | 1.4 | U | 20 | 1.4 | pg/g | | 01/24/14 12:53 | 02/04/14 10:57 | 1 |
| PCB-18/30 | 1.2 | U | 40 | 1.2 | pg/g | | 01/24/14 12:53 | 02/04/14 10:57 | 1 |
| PCB-19 | 1.4 | U | 20 | 1.4 | pg/g | | 01/24/14 12:53 | 02/04/14 10:57 | 1 |
| PCB-20/28 | 0.85 | U | 40 | 0.85 | pg/g | | 01/24/14 12:53 | 02/04/14 10:57 | 1 |
| PCB-21/33 | 0.79 | U | 40 | 0.79 | pg/g | | 01/24/14 12:53 | 02/04/14 10:57 | 1 |
| PCB-22 | 0.90 | U | 20 | 0.90 | pg/g | | 01/24/14 12:53 | 02/04/14 10:57 | 1 |
| PCB-23 | 0.77 | U | 20 | 0.77 | pg/g | | 01/24/14 12:53 | 02/04/14 10:57 | 1 |
| PCB-24 | 1.0 | U | 20 | 1.0 | pg/g | | 01/24/14 12:53 | 02/04/14 10:57 | 1 |
| PCB-25 | 0.80 | U | 20 | 0.80 | pg/g | | 01/24/14 12:53 | 02/04/14 10:57 | 1 |
| PCB-26/29 | 0.80 | U | 40 | 0.80 | pg/g | | 01/24/14 12:53 | 02/04/14 10:57 | 1 |
| PCB-27 | 1.0 | U | 20 | 1.0 | pg/g | | 01/24/14 12:53 | 02/04/14 10:57 | 1 |
| PCB-31 | 0.79 | U | 20 | 0.79 | pg/g | | 01/24/14 12:53 | 02/04/14 10:57 | 1 |
| PCB-32 | 0.79 | U | 20 | 0.79 | pg/g | | 01/24/14 12:53 | 02/04/14 10:57 | 1 |
| PCB-34 | 0.80 | U | 20 | 0.80 | pg/g | | 01/24/14 12:53 | 02/04/14 10:57 | 1 |
| PCB-35 | 0.93 | U | 20 | 0.93 | pg/g | | 01/24/14 12:53 | 02/04/14 10:57 | 1 |
| PCB-36 | 0.81 | U | 20 | 0.81 | pg/g | | 01/24/14 12:53 | 02/04/14 10:57 | 1 |
| PCB-37 | 1.2 | U | 20 | 1.2 | pg/g | | 01/24/14 12:53 | 02/04/14 10:57 | 1 |
| PCB-38 | 0.87 | U | 20 | 0.87 | pg/g | | 01/24/14 12:53 | 02/04/14 10:57 | 1 |
| PCB-39 | 0.82 | U | 20 | 0.82 | pg/g | | 01/24/14 12:53 | 02/04/14 10:57 | 1 |
| PCB-40/71 | 0.80 | U | 40 | 0.80 | pg/g | | 01/24/14 12:53 | 02/04/14 10:57 | 1 |
| PCB-41 | 1.0 | U | 20 | 1.0 | pg/g | | 01/24/14 12:53 | 02/04/14 10:57 | 1 |
| PCB-42 | 0.89 | U | 20 | 0.89 | pg/g | | 01/24/14 12:53 | 02/04/14 10:57 | 1 |
| PCB-43 | 0.91 | U | 20 | 0.91 | pg/g | | 01/24/14 12:53 | 02/04/14 10:57 | 1 |
| PCB-44/47/65 | 3.78 | J | 60 | 0.76 | pg/g | | 01/24/14 12:53 | 02/04/14 10:57 | 1 |
| PCB-45 | 0.90 | U | 20 | 0.90 | pg/g | | 01/24/14 12:53 | 02/04/14 10:57 | 1 |
| PCB-46 | 0.95 | U | 20 | 0.95 | pg/g | | 01/24/14 12:53 | 02/04/14 10:57 | 1 |
| PCB-48 | 0.82 | U | 20 | 0.82 | pg/g | | 01/24/14 12:53 | 02/04/14 10:57 | 1 |
| PCB-49/69 | 0.67 | U | 40 | 0.67 | pg/g | | 01/24/14 12:53 | 02/04/14 10:57 | 1 |
| PCB-50/53 | 0.75 | U | 40 | 0.75 | pg/g | | 01/24/14 12:53 | 02/04/14 10:57 | 1 |
| PCB-51 | 0.75 | U | 20 | 0.75 | pg/g | | 01/24/14 12:53 | 02/04/14 10:57 | 1 |
| PCB-52 | 1.24 | J | 20 | 0.84 | pg/g | | 01/24/14 12:53 | 02/04/14 10:57 | 1 |
| PCB-54 | 0.93 | U | 20 | 0.93 | pg/g | | 01/24/14 12:53 | 02/04/14 10:57 | 1 |
| PCB-55 | 1.0 | U | 20 | 1.0 | pg/g | | 01/24/14 12:53 | 02/04/14 10:57 | 1 |

## Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

**Lab Sample ID: MB 320-34661/1-A**
**Matrix: Solid**
**Analysis Batch: 35524**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**
**Prep Batch: 34661**

| Analyte | MB Result | MB Qualifier | RL | EDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| PCB-56 | 1.1 | U | 20 | 1.1 | pg/g | | 01/24/14 12:53 | 02/04/14 10:57 | 1 |
| PCB-57 | 1.0 | U | 20 | 1.0 | pg/g | | 01/24/14 12:53 | 02/04/14 10:57 | 1 |
| PCB-58 | 1.0 | U | 20 | 1.0 | pg/g | | 01/24/14 12:53 | 02/04/14 10:57 | 1 |
| PCB-59/62/75 | 0.59 | U | 60 | 0.59 | pg/g | | 01/24/14 12:53 | 02/04/14 10:57 | 1 |
| PCB-60 | 1.1 | U | 20 | 1.1 | pg/g | | 01/24/14 12:53 | 02/04/14 10:57 | 1 |
| PCB-61/70/74/76 | 1.0 | U | 80 | 1.0 | pg/g | | 01/24/14 12:53 | 02/04/14 10:57 | 1 |
| PCB-63 | 0.97 | U | 20 | 0.97 | pg/g | | 01/24/14 12:53 | 02/04/14 10:57 | 1 |
| PCB-64 | 0.55 | U | 20 | 0.55 | pg/g | | 01/24/14 12:53 | 02/04/14 10:57 | 1 |
| PCB-66 | 1.2 | U | 20 | 1.2 | pg/g | | 01/24/14 12:53 | 02/04/14 10:57 | 1 |
| PCB-67 | 0.96 | U | 20 | 0.96 | pg/g | | 01/24/14 12:53 | 02/04/14 10:57 | 1 |
| PCB-68 | 0.92 | U | 20 | 0.92 | pg/g | | 01/24/14 12:53 | 02/04/14 10:57 | 1 |
| PCB-72 | 1.0 | U | 20 | 1.0 | pg/g | | 01/24/14 12:53 | 02/04/14 10:57 | 1 |
| PCB-73 | 0.63 | U | 20 | 0.63 | pg/g | | 01/24/14 12:53 | 02/04/14 10:57 | 1 |
| PCB-77 | 1.4 | U | 2.0 | 1.4 | pg/g | | 01/24/14 12:53 | 02/04/14 10:57 | 1 |
| PCB-78 | 1.2 | U | 20 | 1.2 | pg/g | | 01/24/14 12:53 | 02/04/14 10:57 | 1 |
| PCB-79 | 1.0 | U | 20 | 1.0 | pg/g | | 01/24/14 12:53 | 02/04/14 10:57 | 1 |
| PCB-80 | 0.97 | U | 20 | 0.97 | pg/g | | 01/24/14 12:53 | 02/04/14 10:57 | 1 |
| PCB-81 | 1.4 | U | 2.0 | 1.4 | pg/g | | 01/24/14 12:53 | 02/04/14 10:57 | 1 |
| PCB-82 | 1.3 | U | 20 | 1.3 | pg/g | | 01/24/14 12:53 | 02/04/14 10:57 | 1 |
| PCB-83 | 1.4 | U | 20 | 1.4 | pg/g | | 01/24/14 12:53 | 02/04/14 10:57 | 1 |
| PCB-84 | 1.2 | U | 20 | 1.2 | pg/g | | 01/24/14 12:53 | 02/04/14 10:57 | 1 |
| PCB-85/116/117 | 0.86 | U | 60 | 0.86 | pg/g | | 01/24/14 12:53 | 02/04/14 10:57 | 1 |
| PCB-86/87/97/108/119/125 | 0.88 | U | 120 | 0.88 | pg/g | | 01/24/14 12:53 | 02/04/14 10:57 | 1 |
| PCB-88/91 | 0.98 | U | 40 | 0.98 | pg/g | | 01/24/14 12:53 | 02/04/14 10:57 | 1 |
| PCB-89 | 1.1 | U | 20 | 1.1 | pg/g | | 01/24/14 12:53 | 02/04/14 10:57 | 1 |
| PCB-90/101/113 | 0.89 | U | 60 | 0.89 | pg/g | | 01/24/14 12:53 | 02/04/14 10:57 | 1 |
| PCB-92 | 1.0 | U | 20 | 1.0 | pg/g | | 01/24/14 12:53 | 02/04/14 10:57 | 1 |
| PCB-93/100 | 0.98 | U | 40 | 0.98 | pg/g | | 01/24/14 12:53 | 02/04/14 10:57 | 1 |
| PCB-107/124 | 0.81 | U | 40 | 0.81 | pg/g | | 01/24/14 12:53 | 02/04/14 10:57 | 1 |
| PCB-94 | 1.0 | U | 20 | 1.0 | pg/g | | 01/24/14 12:53 | 02/04/14 10:57 | 1 |
| PCB-95 | 0.97 | U | 20 | 0.97 | pg/g | | 01/24/14 12:53 | 02/04/14 10:57 | 1 |
| PCB-96 | 0.41 | U | 20 | 0.41 | pg/g | | 01/24/14 12:53 | 02/04/14 10:57 | 1 |
| PCB-98/102 | 0.92 | U | 40 | 0.92 | pg/g | | 01/24/14 12:53 | 02/04/14 10:57 | 1 |
| PCB-99 | 1.0 | U | 20 | 1.0 | pg/g | | 01/24/14 12:53 | 02/04/14 10:57 | 1 |
| PCB-103 | 0.91 | U | 20 | 0.91 | pg/g | | 01/24/14 12:53 | 02/04/14 10:57 | 1 |
| PCB-104 | 0.38 | U | 20 | 0.38 | pg/g | | 01/24/14 12:53 | 02/04/14 10:57 | 1 |
| PCB-105 | 0.96 | U | 2.0 | 0.96 | pg/g | | 01/24/14 12:53 | 02/04/14 10:57 | 1 |
| PCB-106 | 0.88 | U | 20 | 0.88 | pg/g | | 01/24/14 12:53 | 02/04/14 10:57 | 1 |
| PCB-110/115 | 0.79 | U | 40 | 0.79 | pg/g | | 01/24/14 12:53 | 02/04/14 10:57 | 1 |
| PCB-109 | 0.75 | U | 20 | 0.75 | pg/g | | 01/24/14 12:53 | 02/04/14 10:57 | 1 |
| PCB-111 | 0.72 | U | 20 | 0.72 | pg/g | | 01/24/14 12:53 | 02/04/14 10:57 | 1 |
| PCB-112 | 0.69 | U | 20 | 0.69 | pg/g | | 01/24/14 12:53 | 02/04/14 10:57 | 1 |
| PCB-114 | 0.91 | U | 2.0 | 0.91 | pg/g | | 01/24/14 12:53 | 02/04/14 10:57 | 1 |
| PCB-115 | 0.79 | U | 40 | 0.79 | pg/g | | 01/24/14 12:53 | 02/04/14 10:57 | 1 |
| PCB-118 | 0.86 | U | 2.0 | 0.86 | pg/g | | 01/24/14 12:53 | 02/04/14 10:57 | 1 |
| PCB-120 | 0.76 | U | 20 | 0.76 | pg/g | | 01/24/14 12:53 | 02/04/14 10:57 | 1 |
| PCB-121 | 0.72 | U | 20 | 0.72 | pg/g | | 01/24/14 12:53 | 02/04/14 10:57 | 1 |
| PCB-122 | 0.90 | U | 20 | 0.90 | pg/g | | 01/24/14 12:53 | 02/04/14 10:57 | 1 |

## Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

**Lab Sample ID: MB 320-34661/1-A**
**Matrix: Solid**
**Analysis Batch: 35524**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**
**Prep Batch: 34661**

| Analyte | MB Result | MB Qualifier | RL | EDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| PCB-123 | 0.85 | U | 2.0 | 0.85 | pg/g | | 01/24/14 12:53 | 02/04/14 10:57 | 1 |
| PCB-126 | 1.0 | U | 2.0 | 1.0 | pg/g | | 01/24/14 12:53 | 02/04/14 10:57 | 1 |
| PCB-127 | 0.88 | U | 20 | 0.88 | pg/g | | 01/24/14 12:53 | 02/04/14 10:57 | 1 |
| PCB-128/166 | 0.86 | U | 40 | 0.86 | pg/g | | 01/24/14 12:53 | 02/04/14 10:57 | 1 |
| PCB-129/138/163 | 0.90 | U | 60 | 0.90 | pg/g | | 01/24/14 12:53 | 02/04/14 10:57 | 1 |
| PCB-130 | 1.1 | U | 20 | 1.1 | pg/g | | 01/24/14 12:53 | 02/04/14 10:57 | 1 |
| PCB-131 | 1.1 | U | 20 | 1.1 | pg/g | | 01/24/14 12:53 | 02/04/14 10:57 | 1 |
| PCB-132 | 1.0 | U | 20 | 1.0 | pg/g | | 01/24/14 12:53 | 02/04/14 10:57 | 1 |
| PCB-133 | 1.0 | U | 20 | 1.0 | pg/g | | 01/24/14 12:53 | 02/04/14 10:57 | 1 |
| PCB-134/143 | 1.0 | U | 40 | 1.0 | pg/g | | 01/24/14 12:53 | 02/04/14 10:57 | 1 |
| PCB-135/151 | 0.91 | U | 40 | 0.91 | pg/g | | 01/24/14 12:53 | 02/04/14 10:57 | 1 |
| PCB-136 | 0.67 | U | 20 | 0.67 | pg/g | | 01/24/14 12:53 | 02/04/14 10:57 | 1 |
| PCB-137 | 0.90 | U | 20 | 0.90 | pg/g | | 01/24/14 12:53 | 02/04/14 10:57 | 1 |
| PCB-139/140 | 0.87 | U | 40 | 0.87 | pg/g | | 01/24/14 12:53 | 02/04/14 10:57 | 1 |
| PCB-141 | 0.96 | U | 20 | 0.96 | pg/g | | 01/24/14 12:53 | 02/04/14 10:57 | 1 |
| PCB-142 | 1.0 | U | 20 | 1.0 | pg/g | | 01/24/14 12:53 | 02/04/14 10:57 | 1 |
| PCB-144 | 0.90 | U | 20 | 0.90 | pg/g | | 01/24/14 12:53 | 02/04/14 10:57 | 1 |
| PCB-145 | 0.64 | U | 20 | 0.64 | pg/g | | 01/24/14 12:53 | 02/04/14 10:57 | 1 |
| PCB-146 | 0.96 | U | 20 | 0.96 | pg/g | | 01/24/14 12:53 | 02/04/14 10:57 | 1 |
| PCB-147/149 | 0.89 | U | 40 | 0.89 | pg/g | | 01/24/14 12:53 | 02/04/14 10:57 | 1 |
| PCB-148 | 0.89 | U | 20 | 0.89 | pg/g | | 01/24/14 12:53 | 02/04/14 10:57 | 1 |
| PCB-150 | 0.60 | U | 20 | 0.60 | pg/g | | 01/24/14 12:53 | 02/04/14 10:57 | 1 |
| PCB-152 | 0.62 | U | 20 | 0.62 | pg/g | | 01/24/14 12:53 | 02/04/14 10:57 | 1 |
| PCB-153/168 | 0.75 | U | 40 | 0.75 | pg/g | | 01/24/14 12:53 | 02/04/14 10:57 | 1 |
| PCB-154 | 0.79 | U | 20 | 0.79 | pg/g | | 01/24/14 12:53 | 02/04/14 10:57 | 1 |
| PCB-155 | 0.65 | U | 20 | 0.65 | pg/g | | 01/24/14 12:53 | 02/04/14 10:57 | 1 |
| PCB-156/157 | 1.0 | U | 4.0 | 1.0 | pg/g | | 01/24/14 12:53 | 02/04/14 10:57 | 1 |
| PCB-158 | 0.69 | U | 20 | 0.69 | pg/g | | 01/24/14 12:53 | 02/04/14 10:57 | 1 |
| PCB-159 | 0.82 | U | 20 | 0.82 | pg/g | | 01/24/14 12:53 | 02/04/14 10:57 | 1 |
| PCB-160 | 0.79 | U | 20 | 0.79 | pg/g | | 01/24/14 12:53 | 02/04/14 10:57 | 1 |
| PCB-161 | 0.69 | U | 20 | 0.69 | pg/g | | 01/24/14 12:53 | 02/04/14 10:57 | 1 |
| PCB-162 | 0.79 | U | 20 | 0.79 | pg/g | | 01/24/14 12:53 | 02/04/14 10:57 | 1 |
| PCB-164 | 0.76 | U | 20 | 0.76 | pg/g | | 01/24/14 12:53 | 02/04/14 10:57 | 1 |
| PCB-165 | 0.79 | U | 20 | 0.79 | pg/g | | 01/24/14 12:53 | 02/04/14 10:57 | 1 |
| PCB-167 | 0.76 | U | 2.0 | 0.76 | pg/g | | 01/24/14 12:53 | 02/04/14 10:57 | 1 |
| PCB-169 | 0.93 | U | 2.0 | 0.93 | pg/g | | 01/24/14 12:53 | 02/04/14 10:57 | 1 |
| PCB-170 | 0.77 | U | 20 | 0.77 | pg/g | | 01/24/14 12:53 | 02/04/14 10:57 | 1 |
| PCB-171/173 | 0.71 | U | 40 | 0.71 | pg/g | | 01/24/14 12:53 | 02/04/14 10:57 | 1 |
| PCB-172 | 0.73 | U | 20 | 0.73 | pg/g | | 01/24/14 12:53 | 02/04/14 10:57 | 1 |
| PCB-174 | 0.72 | U | 20 | 0.72 | pg/g | | 01/24/14 12:53 | 02/04/14 10:57 | 1 |
| PCB-175 | 0.97 | U | 20 | 0.97 | pg/g | | 01/24/14 12:53 | 02/04/14 10:57 | 1 |
| PCB-176 | 0.65 | U | 20 | 0.65 | pg/g | | 01/24/14 12:53 | 02/04/14 10:57 | 1 |
| PCB-177 | 0.73 | U | 20 | 0.73 | pg/g | | 01/24/14 12:53 | 02/04/14 10:57 | 1 |
| PCB-178 | 1.0 | U | 20 | 1.0 | pg/g | | 01/24/14 12:53 | 02/04/14 10:57 | 1 |
| PCB-179 | 0.71 | U | 20 | 0.71 | pg/g | | 01/24/14 12:53 | 02/04/14 10:57 | 1 |
| PCB-180/193 | 0.59 | U | 40 | 0.59 | pg/g | | 01/24/14 12:53 | 02/04/14 10:57 | 1 |
| PCB-181 | 0.60 | U | 20 | 0.60 | pg/g | | 01/24/14 12:53 | 02/04/14 10:57 | 1 |
| PCB-182 | 0.90 | U | 20 | 0.90 | pg/g | | 01/24/14 12:53 | 02/04/14 10:57 | 1 |

## Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

**Lab Sample ID: MB 320-34661/1-A**
**Matrix: Solid**
**Analysis Batch: 35524**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**
**Prep Batch: 34661**

| Analyte | MB Result | MB Qualifier | RL | EDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| PCB-183 | 0.54 | U | 20 | 0.54 | pg/g | | 01/24/14 12:53 | 02/04/14 10:57 | 1 |
| PCB-184 | 0.73 | U | 20 | 0.73 | pg/g | | 01/24/14 12:53 | 02/04/14 10:57 | 1 |
| PCB-185 | 0.65 | U | 20 | 0.65 | pg/g | | 01/24/14 12:53 | 02/04/14 10:57 | 1 |
| PCB-186 | 0.69 | U | 20 | 0.69 | pg/g | | 01/24/14 12:53 | 02/04/14 10:57 | 1 |
| PCB-187 | 0.94 | U | 20 | 0.94 | pg/g | | 01/24/14 12:53 | 02/04/14 10:57 | 1 |
| PCB-188 | 0.71 | U | 20 | 0.71 | pg/g | | 01/24/14 12:53 | 02/04/14 10:57 | 1 |
| PCB-189 | 1.1 | U | 2.0 | 1.1 | pg/g | | 01/24/14 12:53 | 02/04/14 10:57 | 1 |
| PCB-190 | 0.54 | U | 20 | 0.54 | pg/g | | 01/24/14 12:53 | 02/04/14 10:57 | 1 |
| PCB-191 | 0.53 | U | 20 | 0.53 | pg/g | | 01/24/14 12:53 | 02/04/14 10:57 | 1 |
| PCB-192 | 0.55 | U | 20 | 0.55 | pg/g | | 01/24/14 12:53 | 02/04/14 10:57 | 1 |
| PCB-194 | 0.90 | U | 20 | 0.90 | pg/g | | 01/24/14 12:53 | 02/04/14 10:57 | 1 |
| PCB-195 | 0.84 | U | 20 | 0.84 | pg/g | | 01/24/14 12:53 | 02/04/14 10:57 | 1 |
| PCB-196 | 0.84 | U | 20 | 0.84 | pg/g | | 01/24/14 12:53 | 02/04/14 10:57 | 1 |
| PCB-197 | 0.56 | U | 20 | 0.56 | pg/g | | 01/24/14 12:53 | 02/04/14 10:57 | 1 |
| PCB-198/199 | 0.87 | U | 40 | 0.87 | pg/g | | 01/24/14 12:53 | 02/04/14 10:57 | 1 |
| PCB-200 | 0.57 | U | 20 | 0.57 | pg/g | | 01/24/14 12:53 | 02/04/14 10:57 | 1 |
| PCB-201 | 0.56 | U | 20 | 0.56 | pg/g | | 01/24/14 12:53 | 02/04/14 10:57 | 1 |
| PCB-202 | 0.67 | U | 20 | 0.67 | pg/g | | 01/24/14 12:53 | 02/04/14 10:57 | 1 |
| PCB-203 | 0.78 | U | 20 | 0.78 | pg/g | | 01/24/14 12:53 | 02/04/14 10:57 | 1 |
| PCB-204 | 0.59 | U | 20 | 0.59 | pg/g | | 01/24/14 12:53 | 02/04/14 10:57 | 1 |
| PCB-205 | 0.63 | U | 20 | 0.63 | pg/g | | 01/24/14 12:53 | 02/04/14 10:57 | 1 |
| PCB-206 | 0.96 | U | 20 | 0.96 | pg/g | | 01/24/14 12:53 | 02/04/14 10:57 | 1 |
| PCB-207 | 0.69 | U | 20 | 0.69 | pg/g | | 01/24/14 12:53 | 02/04/14 10:57 | 1 |
| PCB-208 | 0.82 | U | 20 | 0.82 | pg/g | | 01/24/14 12:53 | 02/04/14 10:57 | 1 |
| PCB-209 | 0.71 | U | 20 | 0.71 | pg/g | | 01/24/14 12:53 | 02/04/14 10:57 | 1 |
| Total Monochlorobiphenyls | 4.57 | J | 200 | 0.50 | pg/g | | 01/24/14 12:53 | 02/04/14 10:57 | 1 |
| Total Dichlorobiphenyls | 12 | U | 200 | 12 | pg/g | | 01/24/14 12:53 | 02/04/14 10:57 | 1 |
| Total Trichlorobiphenyls | 1.9 | U | 200 | 1.9 | pg/g | | 01/24/14 12:53 | 02/04/14 10:57 | 1 |
| Total Tetrachlorobiphenyls | 5.02 | J | 200 | 0.94 | pg/g | | 01/24/14 12:53 | 02/04/14 10:57 | 1 |
| Total Pentachlorobiphenyls | 1.4 | U | 200 | 1.4 | pg/g | | 01/24/14 12:53 | 02/04/14 10:57 | 1 |
| Total Hexachlorobiphenyls | 1.1 | U | 200 | 1.1 | pg/g | | 01/24/14 12:53 | 02/04/14 10:57 | 1 |
| Total Heptachlorobiphenyls | 1.1 | U | 200 | 1.1 | pg/g | | 01/24/14 12:53 | 02/04/14 10:57 | 1 |
| Total Octachlorobiphenyls | 0.90 | U | 200 | 0.90 | pg/g | | 01/24/14 12:53 | 02/04/14 10:57 | 1 |
| Total Nonachlorobiphenyls | 0.96 | U | 200 | 0.96 | pg/g | | 01/24/14 12:53 | 02/04/14 10:57 | 1 |
| Polychlorinated biphenyls, Total | 9.59 | J | 200 | 2.2 | pg/g | | 01/24/14 12:53 | 02/04/14 10:57 | 1 |

| *Isotope Dilution* | *MB %Recovery* | *MB Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *PCB-4L* | *37* | | *5 - 145* | *01/24/14 12:53* | *02/04/14 10:57* | *1* |
| *PCB-15L* | *33* | | *5 - 145* | *01/24/14 12:53* | *02/04/14 10:57* | *1* |
| *PCB-123L* | *30* | | *10 - 145* | *01/24/14 12:53* | *02/04/14 10:57* | *1* |
| *PCB-114L* | *28* | | *10 - 145* | *01/24/14 12:53* | *02/04/14 10:57* | *1* |
| *PCB-3L* | *42* | | *5 - 145* | *01/24/14 12:53* | *02/04/14 10:57* | *1* |
| *PCB-118L* | *29* | | *10 - 145* | *01/24/14 12:53* | *02/04/14 10:57* | *1* |
| *PCB-126L* | *32* | | *10 - 145* | *01/24/14 12:53* | *02/04/14 10:57* | *1* |
| *PCB-202L* | *33* | | *10 - 145* | *01/24/14 12:53* | *02/04/14 10:57* | *1* |
| *PCB-169L* | *32* | | *10 - 145* | *01/24/14 12:53* | *02/04/14 10:57* | *1* |
| *PCB-206L* | *36* | | *10 - 145* | *01/24/14 12:53* | *02/04/14 10:57* | *1* |
| *PCB-37L* | *26* | | *5 - 145* | *01/24/14 12:53* | *02/04/14 10:57* | *1* |

## Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

**Lab Sample ID: MB 320-34661/1-A**
**Matrix: Solid**
**Analysis Batch: 35524**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**
**Prep Batch: 34661**

| Isotope Dilution | MB %Recovery | MB Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|
| PCB-19L | 39 | | 5 - 145 | 01/24/14 12:53 | 02/04/14 10:57 | 1 |
| PCB-188L | 29 | | 10 - 145 | 01/24/14 12:53 | 02/04/14 10:57 | 1 |
| PCB-54L | 27 | | 5 - 145 | 01/24/14 12:53 | 02/04/14 10:57 | 1 |
| PCB-156L/157L | 29 | | 10 - 145 | 01/24/14 12:53 | 02/04/14 10:57 | 1 |
| PCB-167L | 30 | | 10 - 145 | 01/24/14 12:53 | 02/04/14 10:57 | 1 |
| PCB-209L | 35 | | 10 - 145 | 01/24/14 12:53 | 02/04/14 10:57 | 1 |
| PCB-189L | 32 | | 10 - 145 | 01/24/14 12:53 | 02/04/14 10:57 | 1 |
| PCB-105L | 29 | | 10 - 145 | 01/24/14 12:53 | 02/04/14 10:57 | 1 |
| PCB-208L | 37 | | 10 - 145 | 01/24/14 12:53 | 02/04/14 10:57 | 1 |
| PCB-1L | 39 | | 5 - 145 | 01/24/14 12:53 | 02/04/14 10:57 | 1 |
| PCB-104L | 26 | | 10 - 145 | 01/24/14 12:53 | 02/04/14 10:57 | 1 |
| PCB-81L | 29 | | 10 - 145 | 01/24/14 12:53 | 02/04/14 10:57 | 1 |
| PCB-77L | 29 | | 10 - 145 | 01/24/14 12:53 | 02/04/14 10:57 | 1 |
| PCB-205L | 35 | | 10 - 145 | 01/24/14 12:53 | 02/04/14 10:57 | 1 |
| PCB-155L | 24 | | 10 - 145 | 01/24/14 12:53 | 02/04/14 10:57 | 1 |

| Surrogate | MB %Recovery | MB Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|
| PCB-28L | 57 | | 5 - 145 | 01/24/14 12:53 | 02/04/14 10:57 | 1 |
| PCB-111L | 72 | | 10 - 145 | 01/24/14 12:53 | 02/04/14 10:57 | 1 |
| PCB-178L | 79 | | 10 - 145 | 01/24/14 12:53 | 02/04/14 10:57 | 1 |

**Lab Sample ID: LCS 320-34661/2-A**
**Matrix: Solid**
**Analysis Batch: 35524**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**
**Prep Batch: 34661**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|
| PCB-1 | 200 | 236 | | pg/g | | 118 | 60 - 135 |
| PCB-3 | 200 | 239 | | pg/g | | 119 | 60 - 135 |
| PCB-4 | 200 | 238 | | pg/g | | 119 | 60 - 135 |
| PCB-15 | 200 | 233 | | pg/g | | 117 | 60 - 135 |
| PCB-19 | 200 | 216 | | pg/g | | 108 | 60 - 135 |
| PCB-37 | 200 | 237 | | pg/g | | 118 | 60 - 135 |
| PCB-54 | 200 | 239 | | pg/g | | 119 | 60 - 135 |
| PCB-77 | 200 | 230 | | pg/g | | 115 | 60 - 135 |
| PCB-81 | 200 | 234 | | pg/g | | 117 | 60 - 135 |
| PCB-104 | 200 | 227 | | pg/g | | 113 | 60 - 135 |
| PCB-105 | 200 | 231 | | pg/g | | 115 | 60 - 135 |
| PCB-114 | 200 | 225 | | pg/g | | 112 | 60 - 135 |
| PCB-118 | 200 | 235 | | pg/g | | 118 | 60 - 135 |
| PCB-123 | 200 | 222 | | pg/g | | 111 | 60 - 135 |
| PCB-126 | 200 | 232 | | pg/g | | 116 | 60 - 135 |
| PCB-155 | 200 | 227 | | pg/g | | 114 | 60 - 135 |
| PCB-156/157 | 400 | 454 | | pg/g | | 113 | 60 - 135 |
| PCB-167 | 200 | 220 | | pg/g | | 110 | 60 - 135 |
| PCB-169 | 200 | 220 | | pg/g | | 110 | 60 - 135 |
| PCB-188 | 200 | 219 | | pg/g | | 110 | 60 - 135 |
| PCB-189 | 200 | 239 | | pg/g | | 119 | 60 - 135 |
| PCB-202 | 200 | 234 | | pg/g | | 117 | 60 - 135 |

## Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

**Lab Sample ID: LCS 320-34661/2-A**
**Matrix: Solid**
**Analysis Batch: 35524**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**
**Prep Batch: 34661**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|
| PCB-205 | 200 | 211 | | pg/g | | 106 | 60 - 135 |
| PCB-206 | 200 | 223 | | pg/g | | 111 | 60 - 135 |
| PCB-208 | 200 | 216 | | pg/g | | 108 | 60 - 135 |
| PCB-209 | 200 | 220 | | pg/g | | 110 | 60 - 135 |

| *Isotope Dilution* | *LCS %Recovery* | *LCS Qualifier* | *Limits* |
|---|---|---|---|
| *PCB-4L* | *51* | | *15 - 145* |
| *PCB-15L* | *66* | | *15 - 145* |
| *PCB-123L* | *71* | | *40 - 145* |
| *PCB-114L* | *71* | | *40 - 145* |
| *PCB-3L* | *53* | | *15 - 145* |
| *PCB-118L* | *70* | | *40 - 145* |
| *PCB-126L* | *76* | | *40 - 145* |
| *PCB-202L* | *74* | | *40 - 145* |
| *PCB-169L* | *84* | | *40 - 145* |
| *PCB-206L* | *83* | | *40 - 145* |
| *PCB-37L* | *63* | | *15 - 145* |
| *PCB-19L* | *63* | | *15 - 145* |
| *PCB-188L* | *66* | | *40 - 145* |
| *PCB-54L* | *49* | | *15 - 145* |
| *PCB-156L/157L* | *73* | | *40 - 145* |
| *PCB-167L* | *72* | | *40 - 145* |
| *PCB-209L* | *81* | | *40 - 145* |
| *PCB-189L* | *70* | | *40 - 145* |
| *PCB-105L* | *72* | | *40 - 145* |
| *PCB-208L* | *82* | | *40 - 145* |
| *PCB-1L* | *44* | | *15 - 145* |
| *PCB-104L* | *56* | | *40 - 145* |
| *PCB-81L* | *70* | | *40 - 145* |
| *PCB-77L* | *73* | | *40 - 145* |
| *PCB-205L* | *78* | | *40 - 145* |
| *PCB-155L* | *56* | | *40 - 145* |

| *Surrogate* | *LCS %Recovery* | *LCS Qualifier* | *Limits* |
|---|---|---|---|
| *PCB-28L* | *57* | | *5 - 145* |
| *PCB-111L* | *69* | | *10 - 145* |
| *PCB-178L* | *74* | | *10 - 145* |

## Method: 8290A - Dioxins and Furans (HRGC/HRMS)

**Lab Sample ID: MB 320-31992/1-A**
**Matrix: Water**
**Analysis Batch: 33676**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**
**Prep Batch: 31992**

| Analyte | MB Result | MB Qualifier | RL | EDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 2,3,7,8-TCDD | 0.15 | U | 10 | 0.15 | pg/L | | 12/16/13 16:32 | 01/10/14 00:48 | 1 |
| 2,3,7,8-TCDF | 0.250 | J | 10 | 0.11 | pg/L | | 12/16/13 16:32 | 01/10/14 00:48 | 1 |
| 1,2,3,7,8-PeCDD | 0.22 | U | 50 | 0.22 | pg/L | | 12/16/13 16:32 | 01/10/14 00:48 | 1 |

## Method: 8290A - Dioxins and Furans (HRGC/HRMS) (Continued)

**Lab Sample ID: MB 320-31992/1-A**
**Matrix: Water**
**Analysis Batch: 33676**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**
**Prep Batch: 31992**

| Analyte | MB Result | MB Qualifier | RL | EDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,2,3,7,8-PeCDF | 0.15 | U | 50 | 0.15 | pg/L | | 12/16/13 16:32 | 01/10/14 00:48 | 1 |
| 2,3,4,7,8-PeCDF | 0.15 | U | 50 | 0.15 | pg/L | | 12/16/13 16:32 | 01/10/14 00:48 | 1 |
| 1,2,3,4,7,8-HxCDD | 0.18 | U | 50 | 0.18 | pg/L | | 12/16/13 16:32 | 01/10/14 00:48 | 1 |
| 1,2,3,6,7,8-HxCDD | 0.12 | U | 50 | 0.12 | pg/L | | 12/16/13 16:32 | 01/10/14 00:48 | 1 |
| 1,2,3,7,8,9-HxCDD | 0.11 | U | 50 | 0.11 | pg/L | | 12/16/13 16:32 | 01/10/14 00:48 | 1 |
| 1,2,3,4,7,8-HxCDF | 0.956 | J q | 50 | 0.14 | pg/L | | 12/16/13 16:32 | 01/10/14 00:48 | 1 |
| 1,2,3,6,7,8-HxCDF | 0.12 | U | 50 | 0.12 | pg/L | | 12/16/13 16:32 | 01/10/14 00:48 | 1 |
| 1,2,3,7,8,9-HxCDF | 0.14 | U | 50 | 0.14 | pg/L | | 12/16/13 16:32 | 01/10/14 00:48 | 1 |
| 2,3,4,6,7,8-HxCDF | 0.13 | U | 50 | 0.13 | pg/L | | 12/16/13 16:32 | 01/10/14 00:48 | 1 |
| 1,2,3,4,6,7,8-HpCDD | 1.39 | J | 50 | 0.18 | pg/L | | 12/16/13 16:32 | 01/10/14 00:48 | 1 |
| 1,2,3,4,6,7,8-HpCDF | 2.65 | J | 50 | 0.14 | pg/L | | 12/16/13 16:32 | 01/10/14 00:48 | 1 |
| 1,2,3,4,7,8,9-HpCDF | 0.17 | U | 50 | 0.17 | pg/L | | 12/16/13 16:32 | 01/10/14 00:48 | 1 |
| OCDD | 10.1 | J | 100 | 0.20 | pg/L | | 12/16/13 16:32 | 01/10/14 00:48 | 1 |
| OCDF | 4.14 | J q | 100 | 0.18 | pg/L | | 12/16/13 16:32 | 01/10/14 00:48 | 1 |

| *Isotope Dilution* | *MB %Recovery* | *MB Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *13C-2,3,7,8-TCDD* | *85* | | *40 - 135* | *12/16/13 16:32* | *01/10/14 00:48* | *1* |
| *13C-1,2,3,7,8-PeCDD* | *87* | | *40 - 135* | *12/16/13 16:32* | *01/10/14 00:48* | *1* |
| *13C-1,2,3,7,8-PeCDF* | *87* | | *40 - 135* | *12/16/13 16:32* | *01/10/14 00:48* | *1* |
| *13C-1,2,3,6,7,8-HxCDD* | *93* | | *40 - 135* | *12/16/13 16:32* | *01/10/14 00:48* | *1* |
| *13C-2,3,7,8-TCDF* | *88* | | *40 - 135* | *12/16/13 16:32* | *01/10/14 00:48* | *1* |
| *13C-1,2,3,4,6,7,8-HpCDD* | *86* | | *40 - 135* | *12/16/13 16:32* | *01/10/14 00:48* | *1* |
| *13C-1,2,3,4,6,7,8-HpCDF* | *88* | | *40 - 135* | *12/16/13 16:32* | *01/10/14 00:48* | *1* |
| *13C-1,2,3,4,7,8-HxCDF* | *88* | | *40 - 135* | *12/16/13 16:32* | *01/10/14 00:48* | *1* |
| *13C-OCDD* | *87* | | *40 - 135* | *12/16/13 16:32* | *01/10/14 00:48* | *1* |

**Lab Sample ID: LCS 320-31992/2-A**
**Matrix: Water**
**Analysis Batch: 33676**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**
**Prep Batch: 31992**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|
| 2,3,7,8-TCDD | 200 | 218 | | pg/L | | 109 | 64 - 142 |
| 2,3,7,8-TCDF | 200 | 221 | | pg/L | | 111 | 71 - 142 |
| 1,2,3,7,8-PeCDD | 1000 | 1090 | | pg/L | | 109 | 71 - 140 |
| 1,2,3,7,8-PeCDF | 1000 | 1130 | | pg/L | | 113 | 76 - 135 |
| 2,3,4,7,8-PeCDF | 1000 | 1110 | | pg/L | | 111 | 74 - 137 |
| 1,2,3,4,7,8-HxCDD | 1000 | 1040 | | pg/L | | 104 | 56 - 146 |
| 1,2,3,6,7,8-HxCDD | 1000 | 1150 | | pg/L | | 115 | 73 - 144 |
| 1,2,3,7,8,9-HxCDD | 1000 | 1080 | | pg/L | | 108 | 71 - 151 |
| 1,2,3,4,7,8-HxCDF | 1000 | 1190 | | pg/L | | 119 | 75 - 131 |
| 1,2,3,6,7,8-HxCDF | 1000 | 1200 | | pg/L | | 120 | 76 - 133 |
| 1,2,3,7,8,9-HxCDF | 1000 | 1150 | | pg/L | | 115 | 77 - 142 |
| 2,3,4,6,7,8-HxCDF | 1000 | 1230 | | pg/L | | 123 | 80 - 137 |
| 1,2,3,4,6,7,8-HpCDD | 1000 | 1070 | | pg/L | | 107 | 78 - 139 |
| 1,2,3,4,6,7,8-HpCDF | 1000 | 1100 | | pg/L | | 110 | 79 - 133 |
| 1,2,3,4,7,8,9-HpCDF | 1000 | 1060 | | pg/L | | 106 | 83 - 130 |
| OCDD | 2000 | 2080 | | pg/L | | 104 | 80 - 132 |
| OCDF | 2000 | 1960 | | pg/L | | 98 | 72 - 140 |

## Method: 8290A - Dioxins and Furans (HRGC/HRMS) (Continued)

**Lab Sample ID: LCS 320-31992/2-A**
**Matrix: Water**
**Analysis Batch: 33676**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**
**Prep Batch: 31992**

| *Isotope Dilution* | *LCS %Recovery* | *LCS Qualifier* | *Limits* |
|---|---|---|---|
| *13C-2,3,7,8-TCDD* | *86* | | *40 - 135* |
| *13C-1,2,3,7,8-PeCDD* | *89* | | *40 - 135* |
| *13C-1,2,3,7,8-PeCDF* | *89* | | *40 - 135* |
| *13C-1,2,3,6,7,8-HxCDD* | *91* | | *40 - 135* |
| *13C-2,3,7,8-TCDF* | *88* | | *40 - 135* |
| *13C-1,2,3,4,6,7,8-HpCDD* | *90* | | *40 - 135* |
| *13C-1,2,3,4,6,7,8-HpCDF* | *91* | | *40 - 135* |
| *13C-1,2,3,4,7,8-HxCDF* | *87* | | *40 - 135* |
| *13C-OCDD* | *93* | | *40 - 135* |

**Lab Sample ID: MB 320-34660/1-A**
**Matrix: Solid**
**Analysis Batch: 35354**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**
**Prep Batch: 34660**

| Analyte | MB Result | MB Qualifier | RL | EDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 2,3,7,8-TCDD | 1.0 | U | 1.0 | 1.0 | pg/g | | 01/24/14 12:46 | 02/01/14 00:52 | 1 |
| 2,3,7,8-TCDF | 0.68 | U | 1.0 | 0.68 | pg/g | | 01/24/14 12:46 | 02/01/14 00:52 | 1 |
| 1,2,3,7,8-PeCDD | 1.1 | U | 5.0 | 1.1 | pg/g | | 01/24/14 12:46 | 02/01/14 00:52 | 1 |
| 1,2,3,7,8-PeCDF | 0.83 | U | 5.0 | 0.83 | pg/g | | 01/24/14 12:46 | 02/01/14 00:52 | 1 |
| 2,3,4,7,8-PeCDF | 0.90 | U | 5.0 | 0.90 | pg/g | | 01/24/14 12:46 | 02/01/14 00:52 | 1 |
| 1,2,3,4,7,8-HxCDD | 0.23 | U | 5.0 | 0.23 | pg/g | | 01/24/14 12:46 | 02/01/14 00:52 | 1 |
| 1,2,3,6,7,8-HxCDD | 0.22 | U | 5.0 | 0.22 | pg/g | | 01/24/14 12:46 | 02/01/14 00:52 | 1 |
| 1,2,3,7,8,9-HxCDD | 0.20 | U | 5.0 | 0.20 | pg/g | | 01/24/14 12:46 | 02/01/14 00:52 | 1 |
| 1,2,3,4,7,8-HxCDF | 0.24 | U | 5.0 | 0.24 | pg/g | | 01/24/14 12:46 | 02/01/14 00:52 | 1 |
| 1,2,3,6,7,8-HxCDF | 0.22 | U | 5.0 | 0.22 | pg/g | | 01/24/14 12:46 | 02/01/14 00:52 | 1 |
| 1,2,3,7,8,9-HxCDF | 0.26 | U | 5.0 | 0.26 | pg/g | | 01/24/14 12:46 | 02/01/14 00:52 | 1 |
| 2,3,4,6,7,8-HxCDF | 0.24 | U | 5.0 | 0.24 | pg/g | | 01/24/14 12:46 | 02/01/14 00:52 | 1 |
| 1,2,3,4,6,7,8-HpCDD | 0.26 | U | 5.0 | 0.26 | pg/g | | 01/24/14 12:46 | 02/01/14 00:52 | 1 |
| 1,2,3,4,6,7,8-HpCDF | 0.17 | U | 5.0 | 0.17 | pg/g | | 01/24/14 12:46 | 02/01/14 00:52 | 1 |
| 1,2,3,4,7,8,9-HpCDF | 0.21 | U | 5.0 | 0.21 | pg/g | | 01/24/14 12:46 | 02/01/14 00:52 | 1 |
| OCDD | 0.37 | U | 10 | 0.37 | pg/g | | 01/24/14 12:46 | 02/01/14 00:52 | 1 |
| OCDF | 0.45 | U | 10 | 0.45 | pg/g | | 01/24/14 12:46 | 02/01/14 00:52 | 1 |

| *Isotope Dilution* | *MB %Recovery* | *MB Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *13C-2,3,7,8-TCDD* | *32* | * | *40 - 135* | *01/24/14 12:46* | *02/01/14 00:52* | *1* |
| *13C-1,2,3,7,8-PeCDD* | *28* | * | *40 - 135* | *01/24/14 12:46* | *02/01/14 00:52* | *1* |
| *13C-1,2,3,7,8-PeCDF* | *29* | * | *40 - 135* | *01/24/14 12:46* | *02/01/14 00:52* | *1* |
| *13C-1,2,3,6,7,8-HxCDD* | *34* | * | *40 - 135* | *01/24/14 12:46* | *02/01/14 00:52* | *1* |
| *13C-2,3,7,8-TCDF* | *31* | * | *40 - 135* | *01/24/14 12:46* | *02/01/14 00:52* | *1* |
| *13C-1,2,3,4,6,7,8-HpCDD* | *34* | * | *40 - 135* | *01/24/14 12:46* | *02/01/14 00:52* | *1* |
| *13C-1,2,3,4,6,7,8-HpCDF* | *31* | * | *40 - 135* | *01/24/14 12:46* | *02/01/14 00:52* | *1* |
| *13C-1,2,3,4,7,8-HxCDF* | *28* | * | *40 - 135* | *01/24/14 12:46* | *02/01/14 00:52* | *1* |
| *13C-OCDD* | *36* | * | *40 - 135* | *01/24/14 12:46* | *02/01/14 00:52* | *1* |

## Method: 8290A - Dioxins and Furans (HRGC/HRMS) (Continued)

**Lab Sample ID: LCS 320-34660/2-A**
**Matrix: Solid**
**Analysis Batch: 35354**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**
**Prep Batch: 34660**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|
| 2,3,7,8-TCDD | 20.0 | 18.2 | | pg/g | | 91 | 77 - 130 |
| 2,3,7,8-TCDF | 20.0 | 17.9 | | pg/g | | 90 | 79 - 137 |
| 1,2,3,7,8-PeCDD | 100 | 99.7 | | pg/g | | 100 | 79 - 134 |
| 1,2,3,7,8-PeCDF | 100 | 93.6 | | pg/g | | 94 | 81 - 134 |
| 2,3,4,7,8-PeCDF | 100 | 94.2 | | pg/g | | 94 | 76 - 132 |
| 1,2,3,4,7,8-HxCDD | 100 | 95.7 | | pg/g | | 96 | 65 - 144 |
| 1,2,3,6,7,8-HxCDD | 100 | 95.8 | | pg/g | | 96 | 73 - 147 |
| 1,2,3,7,8,9-HxCDD | 100 | 93.9 | | pg/g | | 94 | 80 - 143 |
| 1,2,3,4,7,8-HxCDF | 100 | 100 | | pg/g | | 100 | 72 - 140 |
| 1,2,3,6,7,8-HxCDF | 100 | 101 | | pg/g | | 101 | 63 - 152 |
| 1,2,3,7,8,9-HxCDF | 100 | 100 | | pg/g | | 100 | 72 - 152 |
| 2,3,4,6,7,8-HxCDF | 100 | 104 | | pg/g | | 104 | 72 - 151 |
| 1,2,3,4,6,7,8-HpCDD | 100 | 96.9 | | pg/g | | 97 | 86 - 134 |
| 1,2,3,4,6,7,8-HpCDF | 100 | 92.8 | | pg/g | | 93 | 81 - 137 |
| 1,2,3,4,7,8,9-HpCDF | 100 | 95.2 | | pg/g | | 95 | 79 - 139 |
| OCDD | 200 | 188 | | pg/g | | 94 | 80 - 137 |
| OCDF | 200 | 180 | | pg/g | | 90 | 75 - 141 |

| *Isotope Dilution* | *LCS %Recovery* | *LCS Qualifier* | *Limits* |
|---|---|---|---|
| *13C-2,3,7,8-TCDD* | *96* | | *40 - 135* |
| *13C-1,2,3,7,8-PeCDD* | *93* | | *40 - 135* |
| *13C-1,2,3,7,8-PeCDF* | *91* | | *40 - 135* |
| *13C-1,2,3,6,7,8-HxCDD* | *105* | | *40 - 135* |
| *13C-2,3,7,8-TCDF* | *94* | | *40 - 135* |
| *13C-1,2,3,4,6,7,8-HpCDD* | *110* | | *40 - 135* |
| *13C-1,2,3,4,6,7,8-HpCDF* | *104* | | *40 - 135* |
| *13C-1,2,3,4,7,8-HxCDF* | *91* | | *40 - 135* |
| *13C-OCDD* | *115* | | *40 - 135* |

## Method: 6010C - Metals (ICP)

**Lab Sample ID: MB 160-94973/1-A**
**Matrix: Solid**
**Analysis Batch: 97291**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**
**Prep Batch: 94973**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Aluminum | 13 | U | 18 | 13 | mg/Kg | | 12/27/13 10:01 | 01/10/14 01:08 | 1 |
| Barium | 0.23 | U | 4.6 | 0.23 | mg/Kg | | 12/27/13 10:01 | 01/10/14 01:08 | 1 |
| Beryllium | 0.16 | U | 0.46 | 0.16 | mg/Kg | | 12/27/13 10:01 | 01/10/14 01:08 | 1 |
| Cadmium | 0.092 | U | 0.46 | 0.092 | mg/Kg | | 12/27/13 10:01 | 01/10/14 01:08 | 1 |
| Calcium | 12 | U | 230 | 12 | mg/Kg | | 12/27/13 10:01 | 01/10/14 01:08 | 1 |
| Chromium | 0.28 | U | 0.92 | 0.28 | mg/Kg | | 12/27/13 10:01 | 01/10/14 01:08 | 1 |
| Cobalt | 0.86 | U | 4.6 | 0.86 | mg/Kg | | 12/27/13 10:01 | 01/10/14 01:08 | 1 |
| Copper | 0.67 | U | 2.3 | 0.67 | mg/Kg | | 12/27/13 10:01 | 01/10/14 01:08 | 1 |
| Iron | 2.7 | U | 9.2 | 2.7 | mg/Kg | | 12/27/13 10:01 | 01/10/14 01:08 | 1 |
| Magnesium | 7.6 | U | 92 | 7.6 | mg/Kg | | 12/27/13 10:01 | 01/10/14 01:08 | 1 |
| Manganese | 0.14 | U | 0.92 | 0.14 | mg/Kg | | 12/27/13 10:01 | 01/10/14 01:08 | 1 |
| Nickel | 0.21 | U | 3.7 | 0.21 | mg/Kg | | 12/27/13 10:01 | 01/10/14 01:08 | 1 |

## Method: 6010C - Metals (ICP) (Continued)

**Lab Sample ID: MB 160-94973/1-A** — **Client Sample ID: Method Blank**
**Matrix: Solid** — **Prep Type: Total/NA**
**Analysis Batch: 97291** — **Prep Batch: 94973**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Lead | 0.16 | U | 0.92 | 0.16 | mg/Kg | | 12/27/13 10:01 | 01/10/14 01:08 | 1 |
| Antimony | 0.59 | U | 0.92 | 0.59 | mg/Kg | | 12/27/13 10:01 | 01/10/14 01:08 | 1 |
| Silver | 0.21 | U | 0.92 | 0.21 | mg/Kg | | 12/27/13 10:01 | 01/10/14 01:08 | 1 |
| Selenium | 0.27 | U | 1.4 | 0.27 | mg/Kg | | 12/27/13 10:01 | 01/10/14 01:08 | 1 |
| Titanium | 0.58 | U | 1.8 | 0.58 | mg/Kg | | 12/27/13 10:01 | 01/10/14 01:08 | 1 |
| Vanadium | 1.2 | U | 4.6 | 1.2 | mg/Kg | | 12/27/13 10:01 | 01/10/14 01:08 | 1 |
| Zinc | 1.8 | U | 4.6 | 1.8 | mg/Kg | | 12/27/13 10:01 | 01/10/14 01:08 | 1 |

**Lab Sample ID: MB 160-94973/1-A** — **Client Sample ID: Method Blank**
**Matrix: Solid** — **Prep Type: Total/NA**
**Analysis Batch: 98404** — **Prep Batch: 94973**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Potassium | 310 | U | 460 | 310 | mg/Kg | | 12/27/13 10:01 | 01/14/14 20:22 | 1 |
| Sodium | 43 | U | 92 | 43 | mg/Kg | | 12/27/13 10:01 | 01/14/14 20:22 | 1 |

**Lab Sample ID: LCS 160-94973/2-A** — **Client Sample ID: Lab Control Sample**
**Matrix: Solid** — **Prep Type: Total/NA**
**Analysis Batch: 97291** — **Prep Batch: 94973**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|
| Aluminum | 9780 | 7230 | | mg/Kg | | 74 | 44 - 155 |
| Barium | 325 | 307 | | mg/Kg | | 94 | 74 - 125 |
| Beryllium | 92.1 | 79.6 | | mg/Kg | | 86 | 74 - 126 |
| Cadmium | 110 | 90.5 | | mg/Kg | | 82 | 73 - 139 |
| Calcium | 6700 | 5670 | | mg/Kg | | 85 | 74 - 125 |
| Chromium | 93.4 | 82.6 | | mg/Kg | | 88 | 69 - 130 |
| Cobalt | 133 | 116 | | mg/Kg | | 88 | 74 - 125 |
| Copper | 74.7 | 63.4 | | mg/Kg | | 85 | 73 - 126 |
| Iron | 13100 | 10200 | | mg/Kg | | 78 | 32 - 167 |
| Magnesium | 2980 | 2260 | | mg/Kg | | 76 | 66 - 134 |
| Manganese | 443 | 348 | | mg/Kg | | 79 | 77 - 124 |
| Nickel | 109 | 92.7 | | mg/Kg | | 85 | 72 - 126 |
| Lead | 152 | 130 | | mg/Kg | | 86 | 73 - 126 |
| Antimony | 121 | 49.8 | | mg/Kg | | 41 | 21 - 251 |
| Silver | 51.9 | 48.3 | | mg/Kg | | 93 | 66 - 133 |
| Selenium | 207 | 176 | | mg/Kg | | 85 | 69 - 131 |
| Titanium | 193 | 153 | | mg/Kg | | 79 | 29 - 171 |
| Vanadium | 110 | 89.8 | | mg/Kg | | 82 | 67 - 132 |
| Zinc | 299 | 256 | | mg/Kg | | 86 | 71 - 128 |

**Lab Sample ID: LCS 160-94973/2-A** — **Client Sample ID: Lab Control Sample**
**Matrix: Solid** — **Prep Type: Total/NA**
**Analysis Batch: 98404** — **Prep Batch: 94973**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|
| Potassium | 2770 | 2210 | | mg/Kg | | 80 | 61 - 138 |
| Sodium | 724 | 634 | | mg/Kg | | 88 | 56 - 144 |

## Method: 6010C - Metals (ICP) (Continued)

**Lab Sample ID: 680-97124-1 MS** — **Client Sample ID: PP-B-1 0-4**
**Matrix: Solid** — **Prep Type: Total/NA**
**Analysis Batch: 97291** — **Prep Batch: 94973**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|---|---|
| Aluminum | 6400 | | 1050 | 8400 | 4 | mg/Kg | ☼ | 190 | 75 - 125 |
| Barium | 97 | | 105 | 199 | | mg/Kg | ☼ | 97 | 75 - 125 |
| Beryllium | 0.86 | U | 105 | 73.7 | F1 | mg/Kg | ☼ | 70 | 75 - 125 |
| Cadmium | 0.51 | U | 105 | 84.3 | | mg/Kg | ☼ | 81 | 75 - 125 |
| Calcium | 22000 | | 1050 | 14300 | 4 | mg/Kg | ☼ | -695 | 75 - 125 |
| Chromium | 7.0 | | 105 | 87.6 | | mg/Kg | ☼ | 77 | 75 - 125 |
| Cobalt | 6.3 | J | 105 | 93.0 | | mg/Kg | ☼ | 83 | 75 - 125 |
| Copper | 12 | J | 105 | 104 | | mg/Kg | ☼ | 88 | 75 - 125 |
| Iron | 7800 | | 1050 | 10300 | 4 | mg/Kg | ☼ | 232 | 75 - 125 |
| Magnesium | 6400 | | 1050 | 6070 | 4 | mg/Kg | ☼ | -29 | 75 - 125 |
| Manganese | 330 | | 105 | 383 | F1 | mg/Kg | ☼ | 47 | 75 - 125 |
| Nickel | 13 | J | 105 | 99.3 | | mg/Kg | ☼ | 83 | 75 - 125 |
| Lead | 7.6 | | 105 | 98.9 | | mg/Kg | ☼ | 87 | 75 - 125 |
| Antimony | 3.3 | U | 52.3 | 26.6 | F1 | mg/Kg | ☼ | 51 | 75 - 125 |
| Silver | 1.2 | U | 20.9 | 16.0 | | mg/Kg | ☼ | 76 | 75 - 125 |
| Selenium | 1.5 | U | 52.3 | 38.2 | F1 | mg/Kg | ☼ | 73 | 75 - 125 |
| Titanium | 440 | | 105 | 710 | 4 | mg/Kg | ☼ | 262 | 75 - 125 |
| Vanadium | 23 | J | 105 | 98.8 | F1 | mg/Kg | ☼ | 72 | 75 - 125 |
| Zinc | 28 | | 105 | 118 | | mg/Kg | ☼ | 86 | 75 - 125 |

**Lab Sample ID: 680-97124-1 MS** — **Client Sample ID: PP-B-1 0-4**
**Matrix: Solid** — **Prep Type: Total/NA**
**Analysis Batch: 98404** — **Prep Batch: 94973**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|---|---|
| Potassium | 3400 | U | 1050 | 4460 | J | mg/Kg | ☼ | NC | 75 - 125 |
| Sodium | 730 | J | 1050 | 2920 | F1 | mg/Kg | ☼ | 209 | 75 - 125 |

**Lab Sample ID: 680-97124-1 MSD** — **Client Sample ID: PP-B-1 0-4**
**Matrix: Solid** — **Prep Type: Total/NA**
**Analysis Batch: 97291** — **Prep Batch: 94973**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Aluminum | 6400 | | 983 | 9360 | 4 | mg/Kg | ☼ | 301 | 75 - 125 | 11 | 30 |
| Barium | 97 | | 98.3 | 211 | | mg/Kg | ☼ | 116 | 75 - 125 | 6 | 30 |
| Beryllium | 0.86 | U | 98.3 | 79.3 | | mg/Kg | ☼ | 81 | 75 - 125 | 7 | 30 |
| Cadmium | 0.51 | U | 98.3 | 84.2 | | mg/Kg | ☼ | 86 | 75 - 125 | 0 | 30 |
| Calcium | 22000 | | 983 | 17900 | 4 | mg/Kg | ☼ | -381 | 75 - 125 | 22 | 30 |
| Chromium | 7.0 | | 98.3 | 91.6 | | mg/Kg | ☼ | 86 | 75 - 125 | 4 | 30 |
| Cobalt | 6.3 | J | 98.3 | 93.7 | | mg/Kg | ☼ | 89 | 75 - 125 | 1 | 30 |
| Copper | 12 | J | 98.3 | 104 | | mg/Kg | ☼ | 93 | 75 - 125 | 0 | 30 |
| Iron | 7800 | | 983 | 11800 | 4 | mg/Kg | ☼ | 405 | 75 - 125 | 14 | 30 |
| Magnesium | 6400 | | 983 | 9850 | 4 F2 | mg/Kg | ☼ | 354 | 75 - 125 | 47 | 30 |
| Manganese | 330 | | 98.3 | 409 | | mg/Kg | ☼ | 77 | 75 - 125 | 7 | 30 |
| Nickel | 13 | J | 98.3 | 103 | | mg/Kg | ☼ | 92 | 75 - 125 | 4 | 30 |
| Lead | 7.6 | | 98.3 | 96.8 | | mg/Kg | ☼ | 91 | 75 - 125 | 2 | 30 |
| Antimony | 3.3 | U | 49.2 | 25.1 | F1 | mg/Kg | ☼ | 51 | 75 - 125 | 6 | 30 |
| Silver | 1.2 | U | 19.7 | 16.5 | | mg/Kg | ☼ | 84 | 75 - 125 | 3 | 30 |

## Method: 6010C - Metals (ICP) (Continued)

**Lab Sample ID: 680-97124-1 MSD** — **Client Sample ID: PP-B-1 0-4**
**Matrix: Solid** — **Prep Type: Total/NA**
**Analysis Batch: 97291** — **Prep Batch: 94973**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Selenium | 1.5 | U | 49.2 | 36.7 | | mg/Kg | ☼ | 75 | 75 - 125 | 4 | 30 |
| Titanium | 440 | | 98.3 | 772 | 4 | mg/Kg | ☼ | 342 | 75 - 125 | 8 | 30 |
| Vanadium | 23 | J | 98.3 | 107 | | mg/Kg | ☼ | 85 | 75 - 125 | 8 | 30 |
| Zinc | 28 | | 98.3 | 132 | | mg/Kg | ☼ | 106 | 75 - 125 | 11 | 30 |

**Lab Sample ID: 680-97124-1 MSD** — **Client Sample ID: PP-B-1 0-4**
**Matrix: Solid** — **Prep Type: Total/NA**
**Analysis Batch: 98404** — **Prep Batch: 94973**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Potassium | 3400 | U | 983 | 3740 | J | mg/Kg | ☼ | NC | 75 - 125 | 18 | 30 |
| Sodium | 730 | J | 983 | 2500 | F1 | mg/Kg | ☼ | 180 | 75 - 125 | 16 | 30 |

**Lab Sample ID: MB 160-96025/1-A** — **Client Sample ID: Method Blank**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 97021** — **Prep Batch: 96025**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Aluminum | 80 | U | 200 | 80 | ug/L | | 01/03/14 17:29 | 01/08/14 13:36 | 1 |
| Barium | 4.0 | U | 50 | 4.0 | ug/L | | 01/03/14 17:29 | 01/08/14 13:36 | 1 |
| Beryllium | 0.61 | U | 5.0 | 0.61 | ug/L | | 01/03/14 17:29 | 01/08/14 13:36 | 1 |
| Cadmium | 0.91 | U | 5.0 | 0.91 | ug/L | | 01/03/14 17:29 | 01/08/14 13:36 | 1 |
| Calcium | 110 | U | 1000 | 110 | ug/L | | 01/03/14 17:29 | 01/08/14 13:36 | 1 |
| Chromium | 3.1 | U | 10 | 3.1 | ug/L | | 01/03/14 17:29 | 01/08/14 13:36 | 1 |
| Cobalt | 4.9 | U | 50 | 4.9 | ug/L | | 01/03/14 17:29 | 01/08/14 13:36 | 1 |
| Copper | 4.6 | U | 25 | 4.6 | ug/L | | 01/03/14 17:29 | 01/08/14 13:36 | 1 |
| Iron | 28 | U | 100 | 28 | ug/L | | 01/03/14 17:29 | 01/08/14 13:36 | 1 |
| Magnesium | 130 | U | 1000 | 130 | ug/L | | 01/03/14 17:29 | 01/08/14 13:36 | 1 |
| Manganese | 3.3 | U | 15 | 3.3 | ug/L | | 01/03/14 17:29 | 01/08/14 13:36 | 1 |
| Nickel | 13 | U | 40 | 13 | ug/L | | 01/03/14 17:29 | 01/08/14 13:36 | 1 |
| Potassium | 1700 | U | 5000 | 1700 | ug/L | | 01/03/14 17:29 | 01/08/14 13:36 | 1 |
| Lead | 1.5 | U | 10 | 1.5 | ug/L | | 01/03/14 17:29 | 01/08/14 13:36 | 1 |
| Antimony | 4.0 | U | 10 | 4.0 | ug/L | | 01/03/14 17:29 | 01/08/14 13:36 | 1 |
| Silver | 6.0 | U | 10 | 6.0 | ug/L | | 01/03/14 17:29 | 01/08/14 13:36 | 1 |
| Selenium | 2.7 | U | 15 | 2.7 | ug/L | | 01/03/14 17:29 | 01/08/14 13:36 | 1 |
| Sodium | 320 | U | 1000 | 320 | ug/L | | 01/03/14 17:29 | 01/08/14 13:36 | 1 |
| Titanium | 2.4 | U | 20 | 2.4 | ug/L | | 01/03/14 17:29 | 01/08/14 13:36 | 1 |
| Vanadium | 4.1 | U | 50 | 4.1 | ug/L | | 01/03/14 17:29 | 01/08/14 13:36 | 1 |
| Zinc | 13.0 | J | 20 | 5.2 | ug/L | | 01/03/14 17:29 | 01/08/14 13:36 | 1 |

**Lab Sample ID: LCS 160-96025/2-A** — **Client Sample ID: Lab Control Sample**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 97021** — **Prep Batch: 96025**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|
| Aluminum | 10000 | 10500 | | ug/L | | 105 | 80 - 120 |
| Barium | 1000 | 1040 | | ug/L | | 104 | 80 - 120 |
| Beryllium | 1000 | 1050 | | ug/L | | 105 | 80 - 120 |
| Cadmium | 1000 | 1040 | | ug/L | | 104 | 80 - 120 |

## Method: 6010C - Metals (ICP) (Continued)

**Lab Sample ID: LCS 160-96025/2-A** — **Client Sample ID: Lab Control Sample**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 97021** — **Prep Batch: 96025**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|
| Calcium | 10000 | 10900 | | ug/L | | 109 | 80 - 120 |
| Chromium | 1000 | 1010 | | ug/L | | 101 | 80 - 120 |
| Cobalt | 1000 | 1080 | | ug/L | | 108 | 80 - 120 |
| Copper | 1000 | 1080 | | ug/L | | 108 | 80 - 120 |
| Iron | 10000 | 10600 | | ug/L | | 106 | 80 - 120 |
| Magnesium | 10000 | 9960 | | ug/L | | 100 | 80 - 120 |
| Manganese | 1000 | 1080 | | ug/L | | 108 | 80 - 120 |
| Nickel | 1000 | 1100 | | ug/L | | 110 | 80 - 120 |
| Potassium | 10000 | 11700 | | ug/L | | 117 | 80 - 120 |
| Lead | 1000 | 1090 | | ug/L | | 109 | 80 - 120 |
| Antimony | 500 | 513 | | ug/L | | 103 | 80 - 120 |
| Silver | 200 | 201 | | ug/L | | 100 | 80 - 120 |
| Selenium | 500 | 516 | | ug/L | | 103 | 80 - 120 |
| Sodium | 10000 | 11700 | | ug/L | | 117 | 80 - 120 |
| Titanium | 1000 | 1020 | | ug/L | | 102 | 80 - 120 |
| Vanadium | 1000 | 1040 | | ug/L | | 104 | 80 - 120 |
| Zinc | 1000 | 1070 | | ug/L | | 107 | 80 - 120 |

## Method: 6020A - Metals (ICP/MS)

**Lab Sample ID: MB 160-94976/1-A** — **Client Sample ID: Method Blank**
**Matrix: Solid** — **Prep Type: Total/NA**
**Analysis Batch: 95862** — **Prep Batch: 94976**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Arsenic | 0.24 | U | 0.92 | 0.24 | mg/Kg | | 12/27/13 10:07 | 01/03/14 01:51 | 2 |
| Niobium | 0.35 | U | 2.3 | 0.35 | mg/Kg | | 12/27/13 10:07 | 01/03/14 01:51 | 2 |
| Thallium | 0.14 | U | 0.46 | 0.14 | mg/Kg | | 12/27/13 10:07 | 01/03/14 01:51 | 2 |
| Uranium | 0.018 | U | 0.092 | 0.018 | mg/Kg | | 12/27/13 10:07 | 01/03/14 01:51 | 2 |

**Lab Sample ID: LCS 160-94976/19-A** — **Client Sample ID: Lab Control Sample**
**Matrix: Solid** — **Prep Type: Total/NA**
**Analysis Batch: 95862** — **Prep Batch: 94976**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|
| Niobium | 48.7 | 52.1 | E | mg/Kg | | 107 | 80 - 120 |
| Uranium | 97.5 | 100 | | mg/Kg | | 103 | 80 - 120 |

**Lab Sample ID: LCS 160-94976/2-A** — **Client Sample ID: Lab Control Sample**
**Matrix: Solid** — **Prep Type: Total/NA**
**Analysis Batch: 95862** — **Prep Batch: 94976**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|
| Arsenic | 109 | 110 | | mg/Kg | | 100 | 70 - 131 |
| Thallium | 171 | 185 | E | mg/Kg | | 108 | 68 - 131 |

## Method: 6020A - Metals (ICP/MS) (Continued)

**Lab Sample ID: 680-97124-1 MS** — **Client Sample ID: PP-B-1 0-4**
**Matrix: Solid** — **Prep Type: Total/NA**
**Analysis Batch: 95862** — **Prep Batch: 94976**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|---|---|
| Arsenic | 3.3 | J | 105 | 112 | | mg/Kg | ☼ | 104 | 75 - 125 |
| Niobium | 2.9 | J | 52.3 | 36.0 | F1 | mg/Kg | ☼ | 63 | 75 - 125 |
| Thallium | 0.78 | U | 20.9 | 22.4 | | mg/Kg | ☼ | 107 | 75 - 125 |
| Uranium | 0.62 | | 105 | 112 | | mg/Kg | ☼ | 106 | 75 - 125 |

**Lab Sample ID: 680-97124-1 MSD** — **Client Sample ID: PP-B-1 0-4**
**Matrix: Solid** — **Prep Type: Total/NA**
**Analysis Batch: 95862** — **Prep Batch: 94976**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Arsenic | 3.3 | J | 98.3 | 106 | | mg/Kg | ☼ | 104 | 75 - 125 | 5 | 30 |
| Niobium | 2.9 | J | 49.2 | 32.0 | F1 | mg/Kg | ☼ | 59 | 75 - 125 | 12 | 30 |
| Thallium | 0.78 | U | 19.7 | 20.5 | | mg/Kg | ☼ | 104 | 75 - 125 | 9 | 30 |
| Uranium | 0.62 | | 98.3 | 104 | | mg/Kg | ☼ | 105 | 75 - 125 | 7 | 30 |

**Lab Sample ID: MB 160-96024/1-A** — **Client Sample ID: Method Blank**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 96993** — **Prep Batch: 96024**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Arsenic | 1.2 | U | 10 | 1.2 | ug/L | | 01/03/14 17:29 | 01/09/14 00:26 | 1 |
| Niobium | 2.2 | U | 25 | 2.2 | ug/L | | 01/03/14 17:29 | 01/09/14 00:26 | 1 |
| Thallium | 0.55 | U | 2.0 | 0.55 | ug/L | | 01/03/14 17:29 | 01/09/14 00:26 | 1 |
| Uranium | 0.23 | U | 1.0 | 0.23 | ug/L | | 01/03/14 17:29 | 01/09/14 00:26 | 1 |

**Lab Sample ID: LCS 160-96024/2-A** — **Client Sample ID: Lab Control Sample**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 96993** — **Prep Batch: 96024**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|
| Arsenic | 1000 | 950 | | ug/L | | 95 | 80 - 120 |
| Niobium | 500 | 518 | E | ug/L | | 104 | 80 - 120 |
| Thallium | 200 | 206 | | ug/L | | 103 | 80 - 120 |
| Uranium | 1000 | 985 | | ug/L | | 98 | 80 - 120 |

## Method: 7470A - Mercury (CVAA)

**Lab Sample ID: MB 160-96983/1-A** — **Client Sample ID: Method Blank**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 97053** — **Prep Batch: 96983**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Mercury | 0.060 | U | 0.20 | 0.060 | ug/L | | 01/09/14 07:42 | 01/09/14 12:13 | 1 |

## Method: 7470A - Mercury (CVAA) (Continued)

**Lab Sample ID: LCS 160-96983/2-A** — **Client Sample ID: Lab Control Sample**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 97053** — **Prep Batch: 96983**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|
| Mercury | 5.00 | 5.01 | | ug/L | | 100 | 80 - 120 |

## Method: 7471B - Mercury in Solid or Semisolid Waste (Manual Cold Vapor Technique)

**Lab Sample ID: MB 160-93312/1-A** — **Client Sample ID: Method Blank**
**Matrix: Solid** — **Prep Type: Total/NA**
**Analysis Batch: 93523** — **Prep Batch: 93312**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Mercury | 0.010 | U | 0.030 | 0.010 | mg/Kg | | 12/19/13 09:05 | 12/19/13 17:21 | 1 |

**Lab Sample ID: LCS 160-93312/2-A** — **Client Sample ID: Lab Control Sample**
**Matrix: Solid** — **Prep Type: Total/NA**
**Analysis Batch: 93523** — **Prep Batch: 93312**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|
| Mercury | 16.3 | 16.5 | | mg/Kg | | 101 | 51 - 148 |

## Method: 300.0 - Anions, Ion Chromatography

**Lab Sample ID: MB 160-92246/9** — **Client Sample ID: Method Blank**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 92246**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Nitrate as N | 0.0040 | U | 0.020 | 0.0040 | mg/L | | | 12/14/13 17:38 | 1 |
| Chloride | 0.020 | U | 0.20 | 0.020 | mg/L | | | 12/14/13 17:38 | 1 |

**Lab Sample ID: LCS 160-92246/10** — **Client Sample ID: Lab Control Sample**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 92246**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|
| Nitrate as N | 0.400 | 0.382 | | mg/L | | 96 | 90 - 110 |
| Chloride | 2.00 | 1.94 | | mg/L | | 97 | 90 - 110 |

**Lab Sample ID: 680-97124-15 MS** — **Client Sample ID: RINSATE**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 92246**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|---|---|
| Nitrate as N | 0.23 | | 0.400 | 0.617 | | mg/L | | 96 | 90 - 110 |
| Chloride | 4.8 | | 2.00 | 7.09 | F | mg/L | | 113 | 90 - 110 |

## Method: 300.0 - Anions, Ion Chromatography (Continued)

**Lab Sample ID: 680-97124-15 MSD** — **Client Sample ID: RINSATE**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 92246**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Nitrate as N | 0.23 | | 0.400 | 0.615 | | mg/L | | 96 | 90 - 110 | 0 | 20 |
| Chloride | 4.8 | | 2.00 | 7.12 | F | mg/L | | 114 | 90 - 110 | 0 | 20 |

**Lab Sample ID: MB 160-94529/9** — **Client Sample ID: Method Blank**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 94529**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Sulfate | 0.050 | U | 0.50 | 0.050 | mg/L | | | 12/16/13 12:32 | 1 |

**Lab Sample ID: LCS 160-94529/10** — **Client Sample ID: Lab Control Sample**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 94529**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|
| Sulfate | 8.00 | 7.68 | | mg/L | | 96 | 90 - 110 |

**Lab Sample ID: 680-97124-15 MS** — **Client Sample ID: RINSATE**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 94529**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|---|---|
| Sulfate | 5.2 | | 4.00 | 9.08 | | mg/L | | 97 | 90 - 110 |

**Lab Sample ID: 680-97124-15 MSD** — **Client Sample ID: RINSATE**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 94529**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Sulfate | 5.2 | | 4.00 | 9.03 | | mg/L | | 96 | 90 - 110 | 1 | 20 |

**Lab Sample ID: MB 160-97083/1-A** — **Client Sample ID: Method Blank**
**Matrix: Solid** — **Prep Type: Soluble**
**Analysis Batch: 99083**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Nitrate as N | 0.040 | U | 0.20 | 0.040 | mg/Kg | | | 01/14/14 23:14 | 1 |
| Chloride | 0.20 | U | 2.0 | 0.20 | mg/Kg | | | 01/14/14 23:14 | 1 |
| Sulfate | 0.50 | U | 5.0 | 0.50 | mg/Kg | | | 01/14/14 23:14 | 1 |

**Lab Sample ID: LCS 160-97083/2-A** — **Client Sample ID: Lab Control Sample**
**Matrix: Solid** — **Prep Type: Soluble**
**Analysis Batch: 99083**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|
| Nitrate as N | 4.02 | 3.99 | | mg/Kg | | 99 | 90 - 110 |
| Chloride | 20.1 | 19.3 | | mg/Kg | | 96 | 90 - 110 |
| Sulfate | 80.4 | 76.4 | | mg/Kg | | 95 | 90 - 110 |

## Method: 300.0 - Anions, Ion Chromatography (Continued)

**Lab Sample ID: 680-97124-2 MS** — **Client Sample ID: PP-B-1 11-13**
**Matrix: Solid** — **Prep Type: Soluble**
**Analysis Batch: 99083**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|---|---|
| Nitrate as N | 2.1 | H | 4.32 | 6.64 | | mg/Kg | ☼ | 104 | 90 - 110 |
| Sulfate | 24 | H | 43.2 | 65.9 | | mg/Kg | ☼ | 98 | 90 - 110 |

**Lab Sample ID: 680-97124-2 MSD** — **Client Sample ID: PP-B-1 11-13**
**Matrix: Solid** — **Prep Type: Soluble**
**Analysis Batch: 99083**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Nitrate as N | 2.1 | H | 4.32 | 6.61 | | mg/Kg | ☼ | 103 | 90 - 110 | 0 | 20 |
| Sulfate | 24 | H | 43.2 | 65.5 | | mg/Kg | ☼ | 97 | 90 - 110 | 1 | 20 |

**Lab Sample ID: 680-97124-11 MS** — **Client Sample ID: P-B-11_SS**
**Matrix: Solid** — **Prep Type: Soluble**
**Analysis Batch: 99083**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|---|---|
| Nitrate as N | 0.63 | H | 4.26 | 4.75 | | mg/Kg | ☼ | 97 | 90 - 110 |
| Sulfate | 26 | H | 42.6 | 68.2 | | mg/Kg | ☼ | 98 | 90 - 110 |

## Method: 300.0 - Anions, Ion Chromatography - DL

**Lab Sample ID: 680-97124-2 MS** — **Client Sample ID: PP-B-1 11-13**
**Matrix: Solid** — **Prep Type: Soluble**
**Analysis Batch: 99083**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|---|---|
| Chloride - DL | 290 | H | 432 | 733 | | mg/Kg | ☼ | 103 | 90 - 110 |

**Lab Sample ID: 680-97124-2 MSD** — **Client Sample ID: PP-B-1 11-13**
**Matrix: Solid** — **Prep Type: Soluble**
**Analysis Batch: 99083**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride - DL | 290 | H | 432 | 732 | | mg/Kg | ☼ | 103 | 90 - 110 | 0 | 20 |

**Lab Sample ID: 680-97124-11 MS** — **Client Sample ID: P-B-11_SS**
**Matrix: Solid** — **Prep Type: Soluble**
**Analysis Batch: 99083**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|---|---|
| Chloride - DL | 150 | H | 426 | 564 | | mg/Kg | ☼ | 97 | 90 - 110 |

## Method: 900.0 - Gross Alpha and Gross Beta Radioactivity

**Lab Sample ID: MB 160-100320/1-A** — **Client Sample ID: Method Blank**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 101293** — **Prep Batch: 100320**

| Analyte | MB Result | MB Qualifier | RL | MDC | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Gross Alpha | 0.3577 | U | 3.00 | 1.40 | pCi/L | | 01/21/14 11:29 | 01/27/14 08:11 | 1 |
| Gross Beta | -0.2950 | U | 4.00 | 0.925 | pCi/L | | 01/21/14 11:29 | 01/27/14 08:11 | 1 |

**Lab Sample ID: LCS 160-100320/2-A** — **Client Sample ID: Lab Control Sample**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 101293** — **Prep Batch: 100320**

| Analyte | Spike Added | LCS Result | LCS Qual | Total Uncert. (2σ+/-) | MDC | Unit | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|---|
| Gross Alpha | 53.7 | 47.86 | | 7.03 | 2.04 | pCi/L | 89 | 75 - 125 |

**Lab Sample ID: LCSB 160-100320/3-A** — **Client Sample ID: Lab Control Sample**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 101293** — **Prep Batch: 100320**

| Analyte | Spike Added | LCSB Result | LCSB Qual | Total Uncert. (2σ+/-) | MDC | Unit | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|---|
| Gross Beta | 98.1 | 104.4 | | 11.0 | 0.982 | pCi/L | 106 | 75 - 125 |

**Lab Sample ID: MB 160-96736/1-A** — **Client Sample ID: Method Blank**
**Matrix: Solid** — **Prep Type: Total/NA**
**Analysis Batch: 96785** — **Prep Batch: 96736**

| Analyte | MB Result | MB Qualifier | RL | MDC | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Gross Alpha | 1.635 | U | 10.0 | 5.24 | pCi/g | | 01/08/14 10:52 | 01/08/14 16:18 | 1 |
| Gross Beta | 3.432 | | 10.0 | 2.48 | pCi/g | | 01/08/14 10:52 | 01/08/14 16:18 | 1 |

**Lab Sample ID: LCS 160-96736/2-A** — **Client Sample ID: Lab Control Sample**
**Matrix: Solid** — **Prep Type: Total/NA**
**Analysis Batch: 96785** — **Prep Batch: 96736**

| Analyte | Spike Added | LCS Result | LCS Qual | Total Uncert. (2σ+/-) | MDC | Unit | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|---|
| Gross Alpha | 27.1 | 31.29 | | 7.61 | 5.49 | pCi/g | 115 | 44 - 140 |
| Gross Beta | 26.8 | 26.01 | | 4.42 | 3.29 | pCi/g | 97 | 38 - 130 |

## Method: 901.1 - Radium-226 & Other Gamma Emitters (GS)

**Lab Sample ID: MB 160-94333/1-A** — **Client Sample ID: Method Blank**
**Matrix: Solid** — **Prep Type: Total/NA**
**Analysis Batch: 98110** — **Prep Batch: 94333**

| Analyte | MB Result | MB Qualifier | RL | MDC | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Actinium 228 | 0.1208 | U | | 0.393 | pCi/g | | 12/23/13 16:53 | 01/14/14 20:01 | 1 |
| Bismuth-212 | -0.1137 | U | | 1.56 | pCi/g | | 12/23/13 16:53 | 01/14/14 20:01 | 1 |
| Bismuth-214 | 0.06744 | U | | 0.204 | pCi/g | | 12/23/13 16:53 | 01/14/14 20:01 | 1 |
| Bismuth-210M | 0.02172 | U | | 0.132 | pCi/g | | 12/23/13 16:53 | 01/14/14 20:01 | 1 |
| Cesium-134 | 0.01890 | U | | 0.0532 | pCi/g | | 12/23/13 16:53 | 01/14/14 20:01 | 1 |
| Cesium-137 | 0.0000 | U | | 0.0658 | pCi/g | | 12/23/13 16:53 | 01/14/14 20:01 | 1 |

## Method: 901.1 - Radium-226 & Other Gamma Emitters (GS) (Continued)

**Lab Sample ID: MB 160-94333/1-A** — **Client Sample ID: Method Blank**
**Matrix: Solid** — **Prep Type: Total/NA**
**Analysis Batch: 98110** — **Prep Batch: 94333**

| Analyte | MB Result | MB Qualifier | RL | MDC | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Cobalt-57 | 0.0000 | U | | 0.0580 | pCi/g | | 12/23/13 16:53 | 01/14/14 20:01 | 1 |
| Cobalt-60 | 0.0000 | U | | 0.377 | pCi/g | | 12/23/13 16:53 | 01/14/14 20:01 | 1 |
| Lead-212 | -0.03959 | U | | 0.157 | pCi/g | | 12/23/13 16:53 | 01/14/14 20:01 | 1 |
| Lead-214 | -0.01117 | U | | 0.239 | pCi/g | | 12/23/13 16:53 | 01/14/14 20:01 | 1 |
| Potassium-40 | -0.08341 | U | | 1.76 | pCi/g | | 12/23/13 16:53 | 01/14/14 20:01 | 1 |
| Protactinium-231 | 0.07350 | U | | 3.03 | pCi/g | | 12/23/13 16:53 | 01/14/14 20:01 | 1 |
| Protactinium-234 | 0.05108 | U | | 0.174 | pCi/g | | 12/23/13 16:53 | 01/14/14 20:01 | 1 |
| Radium-224 | -0.04467 | U | | 1.78 | pCi/g | | 12/23/13 16:53 | 01/14/14 20:01 | 1 |
| Thallium-208 | -0.05488 | U | | 0.158 | pCi/g | | 12/23/13 16:53 | 01/14/14 20:01 | 1 |
| Thorium-227 | 0.01782 | U | | 0.539 | pCi/g | | 12/23/13 16:53 | 01/14/14 20:01 | 1 |
| Thorium-234 | 0.03218 | U | | 2.05 | pCi/g | | 12/23/13 16:53 | 01/14/14 20:01 | 1 |

**Lab Sample ID: LCS 160-94333/2-A** — **Client Sample ID: Lab Control Sample**
**Matrix: Solid** — **Prep Type: Total/NA**
**Analysis Batch: 98430** — **Prep Batch: 94333**

| Analyte | Spike Added | LCS Result | LCS Qual | Total Uncert. (2σ+/-) | MDC | Unit | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|---|
| Cesium-137 | 31.3 | 30.07 | | 3.24 | 0.320 | pCi/g | 96 | 87 - 120 |
| Cobalt-60 | 23.5 | 22.83 | | 2.37 | 0.181 | pCi/g | 97 | 87 - 115 |
| Americium-241 | 97.5 | 97.06 | | 10.2 | 1.39 | pCi/g | 100 | 87 - 116 |

**Lab Sample ID: 680-97124-1 DU** — **Client Sample ID: PP-B-1 0-4**
**Matrix: Solid** — **Prep Type: Total/NA**
**Analysis Batch: 98120** — **Prep Batch: 94333**

| Analyte | Sample Result | Sample Qual | DU Result | DU Qual | Total Uncert. (2σ+/-) | MDC | Unit | RER | RER Limit |
|---|---|---|---|---|---|---|---|---|---|
| Actinium 228 | 1.58 | | 2.004 | | 0.371 | 0.0862 | pCi/g | 0.64 | 1 |
| Bismuth-212 | 2.05 | | 2.213 | | 0.897 | 0.824 | pCi/g | 0.1 | 1 |
| Bismuth-214 | 1.12 | | 1.100 | | 0.223 | 0.154 | pCi/g | 0.03 | 1 |
| Bismuth-210M | 0.0117 | U | 0.01938 | U | 0.0497 | 0.145 | pCi/g | 0.09 | 1 |
| Cesium-134 | 0.0120 | U | 0.01497 | U | 0.0385 | 0.0622 | pCi/g | 0.03 | 1 |
| Cesium-137 | 0.000 | U | 0.0000 | U | 0.0198 | 0.132 | pCi/g | 0 | 1 |
| Cobalt-57 | -0.0175 | U | -0.008706 | U | 0.0307 | 0.0708 | pCi/g | 0.14 | 1 |
| Cobalt-60 | -0.0163 | U | -0.01291 | U | 0.0577 | 0.104 | pCi/g | 0.03 | 1 |
| Lead-212 | 1.77 | | 1.685 | | 0.279 | 0.179 | pCi/g | 0.16 | 1 |
| Lead-214 | 1.17 | | 1.114 | | 0.235 | 0.183 | pCi/g | 0.12 | 1 |
| Potassium-40 | 25.8 | | 24.79 | | 3.32 | 0.556 | pCi/g | 0.16 | 1 |
| Protactinium-231 | 0.809 | U | -1.252 | U | 1.76 | 2.91 | pCi/g | 0.94 | 1 |
| Protactinium-234 | 0.00852 | U | 0.1106 | U | 0.193 | 0.278 | pCi/g | 0.50 | 1 |
| Radium-224 | 1.82 | U | 1.663 | U | 1.34 | 2.13 | pCi/g | 0.06 | 1 |
| Thallium-208 | 0.579 | | 0.6252 | | 0.126 | 0.0807 | pCi/g | 0.18 | 1 |
| Thorium-227 | -0.00857 | U | -0.03095 | U | 0.134 | 1.84 | pCi/g | 0.12 | 1 |
| Thorium-234 | 1.42 | U | 0.3795 | U | 0.422 | 2.59 | pCi/g | 0.70 | 1 |

## Method: 901.1 - Radium-226 & Other Gamma Emitters (GS) (Continued)

**Lab Sample ID: MB 160-95042/1-A** — **Client Sample ID: Method Blank**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 99417** — **Prep Batch: 95042**

| Analyte | MB Result | MB Qualifier | RL | MDC | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Actinium 228 | 7.496 | U | | 38.1 | pCi/L | | 12/27/13 14:10 | 01/17/14 10:41 | 1 |
| Bismuth-212 | -0.007098 | U | | 118 | pCi/L | | 12/27/13 14:10 | 01/17/14 10:41 | 1 |
| Bismuth-214 | 13.91 | U | | 22.2 | pCi/L | | 12/27/13 14:10 | 01/17/14 10:41 | 1 |
| Bismuth-210M | 0.0000 | U | | 18.1 | pCi/L | | 12/27/13 14:10 | 01/17/14 10:41 | 1 |
| Cesium-134 | 2.247 | U | | 10.7 | pCi/L | | 12/27/13 14:10 | 01/17/14 10:41 | 1 |
| Cesium-137 | 0.2574 | U | | 12.2 | pCi/L | | 12/27/13 14:10 | 01/17/14 10:41 | 1 |
| Cobalt-57 | 3.280 | U | | 5.49 | pCi/L | | 12/27/13 14:10 | 01/17/14 10:41 | 1 |
| Cobalt-60 | 0.4423 | U | | 25.4 | pCi/L | | 12/27/13 14:10 | 01/17/14 10:41 | 1 |
| Lead-212 | 10.69 | U | | 18.0 | pCi/L | | 12/27/13 14:10 | 01/17/14 10:41 | 1 |
| Lead-214 | 4.765 | U | | 25.8 | pCi/L | | 12/27/13 14:10 | 01/17/14 10:41 | 1 |
| Potassium-40 | -29.69 | U | | 197 | pCi/L | | 12/27/13 14:10 | 01/17/14 10:41 | 1 |
| Protactinium-231 | 58.12 | U | | 250 | pCi/L | | 12/27/13 14:10 | 01/17/14 10:41 | 1 |
| Protactinium-234 | 9.002 | U | | 24.0 | pCi/L | | 12/27/13 14:10 | 01/17/14 10:41 | 1 |
| Radium-224 | -71.94 | U | | 234 | pCi/L | | 12/27/13 14:10 | 01/17/14 10:41 | 1 |
| Thallium-208 | -2.160 | U | | 13.3 | pCi/L | | 12/27/13 14:10 | 01/17/14 10:41 | 1 |
| Thorium-227 | -34.02 | U | | 76.0 | pCi/L | | 12/27/13 14:10 | 01/17/14 10:41 | 1 |
| Thorium-231 | 11.41 | U | | 52.4 | pCi/L | | 12/27/13 14:10 | 01/17/14 10:41 | 1 |
| Thorium-234 | 46.74 | U | | 182 | pCi/L | | 12/27/13 14:10 | 01/17/14 10:41 | 1 |

**Lab Sample ID: LCS 160-95042/2-A** — **Client Sample ID: Lab Control Sample**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 99418** — **Prep Batch: 95042**

| Analyte | Spike Added | LCS Result | LCS Qual | Total Uncert. (2σ+/-) | MDC | Unit | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|---|
| Cesium-137 | 50500 | 49600 | | 4980 | 213 | pCi/L | 98 | 90 - 111 |
| Cobalt-60 | 59600 | 58810 | | 5820 | 156 | pCi/L | 99 | 89 - 110 |
| Americium-241 | 137000 | 135700 | | 15700 | 558 | pCi/L | 99 | 90 - 111 |

**Lab Sample ID: 680-97124-15 DU** — **Client Sample ID: RINSATE**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 99402** — **Prep Batch: 95042**

| Analyte | Sample Result | Sample Qual | DU Result | DU Qual | Total Uncert. (2σ+/-) | MDC | Unit | RER | RER Limit |
|---|---|---|---|---|---|---|---|---|---|
| Actinium 228 | 2.98 | U | 3.191 | U | 21.9 | 44.8 | pCi/L | 0.01 | 1 |
| Bismuth-212 | 12.0 | U | 8.462 | U | 60.4 | 113 | pCi/L | 0.03 | 1 |
| Bismuth-214 | 5.81 | U | -8.816 | U | 35.9 | 31.5 | pCi/L | 0.29 | 1 |
| Bismuth-210M | 0.000 | U | -2.515 | U | 9.59 | 16.6 | pCi/L | 0.17 | 1 |
| Cesium-134 | 2.80 | U | 4.673 | U | 6.91 | 9.77 | pCi/L | 0.17 | 1 |
| Cesium-137 | -2.08 | U | 2.044 | U | 6.34 | 11.3 | pCi/L | 0.31 | 1 |
| Cobalt-57 | 3.76 | U | 1.040 | U | 3.10 | 7.61 | pCi/L | 0.37 | 1 |
| Cobalt-60 | -3.98 | U | 2.568 | U | 6.58 | 11.9 | pCi/L | 0.01 | 1 |
| Lead-212 | 8.11 | U | -1.716 | U | 15.8 | 23.8 | pCi/L | 0.38 | 1 |
| Lead-214 | -6.11 | U | 2.991 | U | 13.2 | 25.7 | pCi/L | 0.20 | 1 |
| Potassium-40 | -99.8 | U | -62.64 | U | 249 | 221 | pCi/L | 0 | 1 |
| Protactinium-231 | 44.3 | U | -25.05 | U | 167 | 293 | pCi/L | 0.28 | 1 |
| Protactinium-234 | -7.56 | U | 12.53 | U | 19.8 | 31.8 | pCi/L | 0.51 | 1 |

## Method: 901.1 - Radium-226 & Other Gamma Emitters (GS) (Continued)

**Lab Sample ID: 680-97124-15 DU** — **Client Sample ID: RINSATE**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 99402** — **Prep Batch: 95042**

| Analyte | Sample Result | Sample Qual | DU Result | DU Qual | Total Uncert. (2σ+/-) | MDC | Unit | RER | RER Limit |
|---|---|---|---|---|---|---|---|---|---|
| Radium-224 | 44.2 | U | -6.591 | U | 137 | 239 | pCi/L | 0.21 | 1 |
| Thallium-208 | -0.237 | U | 0.003392 | U | 0.0116 | 15.0 | pCi/L | 0.22 | 1 |
| Thorium-227 | -12.6 | U | 10.53 | U | 32.4 | 65.4 | pCi/L | 0.35 | 1 |
| Thorium-231 | 10.4 | U | 19.78 | U | 32.5 | 60.5 | pCi/L | 0.14 | 1 |
| Thorium-234 | 52.4 | U | 67.44 | U | 67.4 | 222 | pCi/L | 0.11 | 1 |

## Method: 903.0 - Radium-226 (GFPC)

**Lab Sample ID: MB 160-94731/1-A** — **Client Sample ID: Method Blank**
**Matrix: Solid** — **Prep Type: Total/NA**
**Analysis Batch: 99967** — **Prep Batch: 94731**

| Analyte | MB Result | MB Qualifier | RL | MDC | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Radium-226 | 0.04615 | U | 1.00 | 0.116 | pCi/g | | 12/26/13 10:52 | 01/20/14 19:37 | 1 |

| *Carrier* | *MB %Yield* | *MB Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *Ba Carrier* | *97.6* | | *40 - 110* | *12/26/13 10:52* | *01/20/14 19:37* | *1* |

**Lab Sample ID: LCS 160-94731/2-A** — **Client Sample ID: Lab Control Sample**
**Matrix: Solid** — **Prep Type: Total/NA**
**Analysis Batch: 99967** — **Prep Batch: 94731**

| Analyte | Spike Added | LCS Result | LCS Qual | Total Uncert. (2σ+/-) | MDC | Unit | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|---|
| Radium-226 | 11.2 | 11.83 | | 1.19 | 0.128 | pCi/g | 105 | 65 - 140 |

| *Carrier* | *LCS %Yield* | *LCS Qualifier* | *Limits* |
|---|---|---|---|
| *Ba Carrier* | *87.9* | | *40 - 110* |

**Lab Sample ID: 680-97124-1 DU** — **Client Sample ID: PP-B-1 0-4**
**Matrix: Solid** — **Prep Type: Total/NA**
**Analysis Batch: 99967** — **Prep Batch: 94731**

| Analyte | Sample Result | Sample Qual | DU Result | DU Qual | Total Uncert. (2σ+/-) | MDC | Unit | RER | RER Limit |
|---|---|---|---|---|---|---|---|---|---|
| Radium-226 | 1.12 | | 1.101 | | 0.199 | 0.115 | pCi/g | 0.06 | 1 |

| *Carrier* | *DU %Yield* | *DU Qualifier* | *Limits* |
|---|---|---|---|
| *Ba Carrier* | *93.2* | | *40 - 110* |

## Method: 903.0 - Total Alpha-Emitting Radium Isotopes by GFPC

**Lab Sample ID: MB 160-92276/1-A** — **Client Sample ID: Method Blank**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 96771** — **Prep Batch: 92276**

| Analyte | MB Result | MB Qualifier | RL | MDC | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Radium-226 | 0.08417 | U | 1.00 | 0.213 | pCi/L | | 12/16/13 14:09 | 01/08/14 16:16 | 1 |

| *Carrier* | *MB %Yield* | *MB Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *Ba Carrier* | *106* | | *40 - 110* | *12/16/13 14:09* | *01/08/14 16:16* | *1* |

**Lab Sample ID: LCS 160-92276/2-A** — **Client Sample ID: Lab Control Sample**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 96771** — **Prep Batch: 92276**

| Analyte | Spike Added | LCS Result | LCS Qual | Total Uncert. (2σ+/-) | MDC | Unit | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|---|
| Radium-226 | 11.2 | 9.417 | | 1.09 | 0.183 | pCi/L | 84 | 68 - 137 |

| *Carrier* | *LCS %Yield* | *LCS Qualifier* | *Limits* |
|---|---|---|---|
| *Ba Carrier* | *96.5* | | *40 - 110* |

## Method: 904.0 - Radium-228 (GFPC)

**Lab Sample ID: MB 160-92278/1-A** — **Client Sample ID: Method Blank**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 96777** — **Prep Batch: 92278**

| Analyte | MB Result | MB Qualifier | RL | MDC | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Radium-228 | 0.1925 | U | 1.00 | 0.319 | pCi/L | | 12/16/13 14:14 | 01/08/14 12:18 | 1 |

| *Carrier* | *MB %Yield* | *MB Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *Ba Carrier* | *106* | | *40 - 110* | *12/16/13 14:14* | *01/08/14 12:18* | *1* |
| *Y Carrier* | *90.5* | | *40 - 110* | *12/16/13 14:14* | *01/08/14 12:18* | *1* |

**Lab Sample ID: LCS 160-92278/2-A** — **Client Sample ID: Lab Control Sample**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 96777** — **Prep Batch: 92278**

| Analyte | Spike Added | LCS Result | LCS Qual | Total Uncert. (2σ+/-) | MDC | Unit | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|---|
| Radium-228 | 4.02 | 3.871 | | 0.570 | 0.363 | pCi/L | 96 | 56 - 140 |

| *Carrier* | *LCS %Yield* | *LCS Qualifier* | *Limits* |
|---|---|---|---|
| *Ba Carrier* | *96.5* | | *40 - 110* |
| *Y Carrier* | *89.3* | | *40 - 110* |

**Lab Sample ID: MB 160-94735/1-A** — **Client Sample ID: Method Blank**
**Matrix: Solid** — **Prep Type: Total/NA**
**Analysis Batch: 99333** — **Prep Batch: 94735**

| Analyte | MB Result | MB Qualifier | RL | MDC | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Radium-228 | 0.1942 | U | 1.00 | 0.304 | pCi/g | | 12/26/13 11:09 | 01/17/14 11:36 | 1 |

## Method: 904.0 - Radium-228 (GFPC) (Continued)

**Lab Sample ID: MB 160-94735/1-A** — **Client Sample ID: Method Blank**
**Matrix: Solid** — **Prep Type: Total/NA**
**Analysis Batch: 99333** — **Prep Batch: 94735**

| Carrier | MB %Yield | MB Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|
| Ba Carrier | 97.6 | | 40 - 110 | 12/26/13 11:09 | 01/17/14 11:36 | 1 |
| Y Carrier | 90.8 | | 40 - 110 | 12/26/13 11:09 | 01/17/14 11:36 | 1 |

**Lab Sample ID: LCS 160-94735/2-A** — **Client Sample ID: Lab Control Sample**
**Matrix: Solid** — **Prep Type: Total/NA**
**Analysis Batch: 99333** — **Prep Batch: 94735**

| Analyte | Spike Added | LCS Result | LCS Qual | Total Uncert. (2σ+/-) | MDC | Unit | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|---|
| Radium-228 | 4.01 | 4.063 | | 0.611 | 0.429 | pCi/g | 101 | 61 - 139 |

| Carrier | LCS %Yield | LCS Qualifier | Limits |
|---|---|---|---|
| Ba Carrier | 87.9 | | 40 - 110 |
| Y Carrier | 88.2 | | 40 - 110 |

**Lab Sample ID: 680-97124-1 DU** — **Client Sample ID: PP-B-1 0-4**
**Matrix: Solid** — **Prep Type: Total/NA**
**Analysis Batch: 99333** — **Prep Batch: 94735**

| Analyte | Sample Result | Sample Qual | DU Result | DU Qual | Total Uncert. (2σ+/-) | MDC | Unit | RER | RER Limit |
|---|---|---|---|---|---|---|---|---|---|
| Radium-228 | 1.53 | | 1.315 | | 0.333 | 0.378 | pCi/g | 0.32 | 1 |

| Carrier | DU %Yield | DU Qualifier | Limits |
|---|---|---|---|
| Ba Carrier | 92.9 | | 40 - 110 |
| Y Carrier | 93.1 | | 40 - 110 |

## Method: A-01-R - Isotopic Thorium (Alpha Spectrometry)

**Lab Sample ID: MB 160-100386/1-A** — **Client Sample ID: Method Blank**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 100960** — **Prep Batch: 100386**

| Analyte | MB Result | MB Qualifier | RL | MDC | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Thorium-228 | -0.008344 | U | 1.00 | 0.116 | pCi/L | | 01/22/14 08:57 | 01/23/14 22:10 | 1 |
| Thorium-230 | 0.1637 | U | 1.00 | 0.255 | pCi/L | | 01/22/14 08:57 | 01/23/14 22:10 | 1 |
| Thorium-232 | -0.04458 | U | 1.00 | 0.190 | pCi/L | | 01/22/14 08:57 | 01/23/14 22:10 | 1 |

| Tracer | MB %Yield | MB Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|
| Thorium-229 | 83.1 | | 30 - 110 | 01/22/14 08:57 | 01/23/14 22:10 | 1 |

## Method: A-01-R - Isotopic Thorium (Alpha Spectrometry) (Continued)

**Lab Sample ID: LCS 160-100386/2-A** — **Client Sample ID: Lab Control Sample**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 100961** — **Prep Batch: 100386**

| Analyte | Spike Added | LCS Result | LCS Qual | Total Uncert. (2σ+/-) | MDC | Unit | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|---|
| Thorium-230 | 8.64 | 9.640 | | 1.27 | 0.217 | pCi/L | 112 | 81 - 125 |

| *Tracer* | *LCS %Yield* | *LCS Qualifier* | *Limits* |
|---|---|---|---|
| *Thorium-229* | *76.3* | | *30 - 110* |

**Lab Sample ID: LCSD 160-100386/3-A** — **Client Sample ID: Lab Control Sample Dup**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 100977** — **Prep Batch: 100386**

| Analyte | Spike Added | LCSD Result | LCSD Qual | Total Uncert. (2σ+/-) | MDC | Unit | %Rec | %Rec. Limits | RER | RER Limit |
|---|---|---|---|---|---|---|---|---|---|---|
| Thorium-230 | 8.64 | 9.553 | | 1.25 | 0.220 | pCi/L | 111 | 81 - 125 | 0.03 | 1 |

| *Tracer* | *LCSD %Yield* | *LCSD Qualifier* | *Limits* |
|---|---|---|---|
| *Thorium-229* | *77.7* | | *30 - 110* |

**Lab Sample ID: MB 160-98058/1-A** — **Client Sample ID: Method Blank**
**Matrix: Solid** — **Prep Type: Total/NA**
**Analysis Batch: 100486** — **Prep Batch: 98058**

| Analyte | MB Result | MB Qualifier | RL | MDC | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Thorium-228 | 0.06632 | U | 1.00 | 0.0708 | pCi/g | | 01/14/14 10:14 | 01/22/14 03:01 | 1 |
| Thorium-230 | 0.2059 | | 1.00 | 0.0498 | pCi/g | | 01/14/14 10:14 | 01/22/14 03:01 | 1 |
| Thorium-232 | 0.004765 | U | 1.00 | 0.0620 | pCi/g | | 01/14/14 10:14 | 01/22/14 03:01 | 1 |

| *Tracer* | *MB %Yield* | *MB Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *Thorium-229* | *82.7* | | *30 - 110* | *01/14/14 10:14* | *01/22/14 03:01* | *1* |

**Lab Sample ID: LCS 160-98058/2-A** — **Client Sample ID: Lab Control Sample**
**Matrix: Solid** — **Prep Type: Total/NA**
**Analysis Batch: 100487** — **Prep Batch: 98058**

| Analyte | Spike Added | LCS Result | LCS Qual | Total Uncert. (2σ+/-) | MDC | Unit | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|---|
| Thorium-230 | 24.5 | 23.91 | | 2.48 | 0.133 | pCi/g | 98 | 81 - 118 |

| *Tracer* | *LCS %Yield* | *LCS Qualifier* | *Limits* |
|---|---|---|---|
| *Thorium-229* | *85.3* | | *30 - 110* |

**Lab Sample ID: 680-97124-1 DU** — **Client Sample ID: PP-B-1 0-4**
**Matrix: Solid** — **Prep Type: Total/NA**
**Analysis Batch: 100215** — **Prep Batch: 98058**

| Analyte | Sample Result | Sample Qual | DU Result | DU Qual | Total Uncert. (2σ+/-) | MDC | Unit | RER | RER Limit |
|---|---|---|---|---|---|---|---|---|---|
| Thorium-228 | 2.16 | | 2.116 | | 0.381 | 0.0693 | pCi/g | 0.06 | 1 |

## Method: A-01-R - Isotopic Thorium (Alpha Spectrometry) (Continued)

**Lab Sample ID: 680-97124-1 DU** — **Client Sample ID: PP-B-1 0-4**
**Matrix: Solid** — **Prep Type: Total/NA**
**Analysis Batch: 100215** — **Prep Batch: 98058**

| Analyte | Sample Result | Sample Qual | DU Result | DU Qual | Total Uncert. (2σ+/-) | MDC | Unit | RER | RER Limit |
|---|---|---|---|---|---|---|---|---|---|
| Thorium-230 | 1.50 | | 1.167 | | 0.277 | 0.153 | pCi/g | 0.56 | 1 |
| Thorium-232 | 1.74 | | 2.026 | | 0.372 | 0.114 | pCi/g | 0.40 | 1 |

| *Tracer* | *DU %Yield* | *DU Qualifier* | *Limits* |
|---|---|---|---|
| *Thorium-229* | *69.2* | | *30 - 110* |

## Method: A-01-R - Isotopic Uranium (Alpha Spectrometry)

**Lab Sample ID: MB 160-97007/1-A** — **Client Sample ID: Method Blank**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 98989** — **Prep Batch: 97007**

| Analyte | MB Result | MB Qualifier | RL | MDC | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Uranium-235/236 | -0.01043 | U | 1.00 | 0.144 | pCi/L | | 01/09/14 09:41 | 01/16/14 23:39 | 1 |
| U-238 | 0.03623 | U | 1.00 | 0.116 | pCi/L | | 01/09/14 09:41 | 01/16/14 23:39 | 1 |
| Uranium-233/234 | 0.03212 | U | 1.00 | 0.127 | pCi/L | | 01/09/14 09:41 | 01/16/14 23:39 | 1 |

| *Tracer* | *MB %Yield* | *MB Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *Uranium-232* | *85.8* | | *30 - 110* | *01/09/14 09:41* | *01/16/14 23:39* | *1* |

**Lab Sample ID: LCS 160-97007/2-A** — **Client Sample ID: Lab Control Sample**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 98990** — **Prep Batch: 97007**

| Analyte | Spike Added | LCS Result | LCS Qual | Total Uncert. (2σ+/-) | MDC | Unit | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|---|
| Uranium-235/236 | 0.607 | 0.6640 | | 0.310 | 0.105 | pCi/L | 109 | |
| U-238 | 13.0 | 13.00 | | 1.63 | 0.128 | pCi/L | 100 | 83 - 121 |
| Uranium-233/234 | 12.7 | 12.68 | | 1.60 | 0.146 | pCi/L | 100 | 84 - 120 |

| *Tracer* | *LCS %Yield* | *LCS Qualifier* | *Limits* |
|---|---|---|---|
| *Uranium-232* | *70.2* | | *30 - 110* |

**Lab Sample ID: LCSD 160-97007/3-A** — **Client Sample ID: Lab Control Sample Dup**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 98991** — **Prep Batch: 97007**

| Analyte | Spike Added | LCSD Result | LCSD Qual | Total Uncert. (2σ+/-) | MDC | Unit | %Rec | %Rec. Limits | RER | RER Limit |
|---|---|---|---|---|---|---|---|---|---|---|
| Uranium-235/236 | 0.607 | 0.4230 | U | 0.599 | 0.635 | pCi/L | 70 | | 0.27 | 1 |
| U-238 | 13.0 | 14.49 | | 3.38 | 0.965 | pCi/L | 111 | 83 - 121 | 0.30 | 1 |
| Uranium-233/234 | 12.7 | 14.04 | | 3.32 | 0.883 | pCi/L | 110 | 84 - 120 | 0.28 | 1 |

## Method: A-01-R - Isotopic Uranium (Alpha Spectrometry) (Continued)

**Lab Sample ID: LCSD 160-97007/3-A** — **Client Sample ID: Lab Control Sample Dup**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 98991** — **Prep Batch: 97007**

| Tracer | LCSD %Yield | LCSD Qualifier | Limits |
|---|---|---|---|
| *Uranium-232* | *10.8* | *X* | *30 - 110* |

**Lab Sample ID: MB 160-98133/1-A** — **Client Sample ID: Method Blank**
**Matrix: Solid** — **Prep Type: Total/NA**
**Analysis Batch: 100244** — **Prep Batch: 98133**

| Analyte | MB Result | MB Qualifier | RL | MDC | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Uranium-235/236 | 0.01238 | U | 1.00 | 0.0694 | pCi/g | | 01/14/14 10:14 | 01/21/14 17:48 | 1 |
| Uranium-238 | 0.009930 | U | 1.00 | 0.0556 | pCi/g | | 01/14/14 10:14 | 01/21/14 17:48 | 1 |
| Uranium-233/234 | 0.01301 | U | 1.00 | 0.0793 | pCi/g | | 01/14/14 10:14 | 01/21/14 17:48 | 1 |

| Tracer | MB %Yield | MB Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|
| *Uranium-232* | *78.1* | | *30 - 110* | *01/14/14 10:14* | *01/21/14 17:48* | *1* |

**Lab Sample ID: LCS 160-98133/2-A** — **Client Sample ID: Lab Control Sample**
**Matrix: Solid** — **Prep Type: Total/NA**
**Analysis Batch: 100255** — **Prep Batch: 98133**

| Analyte | Spike Added | LCS Result | LCS Qual | Total Uncert. (2σ+/-) | MDC | Unit | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|---|
| Uranium-235/236 | 0.304 | 0.3364 | | 0.140 | 0.0710 | pCi/g | 111 | |
| Uranium-238 | 6.51 | 6.405 | | 0.755 | 0.0569 | pCi/g | 98 | 82 - 122 |
| Uranium-233/234 | 6.37 | 6.182 | | 0.736 | 0.0868 | pCi/g | 97 | 84 - 120 |

| Tracer | LCS %Yield | LCS Qualifier | Limits |
|---|---|---|---|
| *Uranium-232* | *83.2* | | *30 - 110* |

**Lab Sample ID: 680-97124-1 DU** — **Client Sample ID: PP-B-1 0-4**
**Matrix: Solid** — **Prep Type: Total/NA**
**Analysis Batch: 100172** — **Prep Batch: 98133**

| Analyte | Sample Result | Sample Qual | DU Result | DU Qual | Total Uncert. (2σ+/-) | MDC | Unit | RER | RER Limit |
|---|---|---|---|---|---|---|---|---|---|
| Uranium-235/236 | 0.107 | | 0.05436 | U | 0.0575 | 0.0649 | pCi/g | 0.38 | 1 |
| Uranium-238 | 1.13 | | 1.108 | | 0.245 | 0.0778 | pCi/g | 0.05 | 1 |
| Uranium-233/234 | 1.10 | | 1.078 | | 0.241 | 0.0742 | pCi/g | 0.06 | 1 |

| Tracer | DU %Yield | DU Qualifier | Limits |
|---|---|---|---|
| *Uranium-232* | *82.0* | | *30 - 110* |

# QC Association Summary

Client: GEI Consultants, Inc.
Project/Site: TIMET

TestAmerica Job ID: 680-97124-1

## GC/MS Semi VOA

### Prep Batch: 92812

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 680-97124-13 | P-B-10_SS | Total/NA | Solid | 3550C | |
| LCS 160-92812/2-A | Lab Control Sample | Total/NA | Solid | 3550C | |
| MB 160-92812/1-A | Method Blank | Total/NA | Solid | 3550C | |

### Analysis Batch: 93362

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 680-97124-13 | P-B-10_SS | Total/NA | Solid | 8270D | 92812 |
| LCS 160-92812/2-A | Lab Control Sample | Total/NA | Solid | 8270D | 92812 |
| MB 160-92812/1-A | Method Blank | Total/NA | Solid | 8270D | 92812 |

### Prep Batch: 93558

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 680-97124-15 | RINSATE | Total/NA | Water | 3510C | |
| LCS 160-93558/2-A | Lab Control Sample | Total/NA | Water | 3510C | |
| MB 160-93558/1-A | Method Blank | Total/NA | Water | 3510C | |

### Analysis Batch: 96003

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 680-97124-15 | RINSATE | Total/NA | Water | 8270D | 93558 |
| LCS 160-93558/2-A | Lab Control Sample | Total/NA | Water | 8270D | 93558 |
| MB 160-93558/1-A | Method Blank | Total/NA | Water | 8270D | 93558 |

## Specialty Organics

### Prep Batch: 31992

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 680-97124-15 | RINSATE | Total/NA | Water | 8290 | |
| LCS 320-31992/2-A | Lab Control Sample | Total/NA | Water | 8290 | |
| MB 320-31992/1-A | Method Blank | Total/NA | Water | 8290 | |

### Prep Batch: 33192

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 680-97124-15 | RINSATE | Total/NA | Water | HRMS-Sep | |
| LCS 320-33192/2-A | Lab Control Sample | Total/NA | Water | HRMS-Sep | |
| MB 320-33192/1-A | Method Blank | Total/NA | Water | HRMS-Sep | |

### Analysis Batch: 33676

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 680-97124-15 | RINSATE | Total/NA | Water | 8290A | 31992 |
| LCS 320-31992/2-A | Lab Control Sample | Total/NA | Water | 8290A | 31992 |
| MB 320-31992/1-A | Method Blank | Total/NA | Water | 8290A | 31992 |

### Prep Batch: 34244

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 680-97124-11 | P-B-11_SS | Total/NA | Solid | HRMS-Sox | |
| LCS 320-34244/2-A | Lab Control Sample | Total/NA | Solid | HRMS-Sox | |
| MB 320-34244/1-A | Method Blank | Total/NA | Solid | HRMS-Sox | |

## Specialty Organics (Continued)

### Prep Batch: 34660

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 680-97124-13 | P-B-10_SS | Total/NA | Solid | 8290 | |
| 680-97124-13 - RA | P-B-10_SS | Total/NA | Solid | 8290 | |
| LCS 320-34660/2-A | Lab Control Sample | Total/NA | Solid | 8290 | |
| MB 320-34660/1-A | Method Blank | Total/NA | Solid | 8290 | |

### Prep Batch: 34661

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 680-97124-13 | P-B-10_SS | Total/NA | Solid | HRMS-Sox | |
| LCS 320-34661/2-A | Lab Control Sample | Total/NA | Solid | 8290 | |
| MB 320-34661/1-A | Method Blank | Total/NA | Solid | 8290 | |

### Analysis Batch: 35054

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| LCS 320-33192/2-A | Lab Control Sample | Total/NA | Water | 1668C | 33192 |
| MB 320-33192/1-A | Method Blank | Total/NA | Water | 1668C | 33192 |

### Analysis Batch: 35354

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 680-97124-13 | P-B-10_SS | Total/NA | Solid | 8290A | 34660 |
| LCS 320-34660/2-A | Lab Control Sample | Total/NA | Solid | 8290A | 34660 |
| MB 320-34660/1-A | Method Blank | Total/NA | Solid | 8290A | 34660 |

### Analysis Batch: 35524

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 680-97124-13 | P-B-10_SS | Total/NA | Solid | 1668C | 34661 |
| LCS 320-34661/2-A | Lab Control Sample | Total/NA | Solid | 1668C | 34661 |
| MB 320-34661/1-A | Method Blank | Total/NA | Solid | 1668C | 34661 |

### Analysis Batch: 35731

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 680-97124-15 | RINSATE | Total/NA | Water | 1668C | 33192 |

### Analysis Batch: 35733

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 680-97124-11 | P-B-11_SS | Total/NA | Solid | 1668C | 34244 |
| LCS 320-34244/2-A | Lab Control Sample | Total/NA | Solid | 1668C | 34244 |
| MB 320-34244/1-A | Method Blank | Total/NA | Solid | 1668C | 34244 |

### Analysis Batch: 35928

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 680-97124-13 - RA | P-B-10_SS | Total/NA | Solid | 8290A | 34660 |

## Metals

### Prep Batch: 93312

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 680-97124-1 | PP-B-1 0-4 | Total/NA | Solid | 7471B | |
| 680-97124-2 | PP-B-1 11-13 | Total/NA | Solid | 7471B | |
| 680-97124-3 | PP-B-2 0-4 | Total/NA | Solid | 7471B | |
| 680-97124-4 | PP-B-2 7-15 | Total/NA | Solid | 7471B | |

## Metals (Continued)

### Prep Batch: 93312 (Continued)

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 680-97124-5 | FM-B-1 0-2 | Total/NA | Solid | 7471B | |
| 680-97124-6 | FM-B-1 2-4 | Total/NA | Solid | 7471B | |
| 680-97124-7 | FM-B-1 13-15 | Total/NA | Solid | 7471B | |
| 680-97124-8 | FM-B-2 0-2 | Total/NA | Solid | 7471B | |
| 680-97124-9 | FM-B-2 2-4 | Total/NA | Solid | 7471B | |
| 680-97124-10 | FM-B-2 13-15 | Total/NA | Solid | 7471B | |
| 680-97124-11 | P-B-11_SS | Total/NA | Solid | 7471B | |
| 680-97124-12 | P-B-11_SUB | Total/NA | Solid | 7471B | |
| 680-97124-13 | P-B-10_SS | Total/NA | Solid | 7471B | |
| 680-97124-14 | P-B-10_SUB | Total/NA | Solid | 7471B | |
| LCS 160-93312/2-A | Lab Control Sample | Total/NA | Solid | 7471B | |
| MB 160-93312/1-A | Method Blank | Total/NA | Solid | 7471B | |

### Analysis Batch: 93523

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 680-97124-1 | PP-B-1 0-4 | Total/NA | Solid | 7471B | 93312 |
| 680-97124-2 | PP-B-1 11-13 | Total/NA | Solid | 7471B | 93312 |
| 680-97124-3 | PP-B-2 0-4 | Total/NA | Solid | 7471B | 93312 |
| 680-97124-4 | PP-B-2 7-15 | Total/NA | Solid | 7471B | 93312 |
| 680-97124-5 | FM-B-1 0-2 | Total/NA | Solid | 7471B | 93312 |
| 680-97124-6 | FM-B-1 2-4 | Total/NA | Solid | 7471B | 93312 |
| 680-97124-7 | FM-B-1 13-15 | Total/NA | Solid | 7471B | 93312 |
| 680-97124-8 | FM-B-2 0-2 | Total/NA | Solid | 7471B | 93312 |
| 680-97124-9 | FM-B-2 2-4 | Total/NA | Solid | 7471B | 93312 |
| 680-97124-10 | FM-B-2 13-15 | Total/NA | Solid | 7471B | 93312 |
| 680-97124-11 | P-B-11_SS | Total/NA | Solid | 7471B | 93312 |
| 680-97124-12 | P-B-11_SUB | Total/NA | Solid | 7471B | 93312 |
| 680-97124-13 | P-B-10_SS | Total/NA | Solid | 7471B | 93312 |
| 680-97124-14 | P-B-10_SUB | Total/NA | Solid | 7471B | 93312 |
| LCS 160-93312/2-A | Lab Control Sample | Total/NA | Solid | 7471B | 93312 |
| MB 160-93312/1-A | Method Blank | Total/NA | Solid | 7471B | 93312 |

### Prep Batch: 94973

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 680-97124-1 | PP-B-1 0-4 | Total/NA | Solid | 3050B | |
| 680-97124-1 MS | PP-B-1 0-4 | Total/NA | Solid | 3050B | |
| 680-97124-1 MSD | PP-B-1 0-4 | Total/NA | Solid | 3050B | |
| 680-97124-2 | PP-B-1 11-13 | Total/NA | Solid | 3050B | |
| 680-97124-3 | PP-B-2 0-4 | Total/NA | Solid | 3050B | |
| 680-97124-4 | PP-B-2 7-15 | Total/NA | Solid | 3050B | |
| 680-97124-5 | FM-B-1 0-2 | Total/NA | Solid | 3050B | |
| 680-97124-6 | FM-B-1 2-4 | Total/NA | Solid | 3050B | |
| 680-97124-7 | FM-B-1 13-15 | Total/NA | Solid | 3050B | |
| 680-97124-8 | FM-B-2 0-2 | Total/NA | Solid | 3050B | |
| 680-97124-9 | FM-B-2 2-4 | Total/NA | Solid | 3050B | |
| 680-97124-10 | FM-B-2 13-15 | Total/NA | Solid | 3050B | |
| 680-97124-11 | P-B-11_SS | Total/NA | Solid | 3050B | |
| 680-97124-12 | P-B-11_SUB | Total/NA | Solid | 3050B | |
| 680-97124-13 | P-B-10_SS | Total/NA | Solid | 3050B | |
| 680-97124-14 | P-B-10_SUB | Total/NA | Solid | 3050B | |
| LCS 160-94973/2-A | Lab Control Sample | Total/NA | Solid | 3050B | |

## Metals (Continued)

### Prep Batch: 94973 (Continued)

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| MB 160-94973/1-A | Method Blank | Total/NA | Solid | 3050B | |

### Prep Batch: 94976

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 680-97124-1 | PP-B-1 0-4 | Total/NA | Solid | 3050B | |
| 680-97124-1 MS | PP-B-1 0-4 | Total/NA | Solid | 3050B | |
| 680-97124-1 MSD | PP-B-1 0-4 | Total/NA | Solid | 3050B | |
| 680-97124-2 | PP-B-1 11-13 | Total/NA | Solid | 3050B | |
| 680-97124-3 | PP-B-2 0-4 | Total/NA | Solid | 3050B | |
| 680-97124-4 | PP-B-2 7-15 | Total/NA | Solid | 3050B | |
| 680-97124-5 | FM-B-1 0-2 | Total/NA | Solid | 3050B | |
| 680-97124-6 | FM-B-1 2-4 | Total/NA | Solid | 3050B | |
| 680-97124-7 | FM-B-1 13-15 | Total/NA | Solid | 3050B | |
| 680-97124-8 | FM-B-2 0-2 | Total/NA | Solid | 3050B | |
| 680-97124-9 | FM-B-2 2-4 | Total/NA | Solid | 3050B | |
| 680-97124-10 | FM-B-2 13-15 | Total/NA | Solid | 3050B | |
| 680-97124-11 | P-B-11_SS | Total/NA | Solid | 3050B | |
| 680-97124-12 | P-B-11_SUB | Total/NA | Solid | 3050B | |
| 680-97124-13 | P-B-10_SS | Total/NA | Solid | 3050B | |
| 680-97124-14 | P-B-10_SUB | Total/NA | Solid | 3050B | |
| LCS 160-94976/19-A | Lab Control Sample | Total/NA | Solid | 3050B | |
| LCS 160-94976/2-A | Lab Control Sample | Total/NA | Solid | 3050B | |
| MB 160-94976/1-A | Method Blank | Total/NA | Solid | 3050B | |

### Analysis Batch: 95862

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 680-97124-1 | PP-B-1 0-4 | Total/NA | Solid | 6020A | 94976 |
| 680-97124-1 MS | PP-B-1 0-4 | Total/NA | Solid | 6020A | 94976 |
| 680-97124-1 MSD | PP-B-1 0-4 | Total/NA | Solid | 6020A | 94976 |
| 680-97124-2 | PP-B-1 11-13 | Total/NA | Solid | 6020A | 94976 |
| 680-97124-3 | PP-B-2 0-4 | Total/NA | Solid | 6020A | 94976 |
| 680-97124-4 | PP-B-2 7-15 | Total/NA | Solid | 6020A | 94976 |
| 680-97124-5 | FM-B-1 0-2 | Total/NA | Solid | 6020A | 94976 |
| 680-97124-6 | FM-B-1 2-4 | Total/NA | Solid | 6020A | 94976 |
| 680-97124-7 | FM-B-1 13-15 | Total/NA | Solid | 6020A | 94976 |
| 680-97124-8 | FM-B-2 0-2 | Total/NA | Solid | 6020A | 94976 |
| 680-97124-9 | FM-B-2 2-4 | Total/NA | Solid | 6020A | 94976 |
| 680-97124-10 | FM-B-2 13-15 | Total/NA | Solid | 6020A | 94976 |
| 680-97124-11 | P-B-11_SS | Total/NA | Solid | 6020A | 94976 |
| 680-97124-12 | P-B-11_SUB | Total/NA | Solid | 6020A | 94976 |
| 680-97124-13 | P-B-10_SS | Total/NA | Solid | 6020A | 94976 |
| 680-97124-14 | P-B-10_SUB | Total/NA | Solid | 6020A | 94976 |
| LCS 160-94976/19-A | Lab Control Sample | Total/NA | Solid | 6020A | 94976 |
| LCS 160-94976/2-A | Lab Control Sample | Total/NA | Solid | 6020A | 94976 |
| MB 160-94976/1-A | Method Blank | Total/NA | Solid | 6020A | 94976 |

### Prep Batch: 96024

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 680-97124-15 | RINSATE | Total/NA | Water | 3010A | |
| LCS 160-96024/2-A | Lab Control Sample | Total/NA | Water | 3010A | |
| MB 160-96024/1-A | Method Blank | Total/NA | Water | 3010A | |

## Metals (Continued)

### Prep Batch: 96025

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 680-97124-15 | RINSATE | Total/NA | Water | 3010A | |
| LCS 160-96025/2-A | Lab Control Sample | Total/NA | Water | 3010A | |
| MB 160-96025/1-A | Method Blank | Total/NA | Water | 3010A | |

### Analysis Batch: 96510

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 680-97124-8 | FM-B-2 0-2 | Total/NA | Solid | 6020A | 94976 |

### Prep Batch: 96983

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 680-97124-15 | RINSATE | Total/NA | Water | 7470A | |
| LCS 160-96983/2-A | Lab Control Sample | Total/NA | Water | 7470A | |
| MB 160-96983/1-A | Method Blank | Total/NA | Water | 7470A | |

### Analysis Batch: 96993

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 680-97124-15 | RINSATE | Total/NA | Water | 6020A | 96024 |
| LCS 160-96024/2-A | Lab Control Sample | Total/NA | Water | 6020A | 96024 |
| MB 160-96024/1-A | Method Blank | Total/NA | Water | 6020A | 96024 |

### Analysis Batch: 97021

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 680-97124-15 | RINSATE | Total/NA | Water | 6010C | 96025 |
| LCS 160-96025/2-A | Lab Control Sample | Total/NA | Water | 6010C | 96025 |
| MB 160-96025/1-A | Method Blank | Total/NA | Water | 6010C | 96025 |

### Analysis Batch: 97053

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 680-97124-15 | RINSATE | Total/NA | Water | 7470A | 96983 |
| LCS 160-96983/2-A | Lab Control Sample | Total/NA | Water | 7470A | 96983 |
| MB 160-96983/1-A | Method Blank | Total/NA | Water | 7470A | 96983 |

### Analysis Batch: 97291

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 680-97124-1 | PP-B-1 0-4 | Total/NA | Solid | 6010C | 94973 |
| 680-97124-1 MS | PP-B-1 0-4 | Total/NA | Solid | 6010C | 94973 |
| 680-97124-1 MSD | PP-B-1 0-4 | Total/NA | Solid | 6010C | 94973 |
| 680-97124-2 | PP-B-1 11-13 | Total/NA | Solid | 6010C | 94973 |
| 680-97124-3 | PP-B-2 0-4 | Total/NA | Solid | 6010C | 94973 |
| 680-97124-4 | PP-B-2 7-15 | Total/NA | Solid | 6010C | 94973 |
| 680-97124-5 | FM-B-1 0-2 | Total/NA | Solid | 6010C | 94973 |
| 680-97124-6 | FM-B-1 2-4 | Total/NA | Solid | 6010C | 94973 |
| 680-97124-7 | FM-B-1 13-15 | Total/NA | Solid | 6010C | 94973 |
| 680-97124-8 | FM-B-2 0-2 | Total/NA | Solid | 6010C | 94973 |
| 680-97124-9 | FM-B-2 2-4 | Total/NA | Solid | 6010C | 94973 |
| 680-97124-10 | FM-B-2 13-15 | Total/NA | Solid | 6010C | 94973 |
| 680-97124-11 | P-B-11_SS | Total/NA | Solid | 6010C | 94973 |
| 680-97124-12 | P-B-11_SUB | Total/NA | Solid | 6010C | 94973 |
| 680-97124-13 | P-B-10_SS | Total/NA | Solid | 6010C | 94973 |
| 680-97124-14 | P-B-10_SUB | Total/NA | Solid | 6010C | 94973 |
| LCS 160-94973/2-A | Lab Control Sample | Total/NA | Solid | 6010C | 94973 |

## Metals (Continued)

### Analysis Batch: 97291 (Continued)

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| MB 160-94973/1-A | Method Blank | Total/NA | Solid | 6010C | 94973 |

### Analysis Batch: 98404

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 680-97124-1 | PP-B-1 0-4 | Total/NA | Solid | 6010C | 94973 |
| 680-97124-1 MS | PP-B-1 0-4 | Total/NA | Solid | 6010C | 94973 |
| 680-97124-1 MSD | PP-B-1 0-4 | Total/NA | Solid | 6010C | 94973 |
| 680-97124-2 | PP-B-1 11-13 | Total/NA | Solid | 6010C | 94973 |
| 680-97124-3 | PP-B-2 0-4 | Total/NA | Solid | 6010C | 94973 |
| 680-97124-4 | PP-B-2 7-15 | Total/NA | Solid | 6010C | 94973 |
| 680-97124-5 | FM-B-1 0-2 | Total/NA | Solid | 6010C | 94973 |
| 680-97124-6 | FM-B-1 2-4 | Total/NA | Solid | 6010C | 94973 |
| 680-97124-7 | FM-B-1 13-15 | Total/NA | Solid | 6010C | 94973 |
| 680-97124-8 | FM-B-2 0-2 | Total/NA | Solid | 6010C | 94973 |
| 680-97124-9 | FM-B-2 2-4 | Total/NA | Solid | 6010C | 94973 |
| 680-97124-10 | FM-B-2 13-15 | Total/NA | Solid | 6010C | 94973 |
| 680-97124-11 | P-B-11_SS | Total/NA | Solid | 6010C | 94973 |
| 680-97124-12 | P-B-11_SUB | Total/NA | Solid | 6010C | 94973 |
| 680-97124-13 | P-B-10_SS | Total/NA | Solid | 6010C | 94973 |
| 680-97124-14 | P-B-10_SUB | Total/NA | Solid | 6010C | 94973 |
| LCS 160-94973/2-A | Lab Control Sample | Total/NA | Solid | 6010C | 94973 |
| MB 160-94973/1-A | Method Blank | Total/NA | Solid | 6010C | 94973 |

## General Chemistry

### Analysis Batch: 92246

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 680-97124-15 | RINSATE | Total/NA | Water | 300.0 | |
| 680-97124-15 MS | RINSATE | Total/NA | Water | 300.0 | |
| 680-97124-15 MSD | RINSATE | Total/NA | Water | 300.0 | |
| LCS 160-92246/10 | Lab Control Sample | Total/NA | Water | 300.0 | |
| MB 160-92246/9 | Method Blank | Total/NA | Water | 300.0 | |

### Analysis Batch: 93514

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 680-97124-1 | PP-B-1 0-4 | Total/NA | Solid | Moisture | |
| 680-97124-1 DU | PP-B-1 0-4 | Total/NA | Solid | Moisture | |
| 680-97124-2 | PP-B-1 11-13 | Total/NA | Solid | Moisture | |
| 680-97124-3 | PP-B-2 0-4 | Total/NA | Solid | Moisture | |
| 680-97124-4 | PP-B-2 7-15 | Total/NA | Solid | Moisture | |
| 680-97124-5 | FM-B-1 0-2 | Total/NA | Solid | Moisture | |
| 680-97124-6 | FM-B-1 2-4 | Total/NA | Solid | Moisture | |
| 680-97124-7 | FM-B-1 13-15 | Total/NA | Solid | Moisture | |
| 680-97124-8 | FM-B-2 0-2 | Total/NA | Solid | Moisture | |
| 680-97124-9 | FM-B-2 2-4 | Total/NA | Solid | Moisture | |
| 680-97124-10 | FM-B-2 13-15 | Total/NA | Solid | Moisture | |
| 680-97124-11 | P-B-11_SS | Total/NA | Solid | Moisture | |
| 680-97124-12 | P-B-11_SUB | Total/NA | Solid | Moisture | |
| 680-97124-13 | P-B-10_SS | Total/NA | Solid | Moisture | |
| 680-97124-14 | P-B-10_SUB | Total/NA | Solid | Moisture | |

## General Chemistry (Continued)

### Analysis Batch: 94529

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 680-97124-15 | RINSATE | Total/NA | Water | 300.0 | |
| 680-97124-15 MS | RINSATE | Total/NA | Water | 300.0 | |
| 680-97124-15 MSD | RINSATE | Total/NA | Water | 300.0 | |
| LCS 160-94529/10 | Lab Control Sample | Total/NA | Water | 300.0 | |
| MB 160-94529/9 | Method Blank | Total/NA | Water | 300.0 | |

### Leach Batch: 97083

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 680-97124-1 - DL | PP-B-1 0-4 | Soluble | Solid | DI Leach | |
| 680-97124-1 | PP-B-1 0-4 | Soluble | Solid | DI Leach | |
| 680-97124-2 | PP-B-1 11-13 | Soluble | Solid | DI Leach | |
| 680-97124-2 - DL | PP-B-1 11-13 | Soluble | Solid | DI Leach | |
| 680-97124-2 MS - DL | PP-B-1 11-13 | Soluble | Solid | DI Leach | |
| 680-97124-2 MS | PP-B-1 11-13 | Soluble | Solid | DI Leach | |
| 680-97124-2 MSD | PP-B-1 11-13 | Soluble | Solid | DI Leach | |
| 680-97124-2 MSD - DL | PP-B-1 11-13 | Soluble | Solid | DI Leach | |
| 680-97124-3 | PP-B-2 0-4 | Soluble | Solid | DI Leach | |
| 680-97124-3 - DL2 | PP-B-2 0-4 | Soluble | Solid | DI Leach | |
| 680-97124-3 - DL | PP-B-2 0-4 | Soluble | Solid | DI Leach | |
| 680-97124-4 - DL2 | PP-B-2 7-15 | Soluble | Solid | DI Leach | |
| 680-97124-4 - DL | PP-B-2 7-15 | Soluble | Solid | DI Leach | |
| 680-97124-4 | PP-B-2 7-15 | Soluble | Solid | DI Leach | |
| 680-97124-5 | FM-B-1 0-2 | Soluble | Solid | DI Leach | |
| 680-97124-5 - DL | FM-B-1 0-2 | Soluble | Solid | DI Leach | |
| 680-97124-6 | FM-B-1 2-4 | Soluble | Solid | DI Leach | |
| 680-97124-7 | FM-B-1 13-15 | Soluble | Solid | DI Leach | |
| 680-97124-8 | FM-B-2 0-2 | Soluble | Solid | DI Leach | |
| 680-97124-8 - DL | FM-B-2 0-2 | Soluble | Solid | DI Leach | |
| 680-97124-9 | FM-B-2 2-4 | Soluble | Solid | DI Leach | |
| 680-97124-9 - DL | FM-B-2 2-4 | Soluble | Solid | DI Leach | |
| 680-97124-10 | FM-B-2 13-15 | Soluble | Solid | DI Leach | |
| 680-97124-10 - DL | FM-B-2 13-15 | Soluble | Solid | DI Leach | |
| 680-97124-11 | P-B-11_SS | Soluble | Solid | DI Leach | |
| 680-97124-11 - DL | P-B-11_SS | Soluble | Solid | DI Leach | |
| 680-97124-11 MS - DL | P-B-11_SS | Soluble | Solid | DI Leach | |
| 680-97124-11 MS | P-B-11_SS | Soluble | Solid | DI Leach | |
| 680-97124-12 - DL | P-B-11_SUB | Soluble | Solid | DI Leach | |
| 680-97124-13 - DL | P-B-10_SS | Soluble | Solid | DI Leach | |
| 680-97124-13 - DL2 | P-B-10_SS | Soluble | Solid | DI Leach | |
| 680-97124-14 - DL | P-B-10_SUB | Soluble | Solid | DI Leach | |
| 680-97124-14 - DL2 | P-B-10_SUB | Soluble | Solid | DI Leach | |
| 680-97124-14 | P-B-10_SUB | Soluble | Solid | DI Leach | |
| LCS 160-97083/2-A | Lab Control Sample | Soluble | Solid | DI Leach | |
| MB 160-97083/1-A | Method Blank | Soluble | Solid | DI Leach | |

### Analysis Batch: 99083

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 680-97124-1 | PP-B-1 0-4 | Soluble | Solid | 300.0 | 97083 |
| 680-97124-1 - DL | PP-B-1 0-4 | Soluble | Solid | 300.0 | 97083 |
| 680-97124-2 | PP-B-1 11-13 | Soluble | Solid | 300.0 | 97083 |
| 680-97124-2 - DL | PP-B-1 11-13 | Soluble | Solid | 300.0 | 97083 |

## General Chemistry (Continued)

### Analysis Batch: 99083 (Continued)

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 680-97124-2 MS | PP-B-1 11-13 | Soluble | Solid | 300.0 | 97083 |
| 680-97124-2 MS - DL | PP-B-1 11-13 | Soluble | Solid | 300.0 | 97083 |
| 680-97124-2 MSD | PP-B-1 11-13 | Soluble | Solid | 300.0 | 97083 |
| 680-97124-2 MSD - DL | PP-B-1 11-13 | Soluble | Solid | 300.0 | 97083 |
| 680-97124-3 | PP-B-2 0-4 | Soluble | Solid | 300.0 | 97083 |
| 680-97124-3 - DL | PP-B-2 0-4 | Soluble | Solid | 300.0 | 97083 |
| 680-97124-3 - DL2 | PP-B-2 0-4 | Soluble | Solid | 300.0 | 97083 |
| 680-97124-4 | PP-B-2 7-15 | Soluble | Solid | 300.0 | 97083 |
| 680-97124-4 - DL | PP-B-2 7-15 | Soluble | Solid | 300.0 | 97083 |
| 680-97124-4 - DL2 | PP-B-2 7-15 | Soluble | Solid | 300.0 | 97083 |
| 680-97124-5 | FM-B-1 0-2 | Soluble | Solid | 300.0 | 97083 |
| 680-97124-5 - DL | FM-B-1 0-2 | Soluble | Solid | 300.0 | 97083 |
| 680-97124-6 | FM-B-1 2-4 | Soluble | Solid | 300.0 | 97083 |
| 680-97124-7 | FM-B-1 13-15 | Soluble | Solid | 300.0 | 97083 |
| 680-97124-8 | FM-B-2 0-2 | Soluble | Solid | 300.0 | 97083 |
| 680-97124-8 - DL | FM-B-2 0-2 | Soluble | Solid | 300.0 | 97083 |
| 680-97124-9 | FM-B-2 2-4 | Soluble | Solid | 300.0 | 97083 |
| 680-97124-9 - DL | FM-B-2 2-4 | Soluble | Solid | 300.0 | 97083 |
| 680-97124-10 | FM-B-2 13-15 | Soluble | Solid | 300.0 | 97083 |
| 680-97124-10 - DL | FM-B-2 13-15 | Soluble | Solid | 300.0 | 97083 |
| 680-97124-11 | P-B-11_SS | Soluble | Solid | 300.0 | 97083 |
| 680-97124-11 - DL | P-B-11_SS | Soluble | Solid | 300.0 | 97083 |
| 680-97124-11 MS | P-B-11_SS | Soluble | Solid | 300.0 | 97083 |
| 680-97124-11 MS - DL | P-B-11_SS | Soluble | Solid | 300.0 | 97083 |
| 680-97124-12 - DL | P-B-11_SUB | Soluble | Solid | 300.0 | 97083 |
| 680-97124-13 - DL | P-B-10_SS | Soluble | Solid | 300.0 | 97083 |
| 680-97124-13 - DL2 | P-B-10_SS | Soluble | Solid | 300.0 | 97083 |
| 680-97124-14 | P-B-10_SUB | Soluble | Solid | 300.0 | 97083 |
| 680-97124-14 - DL | P-B-10_SUB | Soluble | Solid | 300.0 | 97083 |
| 680-97124-14 - DL2 | P-B-10_SUB | Soluble | Solid | 300.0 | 97083 |
| LCS 160-97083/2-A | Lab Control Sample | Soluble | Solid | 300.0 | 97083 |
| MB 160-97083/1-A | Method Blank | Soluble | Solid | 300.0 | 97083 |

## Rad

### Prep Batch: 92276

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 680-97124-15 | RINSATE | Total/NA | Water | PrecSep-21 | |
| LCS 160-92276/2-A | Lab Control Sample | Total/NA | Water | PrecSep-21 | |
| MB 160-92276/1-A | Method Blank | Total/NA | Water | PrecSep-21 | |

### Prep Batch: 92278

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 680-97124-15 | RINSATE | Total/NA | Water | PrecSep_0 | |
| LCS 160-92278/2-A | Lab Control Sample | Total/NA | Water | PrecSep_0 | |
| MB 160-92278/1-A | Method Blank | Total/NA | Water | PrecSep_0 | |

### Leach Batch: 93478

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 680-97124-1 | PP-B-1 0-4 | Total/NA | Solid | Dry and Grind | |

## Rad (Continued)

### Leach Batch: 93478 (Continued)

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 680-97124-1 DU | PP-B-1 0-4 | Total/NA | Solid | Dry and Grind | |
| 680-97124-2 | PP-B-1 11-13 | Total/NA | Solid | Dry and Grind | |
| 680-97124-3 | PP-B-2 0-4 | Total/NA | Solid | Dry and Grind | |
| 680-97124-4 | PP-B-2 7-15 | Total/NA | Solid | Dry and Grind | |
| 680-97124-5 | FM-B-1 0-2 | Total/NA | Solid | Dry and Grind | |
| 680-97124-6 | FM-B-1 2-4 | Total/NA | Solid | Dry and Grind | |
| 680-97124-7 | FM-B-1 13-15 | Total/NA | Solid | Dry and Grind | |
| 680-97124-8 | FM-B-2 0-2 | Total/NA | Solid | Dry and Grind | |
| 680-97124-9 | FM-B-2 2-4 | Total/NA | Solid | Dry and Grind | |
| 680-97124-10 | FM-B-2 13-15 | Total/NA | Solid | Dry and Grind | |
| 680-97124-13 | P-B-10_SS | Total/NA | Solid | Dry and Grind | |
| 680-97124-14 | P-B-10_SUB | Total/NA | Solid | Dry and Grind | |

### Prep Batch: 94333

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 680-97124-1 | PP-B-1 0-4 | Total/NA | Solid | Fill_Geo-21 | 93478 |
| 680-97124-1 DU | PP-B-1 0-4 | Total/NA | Solid | Fill_Geo-21 | 93478 |
| 680-97124-2 | PP-B-1 11-13 | Total/NA | Solid | Fill_Geo-21 | 93478 |
| 680-97124-3 | PP-B-2 0-4 | Total/NA | Solid | Fill_Geo-21 | 93478 |
| 680-97124-4 | PP-B-2 7-15 | Total/NA | Solid | Fill_Geo-21 | 93478 |
| 680-97124-5 | FM-B-1 0-2 | Total/NA | Solid | Fill_Geo-21 | 93478 |
| 680-97124-6 | FM-B-1 2-4 | Total/NA | Solid | Fill_Geo-21 | 93478 |
| 680-97124-7 | FM-B-1 13-15 | Total/NA | Solid | Fill_Geo-21 | 93478 |
| 680-97124-8 | FM-B-2 0-2 | Total/NA | Solid | Fill_Geo-21 | 93478 |
| 680-97124-9 | FM-B-2 2-4 | Total/NA | Solid | Fill_Geo-21 | 93478 |
| 680-97124-10 | FM-B-2 13-15 | Total/NA | Solid | Fill_Geo-21 | 93478 |
| 680-97124-13 | P-B-10_SS | Total/NA | Solid | Fill_Geo-21 | 93478 |
| 680-97124-14 | P-B-10_SUB | Total/NA | Solid | Fill_Geo-21 | 93478 |
| LCS 160-94333/2-A | Lab Control Sample | Total/NA | Solid | Fill_Geo-21 | |
| MB 160-94333/1-A | Method Blank | Total/NA | Solid | Fill_Geo-21 | |

### Prep Batch: 94731

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 680-97124-1 | PP-B-1 0-4 | Total/NA | Solid | DPS-21 | 93478 |
| 680-97124-1 DU | PP-B-1 0-4 | Total/NA | Solid | DPS-21 | 93478 |
| 680-97124-2 | PP-B-1 11-13 | Total/NA | Solid | DPS-21 | 93478 |
| 680-97124-3 | PP-B-2 0-4 | Total/NA | Solid | DPS-21 | 93478 |
| 680-97124-4 | PP-B-2 7-15 | Total/NA | Solid | DPS-21 | 93478 |
| 680-97124-5 | FM-B-1 0-2 | Total/NA | Solid | DPS-21 | 93478 |
| 680-97124-6 | FM-B-1 2-4 | Total/NA | Solid | DPS-21 | 93478 |
| 680-97124-7 | FM-B-1 13-15 | Total/NA | Solid | DPS-21 | 93478 |
| 680-97124-8 | FM-B-2 0-2 | Total/NA | Solid | DPS-21 | 93478 |
| 680-97124-9 | FM-B-2 2-4 | Total/NA | Solid | DPS-21 | 93478 |
| 680-97124-10 | FM-B-2 13-15 | Total/NA | Solid | DPS-21 | 93478 |
| 680-97124-13 | P-B-10_SS | Total/NA | Solid | DPS-21 | 93478 |
| 680-97124-14 | P-B-10_SUB | Total/NA | Solid | DPS-21 | 93478 |
| LCS 160-94731/2-A | Lab Control Sample | Total/NA | Solid | DPS-21 | |
| MB 160-94731/1-A | Method Blank | Total/NA | Solid | DPS-21 | |

## Rad (Continued)

### Prep Batch: 94735

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 680-97124-1 | PP-B-1 0-4 | Total/NA | Solid | DPS-0 | 93478 |
| 680-97124-1 DU | PP-B-1 0-4 | Total/NA | Solid | DPS-0 | 93478 |
| 680-97124-2 | PP-B-1 11-13 | Total/NA | Solid | DPS-0 | 93478 |
| 680-97124-3 | PP-B-2 0-4 | Total/NA | Solid | DPS-0 | 93478 |
| 680-97124-4 | PP-B-2 7-15 | Total/NA | Solid | DPS-0 | 93478 |
| 680-97124-5 | FM-B-1 0-2 | Total/NA | Solid | DPS-0 | 93478 |
| 680-97124-6 | FM-B-1 2-4 | Total/NA | Solid | DPS-0 | 93478 |
| 680-97124-7 | FM-B-1 13-15 | Total/NA | Solid | DPS-0 | 93478 |
| 680-97124-8 | FM-B-2 0-2 | Total/NA | Solid | DPS-0 | 93478 |
| 680-97124-9 | FM-B-2 2-4 | Total/NA | Solid | DPS-0 | 93478 |
| 680-97124-10 | FM-B-2 13-15 | Total/NA | Solid | DPS-0 | 93478 |
| 680-97124-13 | P-B-10_SS | Total/NA | Solid | DPS-0 | 93478 |
| 680-97124-14 | P-B-10_SUB | Total/NA | Solid | DPS-0 | 93478 |
| LCS 160-94735/2-A | Lab Control Sample | Total/NA | Solid | DPS-0 | |
| MB 160-94735/1-A | Method Blank | Total/NA | Solid | DPS-0 | |

### Prep Batch: 95042

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 680-97124-15 | RINSATE | Total/NA | Water | Fill_Geo-21 | |
| 680-97124-15 DU | RINSATE | Total/NA | Water | Fill_Geo-21 | |
| LCS 160-95042/2-A | Lab Control Sample | Total/NA | Water | Fill_Geo-21 | |
| MB 160-95042/1-A | Method Blank | Total/NA | Water | Fill_Geo-21 | |

### Prep Batch: 96736

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 680-97124-1 | PP-B-1 0-4 | Total/NA | Solid | Thin_Layer | 93478 |
| 680-97124-2 | PP-B-1 11-13 | Total/NA | Solid | Thin_Layer | 93478 |
| 680-97124-3 | PP-B-2 0-4 | Total/NA | Solid | Thin_Layer | 93478 |
| 680-97124-4 | PP-B-2 7-15 | Total/NA | Solid | Thin_Layer | 93478 |
| 680-97124-5 | FM-B-1 0-2 | Total/NA | Solid | Thin_Layer | 93478 |
| 680-97124-6 | FM-B-1 2-4 | Total/NA | Solid | Thin_Layer | 93478 |
| 680-97124-7 | FM-B-1 13-15 | Total/NA | Solid | Thin_Layer | 93478 |
| 680-97124-8 | FM-B-2 0-2 | Total/NA | Solid | Thin_Layer | 93478 |
| 680-97124-9 | FM-B-2 2-4 | Total/NA | Solid | Thin_Layer | 93478 |
| 680-97124-10 | FM-B-2 13-15 | Total/NA | Solid | Thin_Layer | 93478 |
| 680-97124-13 | P-B-10_SS | Total/NA | Solid | Thin_Layer | 93478 |
| 680-97124-14 | P-B-10_SUB | Total/NA | Solid | Thin_Layer | 93478 |
| LCS 160-96736/2-A | Lab Control Sample | Total/NA | Solid | Thin_Layer | |
| MB 160-96736/1-A | Method Blank | Total/NA | Solid | Thin_Layer | |

### Prep Batch: 97007

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 680-97124-15 | RINSATE | Total/NA | Water | ExtChrom | |
| LCS 160-97007/2-A | Lab Control Sample | Total/NA | Water | ExtChrom | |
| LCSD 160-97007/3-A | Lab Control Sample Dup | Total/NA | Water | ExtChrom | |
| MB 160-97007/1-A | Method Blank | Total/NA | Water | ExtChrom | |

### Prep Batch: 98058

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 680-97124-1 | PP-B-1 0-4 | Total/NA | Solid | ExtChrom | 93478 |
| 680-97124-1 DU | PP-B-1 0-4 | Total/NA | Solid | ExtChrom | 93478 |

## Rad (Continued)

### Prep Batch: 98058 (Continued)

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 680-97124-2 | PP-B-1 11-13 | Total/NA | Solid | ExtChrom | 93478 |
| 680-97124-3 | PP-B-2 0-4 | Total/NA | Solid | ExtChrom | 93478 |
| 680-97124-4 | PP-B-2 7-15 | Total/NA | Solid | ExtChrom | 93478 |
| 680-97124-5 | FM-B-1 0-2 | Total/NA | Solid | ExtChrom | 93478 |
| 680-97124-6 | FM-B-1 2-4 | Total/NA | Solid | ExtChrom | 93478 |
| 680-97124-7 | FM-B-1 13-15 | Total/NA | Solid | ExtChrom | 93478 |
| 680-97124-8 | FM-B-2 0-2 | Total/NA | Solid | ExtChrom | 93478 |
| 680-97124-9 | FM-B-2 2-4 | Total/NA | Solid | ExtChrom | 93478 |
| 680-97124-10 | FM-B-2 13-15 | Total/NA | Solid | ExtChrom | 93478 |
| 680-97124-13 | P-B-10_SS | Total/NA | Solid | ExtChrom | 93478 |
| 680-97124-14 | P-B-10_SUB | Total/NA | Solid | ExtChrom | 93478 |
| LCS 160-98058/2-A | Lab Control Sample | Total/NA | Solid | ExtChrom | |
| MB 160-98058/1-A | Method Blank | Total/NA | Solid | ExtChrom | |

### Prep Batch: 98133

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 680-97124-1 | PP-B-1 0-4 | Total/NA | Solid | ExtChrom | 93478 |
| 680-97124-1 DU | PP-B-1 0-4 | Total/NA | Solid | ExtChrom | 93478 |
| 680-97124-2 | PP-B-1 11-13 | Total/NA | Solid | ExtChrom | 93478 |
| 680-97124-3 | PP-B-2 0-4 | Total/NA | Solid | ExtChrom | 93478 |
| 680-97124-4 | PP-B-2 7-15 | Total/NA | Solid | ExtChrom | 93478 |
| 680-97124-5 | FM-B-1 0-2 | Total/NA | Solid | ExtChrom | 93478 |
| 680-97124-6 | FM-B-1 2-4 | Total/NA | Solid | ExtChrom | 93478 |
| 680-97124-7 | FM-B-1 13-15 | Total/NA | Solid | ExtChrom | 93478 |
| 680-97124-8 | FM-B-2 0-2 | Total/NA | Solid | ExtChrom | 93478 |
| 680-97124-9 | FM-B-2 2-4 | Total/NA | Solid | ExtChrom | 93478 |
| 680-97124-10 | FM-B-2 13-15 | Total/NA | Solid | ExtChrom | 93478 |
| 680-97124-13 | P-B-10_SS | Total/NA | Solid | ExtChrom | 93478 |
| 680-97124-14 | P-B-10_SUB | Total/NA | Solid | ExtChrom | 93478 |
| LCS 160-98133/2-A | Lab Control Sample | Total/NA | Solid | ExtChrom | |
| MB 160-98133/1-A | Method Blank | Total/NA | Solid | ExtChrom | |

### Prep Batch: 100320

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 680-97124-15 | RINSATE | Total/NA | Water | Evaporation | |
| LCS 160-100320/2-A | Lab Control Sample | Total/NA | Water | Evaporation | |
| LCSB 160-100320/3-A | Lab Control Sample | Total/NA | Water | Evaporation | |
| MB 160-100320/1-A | Method Blank | Total/NA | Water | Evaporation | |

### Prep Batch: 100386

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 680-97124-15 | RINSATE | Total/NA | Water | ExtChrom | |
| LCS 160-100386/2-A | Lab Control Sample | Total/NA | Water | ExtChrom | |
| LCSD 160-100386/3-A | Lab Control Sample Dup | Total/NA | Water | ExtChrom | |
| MB 160-100386/1-A | Method Blank | Total/NA | Water | ExtChrom | |

# Lab Chronicle

Client: GEI Consultants, Inc.
Project/Site: TIMET

TestAmerica Job ID: 680-97124-1

## Client Sample ID: PP-B-1 0-4

Lab Sample ID: 680-97124-1

Date Collected: 12/12/13 08:35
Date Received: 12/14/13 12:00

Matrix: Solid
Percent Solids: 93.1

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Prep | 7471B | | | 93312 | 12/19/13 09:05 | MTS | TAL SL |
| Total/NA | Analysis | 7471B | | 1 | 93523 | 12/19/13 17:40 | MTS | TAL SL |
| Total/NA | Prep | 3050B | | | 94976 | 12/27/13 10:07 | WA1 | TAL SL |
| Total/NA | Analysis | 6020A | | 10 | 95862 | 01/03/14 02:11 | CCB | TAL SL |
| Total/NA | Analysis | 6010C | | 5 | 97291 | 01/10/14 01:15 | KLE | TAL SL |
| Total/NA | Prep | 3050B | | | 94973 | 12/27/13 10:01 | WA1 | TAL SL |
| Total/NA | Analysis | 6010C | | 10 | 98404 | 01/14/14 20:37 | KLE | TAL SL |
| Total/NA | Analysis | Moisture | | 1 | 93514 | 12/20/13 00:55 | SDB | TAL SL |
| Soluble | Leach | DI Leach | | | 97083 | 01/14/14 16:00 | AMF | TAL SL |
| Soluble | Analysis | 300.0 | | 1 | 99083 | 01/14/14 23:44 | AMF | TAL SL |
| Soluble | Leach | DI Leach | DL | | 97083 | 01/14/14 16:00 | AMF | TAL SL |
| Soluble | Analysis | 300.0 | DL | 20 | 99083 | 01/14/14 23:59 | AMF | TAL SL |
| Total/NA | Prep | ExtChrom | | | 98058 | 01/14/14 10:14 | MLM | TAL SL |
| Total/NA | Analysis | A-01-R | | 1 | 100171 | 01/21/14 12:28 | RTM | TAL SL |
| Total/NA | Leach | Dry and Grind | | | 93478 | 12/19/13 15:33 | DRO | TAL SL |
| Total/NA | Prep | ExtChrom | | | 98133 | 01/14/14 10:14 | SCB | TAL SL |
| Total/NA | Analysis | A-01-R | | 1 | 100266 | 01/21/14 17:48 | RTM | TAL SL |
| Total/NA | Leach | Dry and Grind | | | 93478 | 12/19/13 15:33 | DRO | TAL SL |
| Total/NA | Prep | Thin_Layer | | | 96736 | 01/08/14 10:52 | MJS | TAL SL |
| Total/NA | Analysis | 900.0 | | 1 | 96785 | 01/08/14 16:19 | RTM | TAL SL |
| Total/NA | Leach | Dry and Grind | | | 93478 | 12/19/13 15:33 | DRO | TAL SL |
| Total/NA | Prep | Fill_Geo-21 | | | 94333 | 12/23/13 16:53 | MJS | TAL SL |
| Total/NA | Analysis | 901.1 | | 1 | 98113 | 01/14/14 20:01 | EMN | TAL SL |
| Total/NA | Leach | Dry and Grind | | | 93478 | 12/19/13 15:33 | DRO | TAL SL |
| Total/NA | Prep | DPS-0 | | | 94735 | 12/26/13 11:09 | RLS | TAL SL |
| Total/NA | Analysis | 904.0 | | 1 | 99333 | 01/17/14 11:37 | MLK | TAL SL |
| Total/NA | Prep | DPS-21 | | | 94731 | 12/26/13 10:52 | RLS | TAL SL |
| Total/NA | Analysis | 903.0 | | 1 | 99967 | 01/20/14 19:38 | MLK | TAL SL |

## Client Sample ID: PP-B-1 11-13

Lab Sample ID: 680-97124-2

Date Collected: 12/12/13 09:20
Date Received: 12/14/13 12:00

Matrix: Solid
Percent Solids: 91.6

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Prep | 7471B | | | 93312 | 12/19/13 09:05 | MTS | TAL SL |
| Total/NA | Analysis | 7471B | | 1 | 93523 | 12/19/13 17:41 | MTS | TAL SL |
| Total/NA | Prep | 3050B | | | 94976 | 12/27/13 10:07 | WA1 | TAL SL |
| Total/NA | Analysis | 6020A | | 10 | 95862 | 01/03/14 02:38 | CCB | TAL SL |
| Total/NA | Prep | 3050B | | | 94973 | 12/27/13 10:01 | WA1 | TAL SL |
| Total/NA | Analysis | 6010C | | 5 | 97291 | 01/10/14 01:38 | KLE | TAL SL |
| Total/NA | Analysis | 6010C | | 10 | 98404 | 01/14/14 20:52 | KLE | TAL SL |
| Total/NA | Analysis | Moisture | | 1 | 93514 | 12/20/13 00:55 | SDB | TAL SL |
| Soluble | Leach | DI Leach | | | 97083 | 01/14/14 16:00 | AMF | TAL SL |

# Lab Chronicle

Client: GEI Consultants, Inc.
Project/Site: TIMET

TestAmerica Job ID: 680-97124-1

## Client Sample ID: PP-B-1 11-13

Lab Sample ID: 680-97124-2

Date Collected: 12/12/13 09:20
Date Received: 12/14/13 12:00

Matrix: Solid
Percent Solids: 91.6

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|
| Soluble | Analysis | 300.0 | | 1 | 99083 | 01/15/14 00:28 | AMF | TAL SL |
| Soluble | Leach | DI Leach | DL | | 97083 | 01/14/14 16:00 | AMF | TAL SL |
| Soluble | Analysis | 300.0 | DL | 20 | 99083 | 01/15/14 00:43 | AMF | TAL SL |
| Total/NA | Prep | ExtChrom | | | 98133 | 01/14/14 10:14 | SCB | TAL SL |
| Total/NA | Analysis | A-01-R | | 1 | 100183 | 01/21/14 17:48 | RTM | TAL SL |
| Total/NA | Leach | Dry and Grind | | | 93478 | 12/19/13 15:33 | DRO | TAL SL |
| Total/NA | Prep | ExtChrom | | | 98058 | 01/14/14 10:14 | MLM | TAL SL |
| Total/NA | Analysis | A-01-R | | 1 | 100216 | 01/21/14 12:28 | RTM | TAL SL |
| Total/NA | Leach | Dry and Grind | | | 93478 | 12/19/13 15:33 | DRO | TAL SL |
| Total/NA | Prep | Thin_Layer | | | 96736 | 01/08/14 10:52 | MJS | TAL SL |
| Total/NA | Analysis | 900.0 | | 1 | 96785 | 01/08/14 16:19 | RTM | TAL SL |
| Total/NA | Leach | Dry and Grind | | | 93478 | 12/19/13 15:33 | DRO | TAL SL |
| Total/NA | Prep | Fill_Geo-21 | | | 94333 | 12/23/13 16:53 | MJS | TAL SL |
| Total/NA | Analysis | 901.1 | | 1 | 98122 | 01/14/14 19:59 | RTM | TAL SL |
| Total/NA | Prep | DPS-0 | | | 94735 | 12/26/13 11:09 | RLS | TAL SL |
| Total/NA | Analysis | 904.0 | | 1 | 99333 | 01/17/14 11:37 | MLK | TAL SL |
| Total/NA | Leach | Dry and Grind | | | 93478 | 12/19/13 15:33 | DRO | TAL SL |
| Total/NA | Prep | DPS-21 | | | 94731 | 12/26/13 10:52 | RLS | TAL SL |
| Total/NA | Analysis | 903.0 | | 1 | 99967 | 01/20/14 19:38 | MLK | TAL SL |

## Client Sample ID: PP-B-2 0-4

Lab Sample ID: 680-97124-3

Date Collected: 12/12/13 10:20
Date Received: 12/14/13 12:00

Matrix: Solid
Percent Solids: 93.7

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Prep | 7471B | | | 93312 | 12/19/13 09:05 | MTS | TAL SL |
| Total/NA | Analysis | 7471B | | 1 | 93523 | 12/19/13 17:43 | MTS | TAL SL |
| Total/NA | Prep | 3050B | | | 94976 | 12/27/13 10:07 | WA1 | TAL SL |
| Total/NA | Analysis | 6020A | | 10 | 95862 | 01/03/14 02:45 | CCB | TAL SL |
| Total/NA | Prep | 3050B | | | 94973 | 12/27/13 10:01 | WA1 | TAL SL |
| Total/NA | Analysis | 6010C | | 5 | 97291 | 01/10/14 01:42 | KLE | TAL SL |
| Total/NA | Analysis | 6010C | | 10 | 98404 | 01/14/14 20:56 | KLE | TAL SL |
| Total/NA | Analysis | Moisture | | 1 | 93514 | 12/20/13 00:55 | SDB | TAL SL |
| Soluble | Leach | DI Leach | | | 97083 | 01/14/14 16:00 | AMF | TAL SL |
| Soluble | Analysis | 300.0 | | 1 | 99083 | 01/15/14 03:13 | AMF | TAL SL |
| Soluble | Leach | DI Leach | DL | | 97083 | 01/14/14 16:00 | AMF | TAL SL |
| Soluble | Analysis | 300.0 | DL | 20 | 99083 | 01/15/14 03:27 | AMF | TAL SL |
| Soluble | Leach | DI Leach | DL2 | | 97083 | 01/14/14 16:00 | AMF | TAL SL |
| Soluble | Analysis | 300.0 | DL2 | 100 | 99083 | 01/15/14 03:42 | AMF | TAL SL |
| Total/NA | Prep | ExtChrom | | | 98133 | 01/14/14 10:14 | SCB | TAL SL |
| Total/NA | Analysis | A-01-R | | 1 | 100193 | 01/21/14 17:48 | RTM | TAL SL |
| Total/NA | Leach | Dry and Grind | | | 93478 | 12/19/13 15:33 | DRO | TAL SL |
| Total/NA | Prep | ExtChrom | | | 98058 | 01/14/14 10:14 | MLM | TAL SL |
| Total/NA | Analysis | A-01-R | | 1 | 100233 | 01/21/14 12:28 | RTM | TAL SL |

# Lab Chronicle

Client: GEI Consultants, Inc.
Project/Site: TIMET

TestAmerica Job ID: 680-97124-1

## Client Sample ID: PP-B-2 0-4

Lab Sample ID: 680-97124-3

Date Collected: 12/12/13 10:20
Date Received: 12/14/13 12:00

Matrix: Solid

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Leach | Dry and Grind | | | 93478 | 12/19/13 15:33 | DRO | TAL SL |
| Total/NA | Prep | Thin_Layer | | | 96736 | 01/08/14 10:52 | MJS | TAL SL |
| Total/NA | Analysis | 900.0 | | 1 | 96785 | 01/08/14 16:19 | RTM | TAL SL |
| Total/NA | Leach | Dry and Grind | | | 93478 | 12/19/13 15:33 | DRO | TAL SL |
| Total/NA | Prep | Fill_Geo-21 | | | 94333 | 12/23/13 16:53 | MJS | TAL SL |
| Total/NA | Analysis | 901.1 | | 1 | 98110 | 01/14/14 20:42 | EMN | TAL SL |
| Total/NA | Prep | DPS-0 | | | 94735 | 12/26/13 11:09 | RLS | TAL SL |
| Total/NA | Analysis | 904.0 | | 1 | 99333 | 01/17/14 11:37 | MLK | TAL SL |
| Total/NA | Leach | Dry and Grind | | | 93478 | 12/19/13 15:33 | DRO | TAL SL |
| Total/NA | Prep | DPS-21 | | | 94731 | 12/26/13 10:52 | RLS | TAL SL |
| Total/NA | Analysis | 903.0 | | 1 | 99967 | 01/20/14 19:38 | MLK | TAL SL |

## Client Sample ID: PP-B-2 7-15

Lab Sample ID: 680-97124-4

Date Collected: 12/12/13 11:00
Date Received: 12/14/13 12:00

Matrix: Solid
Percent Solids: 93.6

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Prep | 7471B | | | 93312 | 12/19/13 09:05 | MTS | TAL SL |
| Total/NA | Analysis | 7471B | | 1 | 93523 | 12/19/13 17:45 | MTS | TAL SL |
| Total/NA | Prep | 3050B | | | 94976 | 12/27/13 10:07 | WA1 | TAL SL |
| Total/NA | Analysis | 6020A | | 10 | 95862 | 01/03/14 02:52 | CCB | TAL SL |
| Total/NA | Prep | 3050B | | | 94973 | 12/27/13 10:01 | WA1 | TAL SL |
| Total/NA | Analysis | 6010C | | 5 | 97291 | 01/10/14 01:46 | KLE | TAL SL |
| Total/NA | Analysis | 6010C | | 10 | 98404 | 01/14/14 21:00 | KLE | TAL SL |
| Total/NA | Analysis | Moisture | | 1 | 93514 | 12/20/13 00:55 | SDB | TAL SL |
| Soluble | Leach | DI Leach | | | 97083 | 01/14/14 16:00 | AMF | TAL SL |
| Soluble | Analysis | 300.0 | | 1 | 99083 | 01/15/14 04:27 | AMF | TAL SL |
| Soluble | Leach | DI Leach | DL | | 97083 | 01/14/14 16:00 | AMF | TAL SL |
| Soluble | Analysis | 300.0 | DL | 20 | 99083 | 01/15/14 04:42 | AMF | TAL SL |
| Soluble | Leach | DI Leach | DL2 | | 97083 | 01/14/14 16:00 | AMF | TAL SL |
| Soluble | Analysis | 300.0 | DL2 | 100 | 99083 | 01/15/14 04:57 | AMF | TAL SL |
| Total/NA | Leach | Dry and Grind | | | 93478 | 12/19/13 15:33 | DRO | TAL SL |
| Total/NA | Prep | ExtChrom | | | 98133 | 01/14/14 10:14 | SCB | TAL SL |
| Total/NA | Analysis | A-01-R | | 1 | 100205 | 01/21/14 17:48 | RTM | TAL SL |
| Total/NA | Prep | ExtChrom | | | 98058 | 01/14/14 10:14 | MLM | TAL SL |
| Total/NA | Analysis | A-01-R | | 1 | 100244 | 01/21/14 12:28 | RTM | TAL SL |
| Total/NA | Leach | Dry and Grind | | | 93478 | 12/19/13 15:33 | DRO | TAL SL |
| Total/NA | Prep | Thin_Layer | | | 96736 | 01/08/14 10:52 | MJS | TAL SL |
| Total/NA | Analysis | 900.0 | | 1 | 96785 | 01/08/14 16:19 | RTM | TAL SL |
| Total/NA | Leach | Dry and Grind | | | 93478 | 12/19/13 15:33 | DRO | TAL SL |
| Total/NA | Prep | Fill_Geo-21 | | | 94333 | 12/23/13 16:53 | MJS | TAL SL |
| Total/NA | Analysis | 901.1 | | 1 | 98430 | 01/14/14 20:41 | EMN | TAL SL |
| Total/NA | Prep | DPS-0 | | | 94735 | 12/26/13 11:09 | RLS | TAL SL |
| Total/NA | Analysis | 904.0 | | 1 | 99333 | 01/17/14 11:37 | MLK | TAL SL |

# Lab Chronicle

Client: GEI Consultants, Inc.
Project/Site: TIMET

TestAmerica Job ID: 680-97124-1

## Client Sample ID: PP-B-2 7-15

Lab Sample ID: 680-97124-4
Date Collected: 12/12/13 11:00
Matrix: Solid
Date Received: 12/14/13 12:00

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Leach | Dry and Grind | | | 93478 | 12/19/13 15:33 | DRO | TAL SL |
| Total/NA | Prep | DPS-21 | | | 94731 | 12/26/13 10:52 | RLS | TAL SL |
| Total/NA | Analysis | 903.0 | | 1 | 99967 | 01/20/14 19:38 | MLK | TAL SL |

## Client Sample ID: FM-B-1 0-2

Lab Sample ID: 680-97124-5
Date Collected: 12/12/13 12:00
Matrix: Solid
Date Received: 12/14/13 12:00
Percent Solids: 94.9

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Prep | 7471B | | | 93312 | 12/19/13 09:05 | MTS | TAL SL |
| Total/NA | Analysis | 7471B | | 1 | 93523 | 12/19/13 17:46 | MTS | TAL SL |
| Total/NA | Prep | 3050B | | | 94976 | 12/27/13 10:07 | WA1 | TAL SL |
| Total/NA | Analysis | 6020A | | 10 | 95862 | 01/03/14 03:12 | CCB | TAL SL |
| Total/NA | Prep | 3050B | | | 94973 | 12/27/13 10:01 | WA1 | TAL SL |
| Total/NA | Analysis | 6010C | | 5 | 97291 | 01/10/14 01:50 | KLE | TAL SL |
| Total/NA | Analysis | 6010C | | 10 | 98404 | 01/14/14 21:04 | KLE | TAL SL |
| Total/NA | Analysis | Moisture | | 1 | 93514 | 12/20/13 00:55 | SDB | TAL SL |
| Soluble | Leach | DI Leach | | | 97083 | 01/14/14 16:00 | AMF | TAL SL |
| Soluble | Analysis | 300.0 | | 1 | 99083 | 01/15/14 05:12 | AMF | TAL SL |
| Soluble | Leach | DI Leach | DL | | 97083 | 01/14/14 16:00 | AMF | TAL SL |
| Soluble | Analysis | 300.0 | DL | 20 | 99083 | 01/15/14 05:27 | AMF | TAL SL |
| Total/NA | Prep | ExtChrom | | | 98133 | 01/14/14 10:14 | SCB | TAL SL |
| Total/NA | Analysis | A-01-R | | 1 | 100206 | 01/21/14 17:48 | RTM | TAL SL |
| Total/NA | Leach | Dry and Grind | | | 93478 | 12/19/13 15:33 | DRO | TAL SL |
| Total/NA | Prep | ExtChrom | | | 98058 | 01/14/14 10:14 | MLM | TAL SL |
| Total/NA | Analysis | A-01-R | | 1 | 100255 | 01/21/14 12:28 | RTM | TAL SL |
| Total/NA | Leach | Dry and Grind | | | 93478 | 12/19/13 15:33 | DRO | TAL SL |
| Total/NA | Prep | Thin_Layer | | | 96736 | 01/08/14 10:52 | MJS | TAL SL |
| Total/NA | Analysis | 900.0 | | 1 | 96785 | 01/08/14 16:19 | RTM | TAL SL |
| Total/NA | Leach | Dry and Grind | | | 93478 | 12/19/13 15:33 | DRO | TAL SL |
| Total/NA | Prep | Fill_Geo-21 | | | 94333 | 12/23/13 16:53 | MJS | TAL SL |
| Total/NA | Analysis | 901.1 | | 1 | 98113 | 01/14/14 20:42 | EMN | TAL SL |
| Total/NA | Leach | Dry and Grind | | | 93478 | 12/19/13 15:33 | DRO | TAL SL |
| Total/NA | Prep | DPS-0 | | | 94735 | 12/26/13 11:09 | RLS | TAL SL |
| Total/NA | Analysis | 904.0 | | 1 | 99333 | 01/17/14 11:37 | MLK | TAL SL |
| Total/NA | Prep | DPS-21 | | | 94731 | 12/26/13 10:52 | RLS | TAL SL |
| Total/NA | Analysis | 903.0 | | 1 | 99967 | 01/20/14 19:39 | MLK | TAL SL |

## Client Sample ID: FM-B-1 2-4

Lab Sample ID: 680-97124-6
Date Collected: 12/12/13 12:15
Matrix: Solid
Date Received: 12/14/13 12:00
Percent Solids: 93.7

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Prep | 7471B | | | 93312 | 12/19/13 09:05 | MTS | TAL SL |

# Lab Chronicle

Client: GEI Consultants, Inc.
Project/Site: TIMET

TestAmerica Job ID: 680-97124-1

## Client Sample ID: FM-B-1 2-4

Lab Sample ID: 680-97124-6

Date Collected: 12/12/13 12:15
Date Received: 12/14/13 12:00

Matrix: Solid
Percent Solids: 93.7

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 7471B | | 1 | 93523 | 12/19/13 17:48 | MTS | TAL SL |
| Total/NA | Prep | 3050B | | | 94976 | 12/27/13 10:07 | WA1 | TAL SL |
| Total/NA | Analysis | 6020A | | 10 | 95862 | 01/03/14 03:19 | CCB | TAL SL |
| Total/NA | Analysis | 6010C | | 5 | 97291 | 01/10/14 01:54 | KLE | TAL SL |
| Total/NA | Prep | 3050B | | | 94973 | 12/27/13 10:01 | WA1 | TAL SL |
| Total/NA | Analysis | 6010C | | 10 | 98404 | 01/14/14 21:08 | KLE | TAL SL |
| Total/NA | Analysis | Moisture | | 1 | 93514 | 12/20/13 00:55 | SDB | TAL SL |
| Soluble | Leach | DI Leach | | | 97083 | 01/14/14 16:00 | AMF | TAL SL |
| Soluble | Analysis | 300.0 | | 1 | 99083 | 01/15/14 05:57 | AMF | TAL SL |
| Total/NA | Leach | Dry and Grind | | | 93478 | 12/19/13 15:33 | DRO | TAL SL |
| Total/NA | Prep | ExtChrom | | | 98133 | 01/14/14 10:14 | SCB | TAL SL |
| Total/NA | Analysis | A-01-R | | 1 | 100207 | 01/21/14 17:48 | RTM | TAL SL |
| Total/NA | Prep | ExtChrom | | | 98058 | 01/14/14 10:14 | MLM | TAL SL |
| Total/NA | Analysis | A-01-R | | 1 | 100266 | 01/21/14 12:28 | RTM | TAL SL |
| Total/NA | Leach | Dry and Grind | | | 93478 | 12/19/13 15:33 | DRO | TAL SL |
| Total/NA | Prep | Thin_Layer | | | 96736 | 01/08/14 10:52 | MJS | TAL SL |
| Total/NA | Analysis | 900.0 | | 1 | 96785 | 01/08/14 16:19 | RTM | TAL SL |
| Total/NA | Leach | Dry and Grind | | | 93478 | 12/19/13 15:33 | DRO | TAL SL |
| Total/NA | Prep | Fill_Geo-21 | | | 94333 | 12/23/13 16:53 | MJS | TAL SL |
| Total/NA | Analysis | 901.1 | | 1 | 98122 | 01/14/14 20:41 | RTM | TAL SL |
| Total/NA | Leach | Dry and Grind | | | 93478 | 12/19/13 15:33 | DRO | TAL SL |
| Total/NA | Prep | DPS-0 | | | 94735 | 12/26/13 11:09 | RLS | TAL SL |
| Total/NA | Analysis | 904.0 | | 1 | 99333 | 01/17/14 11:37 | MLK | TAL SL |
| Total/NA | Prep | DPS-21 | | | 94731 | 12/26/13 10:52 | RLS | TAL SL |
| Total/NA | Analysis | 903.0 | | 1 | 99967 | 01/20/14 19:39 | MLK | TAL SL |

## Client Sample ID: FM-B-1 13-15

Lab Sample ID: 680-97124-7

Date Collected: 12/12/13 12:50
Date Received: 12/14/13 12:00

Matrix: Solid
Percent Solids: 94.6

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Prep | 7471B | | | 93312 | 12/19/13 09:05 | MTS | TAL SL |
| Total/NA | Analysis | 7471B | | 1 | 93523 | 12/19/13 17:53 | MTS | TAL SL |
| Total/NA | Prep | 3050B | | | 94976 | 12/27/13 10:07 | WA1 | TAL SL |
| Total/NA | Analysis | 6020A | | 10 | 95862 | 01/03/14 03:25 | CCB | TAL SL |
| Total/NA | Prep | 3050B | | | 94973 | 12/27/13 10:01 | WA1 | TAL SL |
| Total/NA | Analysis | 6010C | | 5 | 97291 | 01/10/14 01:57 | KLE | TAL SL |
| Total/NA | Analysis | 6010C | | 10 | 98404 | 01/14/14 21:19 | KLE | TAL SL |
| Total/NA | Analysis | Moisture | | 1 | 93514 | 12/20/13 00:55 | SDB | TAL SL |
| Soluble | Leach | DI Leach | | | 97083 | 01/14/14 16:00 | AMF | TAL SL |
| Soluble | Analysis | 300.0 | | 1 | 99083 | 01/15/14 07:11 | AMF | TAL SL |
| Total/NA | Prep | ExtChrom | | | 98058 | 01/14/14 10:14 | MLM | TAL SL |
| Total/NA | Analysis | A-01-R | | 1 | 100172 | 01/21/14 12:28 | RTM | TAL SL |

# Lab Chronicle

Client: GEI Consultants, Inc.
Project/Site: TIMET

TestAmerica Job ID: 680-97124-1

## Client Sample ID: FM-B-1 13-15

Lab Sample ID: 680-97124-7

Date Collected: 12/12/13 12:50
Date Received: 12/14/13 12:00

Matrix: Solid

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Leach | Dry and Grind | | | 93478 | 12/19/13 15:33 | DRO | TAL SL |
| Total/NA | Prep | ExtChrom | | | 98133 | 01/14/14 10:14 | SCB | TAL SL |
| Total/NA | Analysis | A-01-R | | 1 | 100208 | 01/21/14 17:48 | RTM | TAL SL |
| Total/NA | Leach | Dry and Grind | | | 93478 | 12/19/13 15:33 | DRO | TAL SL |
| Total/NA | Prep | Thin_Layer | | | 96736 | 01/08/14 10:52 | MJS | TAL SL |
| Total/NA | Analysis | 900.0 | | 1 | 96785 | 01/08/14 16:19 | RTM | TAL SL |
| Total/NA | Leach | Dry and Grind | | | 93478 | 12/19/13 15:33 | DRO | TAL SL |
| Total/NA | Prep | Fill_Geo-21 | | | 94333 | 12/23/13 16:53 | MJS | TAL SL |
| Total/NA | Analysis | 901.1 | | 1 | 98109 | 01/14/14 21:19 | EMN | TAL SL |
| Total/NA | Prep | DPS-0 | | | 94735 | 12/26/13 11:09 | RLS | TAL SL |
| Total/NA | Analysis | 904.0 | | 1 | 99333 | 01/17/14 11:37 | MLK | TAL SL |
| Total/NA | Leach | Dry and Grind | | | 93478 | 12/19/13 15:33 | DRO | TAL SL |
| Total/NA | Prep | DPS-21 | | | 94731 | 12/26/13 10:52 | RLS | TAL SL |
| Total/NA | Analysis | 903.0 | | 1 | 99967 | 01/20/14 19:39 | MLK | TAL SL |

## Client Sample ID: FM-B-2 0-2

Lab Sample ID: 680-97124-8

Date Collected: 12/12/13 13:40
Date Received: 12/14/13 12:00

Matrix: Solid
Percent Solids: 97.0

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Prep | 7471B | | | 93312 | 12/19/13 09:05 | MTS | TAL SL |
| Total/NA | Analysis | 7471B | | 1 | 93523 | 12/19/13 17:54 | MTS | TAL SL |
| Total/NA | Prep | 3050B | | | 94976 | 12/27/13 10:07 | WA1 | TAL SL |
| Total/NA | Analysis | 6020A | | 10 | 95862 | 01/03/14 03:32 | CCB | TAL SL |
| Total/NA | Analysis | 6020A | | 50 | 96510 | 01/03/14 19:01 | CCB | TAL SL |
| Total/NA | Analysis | 6010C | | 5 | 97291 | 01/10/14 02:01 | KLE | TAL SL |
| Total/NA | Prep | 3050B | | | 94973 | 12/27/13 10:01 | WA1 | TAL SL |
| Total/NA | Analysis | 6010C | | 10 | 98404 | 01/14/14 21:23 | KLE | TAL SL |
| Total/NA | Analysis | Moisture | | 1 | 93514 | 12/20/13 00:55 | SDB | TAL SL |
| Soluble | Leach | DI Leach | | | 97083 | 01/14/14 16:00 | AMF | TAL SL |
| Soluble | Analysis | 300.0 | | 1 | 99083 | 01/15/14 07:56 | AMF | TAL SL |
| Soluble | Leach | DI Leach | DL | | 97083 | 01/14/14 16:00 | AMF | TAL SL |
| Soluble | Analysis | 300.0 | DL | 20 | 99083 | 01/15/14 08:11 | AMF | TAL SL |
| Total/NA | Leach | Dry and Grind | | | 93478 | 12/19/13 15:33 | DRO | TAL SL |
| Total/NA | Prep | ExtChrom | | | 98058 | 01/14/14 10:14 | MLM | TAL SL |
| Total/NA | Analysis | A-01-R | | 1 | 100183 | 01/21/14 12:28 | RTM | TAL SL |
| Total/NA | Prep | ExtChrom | | | 98133 | 01/14/14 10:14 | SCB | TAL SL |
| Total/NA | Analysis | A-01-R | | 1 | 100209 | 01/21/14 17:48 | RTM | TAL SL |
| Total/NA | Leach | Dry and Grind | | | 93478 | 12/19/13 15:33 | DRO | TAL SL |
| Total/NA | Prep | Thin_Layer | | | 96736 | 01/08/14 10:52 | MJS | TAL SL |
| Total/NA | Analysis | 900.0 | | 1 | 96771 | 01/08/14 19:51 | RTM | TAL SL |
| Total/NA | Leach | Dry and Grind | | | 93478 | 12/19/13 15:33 | DRO | TAL SL |
| Total/NA | Prep | Fill_Geo-21 | | | 94333 | 12/23/13 16:53 | MJS | TAL SL |
| Total/NA | Analysis | 901.1 | | 1 | 98110 | 01/14/14 21:18 | EMN | TAL SL |

# Lab Chronicle

Client: GEI Consultants, Inc.
Project/Site: TIMET

TestAmerica Job ID: 680-97124-1

## Client Sample ID: FM-B-2 0-2

Lab Sample ID: 680-97124-8
Date Collected: 12/12/13 13:40
Matrix: Solid
Date Received: 12/14/13 12:00

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Leach | Dry and Grind | | | 93478 | 12/19/13 15:33 | DRO | TAL SL |
| Total/NA | Prep | DPS-0 | | | 94735 | 12/26/13 11:09 | RLS | TAL SL |
| Total/NA | Analysis | 904.0 | | 1 | 99333 | 01/17/14 11:37 | MLK | TAL SL |
| Total/NA | Prep | DPS-21 | | | 94731 | 12/26/13 10:52 | RLS | TAL SL |
| Total/NA | Analysis | 903.0 | | 1 | 99967 | 01/20/14 19:39 | MLK | TAL SL |

## Client Sample ID: FM-B-2 2-4

Lab Sample ID: 680-97124-9
Date Collected: 12/12/13 13:55
Matrix: Solid
Date Received: 12/14/13 12:00
Percent Solids: 96.1

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Prep | 7471B | | | 93312 | 12/19/13 09:05 | MTS | TAL SL |
| Total/NA | Analysis | 7471B | | 1 | 93523 | 12/19/13 17:56 | MTS | TAL SL |
| Total/NA | Prep | 3050B | | | 94976 | 12/27/13 10:07 | WA1 | TAL SL |
| Total/NA | Analysis | 6020A | | 10 | 95862 | 01/03/14 03:39 | CCB | TAL SL |
| Total/NA | Analysis | 6010C | | 5 | 97291 | 01/10/14 02:13 | KLE | TAL SL |
| Total/NA | Prep | 3050B | | | 94973 | 12/27/13 10:01 | WA1 | TAL SL |
| Total/NA | Analysis | 6010C | | 10 | 98404 | 01/14/14 21:27 | KLE | TAL SL |
| Total/NA | Analysis | Moisture | | 1 | 93514 | 12/20/13 00:55 | SDB | TAL SL |
| Soluble | Leach | DI Leach | | | 97083 | 01/14/14 16:00 | AMF | TAL SL |
| Soluble | Analysis | 300.0 | | 1 | 99083 | 01/15/14 08:41 | AMF | TAL SL |
| Soluble | Leach | DI Leach | DL | | 97083 | 01/14/14 16:00 | AMF | TAL SL |
| Soluble | Analysis | 300.0 | DL | 20 | 99083 | 01/15/14 08:56 | AMF | TAL SL |
| Total/NA | Prep | ExtChrom | | | 98058 | 01/14/14 10:14 | MLM | TAL SL |
| Total/NA | Analysis | A-01-R | | 1 | 100193 | 01/21/14 12:28 | RTM | TAL SL |
| Total/NA | Leach | Dry and Grind | | | 93478 | 12/19/13 15:33 | DRO | TAL SL |
| Total/NA | Prep | ExtChrom | | | 98133 | 01/14/14 10:14 | SCB | TAL SL |
| Total/NA | Analysis | A-01-R | | 1 | 100210 | 01/21/14 17:48 | RTM | TAL SL |
| Total/NA | Leach | Dry and Grind | | | 93478 | 12/19/13 15:33 | DRO | TAL SL |
| Total/NA | Prep | Thin_Layer | | | 96736 | 01/08/14 10:52 | MJS | TAL SL |
| Total/NA | Analysis | 900.0 | | 1 | 96771 | 01/08/14 19:51 | RTM | TAL SL |
| Total/NA | Leach | Dry and Grind | | | 93478 | 12/19/13 15:33 | DRO | TAL SL |
| Total/NA | Prep | Fill_Geo-21 | | | 94333 | 12/23/13 16:53 | MJS | TAL SL |
| Total/NA | Analysis | 901.1 | | 1 | 98430 | 01/14/14 21:19 | EMN | TAL SL |
| Total/NA | Prep | DPS-0 | | | 94735 | 12/26/13 11:09 | RLS | TAL SL |
| Total/NA | Analysis | 904.0 | | 1 | 99333 | 01/17/14 11:37 | MLK | TAL SL |
| Total/NA | Leach | Dry and Grind | | | 93478 | 12/19/13 15:33 | DRO | TAL SL |
| Total/NA | Prep | DPS-21 | | | 94731 | 12/26/13 10:52 | RLS | TAL SL |
| Total/NA | Analysis | 903.0 | | 1 | 99967 | 01/20/14 19:39 | MLK | TAL SL |

## Client Sample ID: FM-B-2 13-15

Lab Sample ID: 680-97124-10

Date Collected: 12/12/13 14:45
Date Received: 12/14/13 12:00

Matrix: Solid
Percent Solids: 94.8

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Prep | 7471B | | | 93312 | 12/19/13 09:05 | MTS | TAL SL |
| Total/NA | Analysis | 7471B | | 1 | 93523 | 12/19/13 17:58 | MTS | TAL SL |
| Total/NA | Prep | 3050B | | | 94976 | 12/27/13 10:07 | WA1 | TAL SL |
| Total/NA | Analysis | 6020A | | 10 | 95862 | 01/03/14 03:46 | CCB | TAL SL |
| Total/NA | Analysis | 6010C | | 5 | 97291 | 01/10/14 02:17 | KLE | TAL SL |
| Total/NA | Prep | 3050B | | | 94973 | 12/27/13 10:01 | WA1 | TAL SL |
| Total/NA | Analysis | 6010C | | 10 | 98404 | 01/14/14 21:31 | KLE | TAL SL |
| Total/NA | Analysis | Moisture | | 1 | 93514 | 12/20/13 00:55 | SDB | TAL SL |
| Soluble | Leach | DI Leach | | | 97083 | 01/14/14 16:00 | AMF | TAL SL |
| Soluble | Analysis | 300.0 | | 1 | 99083 | 01/15/14 09:55 | AMF | TAL SL |
| Soluble | Leach | DI Leach | DL | | 97083 | 01/14/14 16:00 | AMF | TAL SL |
| Soluble | Analysis | 300.0 | DL | 20 | 99083 | 01/15/14 10:10 | AMF | TAL SL |
| Total/NA | Leach | Dry and Grind | | | 93478 | 12/19/13 15:33 | DRO | TAL SL |
| Total/NA | Prep | ExtChrom | | | 98058 | 01/14/14 10:14 | MLM | TAL SL |
| Total/NA | Analysis | A-01-R | | 1 | 100205 | 01/21/14 12:28 | RTM | TAL SL |
| Total/NA | Prep | ExtChrom | | | 98133 | 01/14/14 10:14 | SCB | TAL SL |
| Total/NA | Analysis | A-01-R | | 1 | 100211 | 01/21/14 17:48 | RTM | TAL SL |
| Total/NA | Leach | Dry and Grind | | | 93478 | 12/19/13 15:33 | DRO | TAL SL |
| Total/NA | Prep | Thin_Layer | | | 96736 | 01/08/14 10:52 | MJS | TAL SL |
| Total/NA | Analysis | 900.0 | | 1 | 96771 | 01/08/14 19:51 | RTM | TAL SL |
| Total/NA | Leach | Dry and Grind | | | 93478 | 12/19/13 15:33 | DRO | TAL SL |
| Total/NA | Prep | Fill_Geo-21 | | | 94333 | 12/23/13 16:53 | MJS | TAL SL |
| Total/NA | Analysis | 901.1 | | 1 | 98113 | 01/14/14 21:18 | EMN | TAL SL |
| Total/NA | Leach | Dry and Grind | | | 93478 | 12/19/13 15:33 | DRO | TAL SL |
| Total/NA | Prep | DPS-0 | | | 94735 | 12/26/13 11:09 | RLS | TAL SL |
| Total/NA | Analysis | 904.0 | | 1 | 99333 | 01/17/14 11:38 | MLK | TAL SL |
| Total/NA | Prep | DPS-21 | | | 94731 | 12/26/13 10:52 | RLS | TAL SL |
| Total/NA | Analysis | 903.0 | | 1 | 99967 | 01/20/14 19:39 | MLK | TAL SL |

## Client Sample ID: P-B-11_SS

Lab Sample ID: 680-97124-11

Date Collected: 12/11/13 12:15
Date Received: 12/14/13 12:00

Matrix: Solid
Percent Solids: 94.5

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Prep | HRMS-Sox | | | 34244 | 01/20/14 12:06 | TGL | TAL SAC |
| Total/NA | Analysis | 1668C | | 1 | 35733 | 02/07/14 05:26 | KSS | TAL SAC |
| Total/NA | Prep | 7471B | | | 93312 | 12/19/13 09:05 | MTS | TAL SL |
| Total/NA | Analysis | 7471B | | 1 | 93523 | 12/19/13 17:59 | MTS | TAL SL |
| Total/NA | Prep | 3050B | | | 94976 | 12/27/13 10:07 | WA1 | TAL SL |
| Total/NA | Analysis | 6020A | | 10 | 95862 | 01/03/14 03:52 | CCB | TAL SL |
| Total/NA | Prep | 3050B | | | 94973 | 12/27/13 10:01 | WA1 | TAL SL |
| Total/NA | Analysis | 6010C | | 5 | 97291 | 01/10/14 02:20 | KLE | TAL SL |
| Total/NA | Analysis | 6010C | | 10 | 98404 | 01/14/14 21:35 | KLE | TAL SL |
| Total/NA | Analysis | Moisture | | 1 | 93514 | 12/20/13 00:55 | SDB | TAL SL |

## Client Sample ID: P-B-11_SS — Lab Sample ID: 680-97124-11

Date Collected: 12/11/13 12:15 — Matrix: Solid
Date Received: 12/14/13 12:00 — Percent Solids: 94.5

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|
| Soluble | Leach | DI Leach | DL | | 97083 | 01/14/14 16:00 | AMF | TAL SL |
| Soluble | Analysis | 300.0 | DL | 20 | 99083 | 01/15/14 10:55 | AMF | TAL SL |
| Soluble | Leach | DI Leach | | | 97083 | 01/14/14 16:00 | AMF | TAL SL |
| Soluble | Analysis | 300.0 | | 1 | 99083 | 01/15/14 10:40 | AMF | TAL SL |

## Client Sample ID: P-B-11_SUB — Lab Sample ID: 680-97124-12

Date Collected: 12/11/13 13:15 — Matrix: Solid
Date Received: 12/14/13 12:00 — Percent Solids: 91.0

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Prep | 7471B | | | 93312 | 12/19/13 09:05 | MTS | TAL SL |
| Total/NA | Analysis | 7471B | | 1 | 93523 | 12/19/13 18:01 | MTS | TAL SL |
| Total/NA | Prep | 3050B | | | 94976 | 12/27/13 10:07 | WA1 | TAL SL |
| Total/NA | Analysis | 6020A | | 10 | 95862 | 01/03/14 03:59 | CCB | TAL SL |
| Total/NA | Prep | 3050B | | | 94973 | 12/27/13 10:01 | WA1 | TAL SL |
| Total/NA | Analysis | 6010C | | 5 | 97291 | 01/10/14 02:24 | KLE | TAL SL |
| Total/NA | Analysis | 6010C | | 10 | 98404 | 01/14/14 21:39 | KLE | TAL SL |
| Total/NA | Analysis | Moisture | | 1 | 93514 | 12/20/13 00:55 | SDB | TAL SL |
| Soluble | Leach | DI Leach | DL | | 97083 | 01/14/14 16:00 | AMF | TAL SL |
| Soluble | Analysis | 300.0 | DL | 20 | 99083 | 01/15/14 12:54 | AMF | TAL SL |

## Client Sample ID: P-B-10_SS — Lab Sample ID: 680-97124-13

Date Collected: 12/11/13 10:10 — Matrix: Solid
Date Received: 12/14/13 12:00 — Percent Solids: 91.3

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Prep | 3550C | | | 92812 | 12/18/13 11:29 | CNS | TAL SL |
| Total/NA | Analysis | 8270D | | 1 | 93362 | 12/19/13 02:00 | JSW | TAL SL |
| Total/NA | Prep | 8290 | | | 34660 | 01/24/14 12:46 | TGL | TAL SAC |
| Total/NA | Analysis | 8290A | | 1 | 35354 | 02/01/14 05:54 | JRB | TAL SAC |
| Total/NA | Prep | HRMS-Sox | | | 34661 | 01/24/14 12:53 | TGL | TAL SAC |
| Total/NA | Analysis | 1668C | | 1 | 35524 | 02/04/14 19:45 | KSS | TAL SAC |
| Total/NA | Prep | 8290 | RA | | 34660 | 01/24/14 12:46 | TGL | TAL SAC |
| Total/NA | Analysis | 8290A | RA | 1 | 35928 | 02/07/14 20:29 | SMA | TAL SAC |
| Total/NA | Prep | 7471B | | | 93312 | 12/19/13 09:05 | MTS | TAL SL |
| Total/NA | Analysis | 7471B | | 20 | 93523 | 12/20/13 07:20 | MTS | TAL SL |
| Total/NA | Prep | 3050B | | | 94976 | 12/27/13 10:07 | WA1 | TAL SL |
| Total/NA | Analysis | 6020A | | 10 | 95862 | 01/03/14 04:06 | CCB | TAL SL |
| Total/NA | Prep | 3050B | | | 94973 | 12/27/13 10:01 | WA1 | TAL SL |
| Total/NA | Analysis | 6010C | | 5 | 97291 | 01/10/14 02:28 | KLE | TAL SL |
| Total/NA | Analysis | 6010C | | 10 | 98404 | 01/14/14 21:42 | KLE | TAL SL |
| Total/NA | Analysis | Moisture | | 1 | 93514 | 12/20/13 00:55 | SDB | TAL SL |
| Soluble | Leach | DI Leach | DL | | 97083 | 01/14/14 16:00 | AMF | TAL SL |

## Client Sample ID: P-B-10_SS

Lab Sample ID: 680-97124-13

Date Collected: 12/11/13 10:10
Date Received: 12/14/13 12:00

Matrix: Solid
Percent Solids: 91.3

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|
| Soluble | Analysis | 300.0 | DL | 20 | 99083 | 01/15/14 13:39 | AMF | TAL SL |
| Soluble | Leach | DI Leach | DL2 | | 97083 | 01/14/14 16:00 | AMF | TAL SL |
| Soluble | Analysis | 300.0 | DL2 | 100 | 99083 | 01/15/14 13:54 | AMF | TAL SL |
| Total/NA | Prep | ExtChrom | | | 98058 | 01/14/14 10:14 | MLM | TAL SL |
| Total/NA | Analysis | A-01-R | | 1 | 100206 | 01/21/14 12:28 | RTM | TAL SL |
| Total/NA | Leach | Dry and Grind | | | 93478 | 12/19/13 15:33 | DRO | TAL SL |
| Total/NA | Prep | ExtChrom | | | 98133 | 01/14/14 10:14 | SCB | TAL SL |
| Total/NA | Analysis | A-01-R | | 1 | 100212 | 01/21/14 17:47 | RTM | TAL SL |
| Total/NA | Leach | Dry and Grind | | | 93478 | 12/19/13 15:33 | DRO | TAL SL |
| Total/NA | Prep | Thin_Layer | | | 96736 | 01/08/14 10:52 | MJS | TAL SL |
| Total/NA | Analysis | 900.0 | | 1 | 96771 | 01/08/14 19:51 | RTM | TAL SL |
| Total/NA | Leach | Dry and Grind | | | 93478 | 12/19/13 15:33 | DRO | TAL SL |
| Total/NA | Prep | Fill_Geo-21 | | | 94333 | 12/23/13 16:53 | MJS | TAL SL |
| Total/NA | Analysis | 901.1 | | 1 | 98122 | 01/14/14 21:16 | RTM | TAL SL |
| Total/NA | Leach | Dry and Grind | | | 93478 | 12/19/13 15:33 | DRO | TAL SL |
| Total/NA | Prep | DPS-0 | | | 94735 | 12/26/13 11:09 | RLS | TAL SL |
| Total/NA | Analysis | 904.0 | | 1 | 99333 | 01/17/14 11:38 | MLK | TAL SL |
| Total/NA | Prep | DPS-21 | | | 94731 | 12/26/13 10:52 | RLS | TAL SL |
| Total/NA | Analysis | 903.0 | | 1 | 99967 | 01/20/14 19:39 | MLK | TAL SL |

## Client Sample ID: P-B-10_SUB

Lab Sample ID: 680-97124-14

Date Collected: 12/11/13 11:40
Date Received: 12/14/13 12:00

Matrix: Solid
Percent Solids: 91.5

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Prep | 7471B | | | 93312 | 12/19/13 09:05 | MTS | TAL SL |
| Total/NA | Analysis | 7471B | | 1 | 93523 | 12/19/13 18:04 | MTS | TAL SL |
| Total/NA | Prep | 3050B | | | 94976 | 12/27/13 10:07 | WA1 | TAL SL |
| Total/NA | Analysis | 6020A | | 10 | 95862 | 01/03/14 04:12 | CCB | TAL SL |
| Total/NA | Analysis | 6010C | | 5 | 97291 | 01/10/14 02:32 | KLE | TAL SL |
| Total/NA | Prep | 3050B | | | 94973 | 12/27/13 10:01 | WA1 | TAL SL |
| Total/NA | Analysis | 6010C | | 10 | 98404 | 01/14/14 21:46 | KLE | TAL SL |
| Total/NA | Analysis | Moisture | | 1 | 93514 | 12/20/13 00:55 | SDB | TAL SL |
| Soluble | Leach | DI Leach | | | 97083 | 01/14/14 16:00 | AMF | TAL SL |
| Soluble | Analysis | 300.0 | | 1 | 99083 | 01/15/14 14:09 | AMF | TAL SL |
| Soluble | Leach | DI Leach | DL | | 97083 | 01/14/14 16:00 | AMF | TAL SL |
| Soluble | Analysis | 300.0 | DL | 20 | 99083 | 01/15/14 14:24 | AMF | TAL SL |
| Soluble | Leach | DI Leach | DL2 | | 97083 | 01/14/14 16:00 | AMF | TAL SL |
| Soluble | Analysis | 300.0 | DL2 | 100 | 99083 | 01/15/14 14:39 | AMF | TAL SL |
| Total/NA | Prep | ExtChrom | | | 98058 | 01/14/14 10:14 | MLM | TAL SL |
| Total/NA | Analysis | A-01-R | | 1 | 100207 | 01/21/14 12:28 | RTM | TAL SL |
| Total/NA | Leach | Dry and Grind | | | 93478 | 12/19/13 15:33 | DRO | TAL SL |
| Total/NA | Prep | ExtChrom | | | 98133 | 01/14/14 10:14 | SCB | TAL SL |
| Total/NA | Analysis | A-01-R | | 1 | 100213 | 01/21/14 17:47 | RTM | TAL SL |

# Lab Chronicle

Client: GEI Consultants, Inc.
Project/Site: TIMET

TestAmerica Job ID: 680-97124-1

## Client Sample ID: P-B-10_SUB

Lab Sample ID: 680-97124-14

Date Collected: 12/11/13 11:40
Date Received: 12/14/13 12:00

Matrix: Solid

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Leach | Dry and Grind | | | 93478 | 12/19/13 15:33 | DRO | TAL SL |
| Total/NA | Prep | Thin_Layer | | | 96736 | 01/08/14 10:52 | MJS | TAL SL |
| Total/NA | Analysis | 900.0 | | 1 | 96771 | 01/08/14 19:51 | RTM | TAL SL |
| Total/NA | Leach | Dry and Grind | | | 93478 | 12/19/13 15:33 | DRO | TAL SL |
| Total/NA | Prep | Fill_Geo-21 | | | 94333 | 12/23/13 16:53 | MJS | TAL SL |
| Total/NA | Analysis | 901.1 | | 1 | 98120 | 01/14/14 21:17 | EMN | TAL SL |
| Total/NA | Leach | Dry and Grind | | | 93478 | 12/19/13 15:33 | DRO | TAL SL |
| Total/NA | Prep | DPS-0 | | | 94735 | 12/26/13 11:09 | RLS | TAL SL |
| Total/NA | Analysis | 904.0 | | 1 | 99333 | 01/17/14 11:38 | MLK | TAL SL |
| Total/NA | Prep | DPS-21 | | | 94731 | 12/26/13 10:52 | RLS | TAL SL |
| Total/NA | Analysis | 903.0 | | 1 | 99967 | 01/20/14 19:39 | MLK | TAL SL |

## Client Sample ID: RINSATE

Lab Sample ID: 680-97124-15

Date Collected: 12/13/13 12:00
Date Received: 12/14/13 12:00

Matrix: Water

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Prep | 3510C | | | 93558 | 12/20/13 10:24 | SMB | TAL SL |
| Total/NA | Analysis | 8270D | | 1 | 96003 | 12/31/13 19:40 | MAK | TAL SL |
| Total/NA | Prep | 8290 | | | 31992 | 12/16/13 16:32 | CCC | TAL SAC |
| Total/NA | Analysis | 8290A | | 1 | 33676 | 01/10/14 04:39 | JRB | TAL SAC |
| Total/NA | Prep | HRMS-Sep | | | 33192 | 01/04/14 11:43 | CCC | TAL SAC |
| Total/NA | Analysis | 1668C | | 1 | 35731 | 02/06/14 16:29 | KSS | TAL SAC |
| Total/NA | Prep | 3010A | | | 96024 | 01/03/14 17:29 | KLE | TAL SL |
| Total/NA | Analysis | 6020A | | 1 | 96993 | 01/09/14 00:59 | CCB | TAL SL |
| Total/NA | Prep | 3010A | | | 96025 | 01/03/14 17:29 | KLE | TAL SL |
| Total/NA | Analysis | 6010C | | 1 | 97021 | 01/08/14 13:55 | KLE | TAL SL |
| Total/NA | Prep | 7470A | | | 96983 | 01/09/14 07:42 | MTS | TAL SL |
| Total/NA | Analysis | 7470A | | 1 | 97053 | 01/09/14 12:53 | MTS | TAL SL |
| Total/NA | Analysis | 300.0 | | 1 | 92246 | 12/14/13 18:07 | AMF | TAL SL |
| Total/NA | Analysis | 300.0 | | 1 | 94529 | 12/16/13 13:07 | AMF | TAL SL |
| Total/NA | Prep | ExtChrom | | | 100386 | 01/22/14 08:57 | SCB | TAL SL |
| Total/NA | Analysis | A-01-R | | 1 | 100928 | 01/23/14 22:10 | LES | TAL SL |
| Total/NA | Prep | Evaporation | | | 100320 | 01/21/14 11:29 | BLH | TAL SL |
| Total/NA | Analysis | 900.0 | | 1 | 101294 | 01/27/14 08:09 | MLK | TAL SL |
| Total/NA | Prep | PrecSep-21 | | | 92276 | 12/16/13 14:09 | LEM | TAL SL |
| Total/NA | Analysis | 903.0 | | 1 | 96771 | 01/08/14 16:17 | RTM | TAL SL |
| Total/NA | Prep | PrecSep_0 | | | 92278 | 12/16/13 14:14 | LEM | TAL SL |
| Total/NA | Analysis | 904.0 | | 1 | 96777 | 01/08/14 12:18 | RTM | TAL SL |
| Total/NA | Prep | ExtChrom | | | 97007 | 01/09/14 09:41 | MLM | TAL SL |
| Total/NA | Analysis | A-01-R | | 1 | 98997 | 01/16/14 23:39 | LES | TAL SL |
| Total/NA | Prep | Fill_Geo-21 | | | 95042 | 12/27/13 14:10 | MJS | TAL SL |
| Total/NA | Analysis | 901.1 | | 1 | 99419 | 01/17/14 10:43 | SMP | TAL SL |

**Laboratory References:**

TAL SAC = TestAmerica Sacramento, 880 Riverside Parkway, West Sacramento, CA 95605, TEL (916)373-5600

TAL SL = TestAmerica St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

TestAmerica Savannah
5102 LaRoche Avenue
Savannah, GA 31404
Phone (912) 354-7858 Fax (912) 352-0165

# Chain of Custody Record

TestAmerica

| Client Information | Sampler: Jeff Sholkey | Lab PM: Smith, Kathryn E | Carrier Tracking No(s): | COC No: 680-51612-23156.1 |
|---|---|---|---|---|
| Client Contact: Ms. Andrea Brazell | Phone: 516.317.0245 (cell) | E-Mail: kathy.smith@testamericainc.com | | Page: Page 1 of 1 |
| Company: GEI Consultants, Inc. | | | | Job #: 680-97124 |
| Address: 1375 Peachtree Street NE Suite A15 | Due Date Requested: | | | |
| City: Atlanta | TAT Requested (days): 28 - Day with Prelims due in 15 days for non-Radiochemistry parameters | | | |
| State, Zip: GA, 30309 | | | | |
| Phone: 404.592.0074 (direct) / 770.355.9276 (cell) | PO #: 1923080-11-2104 | | | |
| Email: abrazell@geiconsultants.com | WO #: | | | |
| Project Name: TIMET | Project #: 68011884 | | | |
| Site: | SSOW#: | | | |

Analysis Requested

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - ph 4-5, Z - other (specify)
Other:

| Sample Identification | Sample Date | Sample Interval | Area | Sample Time | Sample Type (C=comp, G=grab) | Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air) | Field Filtered Sample (Yes or No) | Perform MS/MSD (Yes or No) | 900.0, 903.0, 904.0, A01R, Th (Radionuclides) | 300, 6020, Total Mass (Anions / Total Uranium) | 901.1_Ra - (MOD) NORM Target List (Radionuclides) | 8270D PAHs | 8270D - SVOCs | 6010C, 6020A, 7471B (Metals) | 1668C (PCB Congeners) | 8260C - OLM 4.2 VOCs | 8260C - OLM 4.2 VOCs | 8260C - OLM 4.2 VOCs | 8260C - OLM 4.2 VOCs | 8082A (PCB Aroclors) | 8290A (Dioxins and Furans) | Total Number of Containers | Special Instructions/Note: |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Preservation Code: | | | | N | N | N | N | N | N | N | N | P | J | F | N | N | | |
| PP-B-1 0-4 | 12/12/13 | 0-4 | | 0835 | C | S | | | 1 | 1 | 2 | | | 1 | | | | | | | | 5 | |
| PP-B-1 11-13 | | 11-13 | | 0920 | C | S | | | 1 | 1 | 2 | | | 1 | | | | | | | | 5 | |
| PP-B-2 0-4 | | 0-4 | | 1020 | C | S | | | 1 | 1 | 2 | | | 1 | | | | | | | | 5 | |
| PP-B-2 7-15 | | 7-15 | | 1100 | C | S | | | 1 | 1 | 2 | | | 1 | | | | | | | | 5 | |
| FM-B-1 0-2 | | 0-2 | | 1200 | C | S | | | 1 | 1 | 2 | | | 1 | | | | | | | | 5 | |
| FM-B-1 2-4 | | 2-4 | | 1215 | C | S | | | 1 | 1 | 2 | | | 1 | | | | | | | | 5 | |
| FM-B-1 13-15 | | 13-15 | | 1250 | C | S | | | 1 | 1 | 2 | | | 1 | | | | | | | | 5 | |
| FM-B-2 0-2 | | 0-2 | | 1340 | C | S | | | 1 | 1 | 2 | | | 1 | | | | | | | | 5 | |
| FM-B-2 2-4 | | 2-4 | | 1355 | C | S | | | 1 | 1 | 2 | | | 1 | | | | | | | | 5 | |
| FM-B-2 13-15 | | 13-15 | | 1445 | C | S | | | 1 | 1 | 2 | | | 1 | | | | | | | | 5 | |
| | | | | | | | | | | | | | | | | | | | | | | 5 | |

Possible Hazard Identification: ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ■ Unknown ☐ Radiological

Sample Disposal ( A fee may be assessed if samples are retained longer than 1 month): ☐ Return To Client ☐ Disposal By Lab ■ Archive Until GEI releases for disposal.

Deliverable Requested: I, II, III, IV, Other (specify) Level IV

Special Instructions/QC Requirements: VOCs were not composited prior to collection. * - Dioxins will be run from the PCB Congeners jar.

Empty Kit Relinquished by: | Date: | Time: | Method of Shipment:

| Relinquished by: | Date/Time: | Company | Received by: | Date/Time: | Company |
|---|---|---|---|---|---|
| | 12/12/13 1600 | GEI | J. Sholkey 1600 | 12/12/13 1600 | GEI |
| J Sholkey | 12/13/13 1530 | GEI | | 12/13/13 1530 | TA |
| | 12/13/13 4pm | TA | | 12/14/13 1200 | TA |

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.: | Cooler Temperature(s) °C and Other Remarks:

**TestAmerica Savannah**
5102 LaRoche Avenue
Savannah, GA 31404
Phone (912) 354-7858 Fax (912) 352-0165

# Chain of Custody Record

TestAmerica

| Client Information | Sampler: Jeff Shelkey | Lab PM: Smith, Kathryn E | Carrier Tracking No(s): | COC No: 580-51812-23156.1 |
|---|---|---|---|---|
| Client Contact: Ms. Andrea Brazell | Phone: 516.317.0245 (cell) | e-Mail: kathy.smith@testamericainc.com | | Page: Page 1 of 1 |
| Company: GEI Consultants, Inc. | | | | Job #: 680-97124 |
| Address: 1375 Peachtree Street NE Suite A15 | Due Date Requested: | | | |
| City: Atlanta | TAT Requested (days): 28 - Day with Prelim due in 15 days for non-Radiochemistry parameters | | | |
| State, Zip: GA, 30309 | | | | |
| Phone: 404.592.0074 (direct) / 770.355.9276 (cell) | PO #: 13230080-11-2104 | | | |
| Email: abrazell@geiconsultants.com | WO #: | | | |
| Project Name: TIMET | Project #: 69011884 | | | |
| Site: | SSOW#: | | | |

**Analysis Requested**

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)
Other:

| Sample Identification | Sample Date | Sample Interval | Area | Sample Time | Sample Type (C=comp, G=grab) | Matrix (W=water, S=solid, O=wastewater, BT=Tissue, A=Air) | Field Filtered Sample (Yes or No) | Perform MS/MSD (Yes or No) | 903.0, 903.0, 904.0, A01R_Th (Radionuclides) | 300, 6020_Total_Mass (Actinons / Total Uranium) | 901.1_Ra - (MOD) NORM Target List (Radionuclides) | 8270D PAHs | 8270D - SVOCs | 6010C, 6020A, 7471B (Metals) | 1668C (PCB Congeners) | 8260C - DLM 4.2 VOCs | 8260C - DLM 4.2 VOCs | 8260C - DLM 4.2 VOCs | 8260C - DLM 4.2 VOCs | 8082A (PCB Aroclors) | 8290A (Dioxins and Furans) | Total Number of containers | Special Instructions/Note: |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Preservation Code: | | | | N | N | N | N | N | N | N | N | P | J | F | N | N | | |
| P-B-11_SS | 12-11-13 | 0-0.5 | Pond Areas | 1215 | C/G | S | | | | 1 | | | | 1 | 1 | | | | | | | 3 | |
| P-B-11_SUB | 12-11-13 | 5-6 | Pond Areas | 1315 | C/G | S | | | | 1 | | | | 1 | | | | | | | | 2 | |
| | | | | | | | | | | | | | | | | | | | | | | 0 | |
| | | | | | | | | | | | | | | | | | | | | | | 0 | |
| | | | | | | | | | | | | | | | | | | | | | | 0 | |
| | | | | | | | | | | | | | | | | | | | | | | 0 | |
| | | | | | | | | | | | | | | | | | | | | | | 0 | |
| | | | | | | | | | | | | | | | | | | | | | | 0 | |
| | | | | | | | | | | | | | | | | | | | | | | 0 | |
| | | | | | | | | | | | | | | | | | | | | | | 0 | |
| | | | | | | | | | | | | | | | | | | | | | | 0 | |

*Possible Hazard Identification*
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ■ Unknown ☐ Radiological

*Sample Disposal ( A fee may be assessed if samples are retained longer than 1 month)*
☐ Return To Client ☐ Disposal By Lab ■ Archive Until GEI releases for disposal.

Deliverable Requested: I, II, III, IV, Other (specify) Level IV

Special Instructions/QC Requirements: VOCs were not composited prior to collection. * - Dioxins will be run from the PCB Congeners list.

| Empty Kit Relinquished by: | | Date: | Time: | Method of Shipment: |
|---|---|---|---|---|
| Relinquished by: | Date/Time: 12-12-13 1600 | Company: GEI | Received by: J Shelkey | Date/Time: 12-12-13 1600 Company: GEI |
| Relinquished by: | Date/Time: 12-13-13 1350 | Company: GEI | Received by: | Date/Time: 12-13-13 1350 Company: TA |
| Relinquished by: | Date/Time: 12/13/13 1620 | Company: | Received by: | Date/Time: 12/14/13 1200 Company: TA |
| Custody Seals Intact: Δ Yes Δ No | Custody Seal No.: | | Cooler Temperature(s) °C and Other Remarks: | |

TestAmerica Savannah
5102 LaRoche Avenue
Savannah, GA 31404
Phone (912) 354-7858 Fax (912) 352-0165

# Chain of Custody Record

TestAmerica

**Client Information**

Client Contact: Ms. Andrea Brazell
Company: GEI Consultants, Inc.
Address: 1375 Peachtree Street NE Suite A15
City: Atlanta
State, Zip: GA, 30309
Phone: 404.592.0074 (direct) / 770.356.9275 (cell)
Email: abrazell@geiconsultants.com
Project Name: TIMET
Site:

Sampler: Jeff Shelkey
Phone: 516.317.0245 (cell)
Due Date Requested:
TAT Requested (days): 28 - Day with Prelimo due in 15 days for non-Radiochemistry parameters
PO #: 1323080-11-2104
WO #:
Project #: 68011884
SSOW#:

Lab PM: Smith, Kathryn E
E-Mail: Kathy.smith@testamericainc.com
Carrier Tracking No(s):
COC No: 680-61812-23156.1
Page: Page 1 of 1
Job #: 680-97124

**Analysis Requested**

Preservation Codes: A - HCL; B - NaOH; C - Zn Acetate; D - Nitric Acid; E - NaHSO4; F - MeOH; G - Amchlor; H - Ascorbic Acid; I - Ice; J - DI Water; K - EDTA; L - EDA; M - Hexane; N - None; O - AsNaO2; P - Na2O4S; Q - Na2S2O3; R - Na2S2O3; S - H2SO4; T - TSP Dodecahydrate; U - Acetone; V - MCAA; W - pH 4-5; Z - other (specify)
Other:

| Sample Identification | Sample Date | Sample Interval | Area | Sample Time | Sample Type (C=comp, G=grab) | Matrix (Water, Solid, Oil/Waste, BT=Tissue, Air) | Field Filtered Sample (Yes or No) | Perform MS/MSD (Yes or No) | 900.0, 903.0, A01R_Th (Radionuclides) | 901.1, 904.0, 903.1, 904.0, 903.1, 904.0, A01R_Total Mass (Actinons / Total Uranium) | 901.1_Ra - (MOD) NORM Target List (Radionuclides) | 8270D PAHs | 8270D - SVOCs | 6010C, 6020A, 7471B (Metals) | 8082A (PCB Congeners) | 8260C - OLM 4.2 VOCs | 8260C - OLM 4.2 VOCs | 8260B - OLM 4.2 VOCs | 8260C - OLM 4.2 VOCs | 8082A (PCB Aroclors) | 8290A (Dioxins and Furans) | Total Number of containers | Special Instructions/Note: |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Preservation Code: | | | | N | N | N | N | N | N | N | N | P | J | F | N | N | | |
| P-8-10_SS | 12-11-13 | 0-0.5 | Pond Areas | 1010 | C/G | S | | | 1 | 1 | 2 | 1 | | 1 | 1 | | | | | | ^ | 7 | |
| P-8-10_SUB | 12-11-13 | 2-5 | Pond Areas | 1140 | C/G | S | | | 1 | 1 | 2 | | | 1 | | | | | | | | 5 | |
| | | | | | | | | | | | | | | | | | | | | | | 0 | |
| | | | | | | | | | | | | | | | | | | | | | | 0 | |
| | | | | | | | | | | | | | | | | | | | | | | 0 | |
| | | | | | | | | | | | | | | | | | | | | | | 0 | |
| | | | | | | | | | | | | | | | | | | | | | | 0 | |
| | | | | | | | | | | | | | | | | | | | | | | 0 | |
| | | | | | | | | | | | | | | | | | | | | | | 0 | |
| | | | | | | | | | | | | | | | | | | | | | | 0 | |

Possible Hazard Identification: Non-Hazard; Flammable; Skin Irritant; Poison B; Unknown; Radiological
Deliverable Requested: I, II, III, IV, Other (specify) Level IV

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month): Return To Client; Disposal By Lab; Archive Until GEI releases for disposal.

Special Instructions/QC Requirements: VOCs were not composited prior to collection. ^ - Dioxins will be run from the PCB Congeners jar.

Empty Kit Relinquished by: Date: Time: Method of Shipment:

| Relinquished by: | Date/Time: | Company | Received by: | Date/Time: | Company |
|---|---|---|---|---|---|
| J Shelkey | 12-12-13 1600 | GEI | J Shelkey | 12-12-13 1600 | GEI |
| J Shelkey | 12-13-13 1330 | GEI | | 12/13 1330 | TA |
| | 12/13/13 1600 | TA | | 12/14/13 1200 | TA |

Custody Seals Intact: Δ Yes Δ No
Custody Seal No.:
Cooler Temperature(s) °C and Other Remarks:

**TestAmerica Savannah**
5102 LaRoche Avenue
Savannah, GA 31404
Phone (912) 354-7858 Fax (912) 352-0165

# Chain of Custody Record

TestAmerica

| Client Information | Sampler: Jeff Shelkey | Lab PM: Smith, Kathryn E | Carrier Tracking No(s): | COC No: 680-51811-23157.1 |
|---|---|---|---|---|
| Client Contact: Ms. Andrea Brazell | Phone: 516.317.0245 (cell) | E-Mail: kathy.smith@testamericainc.com | | Page: Page 1 of 1 |
| Company: GEI Consultants, Inc. | | | | Job #: 680-97124 |
| Address: 1375 Peachtree Street NE Suite A15 | Due Date Requested: | | | |
| City: Atlanta | TAT Requested (days): 28 - Day with Prelims due in 15 days for non-Radiochemistry parameters | | | |
| State, Zip: GA, 30309 | | | | |
| Phone: 404.592.0074 (direct) / 770.355.9276 (cell) | PO #: 1323080-11-2104 | | | |
| Email: abrazell@geiconsultants.com | WO #: | | | |
| Project Name: TIMET | Project #: 68011884 | | | |
| Site: | SSOW#: | | | |

**Analysis Requested**

| Sample Identification | Sample Date | Sample Time | Sample Type (C=comp, G=grab) | Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air) | Field Filtered Sample (Yes or No) | Perform MS/MSD (Yes or No) | A01R_U - (MOD) Local Method (Radionuclides) | A01R_Th - Standard Target List (Radionuclides) | 901.1_Ra - (MOD) NORM Target List (Radionuclides) | 904.0 - Standard Target List (Radionuclides) | 903.0 - Standard Target List (Radionuclides) | 300 - (MOD) Local Method (Anions) | 6010C, 6020A, 7470A (Metals) | 900.0 - Standard Target List (Radionuclides) | 8260C - OLM 4.2 (VOCs) | 1668C (PCB Congeners) | 8082A (PCB Aroclors) | 8270D SVOCs (Project list to include PAHs) | 8290 (Dioxins) | Total Number of containers | Special Instructions/Note: |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Preservation Code: | | | | D | D | D | D | D | N | D | D | A | N | N | N | N | | |
| | | | G | Water | N | N | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 3 | 2 | 1 | 2 | 2 | 18 | |
| RINSATE | 12/13/13 | 1200 | G | water | | | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | | 2 | | 2 | | 12 | |

**Preservation Codes:**

| | |
|---|---|
| A - HCL | M - Hexane |
| B - NaOH | N - None |
| C - Zn Acetate | O - AsNaO2 |
| D - Nitric Acid | P - Na2O4S |
| E - NaHSO4 | Q - Na2SO3 |
| F - MeOH | R - Na2S2SO3 |
| G - Amchlor | S - H2SO4 |
| H - Ascorbic Acid | T - TSP Dodecahydrate |
| I - Ice | U - Acetone |
| J - DI Water | V - MCAA |
| K - EDTA | W - ph 4-5 |
| L - EDA | Z - other (specify) |

Other:

**Possible Hazard Identification**
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

**Sample Disposal ( A fee may be assessed if samples are retained longer than 1 month)**
☐ Return To Client ☐ Disposal By Lab ☐ Archive Until GEI releases for disposal.

Deliverable Requested: I, II, III, IV, Other (specify) Level IV

Special Instructions/QC Requirements:

| Empty Kit Relinquished by: | Date: | Time: | Method of Shipment: |
|---|---|---|---|

| Relinquished by: | Date/Time: | Company | Received by: | Date/Time: | Company |
|---|---|---|---|---|---|
| Jeffrey Shelkey | 12/13/13 1330 | GEI | | 12/13/13 1330 | TA |
| Relinquished by: | 12/13/13 1400 | TA | Received by: | 12/14/13 1200 | TA |
| Relinquished by: | Date/Time: | Company | Received by: | Date/Time: | Company |

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.: | Cooler Temperature(s) °C and Other Remarks:

# Login Sample Receipt Checklist

Client: GEI Consultants, Inc.

Job Number: 680-97124-1

**Login Number: 97124**
**List Number: 1**
**Creator: Barnett, Eddie T**

**List Source: TestAmerica Savannah**

| Question | Answer | Comment |
|---|---|---|
| Radioactivity wasn't checked or is </= background as measured by a survey meter. | N/A | |
| The cooler's custody seal, if present, is intact. | True | |
| Sample custody seals, if present, are intact. | True | |
| The cooler or samples do not appear to have been compromised or tampered with. | True | |
| Samples were received on ice. | True | |
| Cooler Temperature is acceptable. | True | |
| Cooler Temperature is recorded. | True | |
| COC is present. | True | |
| COC is filled out in ink and legible. | True | |
| COC is filled out with all pertinent information. | True | |
| Is the Field Sampler's name present on COC? | True | |
| There are no discrepancies between the containers received and the COC. | True | |
| Samples are received within Holding Time. | True | |
| Sample containers have legible labels. | True | |
| Containers are not broken or leaking. | True | |
| Sample collection date/times are provided. | True | |
| Appropriate sample containers are used. | True | |
| Sample bottles are completely filled. | True | |
| Sample Preservation Verified. | True | |
| There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs | True | |
| Containers requiring zero headspace have no headspace or bubble is <6mm (1/4"). | N/A | |
| Multiphasic samples are not present. | True | |
| Samples do not require splitting or compositing. | True | |
| Residual Chlorine Checked. | N/A | |

# Login Sample Receipt Checklist

Client: GEI Consultants, Inc.

Job Number: 680-97124-1

**Login Number: 97124**
**List Number: 1**
**Creator: Hytrek, Cheryl**

**List Source: TestAmerica Sacramento**
**List Creation: 12/14/13 12:46 PM**

| Question | Answer | Comment |
|---|---|---|
| Radioactivity wasn't checked or is </= background as measured by a survey meter. | True | |
| The cooler's custody seal, if present, is intact. | True | |
| Sample custody seals, if present, are intact. | N/A | |
| The cooler or samples do not appear to have been compromised or tampered with. | True | |
| Samples were received on ice. | True | |
| Cooler Temperature is acceptable. | True | |
| Cooler Temperature is recorded. | True | |
| COC is present. | True | |
| COC is filled out in ink and legible. | True | |
| COC is filled out with all pertinent information. | True | |
| Is the Field Sampler's name present on COC? | N/A | |
| There are no discrepancies between the containers received and the COC. | True | |
| Samples are received within Holding Time. | True | |
| Sample containers have legible labels. | True | |
| Containers are not broken or leaking. | True | |
| Sample collection date/times are provided. | True | |
| Appropriate sample containers are used. | True | |
| Sample bottles are completely filled. | True | |
| Sample Preservation Verified. | N/A | |
| There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs | True | |
| Containers requiring zero headspace have no headspace or bubble is <6mm (1/4"). | True | |
| Multiphasic samples are not present. | True | |
| Samples do not require splitting or compositing. | True | |
| Residual Chlorine Checked. | N/A | |

# Login Sample Receipt Checklist

Client: GEI Consultants, Inc.

Job Number: 680-97124-1

**Login Number: 97124**
**List Number: 1**
**Creator: Daniels, Brian J**

**List Source: TestAmerica St. Louis**
**List Creation: 12/14/13 01:54 PM**

| Question | Answer | Comment |
|---|---|---|
| Radioactivity wasn't checked or is </= background as measured by a survey meter. | True | |
| The cooler's custody seal, if present, is intact. | True | |
| Sample custody seals, if present, are intact. | N/A | |
| The cooler or samples do not appear to have been compromised or tampered with. | True | |
| Samples were received on ice. | True | |
| Cooler Temperature is acceptable. | True | |
| Cooler Temperature is recorded. | True | 3.2,2.8,3.5 |
| COC is present. | True | |
| COC is filled out in ink and legible. | True | |
| COC is filled out with all pertinent information. | True | |
| Is the Field Sampler's name present on COC? | True | |
| There are no discrepancies between the containers received and the COC. | True | |
| Samples are received within Holding Time. | True | |
| Sample containers have legible labels. | True | |
| Containers are not broken or leaking. | True | |
| Sample collection date/times are provided. | True | |
| Appropriate sample containers are used. | True | |
| Sample bottles are completely filled. | True | |
| Sample Preservation Verified. | True | |
| There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs | True | |
| Containers requiring zero headspace have no headspace or bubble is <6mm (1/4"). | N/A | |
| Multiphasic samples are not present. | True | |
| Samples do not require splitting or compositing. | True | |
| Residual Chlorine Checked. | N/A | |

# Certification Summary

Client: GEI Consultants, Inc.
Project/Site: TIMET

TestAmerica Job ID: 680-97124-1

## Laboratory: TestAmerica Savannah

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

| Authority | Program | EPA Region | Certification ID | Expiration Date |
|---|---|---|---|---|
| | AFCEE | | SAVLAB | |
| A2LA | DoD ELAP | | 399.01 | 02-28-15 |
| A2LA | ISO/IEC 17025 | | 399.01 | 02-28-15 |
| Alabama | State Program | 4 | 41450 | 06-30-14 |
| Arkansas DEQ | State Program | 6 | 88-0692 | 02-01-15 |
| California | NELAP | 9 | 3217CA | 07-31-14 |
| Colorado | State Program | 8 | N/A | 12-31-14 |
| Connecticut | State Program | 1 | PH-0161 | 03-31-15 |
| Florida | NELAP | 4 | E87052 | 06-30-14 |
| GA Dept. of Agriculture | State Program | 4 | N/A | 06-30-14 |
| Georgia | State Program | 4 | N/A | 06-30-14 |
| Georgia | State Program | 4 | 803 | 06-30-14 |
| Guam | State Program | 9 | 09-005r | 04-17-14 |
| Hawaii | State Program | 9 | N/A | 06-30-14 |
| Illinois | NELAP | 5 | 200022 | 11-30-14 |
| Indiana | State Program | 5 | N/A | 06-30-14 |
| Iowa | State Program | 7 | 353 | 07-01-15 |
| Kentucky (DW) | State Program | 4 | 90084 | 12-31-14 |
| Kentucky (UST) | State Program | 4 | 18 | 06-30-14 |
| Louisiana | NELAP | 6 | LA100015 | 12-31-14 |
| Maine | State Program | 1 | GA00006 | 08-16-14 |
| Maryland | State Program | 3 | 250 | 12-31-14 |
| Massachusetts | State Program | 1 | M-GA006 | 06-30-14 |
| Michigan | State Program | 5 | 9925 | 06-30-14 |
| Mississippi | State Program | 4 | N/A | 06-30-14 |
| Montana | State Program | 8 | CERT0081 | 01-01-15 |
| Nebraska | State Program | 7 | TestAmerica-Savannah | 06-30-14 |
| New Jersey | NELAP | 2 | GA769 | 06-30-14 |
| New Mexico | State Program | 6 | N/A | 06-30-14 |
| New York | NELAP | 2 | 10842 | 03-31-14 |
| North Carolina DENR | State Program | 4 | 269 | 12-31-14 |
| North Carolina DHHS | State Program | 4 | 13701 | 07-31-14 |
| Oklahoma | State Program | 6 | 9984 | 08-31-14 |
| Pennsylvania | NELAP | 3 | 68-00474 | 06-30-14 |
| Puerto Rico | State Program | 2 | GA00006 | 01-01-14 * |
| South Carolina | State Program | 4 | 98001 | 06-30-14 |
| Tennessee | State Program | 4 | TN02961 | 06-30-14 |
| Texas | NELAP | 6 | T104704185-08-TX | 11-30-14 |
| USDA | Federal | | SAV 3-04 | 04-07-14 |
| Virginia | NELAP | 3 | 460161 | 06-14-14 |
| Washington | State Program | 10 | C1794 | 06-10-14 |
| West Virginia DEP | State Program | 3 | 94 | 06-30-14 |
| West Virginia DHHR | State Program | 3 | 9950C | 12-31-13 * |
| Wisconsin | State Program | 5 | 999819810 | 08-31-14 |
| Wyoming | State Program | 8 | 8TMS-L | 06-30-14 |

## Laboratory: TestAmerica Sacramento

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

* Expired certification is currently pending renewal and is considered valid.

## Laboratory: TestAmerica Sacramento (Continued)

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

| Authority | Program | EPA Region | Certification ID | Expiration Date |
|---|---|---|---|---|
| A2LA | DoD ELAP | | 2928-01 | 03-31-14 |
| Alaska (UST) | State Program | 10 | UST-055 | 02-28-14 * |
| Arizona | State Program | 9 | AZ0708 | 08-11-14 |
| Arkansas DEQ | State Program | 6 | 88-0691 | 06-17-14 |
| California | State Program | 9 | 2897 | 01-31-15 |
| Colorado | State Program | 8 | N/A | 08-31-14 |
| Connecticut | State Program | 1 | PH-0691 | 06-30-15 |
| Florida | NELAP | 4 | E87570 | 06-30-14 |
| Guam | State Program | 9 | N/A | 08-31-14 |
| Hawaii | State Program | 9 | N/A | 01-29-15 |
| Illinois | NELAP | 5 | 200060 | 03-17-15 |
| Kansas | NELAP | 7 | E-10375 | 10-31-14 |
| Louisiana | NELAP | 6 | 30612 | 06-30-14 |
| Michigan | State Program | 5 | 9947 | 02-28-14 * |
| Nebraska | State Program | 7 | NE-OS-22-13 | 02-28-14 * |
| Nevada | State Program | 9 | CA44 | 07-31-14 |
| New Jersey | NELAP | 2 | CA005 | 06-30-14 |
| New York | NELAP | 2 | 11666 | 03-31-14 |
| Northern Mariana Islands | State Program | 9 | MP0007 | 02-28-14 * |
| Oregon | NELAP | 10 | CA200005 | 01-29-15 |
| Pennsylvania | NELAP | 3 | 68-01272 | 03-31-14 |
| South Carolina | State Program | 4 | 87014 | 06-30-14 |
| Texas | NELAP | 6 | T104704399-08-TX | 05-31-14 |
| US Fish & Wildlife | Federal | | LE148388-0 | 12-31-14 |
| USDA | Federal | | P330-11-00436 | 12-30-14 |
| USEPA UCMR | Federal | 1 | CA00044 | 11-06-14 |
| Utah | NELAP | 8 | QUAN1 | 02-28-15 |
| Washington | State Program | 10 | C581 | 05-05-14 |
| West Virginia DHHR | State Program | 3 | 9930C | 12-31-14 |
| Wyoming | State Program | 8 | 8TMS-Q | 02-28-14 * |

## Laboratory: TestAmerica St. Louis

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

| Authority | Program | EPA Region | Certification ID | Expiration Date |
|---|---|---|---|---|
| Alaska | State Program | 10 | MO00054 | 06-30-14 |
| California | NELAP | 9 | 09266CA | 03-31-14 |
| Connecticut | State Program | 1 | PH-0241 | 03-31-15 |
| Florida | NELAP | 4 | E87689 | 06-30-14 |
| Illinois | NELAP | 5 | 200023 | 11-30-14 |
| Iowa | State Program | 7 | 373 | 12-01-14 |
| Kansas | NELAP | 7 | E-10236 | 10-31-14 |
| Kentucky (DW) | State Program | 4 | 90125 | 12-31-14 |
| L-A-B | DoD ELAP | | L2305 | 01-10-16 |
| Louisiana | NELAP | 6 | LA140007 | 12-31-14 |
| Maryland | State Program | 3 | 310 | 09-30-14 |
| Missouri | State Program | 7 | 780 | 06-30-14 |
| Nevada | State Program | 9 | MO000542013-1 | 07-31-14 |
| New Jersey | NELAP | 2 | MO002 | 06-30-14 |
| New Mexico | State Program | 6 | | 06-30-10 * |

* Expired certification is currently pending renewal and is considered valid.

# Certification Summary

Client: GEI Consultants, Inc.
Project/Site: TIMET

TestAmerica Job ID: 680-97124-1

## Laboratory: TestAmerica St. Louis (Continued)

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

| Authority | Program | EPA Region | Certification ID | Expiration Date |
|---|---|---|---|---|
| New York | NELAP | 2 | 11616 | 04-01-14 |
| North Dakota | State Program | 8 | R207 | 06-30-14 |
| NRC | NRC | | 24-24817-01 | 12-31-22 |
| Oklahoma | State Program | 6 | 2013-049 | 08-31-14 |
| Pennsylvania | NELAP | 3 | 68-00540 | 02-28-14 |
| South Carolina | State Program | 4 | 85002001 | 06-30-14 |
| Texas | NELAP | 6 | T104704193-13-6 | 07-31-14 |
| USDA | Federal | | P330-07-00122 | 01-09-17 |
| USEPA Reg V SDWA | Federal | 1 | WG-15J | 08-30-14 |
| Utah | NELAP | 8 | MO000542013-5 | 07-31-14 |
| Virginia | NELAP | 3 | 2236 | 06-14-14 |
| Washington | State Program | 10 | C592 | 08-30-14 |
| West Virginia DEP | State Program | 3 | 381 | 02-28-14 * |

* Expired certification is currently pending renewal and is considered valid.

# Tracer/Carrier Summary

Client: GEI Consultants, Inc.
Project/Site: TIMET

TestAmerica Job ID: 680-97124-1

## Method: 903.0 - Radium-226 (GFPC)

Matrix: Solid

Prep Type: Total/NA

| | | Percent Yield (Acceptance Limits) |
|---|---|---|
| Lab Sample ID | Client Sample ID | Ba (40-110) |
| 680-97124-1 | PP-B-1 0-4 | 92.9 |
| 680-97124-1 DU | PP-B-1 0-4 | 93.2 |
| 680-97124-2 | PP-B-1 11-13 | 91.7 |
| 680-97124-3 | PP-B-2 0-4 | 100 |
| 680-97124-4 | PP-B-2 7-15 | 96.5 |
| 680-97124-5 | FM-B-1 0-2 | 94.1 |
| 680-97124-6 | FM-B-1 2-4 | 88.2 |
| 680-97124-7 | FM-B-1 13-15 | 97.3 |
| 680-97124-8 | FM-B-2 0-2 | 98.8 |
| 680-97124-9 | FM-B-2 2-4 | 96.2 |
| 680-97124-10 | FM-B-2 13-15 | 91.2 |
| 680-97124-13 | P-B-10_SS | 92.3 |
| 680-97124-14 | P-B-10_SUB | 90.6 |
| LCS 160-94731/2-A | Lab Control Sample | 87.9 |
| MB 160-94731/1-A | Method Blank | 97.6 |

**Tracer/Carrier Legend**

Ba = Ba Carrier

## Method: 903.0 - Total Alpha-Emitting Radium Isotopes by GFPC

Matrix: Water

Prep Type: Total/NA

| | | Percent Yield (Acceptance Limits) |
|---|---|---|
| Lab Sample ID | Client Sample ID | Ba (40-110) |
| 680-97124-15 | RINSATE | 101 |
| LCS 160-92276/2-A | Lab Control Sample | 96.5 |
| MB 160-92276/1-A | Method Blank | 106 |

**Tracer/Carrier Legend**

Ba = Ba Carrier

## Method: 904.0 - Radium-228 (GFPC)

Matrix: Solid

Prep Type: Total/NA

| | | Percent Yield (Acceptance Limits) | |
|---|---|---|---|
| Lab Sample ID | Client Sample ID | Ba (40-110) | Y (40-110) |
| 680-97124-1 | PP-B-1 0-4 | 92.7 | 88.2 |
| 680-97124-1 DU | PP-B-1 0-4 | 92.9 | 93.1 |
| 680-97124-2 | PP-B-1 11-13 | 91.2 | 89.7 |
| 680-97124-3 | PP-B-2 0-4 | 99.5 | 89.3 |
| 680-97124-4 | PP-B-2 7-15 | 96.0 | 86.0 |
| 680-97124-5 | FM-B-1 0-2 | 93.7 | 86.7 |
| 680-97124-6 | FM-B-1 2-4 | 87.8 | 89.0 |
| 680-97124-7 | FM-B-1 13-15 | 97.0 | 88.2 |
| 680-97124-8 | FM-B-2 0-2 | 98.4 | 88.2 |
| 680-97124-9 | FM-B-2 2-4 | 95.5 | 87.1 |
| 680-97124-10 | FM-B-2 13-15 | 90.7 | 89.0 |
| 680-97124-13 | P-B-10_SS | 91.9 | 89.3 |

# Tracer/Carrier Summary

Client: GEI Consultants, Inc.
Project/Site: TIMET

TestAmerica Job ID: 680-97124-1

## Method: 904.0 - Radium-228 (GFPC) (Continued)

Matrix: Solid — Prep Type: Total/NA

| | | Percent Yield (Acceptance Limits) | |
|---|---|---|---|
| | | Ba | Y |
| Lab Sample ID | Client Sample ID | (40-110) | (40-110) |
| 680-97124-14 | P-B-10_SUB | 90.0 | 94.6 |
| LCS 160-94735/2-A | Lab Control Sample | 87.9 | 88.2 |
| MB 160-94735/1-A | Method Blank | 97.6 | 90.8 |

**Tracer/Carrier Legend**

Ba = Ba Carrier

Y = Y Carrier

## Method: 904.0 - Radium-228 (GFPC)

Matrix: Water — Prep Type: Total/NA

| | | Percent Yield (Acceptance Limits) | |
|---|---|---|---|
| | | Ba | Y |
| Lab Sample ID | Client Sample ID | (40-110) | (40-110) |
| 680-97124-15 | RINSATE | 101 | 89.0 |
| LCS 160-92278/2-A | Lab Control Sample | 96.5 | 89.3 |
| MB 160-92278/1-A | Method Blank | 106 | 90.5 |

**Tracer/Carrier Legend**

Ba = Ba Carrier

Y = Y Carrier

## Method: A-01-R - Isotopic Thorium (Alpha Spectrometry)

Matrix: Solid — Prep Type: Total/NA

| | | Percent Yield (Acceptance Limits) |
|---|---|---|
| | | Th-229 |
| Lab Sample ID | Client Sample ID | (30-110) |
| 680-97124-1 | PP-B-1 0-4 | 71.3 |
| 680-97124-1 DU | PP-B-1 0-4 | 69.2 |
| 680-97124-2 | PP-B-1 11-13 | 83.0 |
| 680-97124-3 | PP-B-2 0-4 | 83.8 |
| 680-97124-4 | PP-B-2 7-15 | 78.0 |
| 680-97124-5 | FM-B-1 0-2 | 73.0 |
| 680-97124-6 | FM-B-1 2-4 | 84.7 |
| 680-97124-7 | FM-B-1 13-15 | 80.8 |
| 680-97124-8 | FM-B-2 0-2 | 85.7 |
| 680-97124-9 | FM-B-2 2-4 | 82.5 |
| 680-97124-10 | FM-B-2 13-15 | 78.0 |
| 680-97124-13 | P-B-10_SS | 83.1 |
| 680-97124-14 | P-B-10_SUB | 75.2 |
| LCS 160-98058/2-A | Lab Control Sample | 85.3 |
| MB 160-98058/1-A | Method Blank | 82.7 |

**Tracer/Carrier Legend**

Th-229 = Thorium-229

# Tracer/Carrier Summary

Client: GEI Consultants, Inc.
Project/Site: TIMET

TestAmerica Job ID: 680-97124-1

## Method: A-01-R - Isotopic Thorium (Alpha Spectrometry)

Matrix: Water — Prep Type: Total/NA

| Lab Sample ID | Client Sample ID | Percent Yield (Acceptance Limits) Th-229 (30-110) |
|---|---|---|
| 680-97124-15 | RINSATE | 77.5 |
| LCS 160-100386/2-A | Lab Control Sample | 76.3 |
| LCSD 160-100386/3-A | Lab Control Sample Dup | 77.7 |
| MB 160-100386/1-A | Method Blank | 83.1 |

**Tracer/Carrier Legend**

Th-229 = Thorium-229

## Method: A-01-R - Isotopic Uranium (Alpha Spectrometry)

Matrix: Solid — Prep Type: Total/NA

| Lab Sample ID | Client Sample ID | Percent Yield (Acceptance Limits) U-232 (30-110) |
|---|---|---|
| 680-97124-1 | PP-B-1 0-4 | 81.4 |
| 680-97124-1 DU | PP-B-1 0-4 | 82.0 |
| 680-97124-2 | PP-B-1 11-13 | 81.1 |
| 680-97124-3 | PP-B-2 0-4 | 76.2 |
| 680-97124-4 | PP-B-2 7-15 | 80.6 |
| 680-97124-5 | FM-B-1 0-2 | 47.1 |
| 680-97124-6 | FM-B-1 2-4 | 80.0 |
| 680-97124-7 | FM-B-1 13-15 | 83.2 |
| 680-97124-8 | FM-B-2 0-2 | 73.2 |
| 680-97124-9 | FM-B-2 2-4 | 86.0 |
| 680-97124-10 | FM-B-2 13-15 | 80.7 |
| 680-97124-13 | P-B-10_SS | 84.5 |
| 680-97124-14 | P-B-10_SUB | 69.3 |
| LCS 160-98133/2-A | Lab Control Sample | 83.2 |
| MB 160-98133/1-A | Method Blank | 78.1 |

**Tracer/Carrier Legend**

U-232 = Uranium-232

## Method: A-01-R - Isotopic Uranium (Alpha Spectrometry)

Matrix: Water — Prep Type: Total/NA

| Lab Sample ID | Client Sample ID | Percent Yield (Acceptance Limits) U-232 (30-110) |
|---|---|---|
| 680-97124-15 | RINSATE | 82.9 |
| LCS 160-97007/2-A | Lab Control Sample | 70.2 |
| LCSD 160-97007/3-A | Lab Control Sample Dup | 10.8 X |
| MB 160-97007/1-A | Method Blank | 85.8 |

**Tracer/Carrier Legend**

U-232 = Uranium-232

# Toxicity Summary

Client: GEI Consultants, Inc.
Project/Site: TIMET

TestAmerica Job ID: 680-97124-1

## Client Sample ID: P-B-11_SS — Lab Sample ID: 680-97124-11

| Analyte | Result | Qualifier | NONE | NONE | Unit | WHO 2005 ND = 0 TEF | TEQ | Method |
|---|---|---|---|---|---|---|---|---|
| Total PCB TEQ | | | | | pg/g | | 91 | TEQ |
| Total TEQ | | | | | pg/g | | 91 | TEQ |

| Analyte | Result | Qualifier | RL | EDL | Unit | WHO 2005 ND = 0 TEF | TEQ | Method |
|---|---|---|---|---|---|---|---|---|
| **PCB-77** | **820** | **G** | 89 | 89 | pg/g | 0.0001 | **0.082** | 1668C |
| PCB-81 | 93 | U G | 93 | 93 | pg/g | 0.0003 | 0.00 | 1668C |
| **PCB-105** | **28000** | **E G** | 710 | 710 | pg/g | 0.00003 | **0.84** | 1668C |
| **PCB-114** | **940** | **G** | 730 | 730 | pg/g | 0.00003 | **0.028** | 1668C |
| **PCB-118** | **51000** | **E G** | 670 | 670 | pg/g | 0.00003 | **1.5** | 1668C |
| **PCB-123** | **850** | **G** | 690 | 690 | pg/g | 0.00003 | **0.026** | 1668C |
| **PCB-126** | **880** | **G** | 840 | 840 | pg/g | 0.1 | **88** | 1668C |
| **PCB-156/157** | **10000** | **E G** | 130 | 130 | pg/g | 0.00003 | **0.30** | 1668C |
| **PCB-167** | **3300** | **G** | 97 | 97 | pg/g | 0.00003 | **0.099** | 1668C |
| PCB-169 | 120 | U G | 120 | 120 | pg/g | 0.03 | 0.00 | 1668C |
| **PCB-189** | **790** | **G** | 18 | 18 | pg/g | 0.00003 | **0.024** | 1668C |

## Client Sample ID: P-B-10_SS — Lab Sample ID: 680-97124-13

| Analyte | Result | Qualifier | NONE | NONE | Unit | WHO 2005 ND = 0 TEF | TEQ | Method |
|---|---|---|---|---|---|---|---|---|
| Total PCB TEQ | | | | | pg/g | | 29 | TEQ |
| Total TEQ | | | | | pg/g | | 500 | TEQ |

| Analyte | Result | Qualifier | RL | EDL | Unit | WHO 2005 ND = 0 TEF | TEQ | Method |
|---|---|---|---|---|---|---|---|---|
| **PCB-77** | **350** | **G** | 68 | 68 | pg/g | 0.0001 | **0.035** | 1668C |
| PCB-81 | 66 | U G | 66 | 66 | pg/g | 0.0003 | 0.00 | 1668C |
| **PCB-105** | **6800** | **G** | 210 | 210 | pg/g | 0.00003 | **0.20** | 1668C |
| **PCB-114** | **380** | **G** | 200 | 200 | pg/g | 0.00003 | **0.011** | 1668C |
| **PCB-118** | **15000** | **G** | 190 | 190 | pg/g | 0.00003 | **0.45** | 1668C |
| **PCB-123** | **220** | **G** | 200 | 200 | pg/g | 0.00003 | **0.0066** | 1668C |
| **PCB-126** | **280** | **G** | 230 | 230 | pg/g | 0.1 | **28** | 1668C |
| **PCB-156/157** | **2700** | **G** | 48 | 48 | pg/g | 0.00003 | **0.081** | 1668C |
| **PCB-167** | **920** | **G** | 38 | 38 | pg/g | 0.00003 | **0.028** | 1668C |
| PCB-169 | 42 | U G | 42 | 42 | pg/g | 0.03 | 0.00 | 1668C |
| **PCB-189** | **380** | | 21 | 7.0 | pg/g | 0.00003 | **0.011** | 1668C |
| **2,3,7,8-TCDD** | **10** | **J q H** | 11 | 2.8 | pg/g | 1 | **10** | 8290A |
| **1,2,3,7,8-PeCDD** | **43** | **J H** | 53 | 7.0 | pg/g | 1 | **43** | 8290A |
| **1,2,3,7,8-PeCDF** | **480** | **H** | 53 | 28 | pg/g | 0.03 | **14** | 8290A |
| **2,3,4,7,8-PeCDF** | **260** | **H** | 53 | 31 | pg/g | 0.3 | **78** | 8290A |
| **1,2,3,4,7,8-HxCDD** | **30** | **J q H** | 53 | 3.2 | pg/g | 0.1 | **3.0** | 8290A |
| **1,2,3,6,7,8-HxCDD** | **73** | **H** | 53 | 3.1 | pg/g | 0.1 | **7.3** | 8290A |

**TEF Reference:**

WHO 2005 = World Health Organization (WHO) 2005 TEF, Dioxins, Furans and PCB Congeners

## Client Sample ID: P-B-10_SS (Continued) — Lab Sample ID: 680-97124-13

| Analyte | Result | Qualifier | RL | EDL | Unit | WHO 2005 ND = 0 TEF | WHO 2005 ND = 0 TEQ | Method |
|---|---|---|---|---|---|---|---|---|
| 1,2,3,7,8,9-HxCDD | 57 | H | 53 | 2.9 | pg/g | 0.1 | 5.7 | 8290A |
| 1,2,3,4,7,8-HxCDF | 1300 | H | 53 | 50 | pg/g | 0.1 | 130 | 8290A |
| 1,2,3,6,7,8-HxCDF | 720 | H | 53 | 46 | pg/g | 0.1 | 72 | 8290A |
| 1,2,3,7,8,9-HxCDF | 100 | G H | 55 | 55 | pg/g | 0.1 | 10 | 8290A |
| 2,3,4,6,7,8-HxCDF | 170 | H | 53 | 50 | pg/g | 0.1 | 17 | 8290A |
| 1,2,3,4,6,7,8-HpCDD | 250 | H | 53 | 2.4 | pg/g | 0.01 | 2.5 | 8290A |
| 1,2,3,4,6,7,8-HpCDF | 3300 | H | 53 | 49 | pg/g | 0.01 | 33 | 8290A |
| 1,2,3,4,7,8,9-HpCDF | 1200 | G H | 61 | 61 | pg/g | 0.01 | 12 | 8290A |
| OCDD | 380 | H | 110 | 2.9 | pg/g | 0.0003 | 0.11 | 8290A |
| OCDF | 25000 | H | 110 | 29 | pg/g | 0.0003 | 7.5 | 8290A |
| 2,3,7,8-TCDF - RA | 280 | H | 11 | 4.8 | pg/g | 0.1 | 28 | 8290A |

## Client Sample ID: RINSATE — Lab Sample ID: 680-97124-15

| Analyte | Result | Qualifier | RL | EDL | Unit | WHO 2005 ND = 0 TEF | WHO 2005 ND = 0 TEQ | Method |
|---|---|---|---|---|---|---|---|---|
| PCB-77 | 3.3 | U | 20 | 3.3 | pg/L | 0.0001 | 0.00 | 1668C |
| PCB-81 | 3.2 | U | 20 | 3.2 | pg/L | 0.0003 | 0.00 | 1668C |
| PCB-105 | 4.9 | J B q | 20 | 3.3 | pg/L | 0.00003 | 0.00015 | 1668C |
| PCB-114 | 3.1 | U | 20 | 3.1 | pg/L | 0.00003 | 0.00 | 1668C |
| PCB-118 | 10 | J B | 20 | 2.8 | pg/L | 0.00003 | 0.00030 | 1668C |
| PCB-123 | 2.9 | U | 20 | 2.9 | pg/L | 0.00003 | 0.00 | 1668C |
| PCB-126 | 3.7 | U | 20 | 3.7 | pg/L | 0.1 | 0.00 | 1668C |
| PCB-156/157 | 3.1 | U | 40 | 3.1 | pg/L | 0.00003 | 0.00 | 1668C |
| PCB-167 | 2.4 | U | 20 | 2.4 | pg/L | 0.00003 | 0.00 | 1668C |
| PCB-169 | 2.9 | U | 20 | 2.9 | pg/L | 0.03 | 0.00 | 1668C |
| PCB-189 | 2.8 | U | 20 | 2.8 | pg/L | 0.00003 | 0.00 | 1668C |
| 2,3,7,8-TCDD | 0.15 | U | 10 | 0.15 | pg/L | 1 | 0.00 | 8290A |
| 2,3,7,8-TCDF | 0.28 | J B | 10 | 0.092 | pg/L | 0.1 | 0.028 | 8290A |
| 1,2,3,7,8-PeCDD | 0.19 | U | 50 | 0.19 | pg/L | 1 | 0.00 | 8290A |
| 1,2,3,7,8-PeCDF | 0.14 | U | 50 | 0.14 | pg/L | 0.03 | 0.00 | 8290A |
| 2,3,4,7,8-PeCDF | 0.15 | U | 50 | 0.15 | pg/L | 0.3 | 0.00 | 8290A |
| 1,2,3,4,7,8-HxCDD | 0.13 | U | 50 | 0.13 | pg/L | 0.1 | 0.00 | 8290A |
| 1,2,3,6,7,8-HxCDD | 0.12 | U | 50 | 0.12 | pg/L | 0.1 | 0.00 | 8290A |
| 1,2,3,7,8,9-HxCDD | 0.11 | U | 50 | 0.11 | pg/L | 0.1 | 0.00 | 8290A |
| 1,2,3,4,7,8-HxCDF | 0.60 | J q B | 50 | 0.11 | pg/L | 0.1 | 0.060 | 8290A |
| 1,2,3,6,7,8-HxCDF | 0.27 | U | 50 | 0.27 | pg/L | 0.1 | 0.00 | 8290A |
| 1,2,3,7,8,9-HxCDF | 0.12 | U | 50 | 0.12 | pg/L | 0.1 | 0.00 | 8290A |
| 2,3,4,6,7,8-HxCDF | 0.11 | U | 50 | 0.11 | pg/L | 0.1 | 0.00 | 8290A |
| 1,2,3,4,6,7,8-HpCDD | 0.89 | J q B | 50 | 0.16 | pg/L | 0.01 | 0.0089 | 8290A |
| 1,2,3,4,6,7,8-HpCDF | 1.4 | J q B | 50 | 0.13 | pg/L | 0.01 | 0.014 | 8290A |
| 1,2,3,4,7,8,9-HpCDF | 0.15 | U | 50 | 0.15 | pg/L | 0.01 | 0.00 | 8290A |
| OCDD | 8.3 | J B | 100 | 0.20 | pg/L | 0.0003 | 0.0025 | 8290A |
| OCDF | 2.6 | J q B | 100 | 0.18 | pg/L | 0.0003 | 0.00078 | 8290A |

**TEF Reference:**

WHO 2005 = World Health Organization (WHO) 2005 TEF, Dioxins, Furans and PCB Congeners

# Isotope Dilution Summary

Client: GEI Consultants, Inc.
Project/Site: TIMET

TestAmerica Job ID: 680-97124-1

## Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS)

Matrix: Solid

Prep Type: Total/NA

| | | Percent Isotope Dilution Recovery (Acceptance Limits) | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Lab Sample ID | Client Sample ID | PCB-4L (5-145) | PCB-15L (5-145) | PCB-123L (10-145) | PCB-114L (10-145) | PCB-202L (10-145) | PCB-3L (5-145) | PCB-118L (10-145) | PCB-126L (10-145) |
| 680-97124-11 | P-B-11_SS | 28 | 28 | 18 | 17 | 14 | 33 | 18 | 19 |
| 680-97124-13 | P-B-10_SS | 50 | 68 | 85 | 85 | 91 | 53 | 87 | 93 |
| MB 320-34244/1-A | Method Blank | 67 | 94 | 108 | 107 | 101 | 78 | 110 | 114 |
| MB 320-34661/1-A | Method Blank | 37 | 33 | 30 | 28 | 33 | 42 | 29 | 32 |

| | | Percent Isotope Dilution Recovery (Acceptance Limits) | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Lab Sample ID | Client Sample ID | PCB-206L (10-145) | PCB-169L (10-145) | PCB-37L (5-145) | PCB-19L (5-145) | PCB-188L (10-145) | PCB-54L (5-145) | CB-156L/15 (10-145) | PCB-167L (10-145) |
| 680-97124-11 | P-B-11_SS | 14 | 18 | 22 | 29 | 14 | 20 | 17 | 17 |
| 680-97124-13 | P-B-10_SS | 94 | 98 | 67 | 66 | 80 | 54 | 86 | 85 |
| MB 320-34244/1-A | Method Blank | 130 | 127 | 103 | 86 | 91 | 77 | 119 | 112 |
| MB 320-34661/1-A | Method Blank | 36 | 32 | 26 | 39 | 29 | 27 | 29 | 30 |

| | | Percent Isotope Dilution Recovery (Acceptance Limits) | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Lab Sample ID | Client Sample ID | PCB-209L (10-145) | PCB-189L (10-145) | PCB-105L (10-145) | PCB-208L (10-145) | PCB-1L (5-145) | PCB-104L (10-145) | PCB-81L (10-145) | PCB-77L (10-145) |
| 680-97124-11 | P-B-11_SS | 15 | 14 | 19 | 15 | 32 | 16 | 20 | 21 |
| 680-97124-13 | P-B-10_SS | 90 | 85 | 89 | 97 | 43 | 63 | 81 | 82 |
| MB 320-34244/1-A | Method Blank | 128 | 114 | 108 | 117 | 60 | 83 | 105 | 111 |
| MB 320-34661/1-A | Method Blank | 35 | 32 | 29 | 37 | 39 | 26 | 29 | 29 |

| | | Percent Isotope Dilution Recovery (Acceptance Limits) | |
|---|---|---|---|
| Lab Sample ID | Client Sample ID | PCB-205L (10-145) | PCB-155L (10-145) |
| 680-97124-11 | P-B-11_SS | 14 | 15 |
| 680-97124-13 | P-B-10_SS | 92 | 63 |
| MB 320-34244/1-A | Method Blank | 124 | 92 |
| MB 320-34661/1-A | Method Blank | 35 | 24 |

**Surrogate Legend**

PCB-4L = PCB-4L
PCB-15L = PCB-15L
PCB-123L = PCB-123L
PCB-114L = PCB-114L
PCB-202L = PCB-202L
PCB-3L = PCB-3L
PCB-118L = PCB-118L
PCB-126L = PCB-126L
PCB-206L = PCB-206L
PCB-169L = PCB-169L
PCB-37L = PCB-37L
PCB-19L = PCB-19L
PCB-188L = PCB-188L
PCB-54L = PCB-54L
PCB-156L/157L = PCB-156L/157L
PCB-167L = PCB-167L
PCB-209L = PCB-209L
PCB-189L = PCB-189L
PCB-105L = PCB-105L
PCB-208L = PCB-208L
PCB-1L = PCB-1L
PCB-104L = PCB-104L

PCB-81L = PCB-81L
PCB-77L = PCB-77L
PCB-205L = PCB-205L
PCB-155L = PCB-155L

## Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS)

Matrix: Solid

Prep Type: Total/NA

| | | Percent Isotope Dilution Recovery (Acceptance Limits) | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | PCB-4L | PCB-15L | PCB-123L | PCB-114L | PCB-3L | PCB-118L | PCB-126L | PCB-202L |
| **Lab Sample ID** | **Client Sample ID** | (15-145) | (15-145) | (40-145) | (40-145) | (15-145) | (40-145) | (40-145) | (40-145) |
| LCS 320-34244/2-A | Lab Control Sample | 49 | 59 | 51 | 50 | 56 | 52 | 57 | 50 |
| LCS 320-34661/2-A | Lab Control Sample | 51 | 66 | 71 | 71 | 53 | 70 | 76 | 74 |

| | | Percent Isotope Dilution Recovery (Acceptance Limits) | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | PCB-169L | PCB-206L | PCB-37L | PCB-19L | PCB-188L | PCB-54L | CB-156L/15 | PCB-167L |
| **Lab Sample ID** | **Client Sample ID** | (40-145) | (40-145) | (15-145) | (15-145) | (40-145) | (15-145) | (40-145) | (40-145) |
| LCS 320-34244/2-A | Lab Control Sample | 64 | 62 | 53 | 57 | 45 | 46 | 58 | 56 |
| LCS 320-34661/2-A | Lab Control Sample | 84 | 83 | 63 | 63 | 66 | 49 | 73 | 72 |

| | | Percent Isotope Dilution Recovery (Acceptance Limits) | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | PCB-209L | PCB-189L | PCB-105L | PCB-208L | PCB-1L | PCB-104L | PCB-81L | PCB-77L |
| **Lab Sample ID** | **Client Sample ID** | (40-145) | (40-145) | (40-145) | (40-145) | (15-145) | (40-145) | (40-145) | (40-145) |
| LCS 320-34244/2-A | Lab Control Sample | 64 | 57 | 54 | 58 | 47 | 42 | 53 | 53 |
| LCS 320-34661/2-A | Lab Control Sample | 81 | 70 | 72 | 82 | 44 | 56 | 70 | 73 |

| | | Percent Isotope Dilution Recovery (Acceptance Limits) | |
|---|---|---|---|
| | | PCB-205L | PCB-155L |
| **Lab Sample ID** | **Client Sample ID** | (40-145) | (40-145) |
| LCS 320-34244/2-A | Lab Control Sample | 63 | 45 |
| LCS 320-34661/2-A | Lab Control Sample | 78 | 56 |

**Surrogate Legend**

PCB-4L = PCB-4L
PCB-15L = PCB-15L
PCB-123L = PCB-123L
PCB-114L = PCB-114L
PCB-3L = PCB-3L
PCB-118L = PCB-118L
PCB-126L = PCB-126L
PCB-202L = PCB-202L
PCB-169L = PCB-169L
PCB-206L = PCB-206L
PCB-37L = PCB-37L
PCB-19L = PCB-19L
PCB-188L = PCB-188L
PCB-54L = PCB-54L
PCB-156L/157L = PCB-156L/157L
PCB-167L = PCB-167L
PCB-209L = PCB-209L
PCB-189L = PCB-189L
PCB-105L = PCB-105L
PCB-208L = PCB-208L
PCB-1L = PCB-1L
PCB-104L = PCB-104L
PCB-81L = PCB-81L
PCB-77L = PCB-77L
PCB-205L = PCB-205L

PCB-155L = PCB-155L

## Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS)

Matrix: Water

Prep Type: Total/NA

| | | Percent Isotope Dilution Recovery (Acceptance Limits) | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | PCB-1L | PCB-3L | PCB-4L | PCB-15L | PCB-19L | PCB-37L | PCB-54L | PCB-77L |
| Lab Sample ID | Client Sample ID | (5-145) | (5-145) | (5-145) | (5-145) | (5-145) | (5-145) | (5-145) | (10-145) |
| 680-97124-15 | RINSATE | 47 | 57 | 50 | 75 | 64 | 78 | 55 | 85 |
| MB 320-33192/1-A | Method Blank | 51 | 60 | 56 | 73 | 61 | 70 | 55 | 79 |

| | | Percent Isotope Dilution Recovery (Acceptance Limits) | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | PCB-81L | PCB-104L | PCB-105L | PCB-114L | PCB-118L | PCB-123L | PCB-126L | PCB-155L |
| Lab Sample ID | Client Sample ID | (10-145) | (10-145) | (10-145) | (10-145) | (10-145) | (10-145) | (10-145) | (10-145) |
| 680-97124-15 | RINSATE | 85 | 52 | 80 | 77 | 80 | 79 | 82 | 61 |
| MB 320-33192/1-A | Method Blank | 76 | 59 | 75 | 75 | 77 | 75 | 77 | 62 |

| | | Percent Isotope Dilution Recovery (Acceptance Limits) | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | CB-156L/15 | PCB-167L | PCB-169L | PCB-188L | PCB-189L | PCB-202L | PCB-205L | PCB-206L |
| Lab Sample ID | Client Sample ID | (10-145) | (10-145) | (10-145) | (10-145) | (10-145) | (10-145) | (10-145) | (10-145) |
| 680-97124-15 | RINSATE | 87 | 85 | 89 | 70 | 80 | 79 | 88 | 91 |
| MB 320-33192/1-A | Method Blank | 84 | 83 | 83 | 65 | 80 | 77 | 88 | 89 |

| | | Percent Isotope Dilution Recovery (Acceptance Limits) | |
|---|---|---|---|
| | | PCB-208L | PCB-209L |
| Lab Sample ID | Client Sample ID | (10-145) | (10-145) |
| 680-97124-15 | RINSATE | 89 | 96 |
| MB 320-33192/1-A | Method Blank | 87 | 86 |

**Surrogate Legend**

PCB-1L = PCB-1L
PCB-3L = PCB-3L
PCB-4L = PCB-4L
PCB-15L = PCB-15L
PCB-19L = PCB-19L
PCB-37L = PCB-37L
PCB-54L = PCB-54L
PCB-77L = PCB-77L
PCB-81L = PCB-81L
PCB-104L = PCB-104L
PCB-105L = PCB-105L
PCB-114L = PCB-114L
PCB-118L = PCB-118L
PCB-123L = PCB-123L
PCB-126L = PCB-126L
PCB-155L = PCB-155L
PCB-156L/157L = PCB-156L/157L
PCB-167L = PCB-167L
PCB-169L = PCB-169L
PCB-188L = PCB-188L
PCB-189L = PCB-189L
PCB-202L = PCB-202L
PCB-205L = PCB-205L
PCB-206L = PCB-206L
PCB-208L = PCB-208L
PCB-209L = PCB-209L

# Isotope Dilution Summary

Client: GEI Consultants, Inc.
Project/Site: TIMET

TestAmerica Job ID: 680-97124-1

## Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS)

Matrix: Water

Prep Type: Total/NA

| | | Percent Isotope Dilution Recovery (Acceptance Limits) | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | PCB-4L | PCB-15L | PCB-123L | PCB-114L | PCB-3L | PCB-118L | PCB-126L | PCB-202L |
| Lab Sample ID | Client Sample ID | (15-145) | (15-145) | (40-145) | (40-145) | (15-145) | (40-145) | (40-145) | (40-145) |
| LCS 320-33192/2-A | Lab Control Sample | 44 | 58 | 67 | 68 | 48 | 67 | 69 | 74 |

| | | Percent Isotope Dilution Recovery (Acceptance Limits) | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | PCB-169L | PCB-206L | PCB-37L | PCB-19L | PCB-188L | PCB-54L | CB-156L/15 | PCB-167L |
| Lab Sample ID | Client Sample ID | (40-145) | (40-145) | (15-145) | (15-145) | (40-145) | (15-145) | (40-145) | (40-145) |
| LCS 320-33192/2-A | Lab Control Sample | 79 | 88 | 60 | 48 | 63 | 44 | 80 | 78 |

| | | Percent Isotope Dilution Recovery (Acceptance Limits) | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | PCB-209L | PCB-189L | PCB-105L | PCB-208L | PCB-1L | PCB-104L | PCB-81L | PCB-77L |
| Lab Sample ID | Client Sample ID | (40-145) | (40-145) | (40-145) | (40-145) | (15-145) | (40-145) | (40-145) | (40-145) |
| LCS 320-33192/2-A | Lab Control Sample | 86 | 78 | 69 | 85 | 39 | 52 | 68 | 68 |

| | | Percent Isotope Dilution Recovery (Acceptance Limits) | |
|---|---|---|---|
| | | PCB-205L | PCB-155L |
| Lab Sample ID | Client Sample ID | (40-145) | (40-145) |
| LCS 320-33192/2-A | Lab Control Sample | 87 | 59 |

**Surrogate Legend**

PCB-4L = PCB-4L
PCB-15L = PCB-15L
PCB-123L = PCB-123L
PCB-114L = PCB-114L
PCB-3L = PCB-3L
PCB-118L = PCB-118L
PCB-126L = PCB-126L
PCB-202L = PCB-202L
PCB-169L = PCB-169L
PCB-206L = PCB-206L
PCB-37L = PCB-37L
PCB-19L = PCB-19L
PCB-188L = PCB-188L
PCB-54L = PCB-54L
PCB-156L/157L = PCB-156L/157L
PCB-167L = PCB-167L
PCB-209L = PCB-209L
PCB-189L = PCB-189L
PCB-105L = PCB-105L
PCB-208L = PCB-208L
PCB-1L = PCB-1L
PCB-104L = PCB-104L
PCB-81L = PCB-81L
PCB-77L = PCB-77L
PCB-205L = PCB-205L
PCB-155L = PCB-155L

## Method: 8290A - Dioxins and Furans (HRGC/HRMS)

Matrix: Solid

Prep Type: Total/NA

| | | Percent Isotope Dilution Recovery (Acceptance Limits) | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | HxCDD2 | TCDD | PeCDD | HpCDF1 | PeCDF1 | TCDF | HpCDD | OCDD |
| Lab Sample ID | Client Sample ID | (40-135) | (40-135) | (40-135) | (40-135) | (40-135) | (40-135) | (40-135) | (40-135) |
| 680-97124-13 | P-B-10_SS | 102 | 95 | 93 | 108 | 92 | | 115 | 120 |

## Method: 8290A - Dioxins and Furans (HRGC/HRMS) (Continued)

Matrix: Solid — Prep Type: Total/NA

| | | Percent Isotope Dilution Recovery (Acceptance Limits) | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Lab Sample ID | Client Sample ID | HxCDD2 (40-135) | TCDD (40-135) | PeCDD (40-135) | HpCDF1 (40-135) | PeCDF1 (40-135) | TCDF (40-135) | HpCDD (40-135) | OCDD (40-135) |
| 680-97124-13 - RA | P-B-10_SS | | | | | | 94 | | |
| LCS 320-34660/2-A | Lab Control Sample | 105 | 96 | 93 | 104 | 91 | 94 | 110 | 115 |
| MB 320-34660/1-A | Method Blank | 34 * | 32 * | 28 * | 31 * | 29 * | 31 * | 34 * | 36 * |

| | | Percent Isotope Dilution Recovery (Acceptance Limits) |
|---|---|---|
| Lab Sample ID | Client Sample ID | HxCDF1 (40-135) |
| 680-97124-13 | P-B-10_SS | 92 |
| 680-97124-13 - RA | P-B-10_SS | |
| LCS 320-34660/2-A | Lab Control Sample | 91 |
| MB 320-34660/1-A | Method Blank | 28 * |

**Surrogate Legend**

HxCDD2 = 13C-1,2,3,6,7,8-HxCDD
TCDD = 13C-2,3,7,8-TCDD
PeCDD = 13C-1,2,3,7,8-PeCDD
HpCDF1 = 13C-1,2,3,4,6,7,8-HpCDF
PeCDF1 = 13C-1,2,3,7,8-PeCDF
TCDF = 13C-2,3,7,8-TCDF
HpCDD = 13C-1,2,3,4,6,7,8-HpCDD
OCDD = 13C-OCDD
HxCDF1 = 13C-1,2,3,4,7,8-HxCDF

## Method: 8290A - Dioxins and Furans (HRGC/HRMS)

Matrix: Water — Prep Type: Total/NA

| | | Percent Isotope Dilution Recovery (Acceptance Limits) | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Lab Sample ID | Client Sample ID | TCDD (40-135) | TCDF (40-135) | PeCDD (40-135) | PeCDF1 (40-135) | HxCDD2 (40-135) | HxCDF1 (40-135) | HpCDD (40-135) | HpCDF1 (40-135) |
| 680-97124-15 | RINSATE | 85 | 86 | 86 | 86 | 91 | 86 | 90 | 91 |
| LCS 320-31992/2-A | Lab Control Sample | 86 | 88 | 89 | 89 | 91 | 87 | 90 | 91 |
| MB 320-31992/1-A | Method Blank | 85 | 88 | 87 | 87 | 93 | 88 | 86 | 88 |

| | | Percent Isotope Dilution Recovery (Acceptance Limits) |
|---|---|---|
| Lab Sample ID | Client Sample ID | OCDD (40-135) |
| 680-97124-15 | RINSATE | 87 |
| LCS 320-31992/2-A | Lab Control Sample | 93 |
| MB 320-31992/1-A | Method Blank | 87 |

**Surrogate Legend**

TCDD = 13C-2,3,7,8-TCDD
TCDF = 13C-2,3,7,8-TCDF
PeCDD = 13C-1,2,3,7,8-PeCDD
PeCDF1 = 13C-1,2,3,7,8-PeCDF
HxCDD2 = 13C-1,2,3,6,7,8-HxCDD
HxCDF1 = 13C-1,2,3,4,7,8-HxCDF
HpCDD = 13C-1,2,3,4,6,7,8-HpCDD
HpCDF1 = 13C-1,2,3,4,6,7,8-HpCDF
OCDD = 13C-OCDD

# Appendix B

## Soil Boring Logs



ED_002461_00000086-01378

GEI Consultants, Inc.
1070 Wigwam Parkway
Suite 130
Henderson, NV 89074

**CLIENT:** Titanium Metals Corporation
**PROJECT NAME:** Conceptual Site Model
**CITY/STATE:** Henderson, Nevada
**GEI PROJECT NUMBER:** 1323080

**BORING LOG**
PAGE 1 of 1
**DD-B-4**

**GROUND SURFACE ELEVATION (FT):** 1763.26 **LOCATION:** 181 North Water St, Henderson, NV 89015
**NORTHING:** 26719675 **EASTING:** 830322 **TOTAL DEPTH (FT):** 16.00
**DRILLED BY:** Cascade / M. Lester **DATUM VERT. / HORZ.:** NAVD 88 / NCS83
**LOGGED BY:** J. Pieretti **DATE START / END:** 12/2/2013 - 12/2/2013
**DRILLING DETAILS:** Hollow Stem Auger/ CME-75/ Hammer: Automatic Hammer - 140 lbs/ Drop: 30 in./ Auger: 4.25 in. I.D./8 in. O.D.
**WATER LEVEL:** Groundwater not encountered.
**GENERAL NOTE:**

| ELEV. FT. | DEPTH FT. | SAMPLE INFORMATION TYPE and NO. | PEN FT. | REC IN. | Blows (/6 in.) | PID (ppm) | STRATA | REMARKS | SOIL / BEDROCK DESCRIPTION |
|---|---|---|---|---|---|---|---|---|---|
| | 0 | SS | 2.0 | 15 | NA | 0.0 | | Env. Sample ID= DD-B-4 0-0.5' RAD= BG mR/hr | (0'- 0.7') SANDY SILT (ML); ~70% fines, ~30% sand; dry, dark brown. (0.7'- 6') SILTY SAND WITH GRAVEL (SM); ~65% sand, ~20% gravel, subrounded, ~15% fines; dry, light brown, trace black material intermixed with soils 5.9-6' bgs. |
| | | SS | 2.0 | 13 | NA | 0.0 | | | |
| 1760 | | SS | 2.0 | 17 | NA | 0.0 | | | |
| | 5 | | | | | | | RAD= BG mR/hr | |
| | | SS | 2.0 | 12 | NA | 0.0 | | Env. Sample ID= DD-B-4 5.5-10' | (6'- 16') SILTY SAND WITH GRAVEL (SM); ~70% sand, ~15% gravel, subrounded, ~15% fines; dry, light brown. |
| 1755 | | SS | 2.0 | 14 | NA | 0.0 | | RAD= BG mR/hr | |
| | 10 | SS | 2.0 | 11 | NA | 0.0 | | | |
| | | SS | 2.0 | 13 | NA | 0.0 | | RAD= BG mR/hr | |
| 1750 | | | | | | | | | |
| | | SS | 2.0 | 9 | NA | 0.0 | | | |
| | 15 | | | | | | | | |

Bottom of borehole at 16.0 feet.

**NOTES:**

PEN = PENETRATION LENGTH OF SAMPLER OR CORE BARREL
REC = RECOVERY LENGTH OF SAMPLE
PID = PHOTOIONIZATION DETECTOR READING (JAR HEADSPACE)
SS = SPLIT-SPOON SAMPLE

NR = NOT RECORDED
ppm = PARTS PER MILLION
IN. = INCHES
FT. = FEET
BG = BACKGROUND
mR/hr = MILLIREM PER HOUR

RAD = RADIATION MEASUREMENT SAMPLES SCREENED FOR RADIATION WITH LUDLUM ALPHA-BETA-GAMMA PROBE.

ENVIRONMENTAL BORING LOG HENDERSON LOGS -05-02-14.GPJ GEI CONSULTANTS.GDT 5/8/14

GEI Consultants, Inc.
1070 Wigwam Parkway
Suite 130
Henderson, NV 89074

**CLIENT:** Titanium Metals Corporation
**PROJECT NAME:** Conceptual Site Model
**CITY/STATE:** Henderson, Nevada
**GEI PROJECT NUMBER:** 1323080

**BORING LOG**



**DD-B-5**

**GROUND SURFACE ELEVATION (FT):** 1762.92
**LOCATION:** 181 North Water St, Henderson, NV 89015
**NORTHING:** 26719688 **EASTING:** 830484
**TOTAL DEPTH (FT):** 30.00
**DRILLED BY:** Cascade / D. Mitchell
**DATUM VERT. / HORZ.:** NAVD 88 / NCS83
**LOGGED BY:** J. Pieretti
**DATE START / END:** 11/13/2013 - 11/13/2013
**DRILLING DETAILS:** Hollow Stem Auger/ CME-85/ Hammer: Automatic Hammer - 140 lbs/ Drop: 30 in./ Auger: 4.25 in. I.D./8 in. O.D.
**WATER LEVEL:** Groundwater not encountered.
**GENERAL NOTE:** Soils composited 0-30' for waste characterization. VOC collected from 15.5-16'. Sample ID: DD-B-5 Waste Class

| ELEV. FT. | DEPTH FT. | SAMPLE INFORMATION TYPE and NO. | PEN FT. | REC IN. | Blows (/6 in.) | PID (ppm) | STRATA | REMARKS | SOIL / BEDROCK DESCRIPTION |
|---|---|---|---|---|---|---|---|---|---|
| | 0 | SS | 2.0 | 17 | NA | 0.0 | | Env. Sample ID= DD-B-5 0-0.5' RAD= BG mR/hr | (0'- 0.2') SILT (ML); ~90% fines, ~10% sand; dry, grayish brown. (0.2'- 2') SILTY SAND (SM); ~80% sand, ~15% fines, ~5% gravel, subangular; dry, light brown. |
| | | SS | 2.0 | 14 | NA | 0.0 | | | (2'- 10') SILTY SAND WITH GRAVEL (SM); ~70% sand, ~15% gravel, subangular, ~15% fines; dry, light brown. |
| 1760 | | SS | 2.0 | 12 | NA | 0.0 | | | |
| | 5 | | | | | | | RAD= BG mR/hr | |
| | | SS | 2.0 | 10 | NA | 0.0 | | | |
| 1755 | | SS | 2.0 | 12 | NA | 0.0 | | RAD= BG mR/hr | |
| | 10 | SS | 2.0 | 14 | NA | 0.0 | | Env. Sample ID= DD-B-5 9-14' | (10'- 30') SANDY SILT WITH GRAVEL (ML); ~50% fines, ~35% sand, ~15% gravel, subrounded; dry, light brown. |
| | | SS | 2.0 | 10 | NA | 0.0 | | | |
| 1750 | | | | | | | | RAD= BG mR/hr | |
| | | SS | 2.0 | 12 | NA | 0.0 | | | |
| | 15 | | | | | | | | |
| | | SS | 2.0 | 8 | NA | 0.0 | | RAD= BG mR/hr | |
| 1745 | | SS | 2.0 | 8 | NA | 0.0 | | | |
| | 20 | SS | 2.0 | 17 | NA | 0.0 | | RAD= BG mR/hr | |

**NOTES:**

PEN = PENETRATION LENGTH OF SAMPLER OR CORE BARREL
REC = RECOVERY LENGTH OF SAMPLE
PID = PHOTOIONIZATION DETECTOR READING (JAR HEADSPACE)
SS = SPLIT-SPOON SAMPLE

NR = NOT RECORDED
ppm = PARTS PER MILLION
IN. = INCHES
FT. = FEET
BG = BACKGROUND
mR/hr = MILLIREM PER HOUR

RAD = RADIATION MEASUREMENT SAMPLES SCREENED FOR RADIATION WITH LUDLUM ALPHA-BETA-GAMMA PROBE.

ENVIRONMENTAL BORING LOG HENDERSON LOGS -05-02-14.GPJ GEI CONSULTANTS.GDT 5/8/14

GEI Consultants, Inc.
1070 Wigwam Parkway
Suite 130
Henderson, NV 89074

**CLIENT:** Titanium Metals Corporation
**PROJECT NAME:** Conceptual Site Model
**CITY/STATE:** Henderson, Nevada
**GEI PROJECT NUMBER:** 1323080

**BORING LOG**



**DD-B-5**

| ELEV. FT. | DEPTH FT. | SAMPLE INFORMATION TYPE and NO. | PEN FT. | REC IN. | Blows (/6 in.) | PID (ppm) | STRATA | REMARKS | SOIL / BEDROCK DESCRIPTION |
|---|---|---|---|---|---|---|---|---|---|
| 1740 | | SS | 2.0 | 14 | NA | 0.0 | | | |
| | 25 | SS | 2.0 | 14 | NA | 0.0 | | RAD= BG mR/hr | |
| | | SS | 2.0 | 13 | NA | 0.0 | | | |
| 1735 | | SS | 2.0 | 17 | NA | 0.0 | | RAD= BG mR/hr | |
| | 30 | | | | | | | | Bottom of borehole at 30.0 feet. |

**NOTES:**

PEN = PENETRATION LENGTH OF SAMPLER OR CORE BARREL
REC = RECOVERY LENGTH OF SAMPLE
PID = PHOTOIONIZATION DETECTOR READING (JAR HEADSPACE)
SS = SPLIT-SPOON SAMPLE

NR = NOT RECORDED
ppm = PARTS PER MILLION
IN. = INCHES
FT. = FEET
BG = BACKGROUND
mR/hr = MILLIREM PER HOUR

RAD = RADIATION MEASUREMENT SAMPLES SCREENED FOR RADIATION WITH LUDLUM ALPHA-BETA-GAMMA PROBE.

ENVIRONMENTAL BORING LOG HENDERSON LOGS -05-02-14.GPJ GEI CONSULTANTS.GDT 5/8/14

GEI Consultants, Inc.
1070 Wigwam Parkway
Suite 130
Henderson, NV 89074

| | |
|---|---|
| CLIENT: | Titanium Metals Corporation |
| PROJECT NAME: | Conceptual Site Model |
| CITY/STATE: | Henderson, Nevada |
| GEI PROJECT NUMBER: | 1323080 |

**BORING LOG**

PAGE 1 of 1

**DD-B-6**

| | | | |
|---|---|---|---|
| GROUND SURFACE ELEVATION (FT): | 1766.3 | LOCATION: | 181 North Water St, Henderson, NV 89015 |
| NORTHING: | 26719599 | EASTING: | 830454 |
| TOTAL DEPTH (FT): | 16.00 | | |
| DRILLED BY: | Cascade / M. Lester | DATUM VERT. / HORZ.: | NAVD 88 / NCS83 |
| LOGGED BY: | J. Pieretti | DATE START / END: | 12/3/2013 - 12/3/2013 |

DRILLING DETAILS: Hollow Stem Auger/ CME-75/ Hammer: Automatic Hammer - 140 lbs/ Drop: 30 in./ Auger: 4.25 in. I.D./8 in. O.D.

WATER LEVEL: Groundwater not encountered.

GENERAL NOTE:

| ELEV. FT. | DEPTH FT. | SAMPLE INFORMATION TYPE and NO. | PEN FT. | REC IN. | Blows (/6 in.) | PID (ppm) | STRATA | REMARKS | SOIL / BEDROCK DESCRIPTION |
|---|---|---|---|---|---|---|---|---|---|
| | 0 | SS | 2.0 | 17 | NA | 0.0 | | Env. Sample ID= DD-B-6 0-0.5' RAD= BG mR/hr | (0'- 0.3') SANDY SILT (ML); ~70% fines, ~30% sand; damp, dark brown. (0.3'- 5') WIDELY GRADED SAND WITH SILT AND GRAVEL (SW-SM); ~70% sand, ~20% gravel, subangular, ~10% fines; dry, reddish brown. |
| 1765 | | SS | 2.0 | 9 | NA | 0.0 | | | |
| | | SS | 2.0 | 18 | NA | 0.0 | | | |
| | 5 | | | | | | | RAD= BG mR/hr | (5'- 5.1') WIDELY GRADED GRAVEL (GW); ~90% gravel, subangular, ~10% sand; dry, reddish brown. (5.1'- 10.1') WIDELY GRADED SAND WITH SILT AND GRAVEL (SW-SM); ~55% sand, ~35% gravel, subangular, ~10% fines; dry, light brown. |
| 1760 | | SS | 2.0 | 17 | NA | 0.0 | | | |
| | | SS | 2.0 | 16 | NA | 0.0 | | RAD= BG mR/hr | |
| | 10 | SS | 2.0 | 16 | NA | 0.0 | | | (10.1'- 10.4') SILT (ML); ~100% fines; dry, dark brown. (10.4'- 16') WIDELY GRADED SAND WITH SILT AND GRAVEL (SW-SM); ~60% sand, ~30% gravel, subangular, ~10% fines; dry, reddish brown. |
| 1755 | | SS | 2.0 | 12 | NA | 0.0 | | Env. Sample ID= DD-B-6 10-15' RAD= BG mR/hr | |
| | 15 | SS | 2.0 | 16 | NA | 0.0 | | | |

Bottom of borehole at 16.0 feet.

**NOTES:**

PEN = PENETRATION LENGTH OF SAMPLER OR CORE BARREL
REC = RECOVERY LENGTH OF SAMPLE
PID = PHOTOIONIZATION DETECTOR READING (JAR HEADSPACE)
SS = SPLIT-SPOON SAMPLE

NR = NOT RECORDED
ppm = PARTS PER MILLION
IN. = INCHES
FT. = FEET
BG = BACKGROUND
mR/hr = MILLIREM PER HOUR

RAD = RADIATION MEASUREMENT SAMPLES SCREENED FOR RADIATION WITH LUDLUM ALPHA-BETA-GAMMA PROBE.

ENVIRONMENTAL BORING LOG HENDERSON LOGS -05-02-14.GPJ GEI CONSULTANTS.GDT 5/8/14

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Suite 130
Henderson, NV 89074

| | | | |
|---|---|---|---|
| CLIENT: | Titanium Metals Corporation | BORING LOG | |
| PROJECT NAME: | Conceptual Site Model | PAGE 1 of 1 | DD-B-7 |
| CITY/STATE: | Henderson, Nevada | | |
| GEI PROJECT NUMBER: | 1323080 | | |

GROUND SURFACE ELEVATION (FT): 1767.03 LOCATION: 181 North Water St, Henderson, NV 89015
NORTHING: 26719499 EASTING: 830402 TOTAL DEPTH (FT): 16.00
DRILLED BY: Cascade / M. Lester DATUM VERT. / HORZ.: NAVD 88 / NCS83
LOGGED BY: J. Pieretti DATE START / END: 12/6/2013 - 12/6/2013
DRILLING DETAILS: Hollow Stem Auger/ CME-75/ Hammer: Automatic Hammer - 140 lbs/ Drop: 30 in./ Auger: 4.25 in. I.D./8 in. O.D.
WATER LEVEL: Groundwater not encountered.
GENERAL NOTE:

| ELEV. FT. | DEPTH FT. | SAMPLE INFORMATION TYPE and NO. | PEN FT. | REC IN. | Blows (/6 in.) | PID (ppm) | STRATA | REMARKS | SOIL / BEDROCK DESCRIPTION |
|---|---|---|---|---|---|---|---|---|---|
| | 0 | SS | 2.0 | 24 | NA | 0.0 | | Env. Sample ID= DD-B-7 0-0.5' RAD= BG mR/hr | (0'- 0.75') SILTY SAND WITH GRAVEL (SM); ~65% sand, ~30% fines, ~5% gravel, subrounded; ~1% rock fragments, dry, dark brown. (0.75'- 10') SILTY SAND WITH GRAVEL (SM); ~60% sand, ~25% gravel, subangular, ~15% fines; dry, brown. |
| 1765 | | SS | 2.0 | 18 | NA | 0.0 | | | |
| | | SS | 2.0 | 18 | NA | 0.0 | | | |
| | 5 | | | | | | | RAD= BG mR/hr | |
| | | SS | 2.0 | 14 | NA | 0.0 | | | |
| 1760 | | | | | | | | | |
| | | SS | 2.0 | 17 | NA | 0.0 | | RAD= BG mR/hr | |
| | 10 | SS | 2.0 | 18 | NA | 0.0 | | | (10'- 16') SILTY SAND WITH GRAVEL (SM); ~60% sand, ~25% gravel, subangular, ~15% fines; dry, light brown. |
| 1755 | | SS | 2.0 | 14 | NA | 0.0 | | Env. Sample ID= DD-B-7 10-15' RAD= BG mR/hr | |
| | | SS | 2.0 | 13 | NA | 0.0 | | | |
| | 15 | | | | | | | | |

Bottom of borehole at 16.0 feet.

**NOTES:**

PEN = PENETRATION LENGTH OF SAMPLER OR CORE BARREL
REC = RECOVERY LENGTH OF SAMPLE
PID = PHOTOIONIZATION DETECTOR READING (JAR HEADSPACE)
SS = SPLIT-SPOON SAMPLE

NR = NOT RECORDED
ppm = PARTS PER MILLION
IN. = INCHES
FT. = FEET
BG = BACKGROUND
mR/hr = MILLIREM PER HOUR

RAD = RADIATION MEASUREMENT SAMPLES SCREENED FOR RADIATION WITH LUDLUM ALPHA-BETA-GAMMA PROBE.

ENVIRONMENTAL BORING LOG HENDERSON LOGS -05-02-14.GPJ GEI CONSULTANTS.GDT 5/8/14

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Henderson, NV 89074

| | | | |
|---|---|---|---|
| CLIENT: | Titanium Metals Corporation | BORING LOG | |
| PROJECT NAME: | Conceptual Site Model | PAGE 1 of 1 | DD-B-8 |
| CITY/STATE: | Henderson, Nevada | | |
| GEI PROJECT NUMBER: | 1323080 | | |

GROUND SURFACE ELEVATION (FT): 1767.98 LOCATION: 181 North Water St, Henderson, NV 89015
NORTHING: 26719561 EASTING: 830742 TOTAL DEPTH (FT): 16.00
DRILLED BY: Cascade / M. Lester DATUM VERT. / HORZ.: NAVD 88 / NCS83
LOGGED BY: J. Pieretti DATE START / END: 12/4/2013 - 12/4/2013
DRILLING DETAILS: Hollow Stem Auger/ CME-75/ Hammer: Automatic Hammer - 140 lbs/ Drop: 30 in./ Auger: 4.25 in. I.D./8 in. O.D.
WATER LEVEL: Groundwater not encountered.
GENERAL NOTE:

| ELEV. FT. | DEPTH FT. | SAMPLE INFORMATION TYPE and NO. | PEN FT. | REC IN. | Blows (/6 in.) | PID (ppm) | STRATA | REMARKS | SOIL / BEDROCK DESCRIPTION |
|---|---|---|---|---|---|---|---|---|---|
| | 0 | SS | 2.0 | 15 | NA | 0.0 | | Env. Sample ID= DD-B-8 0-0.5' RAD= BG mR/hr | (0'- 0.25') WIDELY GRADED SAND WITH SILT (SW-SM); ~80% sand, ~10% gravel, subrounded, ~10% fines; dry, dark brown. (0.25'- 10.2') WIDELY GRADED SAND WITH SILT AND GRAVEL (SW-SM); ~70% sand, ~20% gravel, subrounded, ~10% fines; dry, brown. |
| 1765 | | SS | 2.0 | 19 | NA | 0.0 | | | |
| | 5 | SS | 2.0 | 18 | NA | 0.0 | | RAD= BG mR/hr | |
| | | SS | 2.0 | 20 | NA | 0.0 | | | |
| 1760 | | SS | 2.0 | 16 | NA | 0.0 | | RAD= BG mR/hr | |
| | 10 | SS | 1.5 | 10 | NA | 0.0 | | | (10.2'- 11.5') SILTY SAND WITH GRAVEL (SM); ~55% sand, ~30% fines, ~15% gravel, subangular; dry, light brown. |
| | | SS | 2.0 | 17 | NA | 0.0 | | Env. Sample ID= DD-B-8 10-15' RAD= BG mR/hr | (12'- 16') SILTY SAND WITH GRAVEL (SM); ~55% sand, ~30% fines, ~15% gravel, subangular; dry, light brown. |
| 1755 | | SS | 2.0 | 20 | NA | 0.0 | | | |
| | 15 | | | | | | | | |

Bottom of borehole at 16.0 feet.

**NOTES:**

PEN = PENETRATION LENGTH OF SAMPLER OR CORE BARREL
REC = RECOVERY LENGTH OF SAMPLE
PID = PHOTOIONIZATION DETECTOR READING (JAR HEADSPACE)
SS = SPLIT-SPOON SAMPLE

NR = NOT RECORDED
ppm = PARTS PER MILLION
IN. = INCHES
FT. = FEET
BG = BACKGROUND
mR/hr = MILLIREM PER HOUR

RAD = RADIATION MEASUREMENT SAMPLES SCREENED FOR RADIATION WITH LUDLUM ALPHA-BETA-GAMMA PROBE.

ENVIRONMENTAL BORING LOG HENDERSON LOGS -05-02-14.GPJ GEI CONSULTANTS.GDT 5/8/14

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Henderson, NV 89074

| | |
|---|---|
| CLIENT: | Titanium Metals Corporation |
| PROJECT NAME: | Conceptual Site Model |
| CITY/STATE: | Henderson, Nevada |
| GEI PROJECT NUMBER: | 1323080 |

BORING LOG

PAGE 1 of 1

# DD-B-9

GROUND SURFACE ELEVATION (FT): 1770.03 LOCATION: 181 North Water St, Henderson, NV 89015
NORTHING: 26719377 EASTING: 830522 TOTAL DEPTH (FT): 16.00
DRILLED BY: Cascade / M. Lester DATUM VERT. / HORZ.: NAVD 88 / NCS83
LOGGED BY: J. Pieretti DATE START / END: 12/3/2013 - 12/3/2013
DRILLING DETAILS: Hollow Stem Auger/ CME-75/ Hammer: Automatic Hammer - 140 lbs/ Drop: 30 in./ Auger: 4.25 in. I.D./8 in. O.D.
WATER LEVEL: Groundwater not encountered.
GENERAL NOTE:

| ELEV. FT. | DEPTH FT. | SAMPLE INFORMATION TYPE and NO. | PEN FT. | REC IN. | Blows (/6 in.) | PID (ppm) | STRATA | REMARKS | SOIL / BEDROCK DESCRIPTION |
|---|---|---|---|---|---|---|---|---|---|
| | 0 | SS | 2.0 | 12 | NA | 0.0 | | Env. Sample ID= DD-B-9 0-0.5' RAD= BG mR/hr | (0'- 0.9') SANDY SILT (ML); ~65% fines, ~30% sand, ~5% gravel, subangular; dry, dark brown. (0.9'- 16') SILTY SAND WITH GRAVEL (SM); ~65% sand, ~20% gravel, subrounded, ~15% fines; dry, light brown. |
| | | SS | 2.0 | 13 | NA | 0.0 | | | |
| | | SS | 2.0 | 15 | NA | 0.0 | | RAD= BG mR/hr | |
| 1765 | 5 | | | | | | | | |
| | | SS | 2.0 | 14 | NA | 0.0 | | | |
| | | SS | 2.0 | 14 | NA | 0.0 | | RAD= BG mR/hr | |
| 1760 | 10 | SS | 2.0 | 10 | NA | 0.0 | | | |
| | | SS | 2.0 | 18 | NA | 0.0 | | Env. Sample ID= DD-B-9 10-15' RAD= BG mR/hr | |
| | | SS | 2.0 | 16 | NA | 0.0 | | | |
| 1755 | 15 | | | | | | | | |

Bottom of borehole at 16.0 feet.

**NOTES:**

PEN = PENETRATION LENGTH OF SAMPLER OR CORE BARREL
REC = RECOVERY LENGTH OF SAMPLE
PID = PHOTOIONIZATION DETECTOR READING (JAR HEADSPACE)
SS = SPLIT-SPOON SAMPLE

NR = NOT RECORDED
ppm = PARTS PER MILLION
IN. = INCHES
FT. = FEET
BG = BACKGROUND
mR/hr = MILLIREM PER HOUR

RAD = RADIATION MEASUREMENT SAMPLES SCREENED FOR RADIATION WITH LUDLUM ALPHA-BETA-GAMMA PROBE.

ENVIRONMENTAL BORING LOG HENDERSON LOGS -05-02-14.GPJ GEI CONSULTANTS.GDT 5/8/14

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Henderson, NV 89074

| | | | |
|---|---|---|---|
| CLIENT: | Titanium Metals Corporation | BORING LOG | |
| PROJECT NAME: | Conceptual Site Model | PAGE 1 of 1 | DD-B-10 |
| CITY/STATE: | Henderson, Nevada | | |
| GEI PROJECT NUMBER: | 1323080 | | |

GROUND SURFACE ELEVATION (FT): 1776.61 LOCATION: 181 North Water St, Henderson, NV 89015
NORTHING: 26719247 EASTING: 830972 TOTAL DEPTH (FT): 16.00
DRILLED BY: Cascade / M. Lester DATUM VERT. / HORZ.: NAVD 88 / NCS83
LOGGED BY: J. Pieretti DATE START / END: 12/4/2013 - 12/4/2013
DRILLING DETAILS: Hollow Stem Auger/ CME-75/ Hammer: Automatic Hammer - 140 lbs/ Drop: 30 in./ Auger: 4.25 in. I.D./8 in. O.D.
WATER LEVEL: Groundwater not encountered.
GENERAL NOTE:

| ELEV. FT. | DEPTH FT. | SAMPLE INFORMATION TYPE and NO. | PEN FT. | REC IN. | Blows (/6 in.) | PID (ppm) | STRATA | REMARKS | SOIL / BEDROCK DESCRIPTION |
|---|---|---|---|---|---|---|---|---|---|
| | 0 | SS | 2.0 | 11 | NA | 0.0 | | Env. Sample ID= DD-B-10 0-0.5' RAD= BG mR/hr | (0'- 2.25') SILTY SAND (SM); ~80% sand, ~15% fines, ~5% gravel, subrounded; dry, brown. |
| 1775 | | SS | 2.0 | 12 | NA | 0.0 | | | (2.25'- 16') SILTY SAND WITH GRAVEL (SM); ~60% sand, ~20% gravel, subangular, ~15% fines; ~5% cobbles, dry, light brown. |
| | | SS | 2.0 | 21 | NA | 0.0 | | RAD= BG mR/hr | |
| | 5 | SS | 2.0 | 12 | NA | 0.0 | | | |
| 1770 | | SS | 2.0 | 18 | NA | 0.0 | | RAD= BG mR/hr | |
| | 10 | SS | 2.0 | 17 | NA | 0.0 | | | |
| 1765 | | SS | 2.0 | 18 | NA | 0.0 | | Env. Sample ID= DD-B-10 10-15' RAD= BG mR/hr | |
| | 15 | SS | 2.0 | 17 | NA | 0.0 | | | |

Bottom of borehole at 16.0 feet.

**NOTES:**

PEN = PENETRATION LENGTH OF SAMPLER OR CORE BARREL
REC = RECOVERY LENGTH OF SAMPLE
PID = PHOTOIONIZATION DETECTOR READING (JAR HEADSPACE)
SS = SPLIT-SPOON SAMPLE

NR = NOT RECORDED
ppm = PARTS PER MILLION
IN. = INCHES
FT. = FEET
BG = BACKGROUND
mR/hr = MILLIREM PER HOUR

RAD = RADIATION MEASUREMENT SAMPLES SCREENED FOR RADIATION WITH LUDLUM ALPHA-BETA-GAMMA PROBE.

ENVIRONMENTAL BORING LOG HENDERSON LOGS -05-02-14.GPJ GEI CONSULTANTS.GDT 5/8/14

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|---|---|---|---|
| CLIENT: | Titanium Metals Corporation | BORING LOG | |
| PROJECT NAME: | Conceptual Site Model | PAGE 1 of 1 | NE-B-1 |
| CITY/STATE: | Henderson, Nevada | | |
| GEI PROJECT NUMBER: | 1323080 | | |

GROUND SURFACE ELEVATION (FT): 1780.72 LOCATION: 181 North Water St, Henderson, NV 89015
NORTHING: 26719156 EASTING: 830664 TOTAL DEPTH (FT): 16.00
DRILLED BY: Cascade / D. Mitchell DATUM VERT. / HORZ.: NAVD 88 / NCS83
LOGGED BY: J. Pieretti DATE START / END: 11/22/2013 - 11/22/2013
DRILLING DETAILS: Hollow Stem Auger/ CME-85/ Hammer: Automatic Hammer - 140 lbs/ Drop: 30 in./ Auger: 4.25 in. I.D./8 in. O.D.
WATER LEVEL: Groundwater not encountered.
GENERAL NOTE:

| ELEV. FT. | DEPTH FT. | SAMPLE INFORMATION TYPE and NO. | PEN FT. | REC IN. | Blows (/6 in.) | PID (ppm) | STRATA | REMARKS | SOIL / BEDROCK DESCRIPTION |
|---|---|---|---|---|---|---|---|---|---|
| | 0 | SS | 2.0 | 18 | NA | 0.0 | | Env. Sample ID= NE-B-1 0-0.5' RAD= BG mR/hr | (0'- 16') SILTY SAND WITH GRAVEL (SM); ~50% sand, ~30% fines, ~20% gravel, subrounded; dry, light brown. |
| 1780 | | SS | 2.0 | 20 | NA | 0.0 | | | Coarse gravel at 3' bgs. |
| | 5 | SS | 2.0 | 16 | NA | 0.0 | | RAD= BG mR/hr | |
| 1775 | | SS | 2.0 | 17 | NA | 0.0 | | | |
| | | SS | 2.0 | 18 | NA | 0.0 | | RAD= BG mR/hr | Trace black gravel at 8.5' bgs. |
| | 10 | SS | 2.0 | 18 | NA | 0.0 | | | |
| 1770 | | SS | 2.0 | 19 | NA | 0.0 | | Env. Sample ID= NE-B-1 8.5-13.5' RAD= BG mR/hr | |
| | 15 | SS | 2.0 | 19 | NA | 0.0 | | | |
| 1765 | | | | | | | | | Bottom of borehole at 16.0 feet. |

**NOTES:**

PEN = PENETRATION LENGTH OF SAMPLER OR CORE BARREL
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SS = SPLIT-SPOON SAMPLE

NR = NOT RECORDED
ppm = PARTS PER MILLION
IN. = INCHES
FT. = FEET
BG = BACKGROUND
mR/hr = MILLIREM PER HOUR

RAD = RADIATION MEASUREMENT SAMPLES SCREENED FOR RADIATION WITH LUDLUM ALPHA-BETA-GAMMA PROBE.

ENVIRONMENTAL BORING LOG HENDERSON LOGS -05-02-14.GPJ GEI CONSULTANTS.GDT 5/8/14

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1070 Wigwam Parkway
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CLIENT: Titanium Metals Corporation
PROJECT NAME: Conceptual Site Model
CITY/STATE: Henderson, Nevada
GEI PROJECT NUMBER: 1323080

BORING LOG

PAGE 1 of 1

# NE-B-2

GROUND SURFACE ELEVATION (FT): 1782.65
LOCATION: 181 North Water St, Henderson, NV 89015
NORTHING: 26718944 EASTING: 830809
TOTAL DEPTH (FT): 16.00
DRILLED BY: Cascade / D. Mitchell
DATUM VERT. / HORZ.: NAVD 88 / NCS83
LOGGED BY: J. Pieretti
DATE START / END: 11/22/2013 - 11/22/2013
DRILLING DETAILS: Hollow Stem Auger/ CME-85/ Hammer: Automatic Hammer - 140 lbs/ Drop: 30 in./ Auger: 4.25 in. I.D./8 in. O.D.
WATER LEVEL: Groundwater not encountered.
GENERAL NOTE:

| ELEV. FT. | DEPTH FT. | SAMPLE INFORMATION TYPE and NO. | PEN FT. | REC IN. | Blows (/6 in.) | PID (ppm) | STRATA | REMARKS | SOIL / BEDROCK DESCRIPTION |
|---|---|---|---|---|---|---|---|---|---|
| | 0 | SS | 2.0 | 22 | NA | 0.0 | | Env. Sample ID= NE-B-2 0-0.5' RAD= BG mR/hr | (0'- 0.4') SILTY SAND WITH GRAVEL (SM); ~60% sand, ~25% gravel, subangular, ~15% fines; damp, brown. (0.4'- 16') SILTY SAND WITH GRAVEL (SM); ~60% sand, ~20% gravel, subangular, ~20% fines; dry, light brown. |
| 1780 | | SS | 2.0 | 10 | NA | 0.0 | | | |
| | | SS | 2.0 | 23 | NA | 0.0 | | RAD= BG mR/hr | |
| | 5 | SS | 2.0 | 18 | NA | 0.0 | | | Coarse, subangular gravel at 6.3' and 7.8' bgs. |
| 1775 | | SS | 2.0 | 19 | NA | 0.0 | | RAD= BG mR/hr | |
| | 10 | SS | 2.0 | 18 | NA | 0.0 | | | |
| 1770 | | SS | 2.0 | 0 | NA | 0.0 | | Env. Sample ID= NE-B-2 10-15' RAD= BG mR/hr | Angular, fractured sandstone at 12' bgs. |
| | 15 | SS | 2.0 | 18 | NA | 0.0 | | | |

Bottom of borehole at 16.0 feet.

**NOTES:**

PEN = PENETRATION LENGTH OF SAMPLER OR CORE BARREL
REC = RECOVERY LENGTH OF SAMPLE
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SS = SPLIT-SPOON SAMPLE

NR = NOT RECORDED
ppm = PARTS PER MILLION
IN. = INCHES
FT. = FEET
BG = BACKGROUND
mR/hr = MILLIREM PER HOUR

RAD = RADIATION MEASUREMENT SAMPLES SCREENED FOR RADIATION WITH LUDLUM ALPHA-BETA-GAMMA PROBE.

ENVIRONMENTAL BORING LOG HENDERSON LOGS -05-02-14.GPJ GEI CONSULTANTS.GDT 5/8/14

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Henderson, NV 89074

| | | | |
|---|---|---|---|
| CLIENT: | Titanium Metals Corporation | BORING LOG | |
| PROJECT NAME: | Conceptual Site Model | PAGE 1 of 1 | NE-B-3 |
| CITY/STATE: | Henderson, Nevada | | |
| GEI PROJECT NUMBER: | 1323080 | | |

GROUND SURFACE ELEVATION (FT): 1787.04 LOCATION: 181 North Water St, Henderson, NV 89015
NORTHING: 26718766 EASTING: 830722 TOTAL DEPTH (FT): 16.00
DRILLED BY: Cascade / D. Mitchell DATUM VERT. / HORZ.: NAVD 88 / NCS83
LOGGED BY: J. Pieretti DATE START / END: 11/22/2013 - 11/22/2013
DRILLING DETAILS: Hollow Stem Auger/ CME-85/ Hammer: Automatic Hammer - 140 lbs/ Drop: 30 in./ Auger: 4.25 in. I.D./8 in. O.D.
WATER LEVEL: Groundwater not encountered.
GENERAL NOTE:

| ELEV. FT. | DEPTH FT. | SAMPLE INFORMATION TYPE and NO. | PEN FT. | REC IN. | Blows (/6 in.) | PID (ppm) | STRATA | REMARKS | SOIL / BEDROCK DESCRIPTION |
|---|---|---|---|---|---|---|---|---|---|
| | 0 | SS | 2.0 | 19 | NA | 0.0 | | Env. Sample ID= NE-B-3 0-0.5' RAD= BG mR/hr | (0'- 16') SILTY SAND WITH GRAVEL (SM); ~40% sand, ~30% gravel, subrounded, ~30% fines; dry, light brown. |
| 1785 | | SS | 2.0 | 18 | NA | 0.0 | | | |
| | | SS | 2.0 | 24 | NA | 0.0 | | RAD= BG mR/hr | |
| | 5 | | | | | | | | |
| | | SS | 2.0 | 19 | NA | 0.0 | | | |
| 1780 | | | | | | | | | |
| | | SS | 2.0 | 22 | NA | 0.0 | | RAD= BG mR/hr | |
| | 10 | SS | 2.0 | 10 | NA | 0.0 | | | |
| 1775 | | SS | 2.0 | 17 | NA | 0.0 | | Env. Sample ID= NE-B-3 10-15' RAD= BG mR/hr | Loose, dark grey rock fragments/slag at 13.6' bgs. |
| | | SS | 2.0 | 18 | NA | 0.0 | | | |
| | 15 | | | | | | | | |

Bottom of borehole at 16.0 feet.

**NOTES:**

PEN = PENETRATION LENGTH OF SAMPLER OR CORE BARREL
REC = RECOVERY LENGTH OF SAMPLE
PID = PHOTOIONIZATION DETECTOR READING (JAR HEADSPACE)
SS = SPLIT-SPOON SAMPLE

NR = NOT RECORDED
ppm = PARTS PER MILLION
IN. = INCHES
FT. = FEET
BG = BACKGROUND
mR/hr = MILLIREM PER HOUR

RAD = RADIATION MEASUREMENT SAMPLES SCREENED FOR RADIATION WITH LUDLUM ALPHA-BETA-GAMMA PROBE.

ENVIRONMENTAL BORING LOG HENDERSON LOGS -05-02-14.GPJ GEI CONSULTANTS.GDT 5/8/14

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Suite 130
Henderson, NV 89074

**CLIENT:** Titanium Metals Corporation
**PROJECT NAME:** Conceptual Site Model
**CITY/STATE:** Henderson, Nevada
**GEI PROJECT NUMBER:** 1323080

**BORING LOG**
PAGE 1 of 1
**NE-B-6**

**GROUND SURFACE ELEVATION (FT):** 1780.27
**LOCATION:** 181 North Water St, Henderson, NV 89015
**NORTHING:** 26719161.09 **EASTING:** 830693.62
**TOTAL DEPTH (FT):** 16.00
**DRILLED BY:** Eagle Drilling / E. Luis
**DATUM VERT. / HORZ.:** NAVD 88 / NCS83
**LOGGED BY:** T. Daigle
**DATE START / END:** 3/20/2014 - 3/20/2014
**DRILLING DETAILS:** Hollow Stem Auger/ Mobile B-90/ Hammer: Automatic Hammer - 140 lbs/ Drop: 30 in./ Auger: 4.25 in. I.D./8 in. O.D.
**WATER LEVEL:** Groundwater not encountered.
**GENERAL NOTE:**

| ELEV. FT. | DEPTH FT. | TYPE and NO. | PEN FT. | REC IN. | Blows (/6 in.) | PID (ppm) | STRATA | REMARKS | SOIL / BEDROCK DESCRIPTION |
|---|---|---|---|---|---|---|---|---|---|
| 1780 | 0 | SS | 2.0 | 20 | 3 7 9 9 | 0.0 | | Env. Sample ID= NE-B-6 0-0.5' | (0'- 2') SILTY SAND WITH GRAVEL (SM); ~70% sand, fine to medium, ~15% gravel, subangular, ~15% fines; damp to moist, brown. |
| | | SS | 2.0 | 22 | 7 7 11 10 | 0.0 | | RAD= BG mR/hr | (2'- 6') WIDELY GRADED SAND WITH GRAVEL (SW); ~70% sand, fine to medium, ~25% gravel, subangular, ~5% fines; damp to moist, brown, medium stiff to loose. quartztite/chert cobbles in 4 to 6 ft interval. |
| 1775 | 5 | SS | 2.0 | 19 | 6 9 7 5 | 0.0 | | Env. Sample ID= NE-B-6 5-6.5' | |
| | | SS | 2.0 | 23 | 7 8 12 14 | 0.0 | | RAD= BG mR/hr | (6'- 16') WIDELY GRADED SAND (SW); ~85% sand, fine to medium, ~10% gravel, subangular, ~5% fines; damp to moist, brown, some coarse sand, medium stiff to loose. Cementation and CaCO3 growth at ~8.5 to 9.5 ft. Cobble at 12.5 and 15 ft. |
| | | SS | 2.0 | 20 | 14 20 20 21 | 0.0 | | RAD= BG mR/hr | |
| 1770 | 10 | SS | 2.0 | 23 | 14 16 17 13 | 0.0 | | Env. Sample ID= NE-B-6 10-11.5' | |
| | | SS | 2.0 | 22 | 8 12 11 10 | 0.0 | | RAD= BG mR/hr | |
| 1765 | 15 | SS | 2.0 | 22 | 7 11 13 15 | 0.0 | | | |

Bottom of borehole at 16.0 feet.

**NOTES:**

PEN = PENETRATION LENGTH OF SAMPLER OR CORE BARREL
REC = RECOVERY LENGTH OF SAMPLE
PID = PHOTOIONIZATION DETECTOR READING (JAR HEADSPACE)
SS = SPLIT-SPOON SAMPLE

NR = NOT RECORDED
ppm = PARTS PER MILLION
IN. = INCHES
FT. = FEET
BG = BACKGROUND
mR/hr = MILLIREM PER HOUR

RAD = RADIATION MEASUREMENT SAMPLES SCREENED FOR RADIATION WITH LUDLUM ALPHA-BETA-GAMMA PROBE.

ENVIRONMENTAL BORING LOG HENDERSON LOGS -05-02-14.GPJ GEI CONSULTANTS.GDT 5/8/14

GEI Consultants, Inc.
1070 Wigwam Parkway
Suite 130
Henderson, NV 89074

**CLIENT:** Titanium Metals Corporation
**PROJECT NAME:** Conceptual Site Model
**CITY/STATE:** Henderson, Nevada
**GEI PROJECT NUMBER:** 1323080

**BORING LOG**
PAGE 1 of 1
**NE-B-7**

**GROUND SURFACE ELEVATION (FT):** 1784.33
**LOCATION:** 181 North Water St, Henderson, NV 89015
**NORTHING:** 26718848.07 **EASTING:** 830837.8
**TOTAL DEPTH (FT):** 16.00
**DRILLED BY:** Eagle Drilling / E. Luis
**DATUM VERT. / HORZ.:** NAVD 88 / NCS83
**LOGGED BY:** T. Daigle
**DATE START / END:** 3/20/2014 - 3/20/2014
**DRILLING DETAILS:** Hollow Stem Auger/ Mobile B-90/ Hammer: Automatic Hammer - 140 lbs/ Drop: 30 in./ Auger: 4.25 in. I.D./8 in. O.D.
**WATER LEVEL:** Groundwater not encountered.
**GENERAL NOTE:**

| ELEV. FT. | DEPTH FT. | TYPE and NO. | PEN FT. | REC IN. | Blows (/6 in.) | PID (ppm) | STRATA | REMARKS | SOIL / BEDROCK DESCRIPTION |
|---|---|---|---|---|---|---|---|---|---|
| | 0 | SS | 2.0 | 20 | 5 13 13 12 | 0.0 | | Env. Sample ID= NE-B-7 0-0.5' | (0'- 2') WIDELY GRADED SAND WITH SILT AND GRAVEL (SW-SM); ~75% sand, fine to medium, ~15% gravel, subangular, ~10% fines; damp to moist, brown, some coarse sand. Medium stiff to loose. |
| | | SS | 2.0 | 19 | 7 8 6 6 | 0.0 | | RAD= BG mR/hr | (2'- 4') SILTY SAND (SM); ~75% sand, fine to medium, ~20% fines, ~5% gravel, fine; damp to moist, brown, large cobble @ 2.5 ft. Loose. |
| 1780 | 5 | SS | 2.0 | 23 | 6 8 10 11 | 0.0 | | Env. Sample ID= NE-B-7 5-6.5' | (4'- 8') WIDELY GRADED SAND WITH SILT AND GRAVEL (SW-SM); ~75% sand, fine to medium, ~15% gravel, subangular, ~10% fines; damp to moist, brown, some coarse sand. Medium stiff to loose. |
| | | SS | 2.0 | 22 | 6 6 5 4 | 0.0 | | RAD= BG mR/hr | |
| 1775 | | SS | 2.0 | 20 | 4 5 4 4 | 0.0 | | RAD= BG mR/hr | (8'- 16') SILTY SAND (SM); ~75% sand, fine to medium, ~20% fines, ~5% gravel, fine, subangular; damp to moist, brown, some coarse sand, loose. 10% gravel from 14 to 16 ft. |
| | 10 | SS | 2.0 | 22 | 7 8 11 12 | 0.0 | | Env. Sample ID= NE-B-7 10-11.5' | |
| | | SS | 2.0 | 21 | 7 10 12 15 | 0.0 | | RAD= BG mR/hr | |
| 1770 | 15 | SS | 2.0 | 20 | 10 15 12 14 | 0.0 | | | |

Bottom of borehole at 16.0 feet.

**NOTES:**

PEN = PENETRATION LENGTH OF SAMPLER OR CORE BARREL
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SS = SPLIT-SPOON SAMPLE

NR = NOT RECORDED
ppm = PARTS PER MILLION
IN. = INCHES
FT. = FEET
BG = BACKGROUND
mR/hr = MILLIREM PER HOUR

RAD = RADIATION MEASUREMENT SAMPLES SCREENED FOR RADIATION WITH LUDLUM ALPHA-BETA-GAMMA PROBE.

ENVIRONMENTAL BORING LOG HENDERSON LOGS -05-02-14.GPJ GEI CONSULTANTS.GDT 5/8/14

GEI Consultants, Inc.
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Suite 130
Henderson, NV 89074

| | | | |
|---|---|---|---|
| CLIENT: | Titanium Metals Corporation | BORING LOG | |
| PROJECT NAME: | Conceptual Site Model | PAGE 1 of 1 | FM-B-1 |
| CITY/STATE: | Henderson, Nevada | | |
| GEI PROJECT NUMBER: | 1323080 | | |

GROUND SURFACE ELEVATION (FT): 1766.47 LOCATION: 181 North Water St, Henderson, NV 89015
NORTHING: 26719550 EASTING: 830500 TOTAL DEPTH (FT): 16.00
DRILLED BY: Eagle Drilling / E. Luis DATUM VERT. / HORZ.: NAVD 88 / NCS83
LOGGED BY: J. Pieretti DATE START / END: 12/12/2013 - 12/12/2013
DRILLING DETAILS: Hollow Stem Auger/ Diedrich D-50/ Hammer: Automatic Hammer - 140 lbs/ Drop: 30 in./ Auger: 4.25 in. I.D./8 in. O.D.
WATER LEVEL: Groundwater not encountered.
GENERAL NOTE:

| ELEV. FT. | DEPTH FT. | SAMPLE INFORMATION TYPE and NO. | PEN FT. | REC IN. | Blows (/6 in.) | PID (ppm) | STRATA | REMARKS | SOIL / BEDROCK DESCRIPTION |
|---|---|---|---|---|---|---|---|---|---|
| | 0 | SS | 2.0 | 24 | NA | 0.0 | | Env. Sample ID= FM-B-1 0-2' RAD= BG mR/hr | (0'- 2') WIDELY GRADED SAND WITH SILT AND GRAVEL (SW-SM); ~75% sand, ~15% gravel, subangular, ~10% fines; damp, brown. |
| 1765 | | SS | 2.0 | 21 | NA | 0.0 | | Env. Sample ID= FM-B-1 2-4' | (2'- 4.7') WIDELY GRADED SAND WITH SILT AND GRAVEL (SW-SM); ~70% sand, ~20% gravel, subrounded, ~10% fines; damp to dry, brown. |
| | | SS | 2.0 | 24 | NA | 0.0 | | RAD= BG mR/hr | (4.7'- 16') SILTY SAND (SM); ~65% sand, ~25% fines, ~10% gravel, subrounded; dry, yellowish brown. |
| | 5 | SS | 2.0 | 24 | NA | 0.0 | | | |
| 1760 | | SS | 2.0 | 22 | NA | 0.0 | | RAD= BG mR/hr | |
| | 10 | SS | 2.0 | 22 | NA | 0.0 | | | |
| 1755 | | SS | 2.0 | 22 | NA | 0.0 | | RAD= BG mR/hr | |
| | 15 | SS | 2.0 | 18 | NA | 0.0 | | Env. Sample ID= FM-B-1 13-15' | Cobble in shoe. |

Bottom of borehole at 16.0 feet.

**NOTES:**

PEN = PENETRATION LENGTH OF SAMPLER OR CORE BARREL
REC = RECOVERY LENGTH OF SAMPLE
PID = PHOTOIONIZATION DETECTOR READING (JAR HEADSPACE)
SS = SPLIT-SPOON SAMPLE

NR = NOT RECORDED
ppm = PARTS PER MILLION
IN. = INCHES
FT. = FEET
BG = BACKGROUND
mR/hr = MILLIREM PER HOUR

RAD = RADIATION MEASUREMENT SAMPLES SCREENED FOR RADIATION WITH LUDLUM ALPHA-BETA-GAMMA PROBE.

ENVIRONMENTAL BORING LOG HENDERSON LOGS -05-02-14.GPJ GEI CONSULTANTS.GDT 5/8/14

GEI Consultants, Inc.
1070 Wigwam Parkway
Suite 130
Henderson, NV 89074

CLIENT: Titanium Metals Corporation
PROJECT NAME: Conceptual Site Model
CITY/STATE: Henderson, Nevada
GEI PROJECT NUMBER: 1323080

BORING LOG

PAGE 1 of 1

# FM-B-2

GROUND SURFACE ELEVATION (FT): 1769.06
LOCATION: 181 North Water St, Henderson, NV 89015
NORTHING: 26719448 EASTING: 830612
TOTAL DEPTH (FT): 16.00
DRILLED BY: Eagle Drilling / E. Luis
DATUM VERT. / HORZ.: NAVD 88 / NCS83
LOGGED BY: J. Pieretti
DATE START / END: 12/12/2013 - 12/12/2013
DRILLING DETAILS: Hollow Stem Auger/ Diedrich D-50/ Hammer: Automatic Hammer - 140 lbs/ Drop: 30 in./ Auger: 4.25 in. I.D./8 in. O.D.
WATER LEVEL: Groundwater not encountered.
GENERAL NOTE:

| ELEV. FT. | DEPTH FT. | SAMPLE INFORMATION TYPE and NO. | PEN FT. | REC IN. | Blows (/6 in.) | PID (ppm) | STRATA | REMARKS | SOIL / BEDROCK DESCRIPTION |
|---|---|---|---|---|---|---|---|---|---|
| | 0 | SS | 2.0 | 24 | NA | 0.0 | | Env. Sample ID= FM-B-2 0-2' RAD= BG mR/hr | (0'- 0.3') SILT (ML); ~100% fines; dry, very dark brown. (0.3'- 6') SILTY SAND WITH GRAVEL (SM); ~50% sand, ~30% gravel, ~20% fines; dry, light brown. |
| | | SS | 2.0 | 20 | NA | 0.0 | | Env. Sample ID= FM-B-2 2-4' | |
| 1765 | | SS | 2.0 | 19 | NA | 0.0 | | RAD= BG mR/hr | |
| | 5 | SS | 2.0 | 24 | NA | 0.0 | | | (6'- 16') SILTY SAND WITH GRAVEL (SM); ~65% sand, ~20% fines, ~15% gravel; dry, light brown, trace cobble. |
| | | SS | 2.0 | 24 | NA | 0.0 | | | |
| 1760 | | | | | | | | RAD= BG mR/hr | |
| | 10 | SS | 2.0 | 24 | NA | 0.0 | | | |
| | | SS | 2.0 | 24 | NA | 0.0 | | RAD= BG mR/hr | |
| 1755 | | SS | 2.0 | 16 | NA | 0.0 | | Env. Sample ID= FM-B-2 13-15' | |
| | 15 | | | | | | | | Bottom of borehole at 16.0 feet. |

**NOTES:**

PEN = PENETRATION LENGTH OF SAMPLER OR CORE BARREL
REC = RECOVERY LENGTH OF SAMPLE
PID = PHOTOIONIZATION DETECTOR READING (JAR HEADSPACE)
SS = SPLIT-SPOON SAMPLE

NR = NOT RECORDED
ppm = PARTS PER MILLION
IN. = INCHES
FT. = FEET
BG = BACKGROUND
mR/hr = MILLIREM PER HOUR

RAD = RADIATION MEASUREMENT SAMPLES SCREENED FOR RADIATION WITH LUDLUM ALPHA-BETA-GAMMA PROBE.

ENVIRONMENTAL BORING LOG HENDERSON LOGS -05-02-14.GPJ GEI CONSULTANTS.GDT 5/8/14

# Appendix C

## TIMET Isoconcentration Contour Maps for Hexavalent Chromium and Perchlorate (2013-2014)

NOTES:

1) MAP IS FROM USGS 7.5 MINUTE QUADRANGLE MAPS LAS VEGAS SE, NV (2012) & HENDERSON, NV (2012).

2) THE SCREENING LEVEL USED FOR HEXAVALENT CHROMIUM IS THE EPA NATIONAL DRINKING WATER STANDARD MAXIMUM CONTAMINENT LEVEL (MCL). THE MCL FOR HEXAVALENT CHROMIUM IS 100 ug/L.

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Black Mountain Industrial Center
Henderson, Nevada 89015

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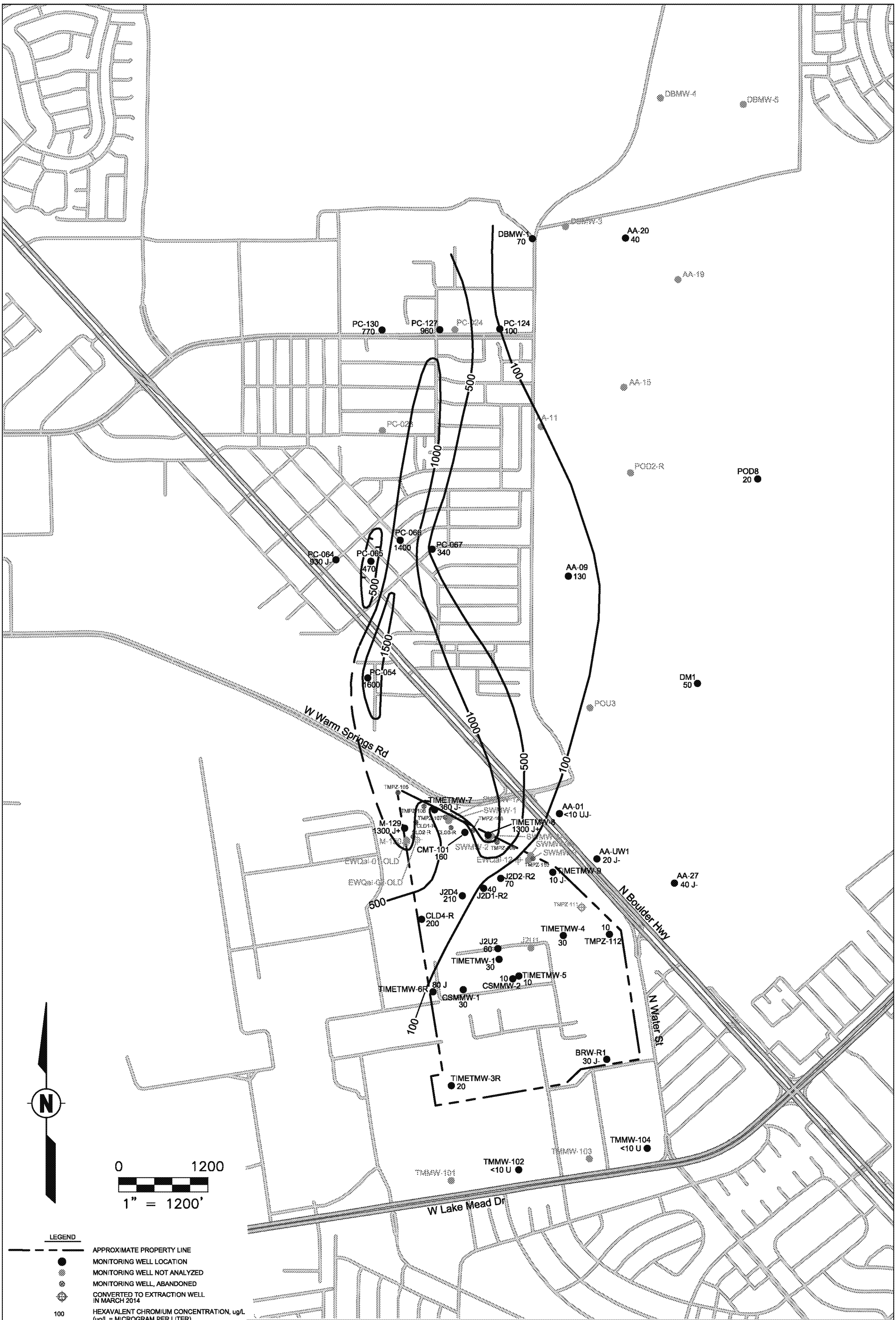
2014 ANNUAL GROUNDWATER MONITORING REPORT

HEXAVALENT CHROMIUM ISOCONCENTRATION MAP 2ND SEMESTER 2013

Project 1323080 | October 2014 | Fig. 13

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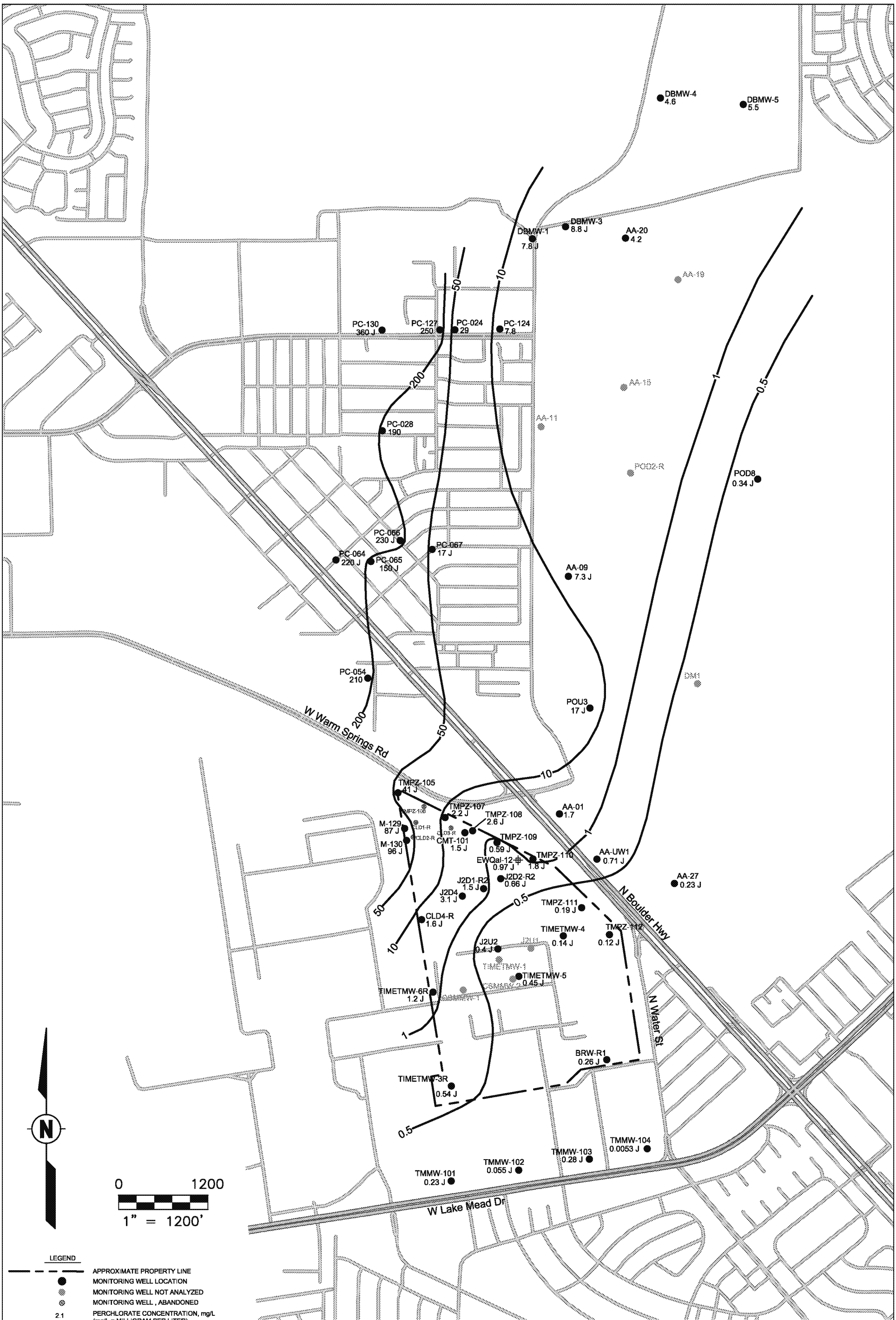
2014 ANNUAL GROUNDWATER MONITORING REPORT

HEXAVALENT CHROMIUM ISOCONCENTRATION MAP 1ST SEMESTER 2014

Project 1323080 | October 2014 | Fig. 14




LEGEND

- APPROXIMATE PROPERTY LINE
- MONITORING WELL LOCATION
- MONITORING WELL NOT ANALYZED
- MONITORING WELL , ABANDONED
- 2.1 PERCHLORATE CONCENTRATION, mg/L (mg/L = MILLIGRAM PER LITER)
- 10 PERCHLORATE CONTOUR, mg/L (DASHED WHERE APPROXIMATE)

NOTES:

1) MAP IS FROM USGS 7.5 MINUTE QUADRANGLE MAPS LAS VEGAS SE, NV (2012) & HENDERSON, NV (2012).
2) THE SCREENING LEVEL USED FOR PERCHLORATE IS THE RESIDENTIAL WATER NDEP BASIC COMPARISON LEVEL (BCL). THE NDEP BCL FOR PERCHLORATE IS 0.018 mg/L.

Titanium Metals Corporation
181 North Water Street
Black Mountain Industrial Center
Henderson, Nevada 89015

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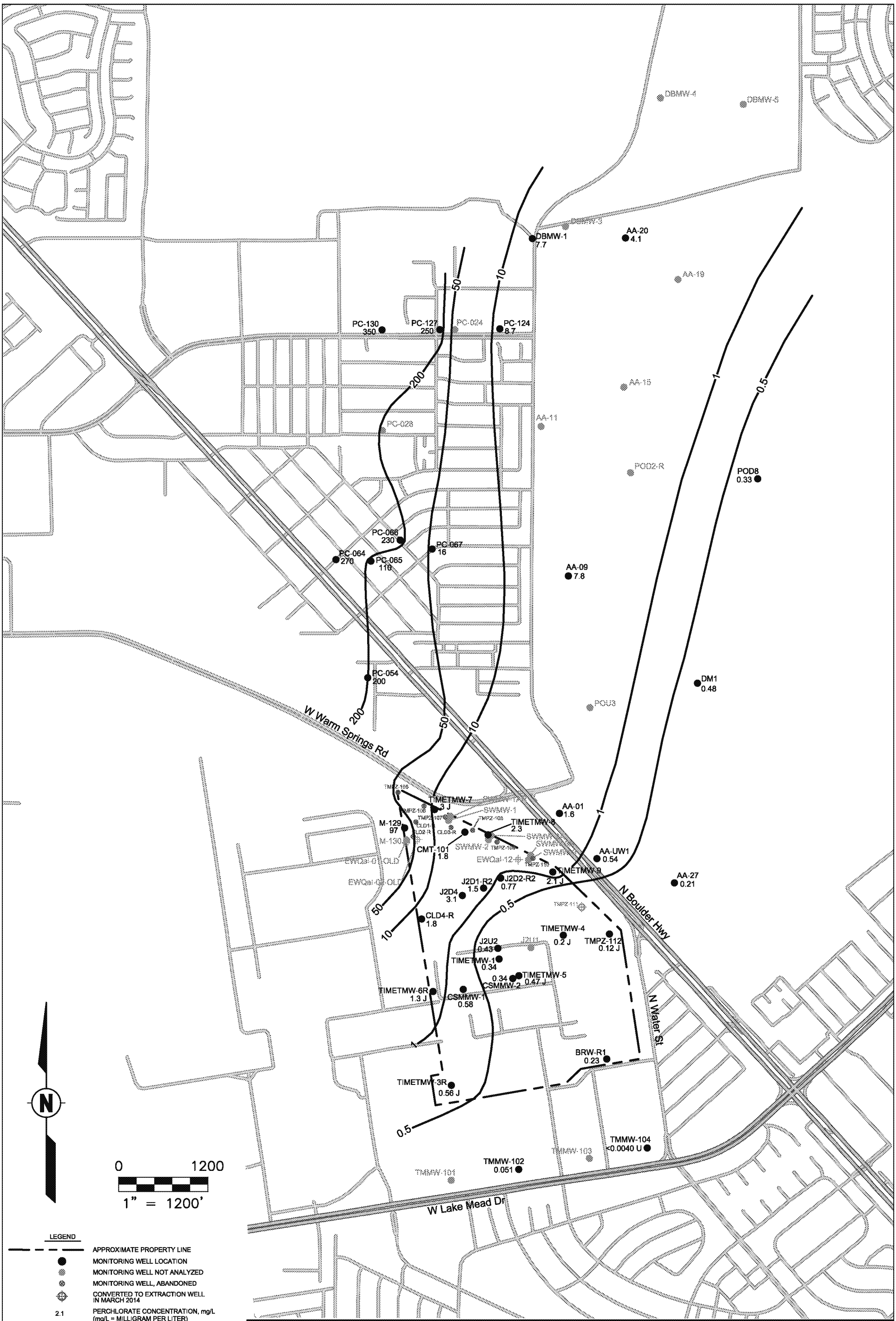
Project 1323080

2014 ANNUAL GROUNDWATER MONITORING REPORT

PERCHLORATE ISOCONCENTRATION MAP 2ND SEMESTER 2013

October 2014 Fig. 3




LEGEND

- APPROXIMATE PROPERTY LINE
- MONITORING WELL LOCATION
- MONITORING WELL NOT ANALYZED
- MONITORING WELL, ABANDONED
- CONVERTED TO EXTRACTION WELL IN MARCH 2014
- 2.1 PERCHLORATE CONCENTRATION, mg/L (mg/L = MILLIGRAM PER LITER)
- 10 PERCHLORATE CONTOUR, mg/L (DASHED WHERE APPROXIMATE)

NOTES:

1) MAP IS FROM USGS 7.5 MINUTE QUADRANGLE MAPS LAS VEGAS SE, NV (2012) & HENDERSON, NV (2012).
2) THE SCREENING LEVEL USED FOR PERCHLORATE IS THE RESIDENTIAL WATER NDEP BASIC COMPARISON LEVEL (BCL). THE NDEP BCL FOR PERCHLORATE IS 0.018 mg/L.

Titanium Metals Corporation
181 North Water Street
Black Mountain Industrial Center
Henderson, Nevada 89015

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Project 1323080

2014 ANNUAL GROUNDWATER MONITORING REPORT

PERCHLORATE ISOCONCENTRATION MAP 1ST SEMESTER 2014

October 2014 Fig. 4