Analytical Report For
Abandoned Mine Reclamation

Sample ID: 7135 004
Date Collected: 06/06/2018 10:15:00 AM
Lab Sample ID: I2018014681
Status: Completed

Name of Sample Collector: Joseph S Kasulaitis
Date Received: 06/07/2018
County: Berks
Municipality: Windsor Twp
MP ID: SOIL4 158460
MP Type: Impoundment
MP Location Description: Soil from Point 4

<table>
<thead>
<tr>
<th>Alias ID</th>
<th>Project / Facility</th>
</tr>
</thead>
<tbody>
<tr>
<td>SOIL4</td>
<td>KERNSVILLE</td>
</tr>
</tbody>
</table>

Sample Medium: Soil
Sample Medium Type: Soil
Location: NOT INDICATED
Reason: Routine Sampling
Project: KERNSVILLE Kernsville Dam
Standard Analysis: 229
Matrix: Soil

Stream Condition:

Sample Comment: Schuylkill River
<table>
<thead>
<tr>
<th>Test Codes / CAS # - Description</th>
<th>Reported Results</th>
<th>Date And Time Analyzed</th>
<th>Approved by</th>
<th>Test Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>80002K ACID DIGESTION / ICP ANALYSIS</td>
<td>0.0 Each</td>
<td>06/08/2018 12:00 PM</td>
<td>MBOTTS</td>
<td>EPA 3051</td>
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<tr>
<td>46909K2 Antimony, MG/KG Dry WT Basis</td>
<td>&lt;1.470 MG/KG</td>
<td>06/18/2018 11:07 AM</td>
<td>SCHOY</td>
<td>EPA 6020B</td>
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<tr>
<td>46903K2 Arsenic, MG/KG Dry WT Basis</td>
<td>5.520 MG/KG</td>
<td>06/18/2018 11:07 AM</td>
<td>SCHOY</td>
<td>EPA 6020B</td>
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<tr>
<td>90002S ASTM-A H2O Leach*</td>
<td>0 Each</td>
<td>06/12/2018 12:00 AM</td>
<td>FHUNZIKER</td>
<td>ASTM D3987-06</td>
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<tr>
<td>46901K2 BARIUM, MG/KG Dry WT BASIS</td>
<td>48.2 MG/KG</td>
<td>06/11/2018 01:15 PM</td>
<td>MBOTTS</td>
<td>EPA 6010 D</td>
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<tr>
<td>46910K2 Beryllium, MG/KG Dry WT Basis</td>
<td>1.330 MG/KG</td>
<td>06/18/2018 11:07 AM</td>
<td>SCHOY</td>
<td>EPA 6020B</td>
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<tr>
<td>46022K Boron, MG/KG Dry WT Basis</td>
<td>29.5 MG/KG</td>
<td>06/11/2018 01:15 PM</td>
<td>MBOTTS</td>
<td>EPA 6010 D</td>
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<tr>
<td>46309K2 Cadmium, MG/KG Dry WT Basis</td>
<td>0.810 MG/KG</td>
<td>06/18/2018 11:07 AM</td>
<td>SCHOY</td>
<td>EPA 6020B</td>
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<tr>
<td>46308K CHROMIUM, MG/KG DRY WT. BASIS</td>
<td>6.11 MG/KG</td>
<td>06/11/2018 01:15 PM</td>
<td>MBOTTS</td>
<td>EPA 6010 D</td>
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<tr>
<td>46908K2 Cobalt, MG/KG Dry WT BASIS</td>
<td>38.800 MG/KG</td>
<td>06/18/2018 11:07 AM</td>
<td>SCHOY</td>
<td>EPA 6020B</td>
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<tr>
<td>46257K COPPER, MG/KG DRY WT BASIS</td>
<td>25.300 MG/KG</td>
<td>06/11/2018 01:15 PM</td>
<td>MBOTTS</td>
<td>EPA 6010 D</td>
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<tr>
<td>41032L Hexavalent Chromium dry weight</td>
<td>&lt;29.46 UG/KG</td>
<td>06/13/2018 03:37 PM</td>
<td>FVODOPIVEC</td>
<td>EPA 218.6</td>
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<tr>
<td>41032A Hexchrome ASTM Leach*</td>
<td>&lt;1.0</td>
<td>06/13/2018 03:37 PM</td>
<td>FVODOPIVEC</td>
<td>EPA 218.6</td>
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<tr>
<td>46258K2 Lead, , MG/KG Dry WT Basis</td>
<td>15.200 MG/KG</td>
<td>06/18/2018 11:07 AM</td>
<td>SCHOY</td>
<td>EPA 6020B</td>
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<tr>
<td>46255K MANGANESE, MG/KG DRY WT. BASIS</td>
<td>711 MG/KG</td>
<td>06/11/2018 01:15 PM</td>
<td>MBOTTS</td>
<td>EPA 6010 D</td>
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<td>46259K MERCURY, MG/KG DRY WT. BASIS</td>
<td>&lt;0.147 MG/KG</td>
<td>06/11/2018 02:14 PM</td>
<td>FHUNZIKER</td>
<td>EPA 7471B</td>
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<td>46307K2 Nickel, MG/KG Dry WT Basis</td>
<td>35.800 MG/KG</td>
<td>06/18/2018 11:07 AM</td>
<td>SCHOY</td>
<td>EPA 6020B</td>
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<tr>
<td>40005K PERCENT MOISTURE IN SOIL*</td>
<td>32.11 %</td>
<td>06/08/2018 10:15 AM</td>
<td>MBOTTS</td>
<td>SM 2540G</td>
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<td>40006K PERCENT SOLID CONTENT*</td>
<td>67.89 %</td>
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<td>MBOTTS</td>
<td>SM 2540G</td>
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<td>40004K Sample Weight .g</td>
<td>0.5000 GRAMS</td>
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<td>MBOTTS</td>
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<td>46904K2 Selenium, MG/KG Dry WT Basis</td>
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<td>EPA 6020B</td>
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<td>46902K2 Silver, MG/KG Dry WT Basis</td>
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<td>SCHOY</td>
<td>EPA 6020B</td>
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<td>46911K2 Thallium, MG/KG Dry WT Basis</td>
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<td>SCHOY</td>
<td>EPA 6020B</td>
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<td>46912K TIN, MG/KG DRY WT. BASIS</td>
<td>&lt;29.5 MG/KG</td>
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<td>MBOTTS</td>
<td>EPA 6010 D</td>
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<td>46913K VANADIUM, MG/KG DRY WT. BASIS</td>
<td>8.18 MG/KG</td>
<td>06/11/2018 01:15 PM</td>
<td>MBOTTS</td>
<td>EPA 6010 D</td>
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<td>40722W WAD Cyanide ASTM Leach ug/Kg</td>
<td>&lt;0.0884 MG/KG</td>
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<td>TVOROBECYCH</td>
<td>EPA KELADA-01</td>
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<td>40719W WAD Cyanide ASTM Leach ug/L</td>
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<td>06/12/2018 08:25 AM</td>
<td>TVOROBECYCH</td>
<td>EPA KELADA-01</td>
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<td>46905K ZINC, MG/KG DRY WT. BASIS</td>
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<td>MBOTTS</td>
<td>EPA 6010 D</td>
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</table>

The results of the analyses provided in this laboratory report relate only to the sample(s) identified therein. Unless otherwise noted, the results presented on this laboratory report meet all requirements of the 2009 TNI standard. Sample was in acceptable condition when received by the Laboratory. Any exceptions are noted in the report.

* denotes tests that the laboratory is not accredited for

Taru Upadhyay, Technical Director, Bureau of Laboratories
<table>
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<th>Sample ID</th>
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<tbody>
<tr>
<td>7135 004</td>
<td>06/06/2018 10:15:00 AM</td>
<td>I2018014681</td>
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