

January 20, 2014

Dave Healy
Healy Consulting LLC
2648 150th Street
Merville, IA 51039

CON 12-15
Doc #28822

RE: December 2013 Groundwater Analysis
at the former Merville Bulk Plant
15 North 1st Street, Merville, Iowa

Dear Dave:

This report presents the December 2013 annual ground water sampling at this site. The monitoring requirements for 2013 were to analyze the ground water in MW-1 & MW-6. (See Attached Site Plan Map)

Ground water Level Measurements

All well casing were surveyed and ground water levels measured from the top of the casing. The attached table contains the relative ground water elevations. MW-1 was dry and MW-6 was the 0.39 feet lower this year than last year.

Ground Water Sampling

The MW-6 was purged of 3 well volumes and sampled for petroleum products by the Iowa OA-1&2 methods. The attached table contains the results of this sampling event along with previous sample results. Also attached is the Lab Report.

Conclusions

The ground water level was lower than last year. The following is a comparison of the 2013 analysis to the 2012 analysis. .

MW-1 - Was dry, Bottom of Casing Elev. 1,134.04.

MW-6 - Showed a decrease in all of the OA-1 gasoline contaminants and an increase in OA-2 Diesel and Oil contaminants.

Please contact me if you have any questions in regards to this project.

Sincerely,

Jerry E. Steffen, P.E.
For the Firm

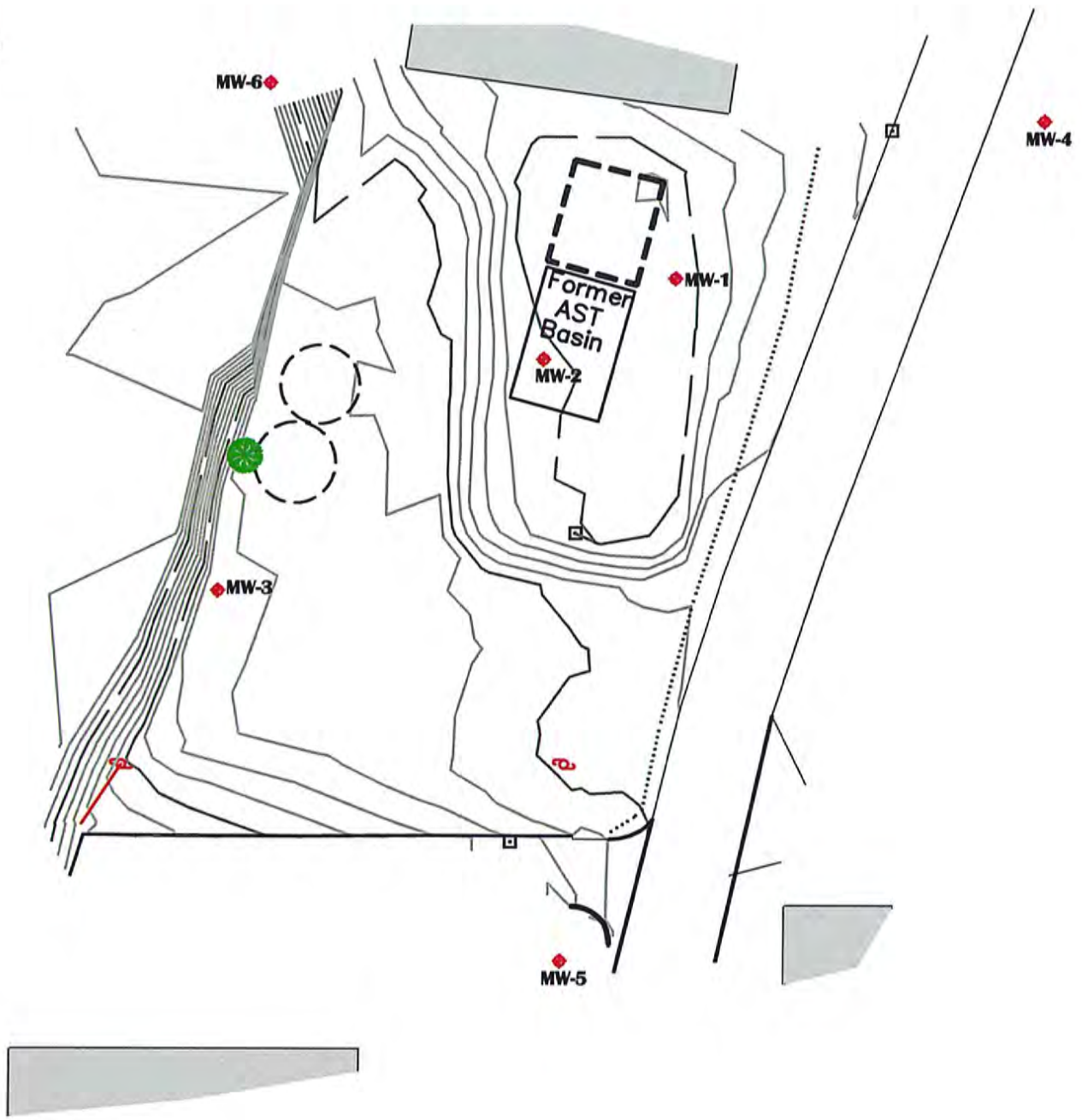
C: Matt Culp, IDNR Matt.Culp@dnr.iowa.gov

Groundwater Analysis

| (Units = µg/L) | | OA-1 | | | | OA-2 | |
|----------------|----------|-----------|---------|---------------|---------|------------|---------------|
| Well | Date | Benzene | Toluene | Ethyl-benzene | Xylenes | TEH-Diesel | TEH-Waste Oil |
| MW-1 | 10-8-07 | 3,140 | 22,900 | 3,870 | 21,000 | - | - |
| | 10-12-09 | 2,470 | 9,880 | 1,390 | 13,900 | 5,880 | 756 |
| | 11-21-11 | 2,840 | 13,400 | 1,190 | 15,700 | 6,700 | 845 |
| | 11-14-12 | (Dry) | - | - | - | - | - |
| | 12-28-13 | (Dry) | - | - | - | - | - |
| MW-2 | 10-12-09 | 903 | 4,750 | 1,560 | 7,530 | 15,400 | <366 |
| | 11-21-11 | 462 | 653 | 1,270 | 4,320 | 1,870 | <370 |
| | 11-14-12 | 178 | 337 | 659 | 1,910 | 712 | <333 |
| MW-3 | 10-12-09 | 229 | 1,150 | 1,340 | 6,870 | 3,150 | <300 |
| | 11-21-11 | 106 | 1,120 | 1,500 | 5,760 | 1,000 | <300 |
| | 11-14-12 | 104 | 627 | 1,600 | 5,490 | 1,120 | <341 |
| MW-4 | 10-12-09 | <2 | <2 | 659 | 1,720 | 1,260 | <300 |
| | 11-21-11 | Not Found | - | - | - | - | - |
| MW-5 | 10-12-09 | 7.37 | 151 | 725 | 2,010 | 2,210 | <370 |
| | 11-21-11 | <2.00 | 16.3 | 121 | 771 | 569 | <300 |
| MW-6 | 10-12-09 | 639 | 16.4 | 149 | 52.1 | 2,350 | <341 |
| | 11-21-11 | 887 | 39.9 | 245 | 58.1 | 567 | <300 |
| | 11-14-12 | 890 | 104 | 331 | 200 | 754 | <300 |
| | 12-28-13 | 364 | 16.2 | 254 | 17.7 | 2030 | 358 |
| MW-7 | 11-02-11 | <2.00 | <2.00 | <2.00 | <3.00 | 1,930 | <345 |
| | 11-14-12 | <2.00 | <2.00 | <2.00 | 3.06 | 1,190 | 2,270 |
| MW-A | 2-03-05 | <1.0 | <1.0 | <1.0 | <3.0 | <360 | <360 |
| State Limits | | 5 | 1,000 | 700 | 10,000 | 1,200 | 400 |

Groundwater Elevations

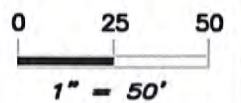
| Monitoring Well | Date | Ground Surface Elevation | Top of Casing Elevation | Groundwater Depth | Groundwater Elevation |
|-----------------|----------|--------------------------|-------------------------|-------------------|-----------------------|
| MW-1 | 11-21-11 | 1168.8 | 1170.79 | - | - |
| | 12-5-11 | - | - | 36.38 | 1134.41 |
| | 12-28-11 | - | - | 35.81 | 1134.98 |
| | 11-14-12 | - | - | 36.75 | (Dry) |
| | 12-28-13 | - | - | 36.75 | (Dry) |
| MW-2 | 11-21-11 | 1166.0 | 1168.63 | - | - |
| | 12-5-11 | - | - | 33.54 | 1135.09 |
| | 12-28-11 | - | - | 33.57 | 1135.06 |
| | 11-14-12 | - | - | 34.79 | 1133.84 |
| MW-3 | 11-21-11 | 1162.6 | 1164.55 | - | - |
| | 12-5-11 | - | - | 29.61 | 1134.94 |
| | 12-28-11 | - | - | 29.66 | 1134.89 |
| | 11-14-12 | - | - | 30.75 | 1133.80 |
| MW-4 | 12-5-11 | - | - | 30.12 | 1135.05 |
| | 12-28-11 | 1165.3 | 1165.17 | 30.13 | 1135.04 |
| MW-5 | 11-21-11 | 1161.8 | 1161.68 | - | - |
| | 12-5-11 | - | - | 26.59 | 1135.09 |
| | 12-28-11 | - | - | 26.61 | 1135.07 |
| MW-6 | 11-21-11 | 1149.3 | 1153.27 | - | - |
| | 12-5-11 | - | - | 18.33 | 1134.94 |
| | 12-28-11 | - | - | 18.37 | 1134.90 |
| | 11-14-12 | - | - | 19.42 | 1133.85 |
| | 12-28-13 | - | - | 19.81 | 1133.46 |
| MW-7 | 11-21-11 | 1153.9 | 1153.86 | - | - |
| | 12-28-11 | - | - | 19.02 | 1134.84 |
| | 11-14-12 | - | - | 22.67 | 1131.19 |
| MW-A | 11-21-11 | 1160.9 | 1160.72 | - | - |
| | 12-5-11 | - | - | 26.47 | 1134.25 |
| | 12-28-11 | - | - | 25.60 | 1135.12 |



STEFFEN
ENGINEERING & TESTING, INC.

611 5th Street
P.O. Box 745
Sioux City, Iowa

Site Plan



TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Cedar Falls
704 Enterprise Drive
Cedar Falls, IA 50613
Tel: (319)277-2401

TestAmerica Job ID: 310-22501-1
Client Project/Site: 15 - North 1st St. - Merville

For:
Steffen Engineering Inc
611 5th Street PO BOX 745
Sioux City, Iowa 51101

Attn: Jerry Steffen



Authorized for release by:
1/7/2014 11:57:35 AM

Shawn Hayes, Project Manager II
(319)277-2401
shawn.hayes@testamericainc.com

LINKS

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results through
TotalAccess

Have a Question?



Visit us at:
www.testamericainc.com

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.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Case Narrative

Client: Steffen Engineering Inc
Project/Site: 15 - North 1st St. - Merville

TestAmerica Job ID: 310-22501-1

Job ID: 310-22501-1

Laboratory: TestAmerica Cedar Falls

Narrative

Job Narrative
310-22501-1

Comments

No additional comments.

Receipt

The sample was received on 1/2/2014 9:00 AM; the sample arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 0.0° C.

GC VOA

No analytical or quality issues were noted.

GC Semi VOA

No analytical or quality issues were noted.

Organic Prep

No analytical or quality issues were noted.

VOA Prep

No analytical or quality issues were noted.

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Sample Summary

Client: Steffen Engineering Inc
Project/Site: 15 - North 1st St. - Merville

TestAmerica Job ID: 310-22501-1

| Lab Sample ID | Client Sample ID | Matrix | Collected | Received |
|---------------|------------------|--------------|----------------|----------------|
| 310-22501-1 | MW-6 | Ground Water | 12/28/13 10:05 | 01/02/14 09:00 |

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Detection Summary

Client: Steffen Engineering Inc
Project/Site: 15 - North 1st St. - Merville

TestAmerica Job ID: 310-22501-1

Client Sample ID: MW-6

Lab Sample ID: 310-22501-1

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|--------------------------------|--------|-----------|------|-----|------|---------|---|-----------|-----------|
| Benzene | 364 | | 2.00 | | ug/L | 1 | | OA-1 (GC) | Total/NA |
| Toluene | 16.2 | | 2.00 | | ug/L | 1 | | OA-1 (GC) | Total/NA |
| Ethylbenzene | 254 | | 2.00 | | ug/L | 1 | | OA-1 (GC) | Total/NA |
| Xylenes, Total | 17.7 | | 3.00 | | ug/L | 1 | | OA-1 (GC) | Total/NA |
| Diesel | 2030 | | 313 | | ug/L | 1 | | OA-2 | Total/NA |
| Gasoline | 2440 | | 313 | | ug/L | 1 | | OA-2 | Total/NA |
| Waste Oil | 358 | Z | 313 | | ug/L | 1 | | OA-2 | Total/NA |
| Total Extractable Hydrocarbons | 4830 | | 313 | | ug/L | 1 | | OA-2 | Total/NA |

This Detection Summary does not include radiochemical test results.

TestAmerica Cedar Falls

Client Sample Results

Client: Steffen Engineering Inc
 Project/Site: 15 - North 1st St. - Merville

TestAmerica Job ID: 310-22501-1

Client Sample ID: MW-6

Lab Sample ID: 310-22501-1

Date Collected: 12/28/13 10:05

Matrix: Ground Water

Date Received: 01/02/14 09:00

Sampler Name: Jerry Steffen

Sampler Phone Number: 712-277-3017

Method: OA-1 (GC) - Volatile Petroleum Hydrocarbons (GC)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|----------------|--------|-----------|------|-----|------|---|----------|----------------|---------|
| Benzene | 364 | | 2.00 | | ug/L | | | 01/02/14 19:34 | 1 |
| Toluene | 16.2 | | 2.00 | | ug/L | | | 01/02/14 19:34 | 1 |
| Ethylbenzene | 254 | | 2.00 | | ug/L | | | 01/02/14 19:34 | 1 |
| Xylenes, Total | 17.7 | | 3.00 | | ug/L | | | 01/02/14 19:34 | 1 |

| Surrogate | %Recovery | Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|-----------------------------|-----------|-----------|----------|----------|----------------|---------|
| 4-Bromofluorobenzene (Surr) | 105 | | 80 - 125 | | 01/02/14 19:34 | 1 |

Method: OA-2 - Iowa - Extractable Petroleum Hydrocarbons (GC)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|--------------------------------|--------|-----------|-----|-----|------|---|----------------|----------------|---------|
| Diesel | 2030 | | 313 | | ug/L | | 01/03/14 13:59 | 01/07/14 03:41 | 1 |
| Gasoline | 2440 | | 313 | | ug/L | | 01/03/14 13:59 | 01/07/14 03:41 | 1 |
| Waste Oil | 358 | Z | 313 | | ug/L | | 01/03/14 13:59 | 01/07/14 03:41 | 1 |
| Total Extractable Hydrocarbons | 4830 | | 313 | | ug/L | | | 01/06/14 09:49 | 1 |

| Surrogate | %Recovery | Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|--------------|-----------|-----------|----------|----------------|----------------|---------|
| n-Octacosane | 100 | | 45 - 140 | 01/03/14 13:59 | 01/07/14 03:41 | 1 |

Definitions/Glossary

Client: Steffen Engineering Inc
Project/Site: 15 - North 1st St. - Merville

TestAmerica Job ID: 310-22501-1

Qualifiers

GC Semi VOA

| Qualifier | Qualifier Description |
|-----------|--|
| Z | The chromatographic response does not resemble a typical fuel pattern. |

Glossary

| Abbreviation | These commonly used abbreviations may or may not be present in this report. |
|----------------|---|
| α | Listed under the "D" column to designate that the result is reported on a dry weight basis |
| %R | Percent Recovery |
| CNF | Contains no Free Liquid |
| DER | Duplicate error ratio (normalized absolute difference) |
| Dil Fac | Dilution Factor |
| DL, RA, RE, IN | Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample |
| DLC | Decision level concentration |
| MDA | Minimum detectable activity |
| EDL | Estimated Detection Limit |
| MDC | Minimum detectable concentration |
| MDL | Method Detection Limit |
| ML | Minimum Level (Dioxin) |
| NC | Not Calculated |
| ND | Not detected at the reporting limit (or MDL or EDL if shown) |
| PQL | Practical Quantitation Limit |
| QC | Quality Control |
| RER | Relative error ratio |
| RL | Reporting Limit or Requested Limit (Radiochemistry) |
| RPD | Relative Percent Difference, a measure of the relative difference between two points |
| TEF | Toxicity Equivalent Factor (Dioxin) |
| TEQ | Toxicity Equivalent Quotient (Dioxin) |

Surrogate Summary

Client: Steffen Engineering Inc
Project/Site: 15 - North 1st St. - Merville

TestAmerica Job ID: 310-22501-1

Method: OA-1 (GC) - Volatile Petroleum Hydrocarbons (GC)

Matrix: Ground Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

| Lab Sample ID | Client Sample ID | BFB (80-125) |
|---------------|------------------|-----------------|
| 310-22501-1 | MW-6 | 105 |

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)

Method: OA-1 (GC) - Volatile Petroleum Hydrocarbons (GC)

Matrix: Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

| Lab Sample ID | Client Sample ID | BFB (80-125) |
|-------------------|------------------------|-----------------|
| LCS 310-35707/21 | Lab Control Sample | 100 |
| LCSD 310-35707/27 | Lab Control Sample Dup | 99 |
| MB 310-35707/12 | Method Blank | 89 |

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)

Method: OA-2 - Iowa - Extractable Petroleum Hydrocarbons (GC)

Matrix: Ground Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

| Lab Sample ID | Client Sample ID | OTC (45-140) |
|---------------|------------------|-----------------|
| 310-22501-1 | MW-6 | 100 |

Surrogate Legend

OTC = n-Octacosane

Method: OA-2 - Iowa - Extractable Petroleum Hydrocarbons (GC)

Matrix: Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

| Lab Sample ID | Client Sample ID | OTC (45-140) |
|--------------------|------------------------|-----------------|
| LCS 310-35845/2-A | Lab Control Sample | 93 |
| LCSD 310-35845/3-A | Lab Control Sample Dup | 93 |
| MB 310-35845/1-A | Method Blank | 92 |

Surrogate Legend

OTC = n-Octacosane

QC Sample Results

Client: Steffen Engineering Inc
 Project/Site: 15 - North 1st St. - Merville

TestAmerica Job ID: 310-22501-1

Method: OA-1 (GC) - Volatile Petroleum Hydrocarbons (GC)

Lab Sample ID: MB 310-35707/12

Matrix: Water

Analysis Batch: 35707

Client Sample ID: Method Blank

Prep Type: Total/NA

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|----------------|-----------|--------------|------|-----|------|---|----------|----------------|---------|
| Benzene | <2.00 | | 2.00 | | ug/L | | | 01/02/14 10:20 | 1 |
| Toluene | <2.00 | | 2.00 | | ug/L | | | 01/02/14 10:20 | 1 |
| Ethylbenzene | <2.00 | | 2.00 | | ug/L | | | 01/02/14 10:20 | 1 |
| Xylenes, Total | <3.00 | | 3.00 | | ug/L | | | 01/02/14 10:20 | 1 |

| Surrogate | MB %Recovery | MB Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|-----------------------------|--------------|--------------|----------|----------|----------------|---------|
| 4-Bromofluorobenzene (Surr) | 89 | | 80 - 125 | | 01/02/14 10:20 | 1 |

Lab Sample ID: LCS 310-35707/21

Matrix: Water

Analysis Batch: 35707

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|----------------|-------------|------------|---------------|------|---|------|--------------|
| Benzene | 100 | 100.3 | | ug/L | | 100 | 45 - 120 |
| Toluene | 100 | 103.3 | | ug/L | | 103 | 65 - 115 |
| Ethylbenzene | 100 | 105.5 | | ug/L | | 105 | 65 - 130 |
| Xylenes, Total | 300 | 305.8 | | ug/L | | 102 | 65 - 130 |

| Surrogate | LCS %Recovery | LCS Qualifier | Limits |
|-----------------------------|---------------|---------------|----------|
| 4-Bromofluorobenzene (Surr) | 100 | | 80 - 125 |

Lab Sample ID: LCSD 310-35707/27

Matrix: Water

Analysis Batch: 35707

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

| Analyte | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|----------------|-------------|-------------|----------------|------|---|------|--------------|-----|-----------|
| Benzene | 100 | 101.9 | | ug/L | | 102 | 45 - 120 | 1 | 20 |
| Toluene | 100 | 104.7 | | ug/L | | 105 | 65 - 115 | 1 | 20 |
| Ethylbenzene | 100 | 106.8 | | ug/L | | 107 | 65 - 130 | 1 | 20 |
| Xylenes, Total | 300 | 309.4 | | ug/L | | 103 | 65 - 130 | 1 | 20 |

| Surrogate | LCSD %Recovery | LCSD Qualifier | Limits |
|-----------------------------|----------------|----------------|----------|
| 4-Bromofluorobenzene (Surr) | 99 | | 80 - 125 |

Method: OA-2 - Iowa - Extractable Petroleum Hydrocarbons (GC)

Lab Sample ID: MB 310-35845/1-A

Matrix: Water

Analysis Batch: 35967

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 35845

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|-----------|-----------|--------------|-----|-----|------|---|----------------|----------------|---------|
| Diesel | <300 | | 300 | | ug/L | | 01/03/14 13:59 | 01/06/14 21:28 | 1 |
| Gasoline | <300 | | 300 | | ug/L | | 01/03/14 13:59 | 01/06/14 21:28 | 1 |
| Waste Oil | <300 | | 300 | | ug/L | | 01/03/14 13:59 | 01/06/14 21:28 | 1 |

TestAmerica Cedar Falls

QC Sample Results

Client: Steffen Engineering Inc
 Project/Site: 15 - North 1st St. - Merville

TestAmerica Job ID: 310-22501-1

Method: OA-2 - Iowa - Extractable Petroleum Hydrocarbons (GC) (Continued)

Lab Sample ID: MB 310-35845/1-A
Matrix: Water
Analysis Batch: 35967

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 35845

| Surrogate | MB MB | | Limits | Prepared | Analyzed | Dil Fac |
|--------------|-----------|-----------|----------|----------------|----------------|---------|
| | %Recovery | Qualifier | | | | |
| n-Octacosane | 92 | | 45 - 140 | 01/03/14 13:59 | 01/06/14 21:28 | 1 |

Lab Sample ID: LCS 310-35845/2-A
Matrix: Water
Analysis Batch: 35967

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 35845

| Analyte | Spike Added | LCS LCS | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---------|-------------|---------|------------|---------------|------|---|------|--------------|
| | | | | | | | | |
| Diesel | 2000 | | 1232 | | ug/L | | 62 | 35 - 125 |

| Surrogate | LCS LCS | | Limits |
|--------------|-----------|-----------|----------|
| | %Recovery | Qualifier | |
| n-Octacosane | 93 | | 45 - 140 |

Lab Sample ID: LCSD 310-35845/3-A
Matrix: Water
Analysis Batch: 35967

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 35845

| Analyte | Spike Added | LCSD LCSD | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | Limit |
|---------|-------------|-----------|-------------|----------------|------|---|------|--------------|-----|-------|
| | | | | | | | | | | |
| Diesel | 2000 | | 1207 | | ug/L | | 60 | 35 - 125 | 2 | 35 |

| Surrogate | LCSD LCSD | | Limits |
|--------------|-----------|-----------|----------|
| | %Recovery | Qualifier | |
| n-Octacosane | 93 | | 45 - 140 |

QC Association Summary

Client: Steffen Engineering Inc
 Project/Site: 15 - North 1st St. - Merville

TestAmerica Job ID: 310-22501-1

GC VOA

Analysis Batch: 35707

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|-------------------|------------------------|-----------|--------------|-----------|------------|
| 310-22501-1 | MW-6 | Total/NA | Ground Water | OA-1 (GC) | |
| LCS 310-35707/21 | Lab Control Sample | Total/NA | Water | OA-1 (GC) | |
| LCSD 310-35707/27 | Lab Control Sample Dup | Total/NA | Water | OA-1 (GC) | |
| MB 310-35707/12 | Method Blank | Total/NA | Water | OA-1 (GC) | |

GC Semi VOA

Prep Batch: 35845

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|--------------------|------------------------|-----------|--------------|--------|------------|
| 310-22501-1 | MW-6 | Total/NA | Ground Water | 3510C | |
| LCS 310-35845/2-A | Lab Control Sample | Total/NA | Water | 3510C | |
| LCSD 310-35845/3-A | Lab Control Sample Dup | Total/NA | Water | 3510C | |
| MB 310-35845/1-A | Method Blank | Total/NA | Water | 3510C | |

Analysis Batch: 35914

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------|------------------|-----------|--------------|--------|------------|
| 310-22501-1 | MW-6 | Total/NA | Ground Water | OA-2 | |

Analysis Batch: 35967

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|--------------------|------------------------|-----------|--------------|--------|------------|
| 310-22501-1 | MW-6 | Total/NA | Ground Water | OA-2 | 35845 |
| LCS 310-35845/2-A | Lab Control Sample | Total/NA | Water | OA-2 | 35845 |
| LCSD 310-35845/3-A | Lab Control Sample Dup | Total/NA | Water | OA-2 | 35845 |
| MB 310-35845/1-A | Method Blank | Total/NA | Water | OA-2 | 35845 |

Lab Chronicle

Client: Steffen Engineering Inc
Project/Site: 15 - North 1st St. - Merville

TestAmerica Job ID: 310-22501-1

Client Sample ID: MW-6

Date Collected: 12/28/13 10:05

Date Received: 01/02/14 09:00

Lab Sample ID: 310-22501-1

Matrix: Ground Water

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|--------|
| Total/NA | Analysis | OA-1 (GC) | | 1 | 35707 | 01/02/14 19:34 | CMM | TAL CF |
| Total/NA | Analysis | OA-2 | | 1 | 35914 | 01/06/14 09:49 | EEE1 | TAL CF |
| Total/NA | Prep | 3510C | | | 35845 | 01/03/14 13:59 | TRM | TAL CF |
| Total/NA | Analysis | OA-2 | | 1 | 35967 | 01/07/14 03:41 | BKT | TAL CF |

Laboratory References:

TAL CF = TestAmerica Cedar Falls, 704 Enterprise Drive, Cedar Falls, IA 50613, TEL (319)277-2401



Certification Summary

Client: Steffen Engineering Inc
Project/Site: 15 - North 1st St. - Merville

TestAmerica Job ID: 310-22501-1

Laboratory: TestAmerica Cedar Falls

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

| Authority | Program | EPA Region | Certification ID | Expiration Date |
|--------------|---------------|------------|------------------|-----------------|
| AIHA | IHLAP | | 101044 | 11-01-14 |
| Illinois | NELAP | 5 | 200024 | 11-29-14 |
| Iowa | State Program | 7 | 7 | 12-01-13 * |
| Kansas | NELAP | 7 | E-10341 | 01-31-14 |
| Minnesota | NELAP | 5 | 019-999-319 | 12-31-14 |
| North Dakota | State Program | 8 | R-186 | 09-29-13 * |
| Oregon | NELAP | 10 | IA100001 | 09-29-14 |
| Wisconsin | State Program | 5 | 999917270 | 08-31-14 |

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

TestAmerica Cedar Falls



Method Summary

Client: Steffen Engineering Inc
Project/Site: 15 - North 1st St. - Merville

TestAmerica Job ID: 310-22501-1

| Method | Method Description | Protocol | Laboratory |
|-----------|--|----------|------------|
| OA-1 (GC) | Volatile Petroleum Hydrocarbons (GC) | Iowa DNR | TAL CF |
| OA-2 | Iowa - Extractable Petroleum Hydrocarbons (GC) | Iowa DNR | TAL CF |

Protocol References:

Iowa DNR = Iowa Department of Natural Resources

Laboratory References:

TAL CF = TestAmerica Cedar Falls, 704 Enterprise Drive, Cedar Falls, IA 50613, TEL (319)277-2401

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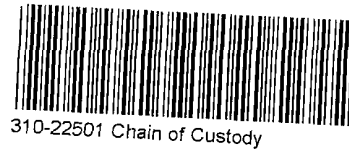
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Client: Steffen ENG. Project: 15-N. 1st St.
Noville
 City: _____ State: _____
 Date: 1-2-14 Receiver's Initials: CH Time (Delivered): 9:00

Temperature Record:

Cooler ID# (If Applicable)
Client
 Uncorrected Temp:
-0.1 °C
 Corrected Temp:
-0.0 °C

Thermometer:

- IR "E" - 111531506
- IR "Front" - 61854108
- IR "G" - 130195822
- IR "H" - 130195853
- Other: _____

Courier:

| | |
|--|--|
| <input checked="" type="checkbox"/> UPS | <input type="checkbox"/> TA Courier |
| <input type="checkbox"/> FedEx | <input type="checkbox"/> TA Field Services |
| <input type="checkbox"/> FedEx Ground | <input type="checkbox"/> Client |
| <input type="checkbox"/> US Postal Service | <input type="checkbox"/> Other: _____ |
| <input type="checkbox"/> Spee-Dee | |

- Temperature blank ^{NONE} Water bottle
- Temperature out of compliance

Exceptions Noted:

- Sample(s) not received in cooler
- Sample(s) received same day of sampling
- Evidence of chilling process
- Temp blank <0°C, samples NOT FROZEN
- Temp blank <0°C, samples FROZEN
- Temperature not taken: *(indicate reason)*

- Non-Conformance Report Started

Coolant Record:

- Received on ice
- Wet ice
- Blue ice
- Dry ice
- Other: _____
- NONE

Custody Seals:

| | |
|---|---|
| <p>Cooler Custody Seals Present?</p> <p><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> | <p>Cooler Custody Seals Intact?</p> <p><input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A</p> |
| <p>Sample Custody Seals Present?</p> <p><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> | <p>Sample Custody Seals Intact?</p> <p><input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A</p> |

Login Sample Receipt Checklist

Client: Steffen Engineering Inc

Job Number: 310-22501-1

Login Number: 22501

List Source: TestAmerica Cedar Falls

List Number: 1

Creator: Facciani, Melene K

| Question | Answer | Comment |
|---|--------|---|
| Radioactivity wasn't checked or is \leq background as measured by a survey meter. | N/A | |
| The cooler's custody seal, if present, is intact. | N/A | |
| 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? | 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. | False | samples rcvd frozen or w/ice in bottles |
| 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 <math><6\text{mm}</math> (1/4"). | True | |
| Multiphasic samples are not present. | True | |
| Samples do not require splitting or compositing. | True | |
| Residual Chlorine Checked. | N/A | |