

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Valparaiso
2400 Cumberland Drive
Valparaiso, IN 46383
Tel: (219)464-2389

TestAmerica Job ID: 510-63156-2

Client Project/Site: South Bend Former Studebaker Foundry

For:
Weaver Boos Consultants LLC
4085 Meghan Beeler Court
South Bend, Indiana 46628

Attn: Ed Stefanek



Authorized for release by:
05/03/2011 01:59:34 PM

Robin Kintz
Project Manager I
robinm.kintz@testamericainc.com

LINKS

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www.testamericainc.com

Results relate only to the items tested and the sample(s) as received by the laboratory. The test results in this report meet all 2003 NELAC requirements for accredited parameters, exceptions are noted in this report. Pursuant to NELAC, this report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.



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Qualifier Definition/Glossary

Client: Weaver Boos Consultants LLC
Project/Site: South Bend Former Studebaker Foundry

TestAmerica Job ID: 510-63156-2

Glossary

| Abbreviation | These commonly used abbreviations may or may not be present in this report. |
|----------------|---|
| ☼ | Listed under the "D" column to designate that the result is reported on a dry weight basis. |
| EPA | United States Environmental Protection Agency |
| ND | Not Detected above the reporting level. |
| MDL | Method Detection Limit |
| RL | Reporting Limit |
| RE, RE1 (etc.) | Indicates a Re-extraction or Reanalysis of the sample. |
| %R | Percent Recovery |
| RPD | Relative Percent Difference, a measure of the relative difference between two points. |

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Analytical Data

Client: Weaver Boos Consultants LLC
Project/Site: South Bend Former Studebaker Foundry

TestAmerica Job ID: 510-63156-2

Client Sample ID: SB0058:TP4:000020

Lab Sample ID: 510-63156-3

Date Collected: 03/14/11 10:05

Matrix: Solid

Date Received: 03/14/11 16:00

Method: 6010B - Metals (ICP) - TCLP

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---------|--------|-----------|------|-----|------|---|----------------|----------------|---------|
| Lead | 1.5 | | 0.50 | | mg/L | | 04/25/11 09:05 | 05/02/11 15:48 | 10 |

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Quality Control Data

Client: Weaver Boos Consultants LLC
 Project/Site: South Bend Former Studebaker Foundry

TestAmerica Job ID: 510-63156-2

Method: 6010B - Metals (ICP)

Lab Sample ID: MB 510-79456/1-A
Matrix: Solid
Analysis Batch: 79868

Client Sample ID: MB 510-79456/1-A
Prep Type: Total/NA
Prep Batch: 79456

| Analyte | MB MB | | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---------|--------|-----------|-------|-----|------|---|----------------|----------------|---------|
| | Result | Qualifier | | | | | | | |
| Lead | <0.050 | | 0.050 | | mg/L | | 04/25/11 09:05 | 05/02/11 14:32 | 1 |

Lab Sample ID: LCS 510-79456/2-A
Matrix: Solid
Analysis Batch: 79868

Client Sample ID: LCS 510-79456/2-A
Prep Type: Total/NA
Prep Batch: 79456

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | % Rec | % Rec. Limits |
|---------|-------------|------------|---------------|------|---|-------|---------------|
| | | | | | | | |

Lab Sample ID: LB 510-79448/1-B ^10 LB
Matrix: Solid
Analysis Batch: 79868

Client Sample ID: LB 510-79448/1-B ^10
Prep Type: TCLP
Prep Batch: 79456

| Analyte | LB LB | | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---------|--------|-----------|------|-----|------|---|----------------|----------------|---------|
| | Result | Qualifier | | | | | | | |
| Lead | <0.50 | | 0.50 | | mg/L | | 04/25/11 09:05 | 05/02/11 15:43 | 10 |

Lab Sample ID: 510-63156-3 MS
Matrix: Solid
Analysis Batch: 79868

Client Sample ID: SB0058:TP4:000020
Prep Type: TCLP
Prep Batch: 79456

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | % Rec | % Rec. Limits |
|---------|---------------|------------------|-------------|-----------|--------------|------|---|-------|---------------|
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QC Association Summary

Client: Weaver Boos Consultants LLC
 Project/Site: South Bend Former Studebaker Foundry

TestAmerica Job ID: 510-63156-2

Metals

Leach Batch: 79448

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|-------------------------|----------------------|-----------|--------|--------|------------|
| LB 510-79448/1-B ^10 LB | LB 510-79448/1-B ^10 | TCLP | Solid | 1311 | |
| 510-63156-3 | SB0058:TP4:000020 | TCLP | Solid | 1311 | |
| 510-63156-3 MS | SB0058:TP4:000020 | TCLP | Solid | 1311 | |

Prep Batch: 79456

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|-------------------------|----------------------|-----------|--------|--------|------------|
| MB 510-79456/1-A | MB 510-79456/1-A | Total/NA | Solid | 3010A | |
| LB 510-79448/1-B ^10 LB | LB 510-79448/1-B ^10 | TCLP | Solid | 3010A | 79448 |
| 510-63156-3 | SB0058:TP4:000020 | TCLP | Solid | 3010A | 79448 |
| 510-63156-3 MS | SB0058:TP4:000020 | TCLP | Solid | 3010A | 79448 |
| LCS 510-79456/2-A | LCS 510-79456/2-A | Total/NA | Solid | 3010A | |

Analysis Batch: 79868

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|-------------------------|----------------------|-----------|--------|--------|------------|
| MB 510-79456/1-A | MB 510-79456/1-A | Total/NA | Solid | 6010B | 79456 |
| LCS 510-79456/2-A | LCS 510-79456/2-A | Total/NA | Solid | 6010B | 79456 |
| LB 510-79448/1-B ^10 LB | LB 510-79448/1-B ^10 | TCLP | Solid | 6010B | 79456 |
| 510-63156-3 | SB0058:TP4:000020 | TCLP | Solid | 6010B | 79456 |
| 510-63156-3 MS | SB0058:TP4:000020 | TCLP | Solid | 6010B | 79456 |



Lab Chronicle

Client: Weaver Boos Consultants LLC
Project/Site: South Bend Former Studebaker Foundry

TestAmerica Job ID: 510-63156-2

Client Sample ID: SB0058:TP4:000020

Lab Sample ID: 510-63156-3

Date Collected: 03/14/11 10:05

Matrix: Solid

Date Received: 03/14/11 16:00

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared Or Analyzed | Analyst | Lab |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------------------------|
| TCLP | Leach | 1311 | | | 79448 | 04/24/11 13:50 | JLH | TestAmerica Valparaiso |
| TCLP | Prep | 3010A | | | 79456 | 04/25/11 09:05 | LWN | TestAmerica Valparaiso |
| TCLP | Analysis | 6010B | | 10 | 79868 | 05/02/11 15:48 | MT | TestAmerica Valparaiso |

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Certification Summary

Client: Weaver Boos Consultants LLC
Project/Site: South Bend Former Studebaker Foundry

TestAmerica Job ID: 510-63156-2

| Laboratory | Authority | Program | EPA Region | Certification ID |
|------------------------|---------------|---------------|------------|------------------|
| TestAmerica Valparaiso | | USDA | | P330-11-00073 |
| TestAmerica Valparaiso | Illinois | NELAC | 5 | 200065 |
| TestAmerica Valparaiso | Indiana | State Program | 5 | M-64-4 |
| TestAmerica Valparaiso | Indiana | State Program | 5 | C-64-01 |
| TestAmerica Valparaiso | Kentucky | Kentucky UST | 4 | 57 |
| TestAmerica Valparaiso | New Hampshire | NELAC | 1 | 2837 |
| TestAmerica Valparaiso | Washington | State Program | 10 | C842 |

Accreditation may not be offered or required for all methods and analytes reported in this package. Please contact your project manager for the laboratory's current list of certified methods and analytes.



Method Summary

Client: Weaver Boos Consultants LLC
Project/Site: South Bend Former Studebaker Foundry

TestAmerica Job ID: 510-63156-2

| Method | Method Description | Protocol | Laboratory |
|--------|--------------------|----------|------------|
| 6010B | Metals (ICP) | SW846 | TAL VAL |

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL VAL = TestAmerica Valparaiso, 2400 Cumberland Drive, Valparaiso, IN 46383, TEL (219)464-2389



Sample Summary

Client: Weaver Boos Consultants LLC
Project/Site: South Bend Former Studebaker Foundry

TestAmerica Job ID: 510-63156-2

| Lab Sample ID | Client Sample ID | Matrix | Collected | Received |
|---------------|-------------------|--------|----------------|----------------|
| 510-63156-3 | SB0058:TP4:000020 | Solid | 03/14/11 10:05 | 03/14/11 16:00 |

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Chain of Custody Record

Client Information
 Lab P#: Jodi Slough
 Lab P#: Kintz, Robin M
 Phone: 574.098.5280
 E-Mail: robinm.kintz@testamericainc.com

Company: Weaver Boos Consultants LLC
 Address: 4085 Meghan Beeler Court
 City: South Bend
 State, Zip: IN, 46628
 Phone: 574-271-3447
 Email: estefanek@weaverboos.com / jslough@weaverboos.com
 Project Name: South Bend Former Studebaker Foundry
 Site: South Bend Former Studebaker Foundry

Analysis Requested

| Sample ID | Sample Date | Sample Time | Sample Type (C=comp, G=grab) | Matrix (W=water, S=solid, O=soil, C=concrete, A=air) | Field Filtered (Sample Yes or No) | 8270C, 8270C SIM - BNAS | 8020, 7470 - Metals | 9082 - PCBs | 8260B - VOCs | 8015 - TPH GRO | 8015 - TPH ERO | 8260B - VOCs (Tripp Blanks) | Total Number of Containers | Special Instructions/Note: |
|---------------------------|-------------|-------------|------------------------------|--|-----------------------------------|-------------------------|---------------------|-------------|--------------|----------------|----------------|-----------------------------|----------------------------|----------------------------|
| 1 SB005B:TP3: 000020 | 3/14/11 | 0940 | G | S | N | N | N | N | N | N | N | N | 10 | |
| 2 SB005B:TP3: 040050 | 3/14/11 | 0945 | G | S | N | N | N | N | N | N | N | N | 10 | |
| 3 SB005B:TP4: 000020 | 3/14/11 | 1005 | G | S | N | N | N | N | N | N | N | N | 10 | |
| 4 SB005B:TP4: 040050 | 3/14/11 | 1010 | G | S | N | N | N | N | N | N | N | N | 10 | |
| 5 SB005B:TP5: 000020 | 3/14/11 | 1030 | G | S | N | N | N | N | N | N | N | N | 10 | |
| 6 SB005B:TP5: 040050 | 3/14/11 | 1035 | G | S | N | N | N | N | N | N | N | N | 10 | |
| 7 SB005B: Field Duplicate | 3/14/11 | 1040 | G | S | N | N | N | N | N | N | N | N | 10 | |
| 8 SB005B:TP6: 000020 | 3/14/11 | 1100 | G | S | N | N | N | N | N | N | N | N | 10 | |
| 9 SB005B:TP6: 040050 | 3/14/11 | 1105 | G | S | N | N | N | N | N | N | N | N | 10 | |
| 10 SB005B:TP7: 000020 | 3/14/11 | 1115 | G | S | N | N | N | N | N | N | N | N | 10 | |
| 11 SB005B:TP7: 040050 | 3/14/11 | 1120 | G | S | N | N | N | N | N | N | N | N | 10 | |

Preservation Codes:
 M - Hexane
 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
 Other:

Special Instructions/Note:
 Total e Free Cyanide
 Do not analyze blank 3/15/11

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
 Return To Client Disposal By Lab Archive For _____ Months

Deliverable Requested: Non-Hazard Flammable Skin Irritant Poison B Unknown Radiological

Empty Kit Relinquished by: _____ Date: _____
 Relinquished by: Jodi Slough Date: 3/14/11, 1530
 Relinquished by: Jody Slough Date: 3/14/11, 1600
 Relinquished by: Jody Slough Date: 3/14/11, 1600

Company: JBC Company
 Date/Time: 3/14/11, 1530
 Date/Time: 3/14/11, 1600
 Date/Time: 3/14/11, 1600

Custody Seal No.: _____
 Custody Seals Intact: Yes No

Remarks:
 0.4" Blue 100% O.S.C.
 18.5048/35/19.0 0.9 9.048-005 10.0 19.9 9.048-008 205



| | | | |
|---|--|--|--|
| Client Information Client Contact: Ed Stefanek/Jodi Slough Company: Weaver Boos Consultants LLC Address: 4085 Meghan Beeler Court City: South Bend State, Zip: IN, 46628 Phone: 574-271-3447 Email: estefanek@weaverboos.com / jslough@weaverboos.com Project Name: South Bend Former Studebaker Foundry Site: South Bend Former Studebaker Foundry | | Lab PM: Kintz, Robin M E-Mail: robin.m.kintz@testamericainc.com Carrier Tracking No(s): COC No: 510-14134.1 Page: 2 of 3 Job #: | |
| Due Date Requested: TAT Requested (days): PO #: 0058-373-01 WO #: | | Analysis Requested 8270C, 8270C SIM - BNAs 8020, 7470 - Metals 8082 - PCBs 8280B - VOCs 8016 - TPH GRO 8015 - TPH ERO 8280B - VOCs (TriP Blanks) | |
| Sample Date Sample Time Sample Type (C=comp, G=grab) Matrix (W=water, S=solid, O=soil, G=grab, E=extract, A=air) | | Field Filtered Sample (Yes or No) Preservation Code Total Number of Containers | |
| Sample Identification 13 13B0058: TP8: 000020 14 13B0058: TP8: 040050 15 13B0058: TP9: 000020 15 13B0058: TP9: 040050 16 13B0058: TP10: 000020 17 13B0058: TP10: 040050 18 13B0058: TP11: 000020 19 13B0058: TP11: 040050 20 13B0058: TP17: 000020 21 13B0058: TP12: 040050 | | Special Instructions/Note: 13 Don't analyze 3/15/11 14 Don't analyze 3/15/11 15 Don't analyze 3/15/11 16 Don't analyze 3/15/11 17 Don't analyze 3/15/11 18 Don't analyze 3/15/11 19 Don't analyze 3/15/11 20 Don't analyze 3/15/11 21 Don't analyze 3/15/11 | |
| Possible Hazard Identification <input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input checked="" type="checkbox"/> Unknown <input type="checkbox"/> Radiological Deliverable Requested: I, II, III, (V) Other (specify) | | | |
| Empty Kit Relinquished by: | | Date: | |
| Relinquished by: Jody Slough Relinquished by: Jody Slough Relinquished by: | | Date: 3/14/11, 1535 Date: 3/14/11, 1600 Date: | |
| Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No | | Custody Seal No.: | |

19-218-199-0.9-510-005-1.0-19-510-08 2.0-1
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|---|--|--|--|---|--|--|--|---|--|--|--|
| <p>Client Information Client Contact: Ed Stefanek/Jodi Slough Company: Weaver Boos Consultants LLC Address: 4085 Meghan Beeler Court City: South Bend State, Zip: IN, 46628 Phone: 574-271-3447 Email: estefanek@weaverboos.com/slough@weaverboos.com</p> | | | | <p>Sampler: Jodi Slough Phone: 574 952 5380 Lab PM: Kintz, Robin M E-Mail: robinm.kintz@testamericainc.com</p> | | | | <p>COC No: 510-14133.1 Page: 3 of 3 Job #:</p> | | | |
| <p>Due Date Requested: TAT Requested (days): PO #: POUSB37301 Project #: 51001786 SSOW#:</p> | | | | <p>Carrier Tracking No(s):</p> | | | | <p>Analysis Requested</p> | | | |
| <p>Project Name: Former Sand SB Site: Former Sand SB, Fmry Stud, Fdry</p> | | | | <p>Field/Filled Sample (Yes or No)</p> | | | | <p>Preservation Codes: 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 X - EDTA Y - EDA Z - other (specify)</p> | | | |
| <p>Sample Identification 63196 SB0058: TP13: 000020 SB0058: TP13: 040050 Trip Blank Sodium Bisulfate methanol Blank</p> | | | | <p>Sample Date 3/14/11 3/14/11 3/14/11 3/14/11</p> | | | | <p>Sample Time 1515h 1520 -- --</p> | | | |
| <p>Sample Type (C=comp, G=grab) S S -- --</p> | | | | <p>Matrix (W=water, S=solid, O=soil, E=other, A=acid) S S -- --</p> | | | | <p>Special Instructions/Note: 3 bags methanol 7 liter methanol on each side divided into 3/15/11 CMC 3/15/11</p> | | | |
| <p>Neutral Leachate: Metals, Cyanide, Sulfide, pH</p> | | | | <p>Phenol, Cl, F, S04, TDS</p> | | | | <p>Total Number of Containers</p> | | | |
| <p>TCRP RCRA Metals</p> | | | | <p>8270C, 8270C SIM PWS</p> | | | | <p>8260B-VCS</p> | | | |
| <p>8260B-VCS</p> | | | | <p>825 TPH G00</p> | | | | <p>825 TPH G00</p> | | | |
| <p>8260B-VCS</p> | | | | <p>8260B-VCS (trip blanks)</p> | | | | | | | |
| <p>Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/></p> | | | | <p>Archive For _____ Months</p> | | | | <p>Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)</p> | | | |
| <p>Special Instructions/QC Requirements:</p> | | | | <p>Special Instructions/QC Requirements:</p> | | | | <p>Special Instructions/QC Requirements:</p> | | | |
| <p>Relinquished by: Jody Slough</p> | | | | <p>Relinquished by: Jody Slough</p> | | | | <p>Relinquished by: Jody Slough</p> | | | |
| <p>Date/Time: 3/14/11, 1530</p> | | | | <p>Date/Time: 3/14/11, 1600</p> | | | | <p>Date/Time: 3/14/11, 1600</p> | | | |
| <p>Company: Weaver Boos Consultants LLC</p> | | | | <p>Company: Weaver Boos Consultants LLC</p> | | | | <p>Company: Weaver Boos Consultants LLC</p> | | | |
| <p>Relinquished by: Jody Slough</p> | | | | <p>Relinquished by: Jody Slough</p> | | | | <p>Relinquished by: Jody Slough</p> | | | |
| <p>Custody Seal No.: Δ Yes Δ No</p> | | | | <p>Custody Seal No.: Δ Yes Δ No</p> | | | | <p>Custody Seal No.: Δ Yes Δ No</p> | | | |



Login Sample Receipt Checklist

Client: Weaver Boos Consultants LLC

Job Number: 510-63156-2

Login Number: 63156

List Source: TestAmerica Valparaiso

List Number: 1

Creator: Richter, Debbie D

| Question | Answer | Comment |
|--|--------|---|
| Radioactivity either was not measured or, if measured, is at or below background | True | |
| The cooler's custody seal, if present, is 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 sample IDs on the containers 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 | |
| VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter. | False | 3 of 3 vials for Trip Blank had bubble >6mm |
| If necessary, staff have been informed of any short hold time or quick TAT needs | True | |
| Multiphasic samples are not present. | True | |
| Samples do not require splitting or compositing. | True | |