



Microbac Laboratories, Inc.
Central Pennsylvania Division
4359 Linglestown Road • Harrisburg, PA 17112

Phone: 717-651-9700
Fax: 717-657-0752
www.microbac.com

COVER LETTER

Paul Miller
Geological Services, Inc.
PO Box 578
Rock Hall, MD 21661
RE: GSI/West Lebanon

November 18, 2011
Report No.: 1127506

The report of analyses contains test results for samples received at Microbac Laboratories, Inc., Central Pennsylvania Division on 11/17/2011 07:10.

The enclosed results were obtained from and applicable to the sample(s) as received at the laboratory. All sample results are reported on an "as received" basis unless otherwise noted.

All data included in this report has been reviewed and meet the applicable project and certification specific requirements, unless otherwise noted.

This report has been paginated in its entirety and shall not be reproduced except in full, without the written approval of Microbac Laboratories, Inc.

We appreciate the opportunity to service your analytical needs. If you have any questions, please feel free to contact us.

This Data Package contains the following:

- This Cover Page
- Sample Summary
- Test Results
- Notes and Definitions
- Cooler Receipt Log
- Chain of Custody

A handwritten signature in cursive script that reads "Cherie Gudzy".

Final report reviewed by:

Cherie Gudzy, Division Manager

11/18/2011

Report issue date

For any feedback, please contact Cherie Gudzy, Division Manager. You may also contact Sean Hyde, Chief Operating Officer at sean.hyde@microbac.com or James Nokes, President at james.nokes@microbac.com.



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CERTIFICATE OF ANALYSIS

| | | |
|--|---|---|
| Geological Services, Inc. PO Box 578 Rock Hall, MD 21661 | Project: GSI/West Lebanon Project Number: GSI/West Lebanon Project Manager: Paul Miller | Report: 1127506 Reported: 11/18/2011 11:34 |
|--|---|---|

SAMPLE SUMMARY

| Sample ID | Laboratory ID | Matrix | Type | Date Sampled | Date Received |
|----------------------|---------------|--------------|------|------------------|------------------|
| Well 1 | 1127506-01 | Ground Water | Grab | 11/16/2011 16:00 | 11/17/2011 07:10 |
| Well 2 | 1127506-02 | Ground Water | Grab | 11/16/2011 17:00 | 11/17/2011 07:10 |
| Well 3 | 1127506-03 | Ground Water | Grab | 11/16/2011 15:00 | 11/17/2011 07:10 |
| Lions Lake | 1127506-04 | Ground Water | Grab | 11/16/2011 15:45 | 11/17/2011 07:10 |
| Shay Residence | 1127506-05 | Ground Water | Grab | 11/16/2011 15:30 | 11/17/2011 07:10 |
| Kelly Gate | 1127506-06 | Ground Water | Grab | 11/16/2011 15:20 | 11/17/2011 07:10 |
| Kelly Machine Stream | 1127506-07 | Ground Water | Grab | 11/16/2011 15:10 | 11/17/2011 07:10 |
| Union Canal | 1127506-08 | Ground Water | Grab | 11/16/2011 14:30 | 11/17/2011 07:10 |

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| | | |
|--|---|---|
| Geological Services, Inc. PO Box 578 Rock Hall, MD 21661 | Project: GSI/West Lebanon Project Number: GSI/West Lebanon Project Manager: Paul Miller | Report: 1127506 Reported: 11/18/2011 11:34 |
|--|---|---|

Well 1

1127506-01 (Ground Water) Sampled: 11/16/2011 16:00; Type: Grab

| Analyte | Result | Reporting Limit | Units | Prepared | Analyzed | Analyst | Method | Notes |
|---------|--------|-----------------|-------|----------|----------|---------|--------|-------|
|---------|--------|-----------------|-------|----------|----------|---------|--------|-------|

Microbac Laboratories, Inc., Central Pennsylvania Division (PA 22-00578)

VOLATILE ORGANIC COMPOUNDS

| | | | | | | | | |
|---------------------------|----|------|------|-------------|-------------|-----|-----------|--|
| Benzene | ND | 1.00 | ug/L | 111711 1850 | 111711 1850 | JMS | EPA 8260B | |
| Chlorobenzene | ND | 2.00 | ug/L | 111711 1850 | 111711 1850 | JMS | EPA 8260B | |
| Chloroform | ND | 2.00 | ug/L | 111711 1850 | 111711 1850 | JMS | EPA 8260B | |
| Chloromethane | ND | 4.00 | ug/L | 111711 1850 | 111711 1850 | JMS | EPA 8260B | |
| 1,1-Dichloroethane | ND | 2.00 | ug/L | 111711 1850 | 111711 1850 | JMS | EPA 8260B | |
| 1,2-Dichloroethane | ND | 2.00 | ug/L | 111711 1850 | 111711 1850 | JMS | EPA 8260B | |
| 1,1-Dichloroethene | ND | 1.00 | ug/L | 111711 1850 | 111711 1850 | JMS | EPA 8260B | |
| cis-1,2-Dichloroethene | ND | 2.00 | ug/L | 111711 1850 | 111711 1850 | JMS | EPA 8260B | |
| trans-1,2-Dichloroethene | ND | 2.00 | ug/L | 111711 1850 | 111711 1850 | JMS | EPA 8260B | |
| Ethylbenzene | ND | 2.00 | ug/L | 111711 1850 | 111711 1850 | JMS | EPA 8260B | |
| Isopropylbenzene (Cumene) | ND | 2.00 | ug/L | 111711 1850 | 111711 1850 | JMS | EPA 8260B | |
| Methylene Chloride | ND | 2.00 | ug/L | 111711 1850 | 111711 1850 | JMS | EPA 8260B | |
| Methyl-tert-Butyl Ether | ND | 2.00 | ug/L | 111711 1850 | 111711 1850 | JMS | EPA 8260B | |
| Naphthalene | ND | 10.0 | ug/L | 111711 1850 | 111711 1850 | JMS | EPA 8260B | |
| 1,1,1,2-Tetrachloroethane | ND | 2.00 | ug/L | 111711 1850 | 111711 1850 | JMS | EPA 8260B | |
| 1,1,2,2-Tetrachloroethane | ND | 1.00 | ug/L | 111711 1850 | 111711 1850 | JMS | EPA 8260B | |
| Tetrachloroethene | ND | 1.00 | ug/L | 111711 1850 | 111711 1850 | JMS | EPA 8260B | |
| Toluene | ND | 2.00 | ug/L | 111711 1850 | 111711 1850 | JMS | EPA 8260B | |
| 1,1,1-Trichloroethane | ND | 2.00 | ug/L | 111711 1850 | 111711 1850 | JMS | EPA 8260B | |
| 1,1,2-Trichloroethane | ND | 2.00 | ug/L | 111711 1850 | 111711 1850 | JMS | EPA 8260B | |
| Trichloroethene | ND | 1.00 | ug/L | 111711 1850 | 111711 1850 | JMS | EPA 8260B | |
| 1,2,4-Trimethylbenzene | ND | 2.00 | ug/L | 111711 1850 | 111711 1850 | JMS | EPA 8260B | |
| 1,3,5-Trimethylbenzene | ND | 2.00 | ug/L | 111711 1850 | 111711 1850 | JMS | EPA 8260B | |
| Vinyl chloride | ND | 1.00 | ug/L | 111711 1850 | 111711 1850 | JMS | EPA 8260B | |
| m,p-Xylenes | ND | 4.00 | ug/L | 111711 1850 | 111711 1850 | JMS | EPA 8260B | |
| o-Xylene | ND | 2.00 | ug/L | 111711 1850 | 111711 1850 | JMS | EPA 8260B | |
| Total Xylenes | ND | 6.00 | ug/L | 111711 1850 | 111711 1850 | JMS | EPA 8260B | |

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CERTIFICATE OF ANALYSIS

| | | |
|--|---|---|
| Geological Services, Inc. PO Box 578 Rock Hall, MD 21661 | Project: GSI/West Lebanon Project Number: GSI/West Lebanon Project Manager: Paul Miller | Report: 1127506 Reported: 11/18/2011 11:34 |
|--|---|---|

Well 2

1127506-02 (Ground Water) Sampled: 11/16/2011 17:00; Type: Grab

| Analyte | Result | Reporting Limit | Units | Prepared | Analyzed | Analyst | Method | Notes |
|---------|--------|-----------------|-------|----------|----------|---------|--------|-------|
|---------|--------|-----------------|-------|----------|----------|---------|--------|-------|

Microbac Laboratories, Inc., Central Pennsylvania Division (PA 22-00578)

VOLATILE ORGANIC COMPOUNDS

| | | | | | | | | |
|---------------------------|-------------|------|------|-------------|-------------|-----|-----------|--|
| Benzene | ND | 1.00 | ug/L | 111711 1918 | 111711 1918 | JMS | EPA 8260B | |
| Chlorobenzene | ND | 2.00 | ug/L | 111711 1918 | 111711 1918 | JMS | EPA 8260B | |
| Chloroform | ND | 2.00 | ug/L | 111711 1918 | 111711 1918 | JMS | EPA 8260B | |
| Chloromethane | ND | 4.00 | ug/L | 111711 1918 | 111711 1918 | JMS | EPA 8260B | |
| 1,1-Dichloroethane | ND | 2.00 | ug/L | 111711 1918 | 111711 1918 | JMS | EPA 8260B | |
| 1,2-Dichloroethane | ND | 2.00 | ug/L | 111711 1918 | 111711 1918 | JMS | EPA 8260B | |
| 1,1-Dichloroethene | ND | 1.00 | ug/L | 111711 1918 | 111711 1918 | JMS | EPA 8260B | |
| cis-1,2-Dichloroethene | ND | 2.00 | ug/L | 111711 1918 | 111711 1918 | JMS | EPA 8260B | |
| trans-1,2-Dichloroethene | ND | 2.00 | ug/L | 111711 1918 | 111711 1918 | JMS | EPA 8260B | |
| Ethylbenzene | ND | 2.00 | ug/L | 111711 1918 | 111711 1918 | JMS | EPA 8260B | |
| Isopropylbenzene (Cumene) | ND | 2.00 | ug/L | 111711 1918 | 111711 1918 | JMS | EPA 8260B | |
| Methylene Chloride | ND | 2.00 | ug/L | 111711 1918 | 111711 1918 | JMS | EPA 8260B | |
| Methyl-tert-Butyl Ether | ND | 2.00 | ug/L | 111711 1918 | 111711 1918 | JMS | EPA 8260B | |
| Naphthalene | ND | 10.0 | ug/L | 111711 1918 | 111711 1918 | JMS | EPA 8260B | |
| 1,1,1,2-Tetrachloroethane | ND | 2.00 | ug/L | 111711 1918 | 111711 1918 | JMS | EPA 8260B | |
| 1,1,2,2-Tetrachloroethane | ND | 1.00 | ug/L | 111711 1918 | 111711 1918 | JMS | EPA 8260B | |
| Tetrachloroethene | 22.6 | 1.00 | ug/L | 111711 1918 | 111711 1918 | JMS | EPA 8260B | |
| Toluene | ND | 2.00 | ug/L | 111711 1918 | 111711 1918 | JMS | EPA 8260B | |
| 1,1,1-Trichloroethane | ND | 2.00 | ug/L | 111711 1918 | 111711 1918 | JMS | EPA 8260B | |
| 1,1,2-Trichloroethane | ND | 2.00 | ug/L | 111711 1918 | 111711 1918 | JMS | EPA 8260B | |
| Trichloroethene | ND | 1.00 | ug/L | 111711 1918 | 111711 1918 | JMS | EPA 8260B | |
| 1,2,4-Trimethylbenzene | ND | 2.00 | ug/L | 111711 1918 | 111711 1918 | JMS | EPA 8260B | |
| 1,3,5-Trimethylbenzene | ND | 2.00 | ug/L | 111711 1918 | 111711 1918 | JMS | EPA 8260B | |
| Vinyl chloride | ND | 1.00 | ug/L | 111711 1918 | 111711 1918 | JMS | EPA 8260B | |
| m,p-Xylenes | ND | 4.00 | ug/L | 111711 1918 | 111711 1918 | JMS | EPA 8260B | |
| o-Xylene | ND | 2.00 | ug/L | 111711 1918 | 111711 1918 | JMS | EPA 8260B | |
| Total Xylenes | ND | 6.00 | ug/L | 111711 1918 | 111711 1918 | JMS | EPA 8260B | |

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| Geological Services, Inc. PO Box 578 Rock Hall, MD 21661 | Project: GSI/West Lebanon Project Number: GSI/West Lebanon Project Manager: Paul Miller | Report: 1127506 Reported: 11/18/2011 11:34 |
|--|---|---|

Well 3

1127506-03 (Ground Water) Sampled: 11/16/2011 15:00; Type: Grab

| Analyte | Result | Reporting Limit | Units | Prepared | Analyzed | Analyst | Method | Notes |
|---------|--------|-----------------|-------|----------|----------|---------|--------|-------|
|---------|--------|-----------------|-------|----------|----------|---------|--------|-------|

Microbac Laboratories, Inc., Central Pennsylvania Division (PA 22-00578)

VOLATILE ORGANIC COMPOUNDS

| | | | | | | | | |
|---------------------------|----|------|------|-------------|-------------|-----|-----------|--|
| Benzene | ND | 1.00 | ug/L | 111711 1946 | 111711 1946 | JMS | EPA 8260B | |
| Chlorobenzene | ND | 2.00 | ug/L | 111711 1946 | 111711 1946 | JMS | EPA 8260B | |
| Chloroform | ND | 2.00 | ug/L | 111711 1946 | 111711 1946 | JMS | EPA 8260B | |
| Chloromethane | ND | 4.00 | ug/L | 111711 1946 | 111711 1946 | JMS | EPA 8260B | |
| 1,1-Dichloroethane | ND | 2.00 | ug/L | 111711 1946 | 111711 1946 | JMS | EPA 8260B | |
| 1,2-Dichloroethane | ND | 2.00 | ug/L | 111711 1946 | 111711 1946 | JMS | EPA 8260B | |
| 1,1-Dichloroethene | ND | 1.00 | ug/L | 111711 1946 | 111711 1946 | JMS | EPA 8260B | |
| cis-1,2-Dichloroethene | ND | 2.00 | ug/L | 111711 1946 | 111711 1946 | JMS | EPA 8260B | |
| trans-1,2-Dichloroethene | ND | 2.00 | ug/L | 111711 1946 | 111711 1946 | JMS | EPA 8260B | |
| Ethylbenzene | ND | 2.00 | ug/L | 111711 1946 | 111711 1946 | JMS | EPA 8260B | |
| Isopropylbenzene (Cumene) | ND | 2.00 | ug/L | 111711 1946 | 111711 1946 | JMS | EPA 8260B | |
| Methylene Chloride | ND | 2.00 | ug/L | 111711 1946 | 111711 1946 | JMS | EPA 8260B | |
| Methyl-tert-Butyl Ether | ND | 2.00 | ug/L | 111711 1946 | 111711 1946 | JMS | EPA 8260B | |
| Naphthalene | ND | 10.0 | ug/L | 111711 1946 | 111711 1946 | JMS | EPA 8260B | |
| 1,1,1,2-Tetrachloroethane | ND | 2.00 | ug/L | 111711 1946 | 111711 1946 | JMS | EPA 8260B | |
| 1,1,2,2-Tetrachloroethane | ND | 1.00 | ug/L | 111711 1946 | 111711 1946 | JMS | EPA 8260B | |
| Tetrachloroethene | ND | 1.00 | ug/L | 111711 1946 | 111711 1946 | JMS | EPA 8260B | |
| Toluene | ND | 2.00 | ug/L | 111711 1946 | 111711 1946 | JMS | EPA 8260B | |
| 1,1,1-Trichloroethane | ND | 2.00 | ug/L | 111711 1946 | 111711 1946 | JMS | EPA 8260B | |
| 1,1,2-Trichloroethane | ND | 2.00 | ug/L | 111711 1946 | 111711 1946 | JMS | EPA 8260B | |
| Trichloroethene | ND | 1.00 | ug/L | 111711 1946 | 111711 1946 | JMS | EPA 8260B | |
| 1,2,4-Trimethylbenzene | ND | 2.00 | ug/L | 111711 1946 | 111711 1946 | JMS | EPA 8260B | |
| 1,3,5-Trimethylbenzene | ND | 2.00 | ug/L | 111711 1946 | 111711 1946 | JMS | EPA 8260B | |
| Vinyl chloride | ND | 1.00 | ug/L | 111711 1946 | 111711 1946 | JMS | EPA 8260B | |
| m,p-Xylenes | ND | 4.00 | ug/L | 111711 1946 | 111711 1946 | JMS | EPA 8260B | |
| o-Xylene | ND | 2.00 | ug/L | 111711 1946 | 111711 1946 | JMS | EPA 8260B | |
| Total Xylenes | ND | 6.00 | ug/L | 111711 1946 | 111711 1946 | JMS | EPA 8260B | |

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CERTIFICATE OF ANALYSIS

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|--|---|---|
| Geological Services, Inc. PO Box 578 Rock Hall, MD 21661 | Project: GSI/West Lebanon Project Number: GSI/West Lebanon Project Manager: Paul Miller | Report: 1127506 Reported: 11/18/2011 11:34 |
|--|---|---|

Lions Lake

1127506-04 (Ground Water) Sampled: 11/16/2011 15:45; Type: Grab

| Analyte | Result | Reporting Limit | Units | Prepared | Analyzed | Analyst | Method | Notes |
|---------|--------|-----------------|-------|----------|----------|---------|--------|-------|
|---------|--------|-----------------|-------|----------|----------|---------|--------|-------|

Microbac Laboratories, Inc., Central Pennsylvania Division (PA 22-00578)

VOLATILE ORGANIC COMPOUNDS

| | | | | | | | | |
|---------------------------|----|------|------|-------------|-------------|-----|-----------|--|
| Benzene | ND | 1.00 | ug/L | 111711 2014 | 111711 2014 | JMS | EPA 8260B | |
| Chlorobenzene | ND | 2.00 | ug/L | 111711 2014 | 111711 2014 | JMS | EPA 8260B | |
| Chloroform | ND | 2.00 | ug/L | 111711 2014 | 111711 2014 | JMS | EPA 8260B | |
| Chloromethane | ND | 4.00 | ug/L | 111711 2014 | 111711 2014 | JMS | EPA 8260B | |
| 1,1-Dichloroethane | ND | 2.00 | ug/L | 111711 2014 | 111711 2014 | JMS | EPA 8260B | |
| 1,2-Dichloroethane | ND | 2.00 | ug/L | 111711 2014 | 111711 2014 | JMS | EPA 8260B | |
| 1,1-Dichloroethene | ND | 1.00 | ug/L | 111711 2014 | 111711 2014 | JMS | EPA 8260B | |
| cis-1,2-Dichloroethene | ND | 2.00 | ug/L | 111711 2014 | 111711 2014 | JMS | EPA 8260B | |
| trans-1,2-Dichloroethene | ND | 2.00 | ug/L | 111711 2014 | 111711 2014 | JMS | EPA 8260B | |
| Ethylbenzene | ND | 2.00 | ug/L | 111711 2014 | 111711 2014 | JMS | EPA 8260B | |
| Isopropylbenzene (Cumene) | ND | 2.00 | ug/L | 111711 2014 | 111711 2014 | JMS | EPA 8260B | |
| Methylene Chloride | ND | 2.00 | ug/L | 111711 2014 | 111711 2014 | JMS | EPA 8260B | |
| Methyl-tert-Butyl Ether | ND | 2.00 | ug/L | 111711 2014 | 111711 2014 | JMS | EPA 8260B | |
| Naphthalene | ND | 10.0 | ug/L | 111711 2014 | 111711 2014 | JMS | EPA 8260B | |
| 1,1,1,2-Tetrachloroethane | ND | 2.00 | ug/L | 111711 2014 | 111711 2014 | JMS | EPA 8260B | |
| 1,1,2,2-Tetrachloroethane | ND | 1.00 | ug/L | 111711 2014 | 111711 2014 | JMS | EPA 8260B | |
| Tetrachloroethene | ND | 1.00 | ug/L | 111711 2014 | 111711 2014 | JMS | EPA 8260B | |
| Toluene | ND | 2.00 | ug/L | 111711 2014 | 111711 2014 | JMS | EPA 8260B | |
| 1,1,1-Trichloroethane | ND | 2.00 | ug/L | 111711 2014 | 111711 2014 | JMS | EPA 8260B | |
| 1,1,2-Trichloroethane | ND | 2.00 | ug/L | 111711 2014 | 111711 2014 | JMS | EPA 8260B | |
| Trichloroethene | ND | 1.00 | ug/L | 111711 2014 | 111711 2014 | JMS | EPA 8260B | |
| 1,2,4-Trimethylbenzene | ND | 2.00 | ug/L | 111711 2014 | 111711 2014 | JMS | EPA 8260B | |
| 1,3,5-Trimethylbenzene | ND | 2.00 | ug/L | 111711 2014 | 111711 2014 | JMS | EPA 8260B | |
| Vinyl chloride | ND | 1.00 | ug/L | 111711 2014 | 111711 2014 | JMS | EPA 8260B | |
| m,p-Xylenes | ND | 4.00 | ug/L | 111711 2014 | 111711 2014 | JMS | EPA 8260B | |
| o-Xylene | ND | 2.00 | ug/L | 111711 2014 | 111711 2014 | JMS | EPA 8260B | |
| Total Xylenes | ND | 6.00 | ug/L | 111711 2014 | 111711 2014 | JMS | EPA 8260B | |

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| Geological Services, Inc. PO Box 578 Rock Hall, MD 21661 | Project: GSI/West Lebanon Project Number: GSI/West Lebanon Project Manager: Paul Miller | Report: 1127506 Reported: 11/18/2011 11:34 |
|--|---|---|

Shay Residence

1127506-05 (Ground Water) Sampled: 11/16/2011 15:30; Type: Grab

| Analyte | Result | Reporting Limit | Units | Prepared | Analyzed | Analyst | Method | Notes |
|---------|--------|-----------------|-------|----------|----------|---------|--------|-------|
|---------|--------|-----------------|-------|----------|----------|---------|--------|-------|

Microbac Laboratories, Inc., Central Pennsylvania Division (PA 22-00578)

VOLATILE ORGANIC COMPOUNDS

| | | | | | | | | |
|---------------------------|----|------|------|-------------|-------------|-----|-----------|--|
| Benzene | ND | 1.00 | ug/L | 111711 2041 | 111711 2041 | JMS | EPA 8260B | |
| Chlorobenzene | ND | 2.00 | ug/L | 111711 2041 | 111711 2041 | JMS | EPA 8260B | |
| Chloroform | ND | 2.00 | ug/L | 111711 2041 | 111711 2041 | JMS | EPA 8260B | |
| Chloromethane | ND | 4.00 | ug/L | 111711 2041 | 111711 2041 | JMS | EPA 8260B | |
| 1,1-Dichloroethane | ND | 2.00 | ug/L | 111711 2041 | 111711 2041 | JMS | EPA 8260B | |
| 1,2-Dichloroethane | ND | 2.00 | ug/L | 111711 2041 | 111711 2041 | JMS | EPA 8260B | |
| 1,1-Dichloroethene | ND | 1.00 | ug/L | 111711 2041 | 111711 2041 | JMS | EPA 8260B | |
| cis-1,2-Dichloroethene | ND | 2.00 | ug/L | 111711 2041 | 111711 2041 | JMS | EPA 8260B | |
| trans-1,2-Dichloroethene | ND | 2.00 | ug/L | 111711 2041 | 111711 2041 | JMS | EPA 8260B | |
| Ethylbenzene | ND | 2.00 | ug/L | 111711 2041 | 111711 2041 | JMS | EPA 8260B | |
| Isopropylbenzene (Cumene) | ND | 2.00 | ug/L | 111711 2041 | 111711 2041 | JMS | EPA 8260B | |
| Methylene Chloride | ND | 2.00 | ug/L | 111711 2041 | 111711 2041 | JMS | EPA 8260B | |
| Methyl-tert-Butyl Ether | ND | 2.00 | ug/L | 111711 2041 | 111711 2041 | JMS | EPA 8260B | |
| Naphthalene | ND | 10.0 | ug/L | 111711 2041 | 111711 2041 | JMS | EPA 8260B | |
| 1,1,1,2-Tetrachloroethane | ND | 2.00 | ug/L | 111711 2041 | 111711 2041 | JMS | EPA 8260B | |
| 1,1,2,2-Tetrachloroethane | ND | 1.00 | ug/L | 111711 2041 | 111711 2041 | JMS | EPA 8260B | |
| Tetrachloroethene | ND | 1.00 | ug/L | 111711 2041 | 111711 2041 | JMS | EPA 8260B | |
| Toluene | ND | 2.00 | ug/L | 111711 2041 | 111711 2041 | JMS | EPA 8260B | |
| 1,1,1-Trichloroethane | ND | 2.00 | ug/L | 111711 2041 | 111711 2041 | JMS | EPA 8260B | |
| 1,1,2-Trichloroethane | ND | 2.00 | ug/L | 111711 2041 | 111711 2041 | JMS | EPA 8260B | |
| Trichloroethene | ND | 1.00 | ug/L | 111711 2041 | 111711 2041 | JMS | EPA 8260B | |
| 1,2,4-Trimethylbenzene | ND | 2.00 | ug/L | 111711 2041 | 111711 2041 | JMS | EPA 8260B | |
| 1,3,5-Trimethylbenzene | ND | 2.00 | ug/L | 111711 2041 | 111711 2041 | JMS | EPA 8260B | |
| Vinyl chloride | ND | 1.00 | ug/L | 111711 2041 | 111711 2041 | JMS | EPA 8260B | |
| m,p-Xylenes | ND | 4.00 | ug/L | 111711 2041 | 111711 2041 | JMS | EPA 8260B | |
| o-Xylene | ND | 2.00 | ug/L | 111711 2041 | 111711 2041 | JMS | EPA 8260B | |
| Total Xylenes | ND | 6.00 | ug/L | 111711 2041 | 111711 2041 | JMS | EPA 8260B | |

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| Geological Services, Inc. PO Box 578 Rock Hall, MD 21661 | Project: GSI/West Lebanon Project Number: GSI/West Lebanon Project Manager: Paul Miller | Report: 1127506 Reported: 11/18/2011 11:34 |
|--|---|---|

Kelly Gate

1127506-06 (Ground Water) Sampled: 11/16/2011 15:20; Type: Grab

| Analyte | Result | Reporting Limit | Units | Prepared | Analyzed | Analyst | Method | Notes |
|---------|--------|-----------------|-------|----------|----------|---------|--------|-------|
|---------|--------|-----------------|-------|----------|----------|---------|--------|-------|

Microbac Laboratories, Inc., Central Pennsylvania Division (PA 22-00578)

VOLATILE ORGANIC COMPOUNDS

| | | | | | | | | |
|---------------------------|----|------|------|-------------|-------------|-----|-----------|--|
| Benzene | ND | 1.00 | ug/L | 111711 2109 | 111711 2109 | JMS | EPA 8260B | |
| Chlorobenzene | ND | 2.00 | ug/L | 111711 2109 | 111711 2109 | JMS | EPA 8260B | |
| Chloroform | ND | 2.00 | ug/L | 111711 2109 | 111711 2109 | JMS | EPA 8260B | |
| Chloromethane | ND | 4.00 | ug/L | 111711 2109 | 111711 2109 | JMS | EPA 8260B | |
| 1,1-Dichloroethane | ND | 2.00 | ug/L | 111711 2109 | 111711 2109 | JMS | EPA 8260B | |
| 1,2-Dichloroethane | ND | 2.00 | ug/L | 111711 2109 | 111711 2109 | JMS | EPA 8260B | |
| 1,1-Dichloroethene | ND | 1.00 | ug/L | 111711 2109 | 111711 2109 | JMS | EPA 8260B | |
| cis-1,2-Dichloroethene | ND | 2.00 | ug/L | 111711 2109 | 111711 2109 | JMS | EPA 8260B | |
| trans-1,2-Dichloroethene | ND | 2.00 | ug/L | 111711 2109 | 111711 2109 | JMS | EPA 8260B | |
| Ethylbenzene | ND | 2.00 | ug/L | 111711 2109 | 111711 2109 | JMS | EPA 8260B | |
| Isopropylbenzene (Cumene) | ND | 2.00 | ug/L | 111711 2109 | 111711 2109 | JMS | EPA 8260B | |
| Methylene Chloride | ND | 2.00 | ug/L | 111711 2109 | 111711 2109 | JMS | EPA 8260B | |
| Methyl-tert-Butyl Ether | ND | 2.00 | ug/L | 111711 2109 | 111711 2109 | JMS | EPA 8260B | |
| Naphthalene | ND | 10.0 | ug/L | 111711 2109 | 111711 2109 | JMS | EPA 8260B | |
| 1,1,1,2-Tetrachloroethane | ND | 2.00 | ug/L | 111711 2109 | 111711 2109 | JMS | EPA 8260B | |
| 1,1,2,2-Tetrachloroethane | ND | 1.00 | ug/L | 111711 2109 | 111711 2109 | JMS | EPA 8260B | |
| Tetrachloroethene | ND | 1.00 | ug/L | 111711 2109 | 111711 2109 | JMS | EPA 8260B | |
| Toluene | ND | 2.00 | ug/L | 111711 2109 | 111711 2109 | JMS | EPA 8260B | |
| 1,1,1-Trichloroethane | ND | 2.00 | ug/L | 111711 2109 | 111711 2109 | JMS | EPA 8260B | |
| 1,1,2-Trichloroethane | ND | 2.00 | ug/L | 111711 2109 | 111711 2109 | JMS | EPA 8260B | |
| Trichloroethene | ND | 1.00 | ug/L | 111711 2109 | 111711 2109 | JMS | EPA 8260B | |
| 1,2,4-Trimethylbenzene | ND | 2.00 | ug/L | 111711 2109 | 111711 2109 | JMS | EPA 8260B | |
| 1,3,5-Trimethylbenzene | ND | 2.00 | ug/L | 111711 2109 | 111711 2109 | JMS | EPA 8260B | |
| Vinyl chloride | ND | 1.00 | ug/L | 111711 2109 | 111711 2109 | JMS | EPA 8260B | |
| m,p-Xylenes | ND | 4.00 | ug/L | 111711 2109 | 111711 2109 | JMS | EPA 8260B | |
| o-Xylene | ND | 2.00 | ug/L | 111711 2109 | 111711 2109 | JMS | EPA 8260B | |
| Total Xylenes | ND | 6.00 | ug/L | 111711 2109 | 111711 2109 | JMS | EPA 8260B | |

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



Microbac Laboratories, Inc.

Central Pennsylvania Division
4359 Linglestown Road • Harrisburg, PA 17112

Phone: 717-651-9700
Fax: 717-657-0752
www.microbac.com

CERTIFICATE OF ANALYSIS

| | | |
|--|---|---|
| Geological Services, Inc. PO Box 578 Rock Hall, MD 21661 | Project: GSI/West Lebanon Project Number: GSI/West Lebanon Project Manager: Paul Miller | Report: 1127506 Reported: 11/18/2011 11:34 |
|--|---|---|

Kelly Machine Stream

1127506-07 (Ground Water) Sampled: 11/16/2011 15:10; Type: Grab

| Analyte | Result | Reporting Limit | Units | Prepared | Analyzed | Analyst | Method | Notes |
|---------|--------|-----------------|-------|----------|----------|---------|--------|-------|
|---------|--------|-----------------|-------|----------|----------|---------|--------|-------|

Microbac Laboratories, Inc., Central Pennsylvania Division (PA 22-00578)

VOLATILE ORGANIC COMPOUNDS

| | | | | | | | | |
|---------------------------|----|------|------|-------------|-------------|-----|-----------|--|
| Benzene | ND | 1.00 | ug/L | 111711 2137 | 111711 2137 | JMS | EPA 8260B | |
| Chlorobenzene | ND | 2.00 | ug/L | 111711 2137 | 111711 2137 | JMS | EPA 8260B | |
| Chloroform | ND | 2.00 | ug/L | 111711 2137 | 111711 2137 | JMS | EPA 8260B | |
| Chloromethane | ND | 4.00 | ug/L | 111711 2137 | 111711 2137 | JMS | EPA 8260B | |
| 1,1-Dichloroethane | ND | 2.00 | ug/L | 111711 2137 | 111711 2137 | JMS | EPA 8260B | |
| 1,2-Dichloroethane | ND | 2.00 | ug/L | 111711 2137 | 111711 2137 | JMS | EPA 8260B | |
| 1,1-Dichloroethene | ND | 1.00 | ug/L | 111711 2137 | 111711 2137 | JMS | EPA 8260B | |
| cis-1,2-Dichloroethene | ND | 2.00 | ug/L | 111711 2137 | 111711 2137 | JMS | EPA 8260B | |
| trans-1,2-Dichloroethene | ND | 2.00 | ug/L | 111711 2137 | 111711 2137 | JMS | EPA 8260B | |
| Ethylbenzene | ND | 2.00 | ug/L | 111711 2137 | 111711 2137 | JMS | EPA 8260B | |
| Isopropylbenzene (Cumene) | ND | 2.00 | ug/L | 111711 2137 | 111711 2137 | JMS | EPA 8260B | |
| Methylene Chloride | ND | 2.00 | ug/L | 111711 2137 | 111711 2137 | JMS | EPA 8260B | |
| Methyl-tert-Butyl Ether | ND | 2.00 | ug/L | 111711 2137 | 111711 2137 | JMS | EPA 8260B | |
| Naphthalene | ND | 10.0 | ug/L | 111711 2137 | 111711 2137 | JMS | EPA 8260B | |
| 1,1,1,2-Tetrachloroethane | ND | 2.00 | ug/L | 111711 2137 | 111711 2137 | JMS | EPA 8260B | |
| 1,1,2,2-Tetrachloroethane | ND | 1.00 | ug/L | 111711 2137 | 111711 2137 | JMS | EPA 8260B | |
| Tetrachloroethene | ND | 1.00 | ug/L | 111711 2137 | 111711 2137 | JMS | EPA 8260B | |
| Toluene | ND | 2.00 | ug/L | 111711 2137 | 111711 2137 | JMS | EPA 8260B | |
| 1,1,1-Trichloroethane | ND | 2.00 | ug/L | 111711 2137 | 111711 2137 | JMS | EPA 8260B | |
| 1,1,2-Trichloroethane | ND | 2.00 | ug/L | 111711 2137 | 111711 2137 | JMS | EPA 8260B | |
| Trichloroethene | ND | 1.00 | ug/L | 111711 2137 | 111711 2137 | JMS | EPA 8260B | |
| 1,2,4-Trimethylbenzene | ND | 2.00 | ug/L | 111711 2137 | 111711 2137 | JMS | EPA 8260B | |
| 1,3,5-Trimethylbenzene | ND | 2.00 | ug/L | 111711 2137 | 111711 2137 | JMS | EPA 8260B | |
| Vinyl chloride | ND | 1.00 | ug/L | 111711 2137 | 111711 2137 | JMS | EPA 8260B | |
| m,p-Xylenes | ND | 4.00 | ug/L | 111711 2137 | 111711 2137 | JMS | EPA 8260B | |
| o-Xylene | ND | 2.00 | ug/L | 111711 2137 | 111711 2137 | JMS | EPA 8260B | |
| Total Xylenes | ND | 6.00 | ug/L | 111711 2137 | 111711 2137 | JMS | EPA 8260B | |

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Microbac Laboratories, Inc.

Central Pennsylvania Division
4359 Linglestown Road • Harrisburg, PA 17112

Phone: 717-651-9700
Fax: 717-657-0752
www.microbac.com

CERTIFICATE OF ANALYSIS

| | | |
|--|---|---|
| Geological Services, Inc. PO Box 578 Rock Hall, MD 21661 | Project: GSI/West Lebanon Project Number: GSI/West Lebanon Project Manager: Paul Miller | Report: 1127506 Reported: 11/18/2011 11:34 |
|--|---|---|

Union Canal

1127506-08 (Ground Water) Sampled: 11/16/2011 14:30; Type: Grab

| Analyte | Result | Reporting Limit | Units | Prepared | Analyzed | Analyst | Method | Notes |
|---------|--------|-----------------|-------|----------|----------|---------|--------|-------|
|---------|--------|-----------------|-------|----------|----------|---------|--------|-------|

Microbac Laboratories, Inc., Central Pennsylvania Division (PA 22-00578)

VOLATILE ORGANIC COMPOUNDS

| | | | | | | | | |
|---------------------------|----|------|------|-------------|-------------|-----|-----------|--|
| Benzene | ND | 1.00 | ug/L | 111711 2205 | 111711 2205 | JMS | EPA 8260B | |
| Chlorobenzene | ND | 2.00 | ug/L | 111711 2205 | 111711 2205 | JMS | EPA 8260B | |
| Chloroform | ND | 2.00 | ug/L | 111711 2205 | 111711 2205 | JMS | EPA 8260B | |
| Chloromethane | ND | 4.00 | ug/L | 111711 2205 | 111711 2205 | JMS | EPA 8260B | |
| 1,1-Dichloroethane | ND | 2.00 | ug/L | 111711 2205 | 111711 2205 | JMS | EPA 8260B | |
| 1,2-Dichloroethane | ND | 2.00 | ug/L | 111711 2205 | 111711 2205 | JMS | EPA 8260B | |
| 1,1-Dichloroethene | ND | 1.00 | ug/L | 111711 2205 | 111711 2205 | JMS | EPA 8260B | |
| cis-1,2-Dichloroethene | ND | 2.00 | ug/L | 111711 2205 | 111711 2205 | JMS | EPA 8260B | |
| trans-1,2-Dichloroethene | ND | 2.00 | ug/L | 111711 2205 | 111711 2205 | JMS | EPA 8260B | |
| Ethylbenzene | ND | 2.00 | ug/L | 111711 2205 | 111711 2205 | JMS | EPA 8260B | |
| Isopropylbenzene (Cumene) | ND | 2.00 | ug/L | 111711 2205 | 111711 2205 | JMS | EPA 8260B | |
| Methylene Chloride | ND | 2.00 | ug/L | 111711 2205 | 111711 2205 | JMS | EPA 8260B | |
| Methyl-tert-Butyl Ether | ND | 2.00 | ug/L | 111711 2205 | 111711 2205 | JMS | EPA 8260B | |
| Naphthalene | ND | 10.0 | ug/L | 111711 2205 | 111711 2205 | JMS | EPA 8260B | |
| 1,1,1,2-Tetrachloroethane | ND | 2.00 | ug/L | 111711 2205 | 111711 2205 | JMS | EPA 8260B | |
| 1,1,2,2-Tetrachloroethane | ND | 1.00 | ug/L | 111711 2205 | 111711 2205 | JMS | EPA 8260B | |
| Tetrachloroethene | ND | 1.00 | ug/L | 111711 2205 | 111711 2205 | JMS | EPA 8260B | |
| Toluene | ND | 2.00 | ug/L | 111711 2205 | 111711 2205 | JMS | EPA 8260B | |
| 1,1,1-Trichloroethane | ND | 2.00 | ug/L | 111711 2205 | 111711 2205 | JMS | EPA 8260B | |
| 1,1,2-Trichloroethane | ND | 2.00 | ug/L | 111711 2205 | 111711 2205 | JMS | EPA 8260B | |
| Trichloroethene | ND | 1.00 | ug/L | 111711 2205 | 111711 2205 | JMS | EPA 8260B | |
| 1,2,4-Trimethylbenzene | ND | 2.00 | ug/L | 111711 2205 | 111711 2205 | JMS | EPA 8260B | |
| 1,3,5-Trimethylbenzene | ND | 2.00 | ug/L | 111711 2205 | 111711 2205 | JMS | EPA 8260B | |
| Vinyl chloride | ND | 1.00 | ug/L | 111711 2205 | 111711 2205 | JMS | EPA 8260B | |
| m,p-Xylenes | ND | 4.00 | ug/L | 111711 2205 | 111711 2205 | JMS | EPA 8260B | |
| o-Xylene | ND | 2.00 | ug/L | 111711 2205 | 111711 2205 | JMS | EPA 8260B | |
| Total Xylenes | ND | 6.00 | ug/L | 111711 2205 | 111711 2205 | JMS | EPA 8260B | |

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Central Pennsylvania Division
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Fax: 717-657-0752
www.microbac.com

CERTIFICATE OF ANALYSIS

| | | |
|--|---|---|
| Geological Services, Inc. PO Box 578 Rock Hall, MD 21661 | Project: GSI/West Lebanon Project Number: GSI/West Lebanon Project Manager: Paul Miller | Report: 1127506 Reported: 11/18/2011 11:34 |
|--|---|---|

Notes and Definitions

- ND Analyte NOT DETECTED at or above the reporting limit
- dry Sample results reported on a dry weight basis

Certifications

Below is a list of certifications maintained by Microbac Laboratories, Inc. All data included in this report has been reviewed for and meets all project specific and quality control requirements of the applicable accreditation, unless otherwise noted. A complete list of individual analytes pursuant to each certification below is available upon request.

- NELAP (PA): 22-00578
- NELAP (NJ): PA019
- Delaware: DE-PA
- Indiana: C-PA09
- Kentucky: 90143
- Massachusetts: M-PA1401
- New York: 11650
- North Carolina: 42708
- Tennessee: TN02865
- Virginia: 00433

Cooler Receipt Log

Cooler ID: Default Cooler

Cooler Temp: 6.00 °C

Custody Seals Intact: No

Containers Intact: Yes

Received On Ice: Yes

COC Present: Yes

Comments:



Microbac Laboratories, Inc. - Central Pennsylvania Division
Chain of Custody Form

4359 Linglestown Road, Harrisburg, PA 17112 · Phone: (717) 651-9700 · Fax: (717) 657-0752
 NELAP accredited by PADEP. See www.microbac.com or contact laboratory for other accreditations.



SUBMIT LAB REPORT TO:

Company: *Geoscient Services Inc*
 Contact: *Paul R Miller PG*
 Address: *PO Box 578*
 City: *Rechtell* State: *PA* Zip: *21661*
 Phone: *932-7784* Fax: _____
 Report Delivery: Mail Fax Email (enter address below)
Geoscient Services Inc

SUBMIT INVOICE TO:

Company: *Gsz*
 Contact: *- Same -*
 Address: _____
 City: _____ State: _____ Zip: _____
 Phone: _____ Fax: _____
 Invoice Delivery: Mail Email (enter address below)

KEY

C = HCL N = HNO3
 S = H2SO4 E = EDTA
 O = NaOH M = MeOH
 NA = None X = Other
 B = Sodium Bisulfate
 A = Ascorbic Acid
 T = Sodium Thiosulfate
 Z = Zinc Acetate/NaOH

LABORATORY USE ONLY

Samples received on ice? Temp: *6* °C N NA
 Cooler temp. within acceptable limits? Y N NA
 Correct bottles/enough volume for analysis? Y N NA
 Sample bottles in good condition (unbroken)? Y N NA
 Samples within required holding time? Y N NA
 Zero headspace samples collected correctly? Y N NA
 Samples preserved to pH <2 and/or pH >12? Y N NA
 Delivery Method: Drop Off Microbac Pickup Courier: _____

CLIENT PROJECT INFORMATION

Project Name: *Gsz/West Lebanon*
 Project/PO Number: _____
 Project Location/State: PA Other: _____
 Purpose: Regulatory Informational PWSID: _____
 Data Deliverables/Report Type: Level I (Standard) OR Level II Level III Level IV
 Additional Fee Deliverables: _____
 State Monitoring Period: Monthly Quarterly Annual

MICROBAC Field Services Used? NO YES (See Field Log)

MICROBAC Quote/MSA No.: _____
 Data Deliverables/Report Type: Level I (Standard) OR Level II Level III Level IV
 Additional Fee Deliverables: _____
 State Monitoring Period: Monthly Quarterly Annual

ANALYSIS REQUESTED

SS = Solid Sludge
 GW = Groundwater
 WW = Wastewater
 DW = Drinking Water
 SW = Storm/Surface
 OL = Oil A=Air O=Other

Results TAT Requested: 6-10 Day (Standard) OR RUSH* (INDICATE DUE DATE): _____
 NOTES: *RUSH TATs will include surcharge unless otherwise agreed to in writing and must be pre-arranged to ensure the due date can be met.

Drop Off Microbac Pickup Courier: _____

LAB ID: _____

SAMPLE IDENTIFICATION / LOCATION DESCRIPTION

| LAB ID | SAMPLE IDENTIFICATION / LOCATION DESCRIPTION | SAMPLE DATE | SAMPLE TIME | SAMPLED BY |
|--------|--|-------------|-------------|------------|
| 01 | Well 1 | 11/16/11 | 1600 | YRW |
| 02 | Well 2 | " | 1700 | " |
| 03 | Well 3 | " | 1500 | " |
| 04 | Zuens Lake | " | 1545 | " |
| 05 | Shay Residence | " | 1530 | " |
| 06 | Kelly Gabe | " | 1520 | " |
| 07 | Kelly Machine Stream | " | 1510 | " |
| 08 | Union Canal | " | 1430 | " |
| 09 | | | | |
| 10 | | | | |

CONTAINERS: _____

SAMPLE TYPE: _____

COMPOSITE: _____

BOTTLEWARE: _____

SIZE / TYPE / PRESERVATIVE (S)

DATE

TIME

SIGNATURE

PRINT NAME

RELIQUISHED BY:

ACCEPTED BY:

RELIQUISHED BY:

ACCEPTED BY:

RELIQUISHED BY:

ACCEPTED BY:

RELIQUISHED BY:

RELIQUISHED BY:

COMMENTS, NOTES, OR SPECIAL INSTRUCTIONS

Client Initials / Soils / BTEX

Please contact Paul Miller @ 410 639 4175 for authentication

Paul will be 24 hrs

RELIQUISHED BY: _____

ACCEPTED BY: _____

RELIQUISHED BY: _____

ACCEPTED BY: _____

RELIQUISHED BY: _____

ACCEPTED BY: _____

RELIQUISHED BY: _____

ACCEPTED BY: _____

RELIQUISHED BY: _____

ACCEPTED BY: _____

RELIQUISHED BY: _____

ACCEPTED BY: _____

RELIQUISHED BY: _____

ACCEPTED BY: _____

RELIQUISHED BY: _____

ACCEPTED BY: _____

RELIQUISHED BY: _____

ACCEPTED BY: _____

I relinquish this form, I hereby agree to the terms & conditions printed on the reverse side.