

# **Analytical Report 519877**

## **for Tetra Tech- Midland**

**Project Manager: Ike Tavaréz**

**Globe Eunice Facility**

**212C-MD-00374**

**24-MAY-16**

Collected By: Client



**1211 W. Florida Ave, Midland TX 79701**

Xenco-Houston (EPA Lab code: TX00122):

Texas (T104704215-15-19), Arizona (AZ0765), Florida (E871002), Louisiana (03054)  
Oklahoma (9218)

Xenco-Dallas (EPA Lab code: TX01468): Texas (T104704295)

Xenco-Odessa (EPA Lab code: TX00158): Texas (T104704400)

Xenco-San Antonio: Texas (T104704534-15-1)

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Texas (T104704477), Louisiana (04176), USDA (P330-07-00105)

Xenco-Lakeland: Florida (E84098)



24-MAY-16

Project Manager: **Ike Tavaréz**  
**Tetra Tech- Midland**  
4000 N. Big Spring Suite 401  
Midland, TX 79705

Reference: XENCO Report No(s): **519877**  
**Globe Eunice Facility**  
Project Address: Lea Co, NM

**Ike Tavaréz:**

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 519877. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. The uncertainty of measurement associated with the results of analysis reported is available upon request. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 519877 will be filed for 60 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting XENCO Laboratories to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

**Kelsey Brooks**

Project Manager

***Recipient of the Prestigious Small Business Administration Award of Excellence in 1994.***

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## Tetra Tech- Midland, Midland, TX

Globe Eunice Facility

| Sample Id      | Matrix | Date Collected | Sample Depth | Lab Sample Id |
|----------------|--------|----------------|--------------|---------------|
| AH 1 (0-1')    | S      | 11-19-15 00:00 | 0 - 1 ft     | 519877-001    |
| AH 1 (1-1.5')  | S      | 11-19-15 00:00 | 1 - 1.5 ft   | 519877-002    |
| AH 1 (2-2.5')  | S      | 11-19-15 00:00 | 2 - 2.5 ft   | 519877-003    |
| AH 2 (0-1')    | S      | 11-19-15 00:00 | 0 - 1 ft     | 519877-004    |
| AH 2 (1-1.5')  | S      | 11-19-15 00:00 | 1 - 1.5 ft   | 519877-005    |
| AH 3 (0-1')    | S      | 11-19-15 00:00 | 0 - 1 ft     | 519877-006    |
| AH 4 (0-1')    | S      | 11-19-15 00:00 | 0 - 1 ft     | 519877-007    |
| AH 4 (1-1.5')  | S      | 11-19-15 00:00 | 1 - 1.5 ft   | 519877-008    |
| AH 4 (2-2.5')  | S      | 11-19-15 00:00 | 2 - 2.5 ft   | 519877-009    |
| AH 4 (2.5-3')  | S      | 11-19-15 00:00 | 2.5 - 3 ft   | 519877-010    |
| AH 5 (0-1')    | S      | 11-19-15 00:00 | 0 - 1 ft     | 519877-011    |
| AH 5 (1-1.5')  | S      | 11-19-15 00:00 | 1 - 1.5 ft   | 519877-012    |
| AH 5 (2-2.5')  | S      | 11-19-15 00:00 | 2 - 2.5 ft   | 519877-013    |
| AH 5 (2.5-3')  | S      | 11-19-15 00:00 | 2.5 - 3 ft   | 519877-014    |
| AH 6 (0-1')    | S      | 11-19-15 00:00 | 0 - 1 ft     | 519877-015    |
| AH 7 (0-1')    | S      | 11-19-15 00:00 | 0 - 1 ft     | 519877-016    |
| AH 8 (0-1')    | S      | 11-19-15 00:00 | 0 - 1 ft     | 519877-017    |
| AH 9 (0-1')    | S      | 11-19-15 00:00 | 0 - 1 ft     | 519877-018    |
| AH 9 (1-1.5')  | S      | 11-19-15 00:00 | 1 - 1.5 ft   | 519877-019    |
| AH 10 (0-1')   | S      | 11-19-15 00:00 | 0 - 1 ft     | 519877-020    |
| AH 11 (0-1')   | S      | 11-19-15 00:00 | 0 - 1 ft     | 519877-021    |
| AH 11 (1-1.5') | S      | 11-19-15 00:00 | 1 - 1.5 ft   | 519877-022    |
| AH 12 (0-1')   | S      | 11-19-15 00:00 | 0 - 1 ft     | 519877-023    |
| AH 13 (0-1')   | S      | 11-19-15 00:00 | 0 - 1 ft     | 519877-024    |
| AH 14 (0-1')   | S      | 11-19-15 00:00 | 0 - 1 ft     | 519877-025    |
| AH 15 (0-6")   | S      | 11-19-15 00:00 | 0 - 6 In     | 519877-026    |
| AH 16 (0-1')   | S      | 11-19-15 00:00 | 0 - 1 ft     | 519877-027    |
| AH 16 (1-1.5') | S      | 11-19-15 00:00 | 1 - 1.5 ft   | 519877-028    |
| AH 17 (0-1')   | S      | 11-19-15 00:00 | 0 - 1 ft     | 519877-029    |
| AH 18 (0-6")   | S      | 11-19-15 00:00 | 0 - 6 In     | 519877-030    |
| AH 19 (0-6")   | S      | 11-19-15 00:00 | 0 - 6 In     | 519877-031    |
| AH 20 (0-6")   | S      | 11-19-15 00:00 | 0 - 6 In     | 519877-032    |
| AH 21 (0-1')   | S      | 11-19-15 00:00 | 0 - 1 ft     | 519877-033    |
| AH 21 (1-1.5') | S      | 11-19-15 00:00 | 1 - 1.5 ft   | 519877-034    |
| AH 22 (0-1')   | S      | 11-19-15 00:00 | 0 - 1 ft     | 519877-035    |
| AH 22 (1-1.5') | S      | 11-19-15 00:00 | 1 - 1.5 ft   | 519877-036    |
| AH 23 (0-1')   | S      | 11-19-15 00:00 | 0 - 1 ft     | 519877-037    |
| AH 23 (1-1.5') | S      | 11-19-15 00:00 | 1 - 1.5 ft   | 519877-038    |
| AH 23 (2-2.5') | S      | 11-19-15 00:00 | 2 - 2.5 ft   | 519877-039    |
| AH 24 (0-1')   | S      | 11-19-15 00:00 | 0 - 1 ft     | 519877-040    |

*Client Name: Tetra Tech- Midland**Project Name: Globe Eunice Facility*Project ID: 212C-MD-00374  
Work Order Number(s): 519877Report Date: 24-MAY-16  
Date Received: 11/20/2015

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**Sample receipt non conformances and comments:**

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**Sample receipt non conformances and comments per sample:**

None

**Analytical non conformances and comments:**

Batch: LBA-982346 BTEX by EPA 8021B

Lab Sample ID 519877-026 was randomly selected for Matrix Spike/Matrix Spike Duplicate (MS/MSD). Ethylbenzene, Toluene, m,p-Xylenes, o-Xylene recovered below QC limits in the Matrix Spike and Matrix Spike Duplicate. Outlier/s are due to possible matrix interference. Samples in the analytical batch are: 519877-001, -006, -007, -017, -026, -027, -033, -035.

The Laboratory Control Sample for Toluene, m,p-Xylenes, Ethylbenzene, o-Xylene is within laboratory Control Limits, therefore the data was accepted.

Ethylbenzene Relative Percent Difference (RPD) between matrix spike and duplicate was above quality control limits.

Samples in the analytical batch are: 519877-001, -006, -007, -017, -026, -027, -033, -035





# Certificate of Analysis Summary 519877

Tetra Tech- Midland, Midland, TX

Project Name: Globe Eunice Facility



Project Id: 212C-MD-00374

Contact: Ike Tavarez

Project Location: Lea Co, NM

Date Received in Lab: Fri Nov-20-15 11:18 am

Report Date: 24-MAY-16

Project Manager: Kelsey Brooks

| <i>Analysis Requested</i>                | <i>Lab Id:</i>    | 519877-001      | 519877-002      | 519877-003      | 519877-004      | 519877-005      | 519877-006      |
|--|-------------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|
|  | <i>Field Id:</i>  | AH 1 (0-1')     | AH 1 (1-1.5')   | AH 1 (2-2.5')   | AH 2 (0-1')     | AH 2 (1-1.5')   | AH 3 (0-1')     |
|  | <i>Depth:</i>     | 0-1 ft          | 1-1.5 ft        | 2-2.5 ft        | 0-1 ft          | 1-1.5 ft        | 0-1 ft          |
|  | <i>Matrix:</i>    | SOIL            | SOIL            | SOIL            | SOIL            | SOIL            | SOIL            |
|  | <i>Sampled:</i>   | Nov-19-15 00:00 | Nov-19-15 00:00 | Nov-19-15 00:00 | Nov-19-15 00:00 | Nov-19-15 00:00 | Nov-19-15 00:00 |
| <b>BTEX by EPA 8021B</b>                 | <i>Extracted:</i> | Nov-25-15 13:00 |                 |                 |                 |                 | Nov-25-15 13:00 |
|  | <i>Analyzed:</i>  | Nov-25-15 16:38 |                 |                 |                 |                 | Nov-30-15 11:30 |
|  | <i>Units/RL:</i>  | mg/kg RL        |                 |                 |                 |                 | mg/kg RL        |
| Benzene                                  |                   | ND 0.00101      |                 |                 |                 |                 | ND 0.00166      |
| Toluene                                  |                   | ND 0.00202      |                 |                 |                 |                 | ND 0.00332      |
| Ethylbenzene                             |                   | ND 0.00101      |                 |                 |                 |                 | ND 0.00166      |
| m,p-Xylenes                              |                   | ND 0.00202      |                 |                 |                 |                 | ND 0.00332      |
| o-Xylene                                 |                   | ND 0.00101      |                 |                 |                 |                 | ND 0.00166      |
| Total Xylenes                            |                   | ND 0.00101      |                 |                 |                 |                 | ND 0.00166      |
| Total BTEX                               |                   | ND 0.00101      |                 |                 |                 |                 | ND 0.00166      |
| <b>Inorganic Anions by EPA 300/300.1</b> | <i>Extracted:</i> | Nov-24-15 15:00 | Nov-24-15 15:00 | Nov-24-15 15:00 | Nov-24-15 15:00 | Nov-24-15 15:00 | Nov-24-15 15:00 |
|  | <i>Analyzed:</i>  | Nov-24-15 16:06 | Nov-24-15 16:52 | Nov-24-15 18:00 | Nov-30-15 11:44 | Nov-30-15 12:07 | Nov-24-15 19:08 |
|  | <i>Units/RL:</i>  | mg/kg RL        | mg/kg RL        | mg/kg RL        | mg/kg RL        | mg/kg RL        | mg/kg RL        |
| Chloride                                 |                   | 320 20.0        | 1020 100        | 4590 400        | 3080 200        | 2800 200        | 625 40.0        |
| <b>TPH By SW8015 Mod</b>                 | <i>Extracted:</i> | Nov-23-15 18:00 | Nov-25-15 16:00 |                 | Nov-23-15 18:00 |                 | Nov-23-15 18:00 |
|  | <i>Analyzed:</i>  | Nov-24-15 23:32 | Nov-25-15 16:41 |                 | Nov-24-15 03:53 |                 | Nov-24-15 04:19 |
|  | <i>Units/RL:</i>  | mg/kg RL        | mg/kg RL        |                 | mg/kg RL        |                 | mg/kg RL        |
| C6-C10 Gasoline Range Hydrocarbons       |                   | ND 15.0         | 16.6 15.0       |                 | ND 14.9         |                 | ND 15.0         |
| C10-C28 Diesel Range Hydrocarbons        |                   | 350 15.0        | ND 15.0         |                 | ND 14.9         |                 | 826 15.0        |
| Total TPH                                |                   | 350 15.0        | 16.6 15.0       |                 | ND 14.9         |                 | 826 15.0        |

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use. The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories. XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented. Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

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Kelsey Brooks  
Project Manager



# Certificate of Analysis Summary 519877

Tetra Tech- Midland, Midland, TX

Project Name: Globe Eunice Facility



Project Id: 212C-MD-00374

Contact: Ike Tavarez

Project Location: Lea Co, NM

Date Received in Lab: Fri Nov-20-15 11:18 am

Report Date: 24-MAY-16

Project Manager: Kelsey Brooks

|  |                   |                 |                 |                 |                 |                 |                 |
|--|-------------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| <i>Analysis Requested</i>                | <i>Lab Id:</i>    | 519877-007      | 519877-008      | 519877-009      | 519877-010      | 519877-011      | 519877-012      |
|  | <i>Field Id:</i>  | AH 4 (0-1')     | AH 4 (1-1.5')   | AH 4 (2-2.5')   | AH 4 (2.5-3')   | AH 5 (0-1')     | AH 5 (1-1.5')   |
|  | <i>Depth:</i>     | 0-1 ft          | 1-1.5 ft        | 2-2.5 ft        | 2.5-3 ft        | 0-1 ft          | 1-1.5 ft        |
|  | <i>Matrix:</i>    | SOIL            | SOIL            | SOIL            | SOIL            | SOIL            | SOIL            |
|  | <i>Sampled:</i>   | Nov-19-15 00:00 | Nov-19-15 00:00 | Nov-19-15 00:00 | Nov-19-15 00:00 | Nov-19-15 00:00 | Nov-19-15 00:00 |
| <b>BTEX by EPA 8021B</b>                 | <i>Extracted:</i> | Nov-25-15 13:00 |                 |                 | Nov-30-15 15:00 |                 |                 |
|  | <i>Analyzed:</i>  | Nov-25-15 17:11 |                 |                 | Nov-30-15 15:23 |                 |                 |
|  | <i>Units/RL:</i>  | mg/kg           | RL              |                 | mg/kg           | RL              |                 |
| Benzene                                  |                   | ND              | 0.00101         |                 | ND              | 0.00101         |                 |
| Toluene                                  |                   | ND              | 0.00202         |                 | ND              | 0.00202         |                 |
| Ethylbenzene                             |                   | ND              | 0.00101         |                 | ND              | 0.00101         |                 |
| m,p-Xylenes                              |                   | ND              | 0.00202         |                 | ND              | 0.00202         |                 |
| o-Xylene                                 |                   | ND              | 0.00101         |                 | ND              | 0.00101         |                 |
| Total Xylenes                            |                   | ND              | 0.00101         |                 | ND              | 0.00101         |                 |
| Total BTEX                               |                   | ND              | 0.00101         |                 | ND              | 0.00101         |                 |
| <b>Inorganic Anions by EPA 300/300.1</b> | <i>Extracted:</i> | Nov-24-15 15:00 |                 | Nov-24-15 15:00 | Nov-24-15 15:00 | Nov-24-15 15:00 | Nov-24-15 15:00 |
|  | <i>Analyzed:</i>  | Nov-24-15 19:30 |                 | Nov-24-15 19:53 | Nov-24-15 20:16 | Nov-24-15 20:38 | Nov-24-15 21:01 |
|  | <i>Units/RL:</i>  | mg/kg           | RL              | mg/kg           | RL              | mg/kg           | RL              |
| Chloride                                 |                   | 676             | 40.0            | 971             | 100             | 4080            | 200             |
|  |                   | 5190            | 400             | 110             | 10.0            | 32.2            | 10.0            |
| <b>TPH By SW8015 Mod</b>                 | <i>Extracted:</i> | Nov-23-15 18:00 |                 | Nov-25-15 16:00 | Nov-25-15 16:00 | Nov-25-15 17:00 | Nov-23-15 18:00 |
|  | <i>Analyzed:</i>  | Nov-24-15 04:45 |                 | Nov-25-15 17:13 | Nov-25-15 17:43 | Nov-30-15 12:30 | Nov-24-15 05:14 |
|  | <i>Units/RL:</i>  | mg/kg           | RL              | mg/kg           | RL              | mg/kg           | RL              |
| C6-C10 Gasoline Range Hydrocarbons       |                   | 116             | 74.9            | ND              | 15.0            | ND              | 15.0            |
| C10-C28 Diesel Range Hydrocarbons        |                   | 2690            | 74.9            | 183             | 15.0            | 223             | 15.0            |
| Total TPH                                |                   | 2810            | 74.9            | 183             | 15.0            | 223             | 15.0            |
|  |                   | 133             | 15.0            | ND              | 15.0            |                 |                 |

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Kelsey Brooks  
Project Manager



# Certificate of Analysis Summary 519877

Tetra Tech- Midland, Midland, TX

Project Name: Globe Eunice Facility



Project Id: 212C-MD-00374

Contact: Ike Tavarez

Project Location: Lea Co, NM

Date Received in Lab: Fri Nov-20-15 11:18 am

Report Date: 24-MAY-16

Project Manager: Kelsey Brooks

| Analysis Requested                 | Lab Id:    | 519877-013      | 519877-014      | 519877-015      | 519877-016      | 519877-017      | 519877-018      |
|------------------------------------|------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|
|                                    | Field Id:  | AH 5 (2-2.5')   | AH 5 (2.5-3')   | AH 6 (0-1')     | AH 7 (0-1')     | AH 8 (0-1')     | AH 9 (0-1')     |
|                                    | Depth:     | 2-2.5 ft        | 2.5-3 ft        | 0-1 ft          | 0-1 ft          | 0-1 ft          | 0-1 ft          |
|                                    | Matrix:    | SOIL            | SOIL            | SOIL            | SOIL            | SOIL            | SOIL            |
|                                    | Sampled:   | Nov-19-15 00:00 | Nov-19-15 00:00 | Nov-19-15 00:00 | Nov-19-15 00:00 | Nov-19-15 00:00 | Nov-19-15 00:00 |
| BTEX by EPA 8021B                  | Extracted: |                 |                 |                 |                 | Nov-25-15 13:00 |                 |
|                                    | Analyzed:  |                 |                 |                 |                 | Nov-30-15 11:13 |                 |
| Units/RL:                          |            |                 |                 |                 |                 | mg/kg RL        |                 |
| Benzene                            |            |                 |                 |                 |                 | ND 0.00164      |                 |
| Toluene                            |            |                 |                 |                 |                 | ND 0.00328      |                 |
| Ethylbenzene                       |            |                 |                 |                 |                 | ND 0.00164      |                 |
| m,p-Xylenes                        |            |                 |                 |                 |                 | ND 0.00328      |                 |
| o-Xylene                           |            |                 |                 |                 |                 | ND 0.00164      |                 |
| Total Xylenes                      |            |                 |                 |                 |                 | ND 0.00164      |                 |
| Total BTEX                         |            |                 |                 |                 |                 | ND 0.00164      |                 |
| Inorganic Anions by EPA 300/300.1  | Extracted: | Nov-24-15 15:00 | Nov-24-15 15:00 | Nov-24-15 15:00 | Nov-24-15 15:00 | Nov-24-15 15:00 | Nov-24-15 15:00 |
|                                    | Analyzed:  | Nov-24-15 22:55 | Nov-24-15 23:17 | Nov-24-15 23:40 | Nov-25-15 00:03 | Nov-25-15 00:25 | Nov-25-15 00:48 |
|                                    | Units/RL:  | mg/kg RL        | mg/kg RL        | mg/kg RL        | mg/kg RL        | mg/kg RL        | mg/kg RL        |
| Chloride                           |            | 70.9 10.0       | 29.7 10.0       | 3050 200        | 588 40.0        | 44.1 10.0       | 1370 100        |
| TPH By SW8015 Mod                  | Extracted: |                 |                 | Nov-23-15 18:00 | Nov-23-15 18:00 | Nov-23-15 18:00 | Nov-23-15 18:00 |
|                                    | Analyzed:  |                 |                 | Nov-24-15 05:41 | Nov-24-15 06:09 | Nov-24-15 06:38 | Nov-24-15 07:31 |
|                                    | Units/RL:  |                 |                 | mg/kg RL        | mg/kg RL        | mg/kg RL        | mg/kg RL        |
| C6-C10 Gasoline Range Hydrocarbons |            |                 |                 | ND 15.0         | ND 15.0         | 107 74.7        | ND 15.0         |
| C10-C28 Diesel Range Hydrocarbons  |            |                 |                 | ND 15.0         | ND 15.0         | 1260 74.7       | ND 15.0         |
| Total TPH                          |            |                 |                 | ND 15.0         | ND 15.0         | 1370 74.7       | ND 15.0         |

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Kelsey Brooks  
Project Manager



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Tetra Tech- Midland, Midland, TX

Project Name: Globe Eunice Facility



Project Id: 212C-MD-00374

Contact: Ike Tavarez

Project Location: Lea Co, NM

Date Received in Lab: Fri Nov-20-15 11:18 am

Report Date: 24-MAY-16

Project Manager: Kelsey Brooks

| <i>Analysis Requested</i>                | <i>Lab Id:</i>    | 519877-019      | 519877-020      | 519877-021      | 519877-022      | 519877-023      | 519877-024      |
|--|-------------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|
|  | <i>Field Id:</i>  | AH 9 (1-1.5')   | AH 10 (0-1')    | AH 11 (0-1')    | AH 11 (1-1.5')  | AH 12 (0-1')    | AH 13 (0-1')    |
|  | <i>Depth:</i>     | 1-1.5 ft        | 0-1 ft          | 0-1 ft          | 1-1.5 ft        | 0-1 ft          | 0-1 ft          |
|  | <i>Matrix:</i>    | SOIL            | SOIL            | SOIL            | SOIL            | SOIL            | SOIL            |
|  | <i>Sampled:</i>   | Nov-19-15 00:00 | Nov-19-15 00:00 | Nov-19-15 00:00 | Nov-19-15 00:00 | Nov-19-15 00:00 | Nov-19-15 00:00 |
| <b>Inorganic Anions by EPA 300/300.1</b> | <i>Extracted:</i> | Nov-24-15 15:00 | Nov-24-15 15:00 | Nov-24-15 17:00 | Nov-24-15 17:00 | Nov-24-15 17:00 | Nov-24-15 17:00 |
|  | <i>Analyzed:</i>  | Nov-25-15 01:11 | Nov-25-15 01:33 | Nov-25-15 03:50 | Nov-25-15 04:35 | Nov-25-15 04:58 | Nov-25-15 05:21 |
|  | <i>Units/RL:</i>  | mg/kg RL        | mg/kg RL        | mg/kg RL        | mg/kg RL        | mg/kg RL        | mg/kg RL        |
| Chloride                                 |                   | 32.6 10.0       | 215 200         | 64.4 2.00       | 69.3 2.00       | 1230 100        | 610 40.0        |
| <b>TPH By SW8015 Mod</b>                 | <i>Extracted:</i> |                 | Nov-23-15 18:00 | Nov-23-15 18:00 |                 | Nov-23-15 18:00 | Nov-23-15 18:00 |
|  | <i>Analyzed:</i>  |                 | Nov-24-15 07:57 | Nov-24-15 08:23 |                 | Nov-24-15 08:50 | Nov-24-15 09:16 |
|  | <i>Units/RL:</i>  |                 | mg/kg RL        | mg/kg RL        |                 | mg/kg RL        | mg/kg RL        |
| C6-C10 Gasoline Range Hydrocarbons       |                   |                 | ND 15.0         | ND 15.0         |                 | ND 15.0         | ND 14.9         |
| C10-C28 Diesel Range Hydrocarbons        |                   |                 | ND 15.0         | ND 15.0         |                 | ND 15.0         | ND 14.9         |
| Total TPH                                |                   |                 | ND 15.0         | ND 15.0         |                 | ND 15.0         | ND 14.9         |

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Kelsey Brooks  
Project Manager



# Certificate of Analysis Summary 519877

Tetra Tech- Midland, Midland, TX

Project Name: Globe Eunice Facility



Project Id: 212C-MD-00374

Contact: Ike Tavarez

Project Location: Lea Co, NM

Date Received in Lab: Fri Nov-20-15 11:18 am

Report Date: 24-MAY-16

Project Manager: Kelsey Brooks

| <i>Analysis Requested</i>                | <i>Lab Id:</i>    | 519877-025      | 519877-026      | 519877-027      | 519877-028      | 519877-029      | 519877-030      |
|--|-------------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|
|  | <i>Field Id:</i>  | AH 14 (0-1')    | AH 15 (0-6")    | AH 16 (0-1')    | AH 16 (1-1.5')  | AH 17 (0-1')    | AH 18 (0-6")    |
|  | <i>Depth:</i>     | 0-1 ft          | 0-6 In          | 0-1 ft          | 1-1.5 ft        | 0-1 ft          | 0-6 In          |
|  | <i>Matrix:</i>    | SOIL            | SOIL            | SOIL            | SOIL            | SOIL            | SOIL            |
|  | <i>Sampled:</i>   | Nov-19-15 00:00 | Nov-19-15 00:00 | Nov-19-15 00:00 | Nov-19-15 00:00 | Nov-19-15 00:00 | Nov-19-15 00:00 |
| <b>BTEX by EPA 8021B</b>                 | <i>Extracted:</i> |                 | Nov-25-15 13:00 | Nov-25-15 13:00 |                 |                 |                 |
|  | <i>Analyzed:</i>  |                 | Nov-25-15 14:40 | Nov-25-15 14:59 |                 |                 |                 |
|  | <i>Units/RL:</i>  |                 | mg/kg RL        | mg/kg RL        |                 |                 |                 |
| Benzene                                  |                   |                 | ND 0.000992     | ND 0.00101      |                 |                 |                 |
| Toluene                                  |                   |                 | ND 0.00198      | ND 0.00201      |                 |                 |                 |
| Ethylbenzene                             |                   |                 | ND 0.000992     | ND 0.00101      |                 |                 |                 |
| m,p-Xylenes                              |                   |                 | ND 0.00198      | ND 0.00201      |                 |                 |                 |
| o-Xylene                                 |                   |                 | ND 0.000992     | ND 0.00101      |                 |                 |                 |
| Total Xylenes                            |                   |                 | ND 0.000992     | ND 0.00101      |                 |                 |                 |
| Total BTEX                               |                   |                 | ND 0.000992     | ND 0.00101      |                 |                 |                 |
| <b>Inorganic Anions by EPA 300/300.1</b> | <i>Extracted:</i> | Nov-24-15 17:00 | Nov-24-15 17:00 | Nov-24-15 17:00 | Nov-24-15 17:00 | Nov-24-15 17:00 | Nov-24-15 17:00 |
|  | <i>Analyzed:</i>  | Nov-25-15 05:43 | Nov-25-15 06:06 | Nov-25-15 07:14 | Nov-25-15 07:37 | Nov-25-15 08:45 | Nov-25-15 08:22 |
|  | <i>Units/RL:</i>  | mg/kg RL        | mg/kg RL        | mg/kg RL        | mg/kg RL        | mg/kg RL        | mg/kg RL        |
| Chloride                                 |                   | 1340 100        | 8.83 2.00       | 20.4 2.00       | 36.5 10.0       | 3210 200        | 47.9 2.00       |
| <b>TPH By SW8015 Mod</b>                 | <i>Extracted:</i> | Nov-23-15 18:00 | Nov-23-15 18:00 | Nov-23-15 18:00 | Nov-25-15 16:00 | Nov-23-15 18:00 | Nov-23-15 18:00 |
|  | <i>Analyzed:</i>  | Nov-24-15 09:42 | Nov-24-15 23:58 | Nov-25-15 00:22 | Nov-25-15 18:13 | Nov-25-15 00:47 | Nov-25-15 01:13 |
|  | <i>Units/RL:</i>  | mg/kg RL        | mg/kg RL        | mg/kg RL        | mg/kg RL        | mg/kg RL        | mg/kg RL        |
| C6-C10 Gasoline Range Hydrocarbons       |                   | ND 15.0         | ND 15.0         | ND 15.0         | ND 15.0         | ND 15.0         | ND 15.0         |
| C10-C28 Diesel Range Hydrocarbons        |                   | ND 15.0         | 566 15.0        | 387 15.0        | ND 15.0         | 283 15.0        | 24.7 15.0       |
| Total TPH                                |                   | ND 15.0         | 566 15.0        | 387 15.0        | ND 15.0         | 283 15.0        | 24.7 15.0       |

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Kelsey Brooks  
Project Manager



# Certificate of Analysis Summary 519877

Tetra Tech- Midland, Midland, TX

Project Name: Globe Eunice Facility



Project Id: 212C-MD-00374

Contact: Ike Tavarez

Project Location: Lea Co, NM

Date Received in Lab: Fri Nov-20-15 11:18 am

Report Date: 24-MAY-16

Project Manager: Kelsey Brooks

| Analysis Requested                | Lab Id:                            | 519877-031      | 519877-032      | 519877-033      | 519877-034      | 519877-035      | 519877-036      |
|-----------------------------------|------------------------------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|
|                                   | Field Id:                          | AH 19 (0-6")    | AH 20 (0-6")    | AH 21 (0-1')    | AH 21 (1-1.5')  | AH 22 (0-1')    | AH 22 (1-1.5')  |
|                                   | Depth:                             | 0-6 In          | 0-6 In          | 0-1 ft          | 1-1.5 ft        | 0-1 ft          | 1-1.5 ft        |
|                                   | Matrix:                            | SOIL            | SOIL            | SOIL            | SOIL            | SOIL            | SOIL            |
|                                   | Sampled:                           | Nov-19-15 00:00 | Nov-19-15 00:00 | Nov-19-15 00:00 | Nov-19-15 00:00 | Nov-19-15 00:00 | Nov-19-15 00:00 |
| BTEX by EPA 8021B                 | Extracted:                         |                 |                 | Nov-25-15 13:00 |                 | Nov-25-15 13:00 | Nov-30-15 15:00 |
|                                   | Analyzed:                          |                 |                 | Nov-25-15 16:21 |                 | Nov-25-15 17:43 | Nov-30-15 16:12 |
|                                   | Units/RL:                          |                 |                 | mg/kg RL        |                 | mg/kg RL        | mg/kg RL        |
|                                   | Benzene                            |                 |                 | ND 0.000996     |                 | ND 0.00101      | ND 0.00164      |
|                                   | Toluene                            |                 |                 | ND 0.00199      |                 | ND 0.00202      | ND 0.00329      |
| Ethylbenzene                      |                                    |                 |                 | ND 0.000996     |                 | ND 0.00101      | ND 0.00164      |
| m,p-Xylenes                       |                                    |                 |                 | ND 0.00199      |                 | ND 0.00202      | ND 0.00329      |
| o-Xylene                          |                                    |                 |                 | ND 0.000996     |                 | ND 0.00101      | ND 0.00164      |
| Total Xylenes                     |                                    |                 |                 | ND 0.000996     |                 | ND 0.00101      | ND 0.00164      |
| Total BTEX                        |                                    |                 |                 | ND 0.000996     |                 | ND 0.00101      | ND 0.00164      |
| Inorganic Anions by EPA 300/300.1 | Extracted:                         | Nov-24-15 17:00 | Nov-24-15 17:00 | Nov-24-15 17:00 | Nov-24-15 17:00 | Nov-24-15 17:00 | Nov-24-15 17:00 |
|                                   | Analyzed:                          | Nov-25-15 08:00 | Nov-25-15 09:30 | Nov-25-15 09:53 | Nov-25-15 10:16 | Nov-25-15 12:55 | Nov-25-15 13:18 |
|                                   | Units/RL:                          | mg/kg RL        | mg/kg RL        | mg/kg RL        | mg/kg RL        | mg/kg RL        | mg/kg RL        |
|                                   | Chloride                           | 14.6 2.00       | 36.8 2.00       | 15.4 10.0       | 727 100         | 8.36 2.00       | 7.64 2.00       |
|                                   |                                    |                 |                 |                 |                 |                 |                 |
| TPH By SW8015 Mod                 | Extracted:                         | Nov-23-15 18:00 | Nov-23-15 18:00 | Nov-23-15 19:00 | Nov-25-15 16:00 | Nov-23-15 19:00 | Nov-25-15 16:00 |
|                                   | Analyzed:                          | Nov-25-15 01:40 | Nov-25-15 02:05 | Nov-25-15 05:50 | Nov-25-15 18:44 | Nov-25-15 06:15 | Nov-25-15 19:14 |
|                                   | Units/RL:                          | mg/kg RL        | mg/kg RL        | mg/kg RL        | mg/kg RL        | mg/kg RL        | mg/kg RL        |
|                                   | C6-C10 Gasoline Range Hydrocarbons | ND 15.0         | ND 15.0         | ND 15.0         | ND 15.0         | ND 14.9         | ND 15.0         |
|                                   | C10-C28 Diesel Range Hydrocarbons  | 224 15.0        | 299 15.0        | 320 15.0        | 36.7 15.0       | 530 14.9        | 375 15.0        |
| Total TPH                         |                                    | 224 15.0        | 299 15.0        | 320 15.0        | 36.7 15.0       | 530 14.9        | 375 15.0        |

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Kelsey Brooks  
Project Manager



# Certificate of Analysis Summary 519877

Tetra Tech- Midland, Midland, TX

Project Name: Globe Eunice Facility



Project Id: 212C-MD-00374

Contact: Ike Tavarez

Project Location: Lea Co, NM

Date Received in Lab: Fri Nov-20-15 11:18 am

Report Date: 24-MAY-16

Project Manager: Kelsey Brooks

|  |                   |                 |                 |                 |                 |  |  |
|--|-------------------|-----------------|-----------------|-----------------|-----------------|--|--|
| <b>Analysis Requested</b>                | <b>Lab Id:</b>    | 519877-037      | 519877-038      | 519877-039      | 519877-040      |  |  |
|  | <b>Field Id:</b>  | AH 23 (0-1')    | AH 23 (1-1.5')  | AH 23 (2-2.5')  | AH 24 (0-1')    |  |  |
|  | <b>Depth:</b>     | 0-1 ft          | 1-1.5 ft        | 2-2.5 ft        | 0-1 ft          |  |  |
|  | <b>Matrix:</b>    | SOIL            | SOIL            | SOIL            | SOIL            |  |  |
|  | <b>Sampled:</b>   | Nov-19-15 00:00 | Nov-19-15 00:00 | Nov-19-15 00:00 | Nov-19-15 00:00 |  |  |
| <b>Inorganic Anions by EPA 300/300.1</b> | <b>Extracted:</b> | Nov-24-15 17:00 | Nov-24-15 17:00 | Nov-24-15 17:00 | Nov-24-15 17:00 |  |  |
|  | <b>Analyzed:</b>  | Nov-25-15 13:40 | Nov-25-15 14:03 | Nov-30-15 12:30 | Nov-25-15 14:48 |  |  |
|  | <b>Units/RL:</b>  | mg/kg RL        | mg/kg RL        | mg/kg RL        | mg/kg RL        |  |  |
| Chloride                                 |                   | 345 20.0        | 284 20.0        | 104 10.0        | 30.5 10.0       |  |  |
| <b>TPH By SW8015 Mod</b>                 | <b>Extracted:</b> | Nov-23-15 19:00 |                 |                 | Nov-23-15 19:00 |  |  |
|  | <b>Analyzed:</b>  | Nov-24-15 16:52 |                 |                 | Nov-24-15 17:21 |  |  |
|  | <b>Units/RL:</b>  | mg/kg RL        |                 |                 | mg/kg RL        |  |  |
| C6-C10 Gasoline Range Hydrocarbons       |                   | ND 15.0         |                 |                 | ND 15.0         |  |  |
| C10-C28 Diesel Range Hydrocarbons        |                   | ND 15.0         |                 |                 | ND 15.0         |  |  |
| Total TPH                                |                   | ND 15.0         |                 |                 | ND 15.0         |  |  |

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Kelsey Brooks  
Project Manager

- X** In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.
- B** A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.
- D** The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.
- E** The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.
- F** RPD exceeded lab control limits.
- J** The target analyte was positively identified below the quantitation limit and above the detection limit.
- U** Analyte was not detected.
- L** The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.
- H** The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.
- K** Sample analyzed outside of recommended hold time.
- JN** A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

\*\* Surrogate recovered outside laboratory control limit.

**BRL** Below Reporting Limit.

**RL** Reporting Limit

**MDL** Method Detection Limit      **SDL** Sample Detection Limit      **LOD** Limit of Detection

**PQL** Practical Quantitation Limit      **MQL** Method Quantitation Limit      **LOQ** Limit of Quantitation

**DL** Method Detection Limit

**NC** Non-Calculable

+ NELAC certification not offered for this compound.

\* (Next to analyte name or method description) = Outside XENCO's scope of NELAC accreditation

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| (432) 563-1800 | (432) 563-1713 |
| (602) 437-0330 |                |





## Form 2 - Surrogate Recoveries

Project Name: Globe Eunice Facility

Work Orders : 519877, 519877

Project ID: 212C-MD-00374

Lab Batch #: 982118

Sample: 519877-004 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 11/24/15 03:53

### SURROGATE RECOVERY STUDY

| TPH By SW8015 Mod<br>Analytes | Amount Found<br>[A] | True Amount<br>[B] | Recovery<br>%R<br>[D] | Control Limits<br>%R | Flags |
|-------------------------------|---------------------|--------------------|-----------------------|----------------------|-------|
| 1-Chlorooctane                | 86.0                | 99.6               | 86                    | 70-135               |       |
| o-Terphenyl                   | 37.1                | 49.8               | 74                    | 70-135               |       |

Lab Batch #: 982118

Sample: 519877-006 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 11/24/15 04:19

### SURROGATE RECOVERY STUDY

| TPH By SW8015 Mod<br>Analytes | Amount Found<br>[A] | True Amount<br>[B] | Recovery<br>%R<br>[D] | Control Limits<br>%R | Flags |
|-------------------------------|---------------------|--------------------|-----------------------|----------------------|-------|
| 1-Chlorooctane                | 97.8                | 99.9               | 98                    | 70-135               |       |
| o-Terphenyl                   | 46.5                | 50.0               | 93                    | 70-135               |       |

Lab Batch #: 982118

Sample: 519877-007 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 11/24/15 04:45

### SURROGATE RECOVERY STUDY

| TPH By SW8015 Mod<br>Analytes | Amount Found<br>[A] | True Amount<br>[B] | Recovery<br>%R<br>[D] | Control Limits<br>%R | Flags |
|-------------------------------|---------------------|--------------------|-----------------------|----------------------|-------|
| 1-Chlorooctane                | 94.5                | 99.8               | 95                    | 70-135               |       |
| o-Terphenyl                   | 45.2                | 49.9               | 91                    | 70-135               |       |

Lab Batch #: 982118

Sample: 519877-011 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 11/24/15 05:14

### SURROGATE RECOVERY STUDY

| TPH By SW8015 Mod<br>Analytes | Amount Found<br>[A] | True Amount<br>[B] | Recovery<br>%R<br>[D] | Control Limits<br>%R | Flags |
|-------------------------------|---------------------|--------------------|-----------------------|----------------------|-------|
| 1-Chlorooctane                | 85.9                | 99.7               | 86                    | 70-135               |       |
| o-Terphenyl                   | 36.7                | 49.9               | 74                    | 70-135               |       |

Lab Batch #: 982118

Sample: 519877-015 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 11/24/15 05:41

### SURROGATE RECOVERY STUDY

| TPH By SW8015 Mod<br>Analytes | Amount Found<br>[A] | True Amount<br>[B] | Recovery<br>%R<br>[D] | Control Limits<br>%R | Flags |
|-------------------------------|---------------------|--------------------|-----------------------|----------------------|-------|
| 1-Chlorooctane                | 86.3                | 99.9               | 86                    | 70-135               |       |
| o-Terphenyl                   | 37.1                | 50.0               | 74                    | 70-135               |       |

\* Surrogate outside of Laboratory QC limits

\*\* Surrogates outside limits; data and surrogates confirmed by reanalysis

\*\*\* Poor recoveries due to dilution

Surrogate Recovery [D] =  $100 * A / B$

All results are based on MDL and validated for QC purposes.



## Form 2 - Surrogate Recoveries

Project Name: Globe Eunice Facility

Work Orders : 519877, 519877

Project ID: 212C-MD-00374

Lab Batch #: 982118

Sample: 519877-016 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 11/24/15 06:09

### SURROGATE RECOVERY STUDY

| TPH By SW8015 Mod<br>Analytes | Amount Found<br>[A] | True Amount<br>[B] | Recovery<br>%R<br>[D] | Control Limits<br>%R | Flags |
|-------------------------------|---------------------|--------------------|-----------------------|----------------------|-------|
| 1-Chlorooctane                | 85.0                | 99.9               | 85                    | 70-135               |       |
| o-Terphenyl                   | 36.7                | 50.0               | 73                    | 70-135               |       |

Lab Batch #: 982118

Sample: 519877-017 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 11/24/15 06:38

### SURROGATE RECOVERY STUDY

| TPH By SW8015 Mod<br>Analytes | Amount Found<br>[A] | True Amount<br>[B] | Recovery<br>%R<br>[D] | Control Limits<br>%R | Flags |
|-------------------------------|---------------------|--------------------|-----------------------|----------------------|-------|
| 1-Chlorooctane                | 83.3                | 99.6               | 84                    | 70-135               |       |
| o-Terphenyl                   | 36.5                | 49.8               | 73                    | 70-135               |       |

Lab Batch #: 982118

Sample: 519877-018 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 11/24/15 07:31

### SURROGATE RECOVERY STUDY

| TPH By SW8015 Mod<br>Analytes | Amount Found<br>[A] | True Amount<br>[B] | Recovery<br>%R<br>[D] | Control Limits<br>%R | Flags |
|-------------------------------|---------------------|--------------------|-----------------------|----------------------|-------|
| 1-Chlorooctane                | 84.3                | 100                | 84                    | 70-135               |       |
| o-Terphenyl                   | 35.5                | 50.0               | 71                    | 70-135               |       |

Lab Batch #: 982118

Sample: 519877-020 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 11/24/15 07:57

### SURROGATE RECOVERY STUDY

| TPH By SW8015 Mod<br>Analytes | Amount Found<br>[A] | True Amount<br>[B] | Recovery<br>%R<br>[D] | Control Limits<br>%R | Flags |
|-------------------------------|---------------------|--------------------|-----------------------|----------------------|-------|
| 1-Chlorooctane                | 80.0                | 99.7               | 80                    | 70-135               |       |
| o-Terphenyl                   | 34.9                | 49.9               | 70                    | 70-135               |       |

Lab Batch #: 982118

Sample: 519877-021 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 11/24/15 08:23

### SURROGATE RECOVERY STUDY

| TPH By SW8015 Mod<br>Analytes | Amount Found<br>[A] | True Amount<br>[B] | Recovery<br>%R<br>[D] | Control Limits<br>%R | Flags |
|-------------------------------|---------------------|--------------------|-----------------------|----------------------|-------|
| 1-Chlorooctane                | 91.9                | 99.9               | 92                    | 70-135               |       |
| o-Terphenyl                   | 38.5                | 50.0               | 77                    | 70-135               |       |

\* Surrogate outside of Laboratory QC limits

\*\* Surrogates outside limits; data and surrogates confirmed by reanalysis

\*\*\* Poor recoveries due to dilution

Surrogate Recovery [D] =  $100 * A / B$

All results are based on MDL and validated for QC purposes.



## Form 2 - Surrogate Recoveries

Project Name: Globe Eunice Facility

Work Orders : 519877, 519877

Project ID: 212C-MD-00374

Lab Batch #: 982118

Sample: 519877-023 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 11/24/15 08:50

### SURROGATE RECOVERY STUDY

| TPH By SW8015 Mod<br>Analytes | Amount Found<br>[A] | True Amount<br>[B] | Recovery<br>%R<br>[D] | Control Limits<br>%R | Flags |
|-------------------------------|---------------------|--------------------|-----------------------|----------------------|-------|
| 1-Chlorooctane                | 82.6                | 99.7               | 83                    | 70-135               |       |
| o-Terphenyl                   | 34.9                | 49.9               | 70                    | 70-135               |       |

Lab Batch #: 982118

Sample: 519877-024 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 11/24/15 09:16

### SURROGATE RECOVERY STUDY

| TPH By SW8015 Mod<br>Analytes | Amount Found<br>[A] | True Amount<br>[B] | Recovery<br>%R<br>[D] | Control Limits<br>%R | Flags |
|-------------------------------|---------------------|--------------------|-----------------------|----------------------|-------|
| 1-Chlorooctane                | 81.3                | 99.6               | 82                    | 70-135               |       |
| o-Terphenyl                   | 34.9                | 49.8               | 70                    | 70-135               |       |

Lab Batch #: 982118

Sample: 519877-025 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 11/24/15 09:42

### SURROGATE RECOVERY STUDY

| TPH By SW8015 Mod<br>Analytes | Amount Found<br>[A] | True Amount<br>[B] | Recovery<br>%R<br>[D] | Control Limits<br>%R | Flags |
|-------------------------------|---------------------|--------------------|-----------------------|----------------------|-------|
| 1-Chlorooctane                | 84.9                | 99.9               | 85                    | 70-135               |       |
| o-Terphenyl                   | 36.1                | 50.0               | 72                    | 70-135               |       |

Lab Batch #: 982123

Sample: 519877-037 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 11/24/15 16:52

### SURROGATE RECOVERY STUDY

| TPH By SW8015 Mod<br>Analytes | Amount Found<br>[A] | True Amount<br>[B] | Recovery<br>%R<br>[D] | Control Limits<br>%R | Flags |
|-------------------------------|---------------------|--------------------|-----------------------|----------------------|-------|
| 1-Chlorooctane                | 82.0                | 99.9               | 82                    | 70-135               |       |
| o-Terphenyl                   | 37.0                | 50.0               | 74                    | 70-135               |       |

Lab Batch #: 982123

Sample: 519877-040 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 11/24/15 17:21

### SURROGATE RECOVERY STUDY

| TPH By SW8015 Mod<br>Analytes | Amount Found<br>[A] | True Amount<br>[B] | Recovery<br>%R<br>[D] | Control Limits<br>%R | Flags |
|-------------------------------|---------------------|--------------------|-----------------------|----------------------|-------|
| 1-Chlorooctane                | 82.9                | 99.9               | 83                    | 70-135               |       |
| o-Terphenyl                   | 38.4                | 50.0               | 77                    | 70-135               |       |

\* Surrogate outside of Laboratory QC limits

\*\* Surrogates outside limits; data and surrogates confirmed by reanalysis

\*\*\* Poor recoveries due to dilution

Surrogate Recovery [D] =  $100 * A / B$

All results are based on MDL and validated for QC purposes.



## Form 2 - Surrogate Recoveries

Project Name: Globe Eunice Facility

Work Orders : 519877, 519877

Project ID: 212C-MD-00374

Lab Batch #: 982118

Sample: 519877-001 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 11/24/15 23:32

### SURROGATE RECOVERY STUDY

| TPH By SW8015 Mod<br>Analytes | Amount Found<br>[A] | True Amount<br>[B] | Recovery<br>%R<br>[D] | Control Limits<br>%R | Flags |
|-------------------------------|---------------------|--------------------|-----------------------|----------------------|-------|
| 1-Chlorooctane                | 86.3                | 99.9               | 86                    | 70-135               |       |
| o-Terphenyl                   | 36.6                | 50.0               | 73                    | 70-135               |       |

Lab Batch #: 982118

Sample: 519877-026 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 11/24/15 23:58

### SURROGATE RECOVERY STUDY

| TPH By SW8015 Mod<br>Analytes | Amount Found<br>[A] | True Amount<br>[B] | Recovery<br>%R<br>[D] | Control Limits<br>%R | Flags |
|-------------------------------|---------------------|--------------------|-----------------------|----------------------|-------|
| 1-Chlorooctane                | 88.1                | 99.7               | 88                    | 70-135               |       |
| o-Terphenyl                   | 36.1                | 49.9               | 72                    | 70-135               |       |

Lab Batch #: 982118

Sample: 519877-027 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 11/25/15 00:22

### SURROGATE RECOVERY STUDY

| TPH By SW8015 Mod<br>Analytes | Amount Found<br>[A] | True Amount<br>[B] | Recovery<br>%R<br>[D] | Control Limits<br>%R | Flags |
|-------------------------------|---------------------|--------------------|-----------------------|----------------------|-------|
| 1-Chlorooctane                | 83.0                | 99.9               | 83                    | 70-135               |       |
| o-Terphenyl                   | 35.0                | 50.0               | 70                    | 70-135               |       |

Lab Batch #: 982118

Sample: 519877-029 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 11/25/15 00:47

### SURROGATE RECOVERY STUDY

| TPH By SW8015 Mod<br>Analytes | Amount Found<br>[A] | True Amount<br>[B] | Recovery<br>%R<br>[D] | Control Limits<br>%R | Flags |
|-------------------------------|---------------------|--------------------|-----------------------|----------------------|-------|
| 1-Chlorooctane                | 96.5                | 100                | 97                    | 70-135               |       |
| o-Terphenyl                   | 39.8                | 50.0               | 80                    | 70-135               |       |

Lab Batch #: 982118

Sample: 519877-030 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 11/25/15 01:13

### SURROGATE RECOVERY STUDY

| TPH By SW8015 Mod<br>Analytes | Amount Found<br>[A] | True Amount<br>[B] | Recovery<br>%R<br>[D] | Control Limits<br>%R | Flags |
|-------------------------------|---------------------|--------------------|-----------------------|----------------------|-------|
| 1-Chlorooctane                | 84.4                | 100                | 84                    | 70-135               |       |
| o-Terphenyl                   | 35.5                | 50.0               | 71                    | 70-135               |       |

\* Surrogate outside of Laboratory QC limits

\*\* Surrogates outside limits; data and surrogates confirmed by reanalysis

\*\*\* Poor recoveries due to dilution

Surrogate Recovery [D] =  $100 * A / B$

All results are based on MDL and validated for QC purposes.



## Form 2 - Surrogate Recoveries

Project Name: Globe Eunice Facility

Work Orders : 519877, 519877

Project ID: 212C-MD-00374

Lab Batch #: 982118

Sample: 519877-031 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 11/25/15 01:40

### SURROGATE RECOVERY STUDY

| TPH By SW8015 Mod<br>Analytes | Amount Found<br>[A] | True Amount<br>[B] | Recovery<br>%R<br>[D] | Control Limits<br>%R | Flags |
|-------------------------------|---------------------|--------------------|-----------------------|----------------------|-------|
| 1-Chlorooctane                | 88.9                | 99.7               | 89                    | 70-135               |       |
| o-Terphenyl                   | 36.7                | 49.9               | 74                    | 70-135               |       |

Lab Batch #: 982118

Sample: 519877-032 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 11/25/15 02:05

### SURROGATE RECOVERY STUDY

| TPH By SW8015 Mod<br>Analytes | Amount Found<br>[A] | True Amount<br>[B] | Recovery<br>%R<br>[D] | Control Limits<br>%R | Flags |
|-------------------------------|---------------------|--------------------|-----------------------|----------------------|-------|
| 1-Chlorooctane                | 96.6                | 100                | 97                    | 70-135               |       |
| o-Terphenyl                   | 39.4                | 50.0               | 79                    | 70-135               |       |

Lab Batch #: 982123

Sample: 519877-033 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 11/25/15 05:50

### SURROGATE RECOVERY STUDY

| TPH By SW8015 Mod<br>Analytes | Amount Found<br>[A] | True Amount<br>[B] | Recovery<br>%R<br>[D] | Control Limits<br>%R | Flags |
|-------------------------------|---------------------|--------------------|-----------------------|----------------------|-------|
| 1-Chlorooctane                | 92.1                | 99.9               | 92                    | 70-135               |       |
| o-Terphenyl                   | 36.3                | 50.0               | 73                    | 70-135               |       |

Lab Batch #: 982123

Sample: 519877-035 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 11/25/15 06:15

### SURROGATE RECOVERY STUDY

| TPH By SW8015 Mod<br>Analytes | Amount Found<br>[A] | True Amount<br>[B] | Recovery<br>%R<br>[D] | Control Limits<br>%R | Flags |
|-------------------------------|---------------------|--------------------|-----------------------|----------------------|-------|
| 1-Chlorooctane                | 96.5                | 99.6               | 97                    | 70-135               |       |
| o-Terphenyl                   | 37.5                | 49.8               | 75                    | 70-135               |       |

Lab Batch #: 982346

Sample: 519877-026 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 11/25/15 14:40

### SURROGATE RECOVERY STUDY

| BTEX by EPA 8021B<br>Analytes | Amount Found<br>[A] | True Amount<br>[B] | Recovery<br>%R<br>[D] | Control Limits<br>%R | Flags |
|-------------------------------|---------------------|--------------------|-----------------------|----------------------|-------|
| 1,4-Difluorobenzene           | 0.0313              | 0.0300             | 104                   | 80-120               |       |
| 4-Bromofluorobenzene          | 0.0266              | 0.0300             | 89                    | 80-120               |       |

\* Surrogate outside of Laboratory QC limits

\*\* Surrogates outside limits; data and surrogates confirmed by reanalysis

\*\*\* Poor recoveries due to dilution

Surrogate Recovery [D] =  $100 * A / B$

All results are based on MDL and validated for QC purposes.



## Form 2 - Surrogate Recoveries

Project Name: Globe Eunice Facility

Work Orders : 519877, 519877

Project ID: 212C-MD-00374

Lab Batch #: 982346

Sample: 519877-027 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 11/25/15 14:59

### SURROGATE RECOVERY STUDY

| BTEX by EPA 8021B<br>Analytes | Amount Found<br>[A] | True Amount<br>[B] | Recovery<br>%R<br>[D] | Control Limits<br>%R | Flags |
|-------------------------------|---------------------|--------------------|-----------------------|----------------------|-------|
| 1,4-Difluorobenzene           | 0.0323              | 0.0300             | 108                   | 80-120               |       |
| 4-Bromofluorobenzene          | 0.0264              | 0.0300             | 88                    | 80-120               |       |

Lab Batch #: 982346

Sample: 519877-033 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 11/25/15 16:21

### SURROGATE RECOVERY STUDY

| BTEX by EPA 8021B<br>Analytes | Amount Found<br>[A] | True Amount<br>[B] | Recovery<br>%R<br>[D] | Control Limits<br>%R | Flags |
|-------------------------------|---------------------|--------------------|-----------------------|----------------------|-------|
| 1,4-Difluorobenzene           | 0.0282              | 0.0300             | 94                    | 80-120               |       |
| 4-Bromofluorobenzene          | 0.0277              | 0.0300             | 92                    | 80-120               |       |

Lab Batch #: 982346

Sample: 519877-001 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 11/25/15 16:38

### SURROGATE RECOVERY STUDY

| BTEX by EPA 8021B<br>Analytes | Amount Found<br>[A] | True Amount<br>[B] | Recovery<br>%R<br>[D] | Control Limits<br>%R | Flags |
|-------------------------------|---------------------|--------------------|-----------------------|----------------------|-------|
| 1,4-Difluorobenzene           | 0.0299              | 0.0300             | 100                   | 80-120               |       |
| 4-Bromofluorobenzene          | 0.0262              | 0.0300             | 87                    | 80-120               |       |

Lab Batch #: 982345

Sample: 519877-002 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 11/25/15 16:41

### SURROGATE RECOVERY STUDY

| TPH By SW8015 Mod<br>Analytes | Amount Found<br>[A] | True Amount<br>[B] | Recovery<br>%R<br>[D] | Control Limits<br>%R | Flags |
|-------------------------------|---------------------|--------------------|-----------------------|----------------------|-------|
| 1-Chlorooctane                | 89.2                | 99.9               | 89                    | 70-135               |       |
| o-Terphenyl                   | 41.5                | 50.0               | 83                    | 70-135               |       |

Lab Batch #: 982346

Sample: 519877-007 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 11/25/15 17:11

### SURROGATE RECOVERY STUDY

| BTEX by EPA 8021B<br>Analytes | Amount Found<br>[A] | True Amount<br>[B] | Recovery<br>%R<br>[D] | Control Limits<br>%R | Flags |
|-------------------------------|---------------------|--------------------|-----------------------|----------------------|-------|
| 1,4-Difluorobenzene           | 0.0243              | 0.0300             | 81                    | 80-120               |       |
| 4-Bromofluorobenzene          | 0.0258              | 0.0300             | 86                    | 80-120               |       |

\* Surrogate outside of Laboratory QC limits

\*\* Surrogates outside limits; data and surrogates confirmed by reanalysis

\*\*\* Poor recoveries due to dilution

Surrogate Recovery [D] =  $100 * A / B$

All results are based on MDL and validated for QC purposes.



## Form 2 - Surrogate Recoveries

Project Name: Globe Eunice Facility

Work Orders : 519877, 519877

Project ID: 212C-MD-00374

Lab Batch #: 982345

Sample: 519877-008 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 11/25/15 17:13

### SURROGATE RECOVERY STUDY

| TPH By SW8015 Mod<br>Analytes | Amount Found<br>[A] | True Amount<br>[B] | Recovery<br>%R<br>[D] | Control Limits<br>%R | Flags |
|-------------------------------|---------------------|--------------------|-----------------------|----------------------|-------|
| 1-Chlorooctane                | 89.8                | 99.8               | 90                    | 70-135               |       |
| o-Terphenyl                   | 42.5                | 49.9               | 85                    | 70-135               |       |

Lab Batch #: 982345

Sample: 519877-009 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 11/25/15 17:43

### SURROGATE RECOVERY STUDY

| TPH By SW8015 Mod<br>Analytes | Amount Found<br>[A] | True Amount<br>[B] | Recovery<br>%R<br>[D] | Control Limits<br>%R | Flags |
|-------------------------------|---------------------|--------------------|-----------------------|----------------------|-------|
| 1-Chlorooctane                | 88.1                | 99.9               | 88                    | 70-135               |       |
| o-Terphenyl                   | 41.3                | 50.0               | 83                    | 70-135               |       |

Lab Batch #: 982346

Sample: 519877-035 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 11/25/15 17:43

### SURROGATE RECOVERY STUDY

| BTEX by EPA 8021B<br>Analytes | Amount Found<br>[A] | True Amount<br>[B] | Recovery<br>%R<br>[D] | Control Limits<br>%R | Flags |
|-------------------------------|---------------------|--------------------|-----------------------|----------------------|-------|
| 1,4-Difluorobenzene           | 0.0259              | 0.0300             | 86                    | 80-120               |       |
| 4-Bromofluorobenzene          | 0.0240              | 0.0300             | 80                    | 80-120               |       |

Lab Batch #: 982345

Sample: 519877-028 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 11/25/15 18:13

### SURROGATE RECOVERY STUDY

| TPH By SW8015 Mod<br>Analytes | Amount Found<br>[A] | True Amount<br>[B] | Recovery<br>%R<br>[D] | Control Limits<br>%R | Flags |
|-------------------------------|---------------------|--------------------|-----------------------|----------------------|-------|
| 1-Chlorooctane                | 87.3                | 100                | 87                    | 70-135               |       |
| o-Terphenyl                   | 39.9                | 50.0               | 80                    | 70-135               |       |

Lab Batch #: 982345

Sample: 519877-034 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 11/25/15 18:44

### SURROGATE RECOVERY STUDY

| TPH By SW8015 Mod<br>Analytes | Amount Found<br>[A] | True Amount<br>[B] | Recovery<br>%R<br>[D] | Control Limits<br>%R | Flags |
|-------------------------------|---------------------|--------------------|-----------------------|----------------------|-------|
| 1-Chlorooctane                | 85.5                | 99.7               | 86                    | 70-135               |       |
| o-Terphenyl                   | 39.9                | 49.9               | 80                    | 70-135               |       |

\* Surrogate outside of Laboratory QC limits

\*\* Surrogates outside limits; data and surrogates confirmed by reanalysis

\*\*\* Poor recoveries due to dilution

Surrogate Recovery [D] =  $100 * A / B$

All results are based on MDL and validated for QC purposes.



## Form 2 - Surrogate Recoveries

Project Name: Globe Eunice Facility

Work Orders : 519877, 519877

Project ID: 212C-MD-00374

Lab Batch #: 982345

Sample: 519877-036 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 11/25/15 19:14

### SURROGATE RECOVERY STUDY

| TPH By SW8015 Mod<br>Analytes | Amount Found [A] | True Amount [B] | Recovery %R [D] | Control Limits %R | Flags |
|-------------------------------|------------------|-----------------|-----------------|-------------------|-------|
| 1-Chlorooctane                | 103              | 99.8            | 103             | 70-135            |       |
| o-Terphenyl                   | 46.7             | 49.9            | 94              | 70-135            |       |

Lab Batch #: 982346

Sample: 519877-017 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 11/30/15 11:13

### SURROGATE RECOVERY STUDY

| BTEX by EPA 8021B<br>Analytes | Amount Found [A] | True Amount [B] | Recovery %R [D] | Control Limits %R | Flags |
|-------------------------------|------------------|-----------------|-----------------|-------------------|-------|
| 1,4-Difluorobenzene           | 0.0307           | 0.0300          | 102             | 80-120            |       |
| 4-Bromofluorobenzene          | 0.0245           | 0.0300          | 82              | 80-120            |       |

Lab Batch #: 982346

Sample: 519877-006 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 11/30/15 11:30

### SURROGATE RECOVERY STUDY

| BTEX by EPA 8021B<br>Analytes | Amount Found [A] | True Amount [B] | Recovery %R [D] | Control Limits %R | Flags |
|-------------------------------|------------------|-----------------|-----------------|-------------------|-------|
| 1,4-Difluorobenzene           | 0.0277           | 0.0300          | 92              | 80-120            |       |
| 4-Bromofluorobenzene          | 0.0254           | 0.0300          | 85              | 80-120            |       |

Lab Batch #: 982345

Sample: 519877-010 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 11/30/15 12:30

### SURROGATE RECOVERY STUDY

| TPH By SW8015 Mod<br>Analytes | Amount Found [A] | True Amount [B] | Recovery %R [D] | Control Limits %R | Flags |
|-------------------------------|------------------|-----------------|-----------------|-------------------|-------|
| 1-Chlorooctane                | 92.0             | 99.9            | 92              | 70-135            |       |
| o-Terphenyl                   | 42.8             | 50.0            | 86              | 70-135            |       |

Lab Batch #: 982385

Sample: 519877-009 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 11/30/15 15:23

### SURROGATE RECOVERY STUDY

| BTEX by EPA 8021B<br>Analytes | Amount Found [A] | True Amount [B] | Recovery %R [D] | Control Limits %R | Flags |
|-------------------------------|------------------|-----------------|-----------------|-------------------|-------|
| 1,4-Difluorobenzene           | 0.0328           | 0.0300          | 109             | 80-120            |       |
| 4-Bromofluorobenzene          | 0.0293           | 0.0300          | 98              | 80-120            |       |

\* Surrogate outside of Laboratory QC limits

\*\* Surrogates outside limits; data and surrogates confirmed by reanalysis

\*\*\* Poor recoveries due to dilution

Surrogate Recovery [D] =  $100 * A / B$

All results are based on MDL and validated for QC purposes.





## Form 2 - Surrogate Recoveries

Project Name: Globe Eunice Facility

Work Orders : 519877, 519877

Project ID: 212C-MD-00374

Lab Batch #: 982385

Sample: 519877-036 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 11/30/15 16:12

### SURROGATE RECOVERY STUDY

| BTEX by EPA 8021B<br>Analytes | Amount Found [A] | True Amount [B] | Recovery %R [D] | Control Limits %R | Flags |
|-------------------------------|------------------|-----------------|-----------------|-------------------|-------|
| 1,4-Difluorobenzene           | 0.0282           | 0.0300          | 94              | 80-120            |       |
| 4-Bromofluorobenzene          | 0.0241           | 0.0300          | 80              | 80-120            |       |

Lab Batch #: 982118

Sample: 701340-1-BLK / BLK

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 11/24/15 02:05

### SURROGATE RECOVERY STUDY

| TPH By SW8015 Mod<br>Analytes | Amount Found [A] | True Amount [B] | Recovery %R [D] | Control Limits %R | Flags |
|-------------------------------|------------------|-----------------|-----------------|-------------------|-------|
| 1-Chlorooctane                | 98.7             | 100             | 99              | 70-135            |       |
| o-Terphenyl                   | 42.7             | 50.0            | 85              | 70-135            |       |

Lab Batch #: 982123

Sample: 701346-1-BLK / BLK

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 11/24/15 13:49

### SURROGATE RECOVERY STUDY

| TPH By SW8015 Mod<br>Analytes | Amount Found [A] | True Amount [B] | Recovery %R [D] | Control Limits %R | Flags |
|-------------------------------|------------------|-----------------|-----------------|-------------------|-------|
| 1-Chlorooctane                | 100              | 100             | 100             | 70-135            |       |
| o-Terphenyl                   | 42.4             | 50.0            | 85              | 70-135            |       |

Lab Batch #: 982345

Sample: 701491-1-BLK / BLK

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 11/24/15 23:05

### SURROGATE RECOVERY STUDY

| TPH By SW8015 Mod<br>Analytes | Amount Found [A] | True Amount [B] | Recovery %R [D] | Control Limits %R | Flags |
|-------------------------------|------------------|-----------------|-----------------|-------------------|-------|
| 1-Chlorooctane                | 135              | 100             | 135             | 70-135            |       |
| o-Terphenyl                   | 58.5             | 50.0            | 117             | 70-135            |       |

Lab Batch #: 982346

Sample: 701407-1-BLK / BLK

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 11/25/15 14:24

### SURROGATE RECOVERY STUDY

| BTEX by EPA 8021B<br>Analytes | Amount Found [A] | True Amount [B] | Recovery %R [D] | Control Limits %R | Flags |
|-------------------------------|------------------|-----------------|-----------------|-------------------|-------|
| 1,4-Difluorobenzene           | 0.0335           | 0.0300          | 112             | 80-120            |       |
| 4-Bromofluorobenzene          | 0.0302           | 0.0300          | 101             | 80-120            |       |

\* Surrogate outside of Laboratory QC limits

\*\* Surrogates outside limits; data and surrogates confirmed by reanalysis

\*\*\* Poor recoveries due to dilution

Surrogate Recovery [D] =  $100 * A / B$

All results are based on MDL and validated for QC purposes.



## Form 2 - Surrogate Recoveries

Project Name: Globe Eunice Facility

Work Orders : 519877, 519877

Project ID: 212C-MD-00374

Lab Batch #: 982385

Sample: 701508-1-BLK / BLK

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 11/30/15 10:40

### SURROGATE RECOVERY STUDY

| BTEX by EPA 8021B<br>Analytes | Amount Found [A] | True Amount [B] | Recovery %R [D] | Control Limits %R | Flags |
|-------------------------------|------------------|-----------------|-----------------|-------------------|-------|
| 1,4-Difluorobenzene           | 0.0317           | 0.0300          | 106             | 80-120            |       |
| 4-Bromofluorobenzene          | 0.0306           | 0.0300          | 102             | 80-120            |       |

Lab Batch #: 982118

Sample: 701340-1-BKS / BKS

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 11/24/15 02:31

### SURROGATE RECOVERY STUDY

| TPH By SW8015 Mod<br>Analytes | Amount Found [A] | True Amount [B] | Recovery %R [D] | Control Limits %R | Flags |
|-------------------------------|------------------|-----------------|-----------------|-------------------|-------|
| 1-Chlorooctane                | 115              | 100             | 115             | 70-135            |       |
| o-Terphenyl                   | 55.1             | 50.0            | 110             | 70-135            |       |

Lab Batch #: 982123

Sample: 701346-1-BKS / BKS

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 11/24/15 14:13

### SURROGATE RECOVERY STUDY

| TPH By SW8015 Mod<br>Analytes | Amount Found [A] | True Amount [B] | Recovery %R [D] | Control Limits %R | Flags |
|-------------------------------|------------------|-----------------|-----------------|-------------------|-------|
| 1-Chlorooctane                | 117              | 100             | 117             | 70-135            |       |
| o-Terphenyl                   | 55.3             | 50.0            | 111             | 70-135            |       |

Lab Batch #: 982345

Sample: 701491-1-BKS / BKS

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 11/25/15 08:24

### SURROGATE RECOVERY STUDY

| TPH By SW8015 Mod<br>Analytes | Amount Found [A] | True Amount [B] | Recovery %R [D] | Control Limits %R | Flags |
|-------------------------------|------------------|-----------------|-----------------|-------------------|-------|
| 1-Chlorooctane                | 99.8             | 100             | 100             | 70-135            |       |
| o-Terphenyl                   | 45.0             | 50.0            | 90              | 70-135            |       |

Lab Batch #: 982346

Sample: 701407-1-BKS / BKS

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 11/25/15 13:34

### SURROGATE RECOVERY STUDY

| BTEX by EPA 8021B<br>Analytes | Amount Found [A] | True Amount [B] | Recovery %R [D] | Control Limits %R | Flags |
|-------------------------------|------------------|-----------------|-----------------|-------------------|-------|
| 1,4-Difluorobenzene           | 0.0360           | 0.0300          | 120             | 80-120            |       |
| 4-Bromofluorobenzene          | 0.0339           | 0.0300          | 113             | 80-120            |       |

\* Surrogate outside of Laboratory QC limits

\*\* Surrogates outside limits; data and surrogates confirmed by reanalysis

\*\*\* Poor recoveries due to dilution

Surrogate Recovery [D] =  $100 * A / B$

All results are based on MDL and validated for QC purposes.



## Form 2 - Surrogate Recoveries

Project Name: Globe Eunice Facility

Work Orders : 519877, 519877

Project ID: 212C-MD-00374

Lab Batch #: 982385

Sample: 701508-1-BKS / BKS

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 11/30/15 09:49

### SURROGATE RECOVERY STUDY

| BTEX by EPA 8021B<br>Analytes | Amount Found [A] | True Amount [B] | Recovery %R [D] | Control Limits %R | Flags |
|-------------------------------|------------------|-----------------|-----------------|-------------------|-------|
| 1,4-Difluorobenzene           | 0.0294           | 0.0300          | 98              | 80-120            |       |
| 4-Bromofluorobenzene          | 0.0300           | 0.0300          | 100             | 80-120            |       |

Lab Batch #: 982118

Sample: 701340-1-BSD / BSD

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 11/24/15 02:57

### SURROGATE RECOVERY STUDY

| TPH By SW8015 Mod<br>Analytes | Amount Found [A] | True Amount [B] | Recovery %R [D] | Control Limits %R | Flags |
|-------------------------------|------------------|-----------------|-----------------|-------------------|-------|
| 1-Chlorooctane                | 110              | 100             | 110             | 70-135            |       |
| o-Terphenyl                   | 51.2             | 50.0            | 102             | 70-135            |       |

Lab Batch #: 982123

Sample: 701346-1-BSD / BSD

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 11/24/15 14:37

### SURROGATE RECOVERY STUDY

| TPH By SW8015 Mod<br>Analytes | Amount Found [A] | True Amount [B] | Recovery %R [D] | Control Limits %R | Flags |
|-------------------------------|------------------|-----------------|-----------------|-------------------|-------|
| 1-Chlorooctane                | 103              | 100             | 103             | 70-135            |       |
| o-Terphenyl                   | 51.1             | 50.0            | 102             | 70-135            |       |

Lab Batch #: 982345

Sample: 701491-1-BSD / BSD

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 11/25/15 08:52

### SURROGATE RECOVERY STUDY

| TPH By SW8015 Mod<br>Analytes | Amount Found [A] | True Amount [B] | Recovery %R [D] | Control Limits %R | Flags |
|-------------------------------|------------------|-----------------|-----------------|-------------------|-------|
| 1-Chlorooctane                | 96.6             | 100             | 97              | 70-135            |       |
| o-Terphenyl                   | 44.8             | 50.0            | 90              | 70-135            |       |

Lab Batch #: 982346

Sample: 701407-1-BSD / BSD

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 11/25/15 13:51

### SURROGATE RECOVERY STUDY

| BTEX by EPA 8021B<br>Analytes | Amount Found [A] | True Amount [B] | Recovery %R [D] | Control Limits %R | Flags |
|-------------------------------|------------------|-----------------|-----------------|-------------------|-------|
| 1,4-Difluorobenzene           | 0.0270           | 0.0300          | 90              | 80-120            |       |
| 4-Bromofluorobenzene          | 0.0259           | 0.0300          | 86              | 80-120            |       |

\* Surrogate outside of Laboratory QC limits

\*\* Surrogates outside limits; data and surrogates confirmed by reanalysis

\*\*\* Poor recoveries due to dilution

Surrogate Recovery [D] =  $100 * A / B$

All results are based on MDL and validated for QC purposes.



## Form 2 - Surrogate Recoveries

Project Name: Globe Eunice Facility

Work Orders : 519877, 519877

Project ID: 212C-MD-00374

Lab Batch #: 982385

Sample: 701508-1-BSD / BSD

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 11/30/15 10:06

### SURROGATE RECOVERY STUDY

| BTEX by EPA 8021B<br>Analytes | Amount Found [A] | True Amount [B] | Recovery %R [D] | Control Limits %R | Flags |
|-------------------------------|------------------|-----------------|-----------------|-------------------|-------|
| 1,4-Difluorobenzene           | 0.0254           | 0.0300          | 85              | 80-120            |       |
| 4-Bromofluorobenzene          | 0.0283           | 0.0300          | 94              | 80-120            |       |

Lab Batch #: 982118

Sample: 519877-001 S / MS

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 11/25/15 02:29

### SURROGATE RECOVERY STUDY

| TPH By SW8015 Mod<br>Analytes | Amount Found [A] | True Amount [B] | Recovery %R [D] | Control Limits %R | Flags |
|-------------------------------|------------------|-----------------|-----------------|-------------------|-------|
| 1-Chlorooctane                | 90.0             | 100             | 90              | 70-135            |       |
| o-Terphenyl                   | 43.1             | 50.0            | 86              | 70-135            |       |

Lab Batch #: 982123

Sample: 519929-001 S / MS

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 11/25/15 06:41

### SURROGATE RECOVERY STUDY

| TPH By SW8015 Mod<br>Analytes | Amount Found [A] | True Amount [B] | Recovery %R [D] | Control Limits %R | Flags |
|-------------------------------|------------------|-----------------|-----------------|-------------------|-------|
| 1-Chlorooctane                | 97.7             | 100             | 98              | 70-135            |       |
| o-Terphenyl                   | 45.1             | 50.0            | 90              | 70-135            |       |

Lab Batch #: 982346

Sample: 519877-026 S / MS

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 11/25/15 18:00

### SURROGATE RECOVERY STUDY

| BTEX by EPA 8021B<br>Analytes | Amount Found [A] | True Amount [B] | Recovery %R [D] | Control Limits %R | Flags |
|-------------------------------|------------------|-----------------|-----------------|-------------------|-------|
| 1,4-Difluorobenzene           | 0.0347           | 0.0300          | 116             | 80-120            |       |
| 4-Bromofluorobenzene          | 0.0325           | 0.0300          | 108             | 80-120            |       |

Lab Batch #: 982385

Sample: 519877-009 S / MS

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 11/30/15 16:29

### SURROGATE RECOVERY STUDY

| BTEX by EPA 8021B<br>Analytes | Amount Found [A] | True Amount [B] | Recovery %R [D] | Control Limits %R | Flags |
|-------------------------------|------------------|-----------------|-----------------|-------------------|-------|
| 1,4-Difluorobenzene           | 0.0316           | 0.0300          | 105             | 80-120            |       |
| 4-Bromofluorobenzene          | 0.0262           | 0.0300          | 87              | 80-120            |       |

\* Surrogate outside of Laboratory QC limits

\*\* Surrogates outside limits; data and surrogates confirmed by reanalysis

\*\*\* Poor recoveries due to dilution

Surrogate Recovery [D] =  $100 * A / B$

All results are based on MDL and validated for QC purposes.



## Form 2 - Surrogate Recoveries

Project Name: Globe Eunice Facility

Work Orders : 519877, 519877

Project ID: 212C-MD-00374

Lab Batch #: 982118

Sample: 519877-001 SD / MSD

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 11/25/15 02:53

### SURROGATE RECOVERY STUDY

| TPH By SW8015 Mod<br>Analytes | Amount Found<br>[A] | True Amount<br>[B] | Recovery<br>%R<br>[D] | Control Limits<br>%R | Flags |
|-------------------------------|---------------------|--------------------|-----------------------|----------------------|-------|
| 1-Chlorooctane                | 84.4                | 100                | 84                    | 70-135               |       |
| o-Terphenyl                   | 42.6                | 50.0               | 85                    | 70-135               |       |

Lab Batch #: 982123

Sample: 519929-001 SD / MSD

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 11/25/15 07:07

### SURROGATE RECOVERY STUDY

| TPH By SW8015 Mod<br>Analytes | Amount Found<br>[A] | True Amount<br>[B] | Recovery<br>%R<br>[D] | Control Limits<br>%R | Flags |
|-------------------------------|---------------------|--------------------|-----------------------|----------------------|-------|
| 1-Chlorooctane                | 98.9                | 99.9               | 99                    | 70-135               |       |
| o-Terphenyl                   | 44.6                | 50.0               | 89                    | 70-135               |       |

Lab Batch #: 982346

Sample: 519877-026 SD / MSD

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 11/25/15 19:22

### SURROGATE RECOVERY STUDY

| BTEX by EPA 8021B<br>Analytes | Amount Found<br>[A] | True Amount<br>[B] | Recovery<br>%R<br>[D] | Control Limits<br>%R | Flags |
|-------------------------------|---------------------|--------------------|-----------------------|----------------------|-------|
| 1,4-Difluorobenzene           | 0.0312              | 0.0300             | 104                   | 80-120               |       |
| 4-Bromofluorobenzene          | 0.0289              | 0.0300             | 96                    | 80-120               |       |

Lab Batch #: 982385

Sample: 519877-009 SD / MSD

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 11/30/15 16:45

### SURROGATE RECOVERY STUDY

| BTEX by EPA 8021B<br>Analytes | Amount Found<br>[A] | True Amount<br>[B] | Recovery<br>%R<br>[D] | Control Limits<br>%R | Flags |
|-------------------------------|---------------------|--------------------|-----------------------|----------------------|-------|
| 1,4-Difluorobenzene           | 0.0276              | 0.0300             | 92                    | 80-120               |       |
| 4-Bromofluorobenzene          | 0.0291              | 0.0300             | 97                    | 80-120               |       |

\* Surrogate outside of Laboratory QC limits

\*\* Surrogates outside limits; data and surrogates confirmed by reanalysis

\*\*\* Poor recoveries due to dilution

Surrogate Recovery [D] =  $100 * A / B$

All results are based on MDL and validated for QC purposes.

**Project Name: Globe Eunice Facility**

**Work Order #:** 519877, 519877

**Project ID:** 212C-MD-00374

**Analyst:** SYG

**Date Prepared:** 11/25/2015

**Date Analyzed:** 11/25/2015

**Lab Batch ID:** 982346

**Sample:** 701407-1-BKS

**Batch #:** 1

**Matrix:** Solid

**Units:** mg/kg

**BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY**

| <b>BTEX by EPA 8021B</b> | <b>Blank Sample Result [A]</b> | <b>Spike Added [B]</b> | <b>Blank Spike Result [C]</b> | <b>Blank Spike %R [D]</b> | <b>Spike Added [E]</b> | <b>Blank Spike Duplicate Result [F]</b> | <b>Blk. Spk Dup. %R [G]</b> | <b>RPD %</b> | <b>Control Limits %R</b> | <b>Control Limits %RPD</b> | <b>Flag</b> |
|--------------------------|--------------------------------|------------------------|-------------------------------|---------------------------|------------------------|---|-----------------------------|--------------|--------------------------|----------------------------|-------------|
| <b>Analytes</b>          |                                |                        |                               |                           |                        |   |                             |              |                          |                            |             |
| Benzene                  | <0.00100                       | 0.100                  | 0.0807                        | 81                        | 0.100                  | 0.0839                                  | 84                          | 4            | 70-130                   | 35                         |             |
| Toluene                  | <0.00200                       | 0.100                  | 0.0812                        | 81                        | 0.100                  | 0.0858                                  | 86                          | 6            | 70-130                   | 35                         |             |
| Ethylbenzene             | <0.00100                       | 0.100                  | 0.0979                        | 98                        | 0.100                  | 0.0924                                  | 92                          | 6            | 71-129                   | 35                         |             |
| m,p-Xylenes              | <0.00200                       | 0.200                  | 0.200                         | 100                       | 0.200                  | 0.190                                   | 95                          | 5            | 70-135                   | 35                         |             |
| o-Xylene                 | <0.00100                       | 0.100                  | 0.0986                        | 99                        | 0.100                  | 0.0898                                  | 90                          | 9            | 71-133                   | 35                         |             |

**Analyst:** SYG

**Date Prepared:** 11/30/2015

**Date Analyzed:** 11/30/2015

**Lab Batch ID:** 982385

**Sample:** 701508-1-BKS

**Batch #:** 1

**Matrix:** Solid

**Units:** mg/kg

**BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY**

| <b>BTEX by EPA 8021B</b> | <b>Blank Sample Result [A]</b> | <b>Spike Added [B]</b> | <b>Blank Spike Result [C]</b> | <b>Blank Spike %R [D]</b> | <b>Spike Added [E]</b> | <b>Blank Spike Duplicate Result [F]</b> | <b>Blk. Spk Dup. %R [G]</b> | <b>RPD %</b> | <b>Control Limits %R</b> | <b>Control Limits %RPD</b> | <b>Flag</b> |
|--------------------------|--------------------------------|------------------------|-------------------------------|---------------------------|------------------------|---|-----------------------------|--------------|--------------------------|----------------------------|-------------|
| <b>Analytes</b>          |                                |                        |                               |                           |                        |   |                             |              |                          |                            |             |
| Benzene                  | <0.00100                       | 0.100                  | 0.0978                        | 98                        | 0.100                  | 0.0919                                  | 92                          | 6            | 70-130                   | 35                         |             |
| Toluene                  | <0.00200                       | 0.100                  | 0.102                         | 102                       | 0.100                  | 0.0953                                  | 95                          | 7            | 70-130                   | 35                         |             |
| Ethylbenzene             | <0.00100                       | 0.100                  | 0.107                         | 107                       | 0.100                  | 0.101                                   | 101                         | 6            | 71-129                   | 35                         |             |
| m,p-Xylenes              | <0.00200                       | 0.200                  | 0.223                         | 112                       | 0.200                  | 0.208                                   | 104                         | 7            | 70-135                   | 35                         |             |
| o-Xylene                 | <0.00100                       | 0.100                  | 0.103                         | 103                       | 0.100                  | 0.0983                                  | 98                          | 5            | 71-133                   | 35                         |             |

Relative Percent Difference RPD =  $200 * |(C-F)/(C+F)|$

Blank Spike Recovery [D] =  $100 * (C)/[B]$

Blank Spike Duplicate Recovery [G] =  $100 * (F)/[E]$

All results are based on MDL and Validated for QC Purposes

**Project Name: Globe Eunice Facility**

**Work Order #:** 519877, 519877

**Project ID:** 212C-MD-00374

**Analyst:** MNR

**Date Prepared:** 11/24/2015

**Date Analyzed:** 11/24/2015

**Lab Batch ID:** 982224

**Sample:** 701316-1-BKS

**Batch #:** 1

**Matrix:** Solid

**Units:** mg/kg

**BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY**

| Inorganic Anions by EPA 300/300.1 | Blank Sample Result [A] | Spike Added [B] | Blank Spike Result [C] | Blank Spike %R [D] | Spike Added [E] | Blank Spike Duplicate Result [F] | Blk. Spk Dup. %R [G] | RPD % | Control Limits %R | Control Limits %RPD | Flag |
|-----------------------------------|-------------------------|-----------------|------------------------|--------------------|-----------------|----------------------------------|----------------------|-------|-------------------|---------------------|------|
| Analytes                          |                         |                 |                        |                    |                 |                                  |                      |       |                   |                     |      |
| Chloride                          | <2.00                   | 50.0            | 48.9                   | 98                 | 50.0            | 49.0                             | 98                   | 0     | 90-110            | 20                  |      |

**Analyst:** MNR

**Date Prepared:** 11/24/2015

**Date Analyzed:** 11/25/2015

**Lab Batch ID:** 982303

**Sample:** 701317-1-BKS

**Batch #:** 1

**Matrix:** Solid

**Units:** mg/kg

**BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY**

| Inorganic Anions by EPA 300/300.1 | Blank Sample Result [A] | Spike Added [B] | Blank Spike Result [C] | Blank Spike %R [D] | Spike Added [E] | Blank Spike Duplicate Result [F] | Blk. Spk Dup. %R [G] | RPD % | Control Limits %R | Control Limits %RPD | Flag |
|-----------------------------------|-------------------------|-----------------|------------------------|--------------------|-----------------|----------------------------------|----------------------|-------|-------------------|---------------------|------|
| Analytes                          |                         |                 |                        |                    |                 |                                  |                      |       |                   |                     |      |
| Chloride                          | <2.00                   | 50.0            | 48.7                   | 97                 | 50.0            | 46.5                             | 93                   | 5     | 90-110            | 20                  |      |

**Analyst:** PJB

**Date Prepared:** 11/23/2015

**Date Analyzed:** 11/24/2015

**Lab Batch ID:** 982118

**Sample:** 701340-1-BKS

**Batch #:** 1

**Matrix:** Solid

**Units:** mg/kg

**BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY**

| TPH By SW8015 Mod                  | Blank Sample Result [A] | Spike Added [B] | Blank Spike Result [C] | Blank Spike %R [D] | Spike Added [E] | Blank Spike Duplicate Result [F] | Blk. Spk Dup. %R [G] | RPD % | Control Limits %R | Control Limits %RPD | Flag |
|------------------------------------|-------------------------|-----------------|------------------------|--------------------|-----------------|----------------------------------|----------------------|-------|-------------------|---------------------|------|
| Analytes                           |                         |                 |                        |                    |                 |                                  |                      |       |                   |                     |      |
| C6-C10 Gasoline Range Hydrocarbons | <15.0                   | 1000            | 1120                   | 112                | 1000            | 1080                             | 108                  | 4     | 70-135            | 35                  |      |
| C10-C28 Diesel Range Hydrocarbons  | <15.0                   | 1000            | 1180                   | 118                | 1000            | 1070                             | 107                  | 10    | 70-135            | 35                  |      |

Relative Percent Difference RPD =  $200 * |(C-F)/(C+F)|$

Blank Spike Recovery [D] =  $100 * (C)/[B]$

Blank Spike Duplicate Recovery [G] =  $100 * (F)/[E]$

All results are based on MDL and Validated for QC Purposes

**Project Name: Globe Eunice Facility**

**Work Order #:** 519877, 519877

**Project ID:** 212C-MD-00374

**Analyst:** PJB

**Date Prepared:** 11/23/2015

**Date Analyzed:** 11/24/2015

**Lab Batch ID:** 982123

**Sample:** 701346-1-BKS

**Batch #:** 1

**Matrix:** Solid

**Units:** mg/kg

**BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY**

| TPH By SW8015 Mod                  | Blank Sample Result [A] | Spike Added [B] | Blank Spike Result [C] | Blank Spike %R [D] | Spike Added [E] | Blank Spike Duplicate Result [F] | Blk. Spk Dup. %R [G] | RPD % | Control Limits %R | Control Limits %RPD | Flag |
|------------------------------------|-------------------------|-----------------|------------------------|--------------------|-----------------|----------------------------------|----------------------|-------|-------------------|---------------------|------|
| Analytes                           |                         |                 |                        |                    |                 |                                  |                      |       |                   |                     |      |
| C6-C10 Gasoline Range Hydrocarbons | <15.0                   | 1000            | 1110                   | 111                | 1000            | 1110                             | 111                  | 0     | 70-135            | 35                  |      |
| C10-C28 Diesel Range Hydrocarbons  | <15.0                   | 1000            | 1160                   | 116                | 1000            | 1080                             | 108                  | 7     | 70-135            | 35                  |      |

**Analyst:** PJB

**Date Prepared:** 11/24/2015

**Date Analyzed:** 11/25/2015

**Lab Batch ID:** 982345

**Sample:** 701491-1-BKS

**Batch #:** 1

**Matrix:** Solid

**Units:** mg/kg

**BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY**

| TPH By SW8015 Mod                  | Blank Sample Result [A] | Spike Added [B] | Blank Spike Result [C] | Blank Spike %R [D] | Spike Added [E] | Blank Spike Duplicate Result [F] | Blk. Spk Dup. %R [G] | RPD % | Control Limits %R | Control Limits %RPD | Flag |
|------------------------------------|-------------------------|-----------------|------------------------|--------------------|-----------------|----------------------------------|----------------------|-------|-------------------|---------------------|------|
| Analytes                           |                         |                 |                        |                    |                 |                                  |                      |       |                   |                     |      |
| C6-C10 Gasoline Range Hydrocarbons | <15.0                   | 1000            | 1060                   | 106                | 1000            | 1080                             | 108                  | 2     | 70-135            | 35                  |      |
| C10-C28 Diesel Range Hydrocarbons  | <15.0                   | 1000            | 966                    | 97                 | 1000            | 1040                             | 104                  | 7     | 70-135            | 35                  |      |

Relative Percent Difference RPD =  $200 * |(C-F)/(C+F)|$

Blank Spike Recovery [D] =  $100 * (C)/[B]$

Blank Spike Duplicate Recovery [G] =  $100 * (F)/[E]$

All results are based on MDL and Validated for QC Purposes





# Form 3 - MS Recoveries

Project Name: Globe Eunice Facility



Work Order #: 519877

Lab Batch #: 982224

Date Analyzed: 11/24/2015

QC- Sample ID: 519877-001 S

Reporting Units: mg/kg

Date Prepared: 11/24/2015

Batch #: 1

Project ID: 212C-MD-00374

Analyst: MNR

Matrix: Soil

| MATRIX / MATRIX SPIKE RECOVERY STUDY |                          |                 |                          |        |                   |      |
|--------------------------------------|--------------------------|-----------------|--------------------------|--------|-------------------|------|
| Inorganic Anions by EPA 300          | Parent Sample Result [A] | Spike Added [B] | Spiked Sample Result [C] | %R [D] | Control Limits %R | Flag |
| Analytes                             |                          |                 |                          |        |                   |      |
| Chloride                             | 320                      | 500             | 807                      | 97     | 80-120            |      |

Lab Batch #: 982224

Date Analyzed: 11/24/2015

QC- Sample ID: 519877-011 S

Reporting Units: mg/kg

Date Prepared: 11/24/2015

Batch #: 1

Analyst: MNR

Matrix: Soil

| MATRIX / MATRIX SPIKE RECOVERY STUDY |                          |                 |                          |        |                   |      |
|--------------------------------------|--------------------------|-----------------|--------------------------|--------|-------------------|------|
| Inorganic Anions by EPA 300          | Parent Sample Result [A] | Spike Added [B] | Spiked Sample Result [C] | %R [D] | Control Limits %R | Flag |
| Analytes                             |                          |                 |                          |        |                   |      |
| Chloride                             | 110                      | 250             | 344                      | 94     | 80-120            |      |

Lab Batch #: 982303

Date Analyzed: 11/25/2015

QC- Sample ID: 519877-021 S

Reporting Units: mg/kg

Date Prepared: 11/24/2015

Batch #: 1

Analyst: MNR

Matrix: Soil

| MATRIX / MATRIX SPIKE RECOVERY STUDY |                          |                 |                          |        |                   |      |
|--------------------------------------|--------------------------|-----------------|--------------------------|--------|-------------------|------|
| Inorganic Anions by EPA 300          | Parent Sample Result [A] | Spike Added [B] | Spiked Sample Result [C] | %R [D] | Control Limits %R | Flag |
| Analytes                             |                          |                 |                          |        |                   |      |
| Chloride                             | 64.4                     | 50.0            | 108                      | 87     | 80-120            |      |

Lab Batch #: 982303

Date Analyzed: 11/25/2015

QC- Sample ID: 519877-029 S

Reporting Units: mg/kg

Date Prepared: 11/24/2015

Batch #: 1

Analyst: MNR

Matrix: Soil

| MATRIX / MATRIX SPIKE RECOVERY STUDY |                          |                 |                          |        |                   |      |
|--------------------------------------|--------------------------|-----------------|--------------------------|--------|-------------------|------|
| Inorganic Anions by EPA 300          | Parent Sample Result [A] | Spike Added [B] | Spiked Sample Result [C] | %R [D] | Control Limits %R | Flag |
| Analytes                             |                          |                 |                          |        |                   |      |
| Chloride                             | 3210                     | 5000            | 8340                     | 103    | 80-120            |      |

Matrix Spike Percent Recovery [D] =  $100 \times (C-A)/B$   
Relative Percent Difference [E] =  $200 \times (C-A)/(C+B)$   
All Results are based on MDL and Validated for QC Purposes

BRL - Below Reporting Limit



# Form 3 - MS / MSD Recoveries



Project Name: Globe Eunice Facility

Work Order #: 519877

Project ID: 212C-MD-00374

Lab Batch ID: 982346

QC- Sample ID: 519877-026 S

Batch #: 1 Matrix: Soil

Date Analyzed: 11/25/2015

Date Prepared: 11/25/2015

Analyst: SYG

Reporting Units: mg/kg

## MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

| BTEX by EPA 8021B<br>Analytes | Parent<br>Sample<br>Result<br>[A] | Spike<br>Added<br>[B] | Spiked Sample<br>Result<br>[C] | Spiked<br>Sample<br>%R<br>[D] | Spike<br>Added<br>[E] | Duplicate<br>Spiked Sample<br>Result [F] | Spiked<br>Dup.<br>%R<br>[G] | RPD<br>% | Control<br>Limits<br>%R | Control<br>Limits<br>%RPD | Flag |
|-------------------------------|-----------------------------------|-----------------------|--------------------------------|-------------------------------|-----------------------|--|-----------------------------|----------|-------------------------|---------------------------|------|
| Benzene                       | <0.000996                         | 0.0996                | 0.0828                         | 83                            | 0.0994                | 0.0813                                   | 82                          | 2        | 70-130                  | 35                        |      |
| Toluene                       | <0.00199                          | 0.0996                | 0.0599                         | 60                            | 0.0994                | 0.0475                                   | 48                          | 23       | 70-130                  | 35                        | X    |
| Ethylbenzene                  | <0.000996                         | 0.0996                | 0.0534                         | 54                            | 0.0994                | 0.0358                                   | 36                          | 39       | 71-129                  | 35                        | XF   |
| m,p-Xylenes                   | <0.00199                          | 0.199                 | 0.101                          | 51                            | 0.199                 | 0.0709                                   | 36                          | 35       | 70-135                  | 35                        | X    |
| o-Xylene                      | <0.000996                         | 0.0996                | 0.0496                         | 50                            | 0.0994                | 0.0362                                   | 36                          | 31       | 71-133                  | 35                        | X    |

Lab Batch ID: 982385

QC- Sample ID: 519877-009 S

Batch #: 1 Matrix: Soil

Date Analyzed: 11/30/2015

Date Prepared: 11/30/2015

Analyst: SYG

Reporting Units: mg/kg

## MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

| BTEX by EPA 8021B<br>Analytes | Parent<br>Sample<br>Result<br>[A] | Spike<br>Added<br>[B] | Spiked Sample<br>Result<br>[C] | Spiked<br>Sample<br>%R<br>[D] | Spike<br>Added<br>[E] | Duplicate<br>Spiked Sample<br>Result [F] | Spiked<br>Dup.<br>%R<br>[G] | RPD<br>% | Control<br>Limits<br>%R | Control<br>Limits<br>%RPD | Flag |
|-------------------------------|-----------------------------------|-----------------------|--------------------------------|-------------------------------|-----------------------|--|-----------------------------|----------|-------------------------|---------------------------|------|
| Benzene                       | <0.00100                          | 0.100                 | 0.0915                         | 92                            | 0.100                 | 0.0943                                   | 94                          | 3        | 70-130                  | 35                        |      |
| Toluene                       | <0.00201                          | 0.100                 | 0.0891                         | 89                            | 0.100                 | 0.0896                                   | 90                          | 1        | 70-130                  | 35                        |      |
| Ethylbenzene                  | <0.00100                          | 0.100                 | 0.0890                         | 89                            | 0.100                 | 0.0900                                   | 90                          | 1        | 71-129                  | 35                        |      |
| m,p-Xylenes                   | <0.00201                          | 0.201                 | 0.182                          | 91                            | 0.201                 | 0.187                                    | 93                          | 3        | 70-135                  | 35                        |      |
| o-Xylene                      | <0.00100                          | 0.100                 | 0.0858                         | 86                            | 0.100                 | 0.0865                                   | 87                          | 1        | 71-133                  | 35                        |      |

Matrix Spike Percent Recovery  $[D] = 100 * (C - A) / B$   
Relative Percent Difference  $RPD = 200 * |(C - F) / (C + F)|$

Matrix Spike Duplicate Percent Recovery  $[G] = 100 * (F - A) / E$

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not Applicable

N = See Narrative, EQL = Estimated Quantitation Limit, NC = Non Calculable - Sample amount is > 4 times the amount spiked.



# Form 3 - MS / MSD Recoveries



Project Name: Globe Eunice Facility

Work Order #: 519877

Project ID: 212C-MD-00374

Lab Batch ID: 982118

QC- Sample ID: 519877-001 S

Batch #: 1 Matrix: Soil

Date Analyzed: 11/25/2015

Date Prepared: 11/23/2015

Analyst: PJB

Reporting Units: mg/kg

## MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

| TPH By SW8015 Mod<br>Analytes      | Parent<br>Sample<br>Result<br>[A] | Spike<br>Added<br>[B] | Spiked Sample<br>Result<br>[C] | Spiked<br>Sample<br>%R<br>[D] | Spike<br>Added<br>[E] | Duplicate<br>Spiked Sample<br>Result [F] | Spiked<br>Dup.<br>%R<br>[G] | RPD<br>% | Control<br>Limits<br>%R | Control<br>Limits<br>%RPD | Flag |
|------------------------------------|-----------------------------------|-----------------------|--------------------------------|-------------------------------|-----------------------|--|-----------------------------|----------|-------------------------|---------------------------|------|
| C6-C10 Gasoline Range Hydrocarbons | <15.0                             | 1000                  | 1020                           | 102                           | 1000                  | 1010                                     | 101                         | 1        | 70-135                  | 35                        |      |
| C10-C28 Diesel Range Hydrocarbons  | 350                               | 1000                  | 1310                           | 96                            | 1000                  | 1280                                     | 93                          | 2        | 70-135                  | 35                        |      |

Lab Batch ID: 982123

QC- Sample ID: 519929-001 S

Batch #: 1 Matrix: Soil

Date Analyzed: 11/25/2015

Date Prepared: 11/23/2015

Analyst: PJB

Reporting Units: mg/kg

## MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

| TPH By SW8015 Mod<br>Analytes      | Parent<br>Sample<br>Result<br>[A] | Spike<br>Added<br>[B] | Spiked Sample<br>Result<br>[C] | Spiked<br>Sample<br>%R<br>[D] | Spike<br>Added<br>[E] | Duplicate<br>Spiked Sample<br>Result [F] | Spiked<br>Dup.<br>%R<br>[G] | RPD<br>% | Control<br>Limits<br>%R | Control<br>Limits<br>%RPD | Flag |
|------------------------------------|-----------------------------------|-----------------------|--------------------------------|-------------------------------|-----------------------|--|-----------------------------|----------|-------------------------|---------------------------|------|
| C6-C10 Gasoline Range Hydrocarbons | <17.0                             | 1140                  | 1230                           | 108                           | 1130                  | 1210                                     | 107                         | 2        | 70-135                  | 35                        |      |
| C10-C28 Diesel Range Hydrocarbons  | 1070                              | 1140                  | 1860                           | 69                            | 1130                  | 1830                                     | 67                          | 2        | 70-135                  | 35                        | X    |

Matrix Spike Percent Recovery  $[D] = 100 * (C - A) / B$   
Relative Percent Difference  $RPD = 200 * |(C - F) / (C + F)|$

Matrix Spike Duplicate Percent Recovery  $[G] = 100 * (F - A) / E$

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not Applicable

N = See Narrative, EQL = Estimated Quantitation Limit, NC = Non Calculable - Sample amount is > 4 times the amount spiked.

**1910 N. Big Spring St.  
Midland, Texas 79705**

(432) 682-4559 • Fax (432) 682-3946

51877

CE:

5

(Circle or Specify Method No.)

|   |  |
|---|--|
| RECEIVED:   | REMARKS:   |
| -50C<br>out all copies - Laboratory retains Yellow copy - Return Original copy to Tetra Tech - Project Manager retains Pink copy - Accounting receives Gold copy. | Just deeper samples if TPT exceeds 100 mg/Lg. (All AAs)<br>Run (10) BTEX <del>test</del> on the highest TPT results (concentration). (All AAs) |









1910 N. Big Spring St.  
Midland, Texas 79705

(432) 682-4559 • Fax (432) 682-3946

5/19/87

OF:

(Circle or Specify Method No.,)

## SITE MANAGER:

PROJECT NAME:

2006 Furnice Facility see pg 18

| DATE | TIME |
|------|------|
|------|------|

|       |
|-------|
| MATRI |
| COMP. |
| GRAB  |

### SAMPLE IDENTIFICATION

NUMBER OF CONTAINERS

|   |   |   |
|---|---|---|
| <p> <b>1</b> </p> <p> <b>2</b> </p> <p> <b>3</b> </p> <p> <b>4</b> </p> <p> <b>5</b> </p> <p> <b>6</b> </p> <p> <b>7</b> </p> <p> <b>8</b> </p> <p> <b>9</b> </p> <p> <b>10</b> </p> <p> <b>11</b> </p> <p> <b>12</b> </p> <p> <b>13</b> </p> <p> <b>14</b> </p> <p> <b>15</b> </p> <p> <b>16</b> </p> <p> <b>17</b> </p> <p> <b>18</b> </p> <p> <b>19</b> </p> <p> <b>20</b> </p> <p> <b>21</b> </p> <p> <b>22</b> </p> <p> <b>23</b> </p> <p> <b>24</b> </p> <p> <b>25</b> </p> <p> <b>26</b> </p> <p> <b>27</b> </p> <p> <b>28</b> </p> <p> <b>29</b> </p> <p> <b>30</b> </p> <p> <b>31</b> </p> <p> <b>32</b> </p> <p> <b>33</b> </p> <p> <b>34</b> </p> <p> <b>35</b> </p> <p> <b>36</b> </p> <p> <b>37</b> </p> <p> <b>38</b> </p> <p> <b>39</b> </p> <p> <b>40</b> </p> <p> <b>41</b> </p> <p> <b>42</b> </p> <p> <b>43</b> </p> <p> <b>44</b> </p> <p> <b>45</b> </p> <p> <b>46</b> </p> <p> <b>47</b> </p> <p> <b>48</b> </p> <p> <b>49</b> </p> <p> <b>50</b> </p> <p> <b>51</b> </p> <p> <b>52</b> </p> <p> <b>53</b> </p> <p> <b>54</b> </p> <p> <b>55</b> </p> <p> <b>56</b> </p> <p> <b>57</b> </p> <p> <b>58</b> </p> <p> <b>59</b> </p> <p> <b>60</b> </p> <p> <b>61</b> </p> <p> <b>62</b> </p> <p> <b>63</b> </p> <p> <b>64</b> </p> <p> <b>65</b> </p> <p> <b>66</b> </p> <p> <b>67</b> </p> <p> <b>68</b> </p> <p> <b>69</b> </p> <p> <b>70</b> </p> <p> <b>71</b> </p> <p> <b>72</b> </p> <p> <b>73</b> </p> <p> <b>74</b> </p> <p> <b>75</b> </p> <p> <b>76</b> </p> <p> <b>77</b> </p> <p> <b>78</b> </p> <p> <b>79</b> </p> <p> <b>80</b> </p> <p> <b>81</b> </p> <p> <b>82</b> </p> <p> <b>83</b> </p> <p> <b>84</b> </p> <p> <b>85</b> </p> <p> <b>86</b> </p> <p> <b>87</b> </p> <p> <b>88</b> </p> <p> <b>89</b> </p> <p> <b>90</b> </p> <p> <b>91</b> </p> <p> <b>92</b> </p> <p> <b>93</b> </p> <p> <b>94</b> </p> <p> <b>95</b> </p> <p> <b>96</b> </p> <p> <b>97</b> </p> <p> <b>98</b> </p> <p> <b>99</b> </p> <p> <b>100</b> </p> | <p> <b>1</b> </p> <p> <b>2</b> </p> <p> <b>3</b> </p> <p> <b>4</b> </p> <p> <b>5</b> </p> <p> <b>6</b> 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|---|---|---|

HCL

 $\text{HNO}_3$ 

|  |  |
|--|--|
|  |  |
|  |  |

ICE

NONE

(BTEX 8021B

TPH 8015 MOD. TX1005 (Ext. to C35)

PAH 8270

RCRA Metals Ag As Ba Cd Cr Pb Hg Se

TCLP Metals Ag As Ba Cd Cr Vb Pd Hg Se

### TCLP Volatiles

TCLP Semi Volatiles

RCI

GC.MS Vol. 8240/8260/624

GC.MS Semi. Vol. 8270/625

## PCB's 8080/608

Pest. 808/608

Chloride &gt;

Gamma Spec

**Alpha Beta (Air)**

PI M (Asbestos)

Major Anions/Cations, pH, TDS

Date: \_\_\_\_\_  
Time: \_\_\_\_\_  
Date: \_\_\_\_\_  
Time: \_\_\_\_\_  
Date: \_\_\_\_\_  
Time: \_\_\_\_\_

STATE: TX

PHONE: \_\_\_\_\_ ZIP: \_\_\_\_\_

11/15/13

|                          |                    |
|--------------------------|--------------------|
| RECEIVED BY: (Signature) | <i>[Signature]</i> |
| RECEIVED BY: (Signature) |                    |
| RECEIVED BY: (Signature) |                    |
| RECEIVED BY: (Signature) |                    |
| RECEIVED BY: (Signature) |                    |
| DATE: _____              |                    |

NAME \_\_\_\_\_

( ) \_\_\_\_\_

( ) \_\_\_\_\_

( ) \_\_\_\_\_

TIME: \_\_\_\_\_

|       |       |
|-------|-------|
| Date: | 11/18 |
| Time: | 11:15 |
| Date: |       |
| Time: |       |
| Date: |       |
| Time: |       |

SAMPLED BY: (Print & Initial)  
SAMPLE SHIPPED BY: (Print)  
FEDEx  
HAND DELIVERED \_\_\_\_\_  
TETRA TECH CONTACT PERSON \_\_\_\_\_  
UP

The Technician

PERSON: S S S

|              |         |
|--------------|---------|
| Date:        | 1/19/92 |
| Time:        |         |
| AIRBILL #:   |         |
| OTHER:       |         |
| Results by:  |         |
| RUSH Charges |         |
| Authorized:  |         |
| Yes          | No      |

[illegible]

Please fill out all copies - Laboratory retains Yellow copy - Return Original copy to Tetra Tech - Project Manager retains Pink copy - Accounting receives Gold copy



# XENCO Laboratories

## Prelogin/Nonconformance Report- Sample Log-In



**Client:** Tetra Tech- Midland

**Date/ Time Received:** 11/20/2015 11:18:00 AM

**Work Order #:** 519877

**Acceptable Temperature Range:** 0 - 6 degC

**Air and Metal samples Acceptable Range:** Ambient

**Temperature Measuring device used :**

| Sample Receipt Checklist   | Comments |
|--|----------|
| #1 *Temperature of cooler(s)?  | -.5      |
| #2 *Shipping container in good condition?  | Yes      |
| #3 *Samples received on ice?   | Yes      |
| #4 *Custody Seals intact on shipping container/ cooler?  | N/A      |
| #5 Custody Seals intact on sample bottles?   | N/A      |
| #6 *Custody Seals Signed and dated?  | N/A      |
| #7 *Chain of Custody present?  | Yes      |
| #8 Sample instructions complete on Chain of Custody?   | Yes      |
| #9 Any missing/extra samples?  | No       |
| #10 Chain of Custody signed when relinquished/ received?   | Yes      |
| #11 Chain of Custody agrees with sample label(s)?  | Yes      |
| #12 Container label(s) legible and intact?   | Yes      |
| #13 Sample matrix/ properties agree with Chain of Custody?   | Yes      |
| #14 Samples in proper container/ bottle?   | Yes      |
| #15 Samples properly preserved?  | Yes      |
| #16 Sample container(s) intact?  | Yes      |
| #17 Sufficient sample amount for indicated test(s)?  | Yes      |
| #18 All samples received within hold time?   | Yes      |
| #19 Subcontract of sample(s)?  | No       |
| #20 VOC samples have zero headspace (less than 1/4 inch bubble)?   | N/A      |
| #21 <2 for all samples preserved with HNO3,HCL, H2SO4? Except for samples for the analysis of HEM or HEM-SGT which are verified by the analysts. | N/A      |
| #22 >10 for all samples preserved with NaAsO2+NaOH, ZnAc+NaOH?   | N/A      |

**\* Must be completed for after-hours delivery of samples prior to placing in the refrigerator**

Analyst:

PH Device/Lot#:

**Checklist completed by:**

Carley Owens  
Carley Owens

Date: 11/20/2015

**Checklist reviewed by:**

Kelsey Brooks  
Kelsey Brooks

Date: 11/20/2015



# **Analytical Report 523498**

## **for Tetra Tech- Midland**

**Project Manager: Ike Tavaréz**

**Globe Eunice Yard**

**212C-MD-00374**

**24-MAY-16**

Collected By: Client



**1211 W. Florida Ave, Midland TX 79701**

Xenco-Houston (EPA Lab code: TX00122):

Texas (T104704215-15-19), Arizona (AZ0765), Florida (E871002), Louisiana (03054)  
Oklahoma (9218)

Xenco-Dallas (EPA Lab code: TX01468): Texas (T104704295)

Xenco-Odessa (EPA Lab code: TX00158): Texas (T104704400)

Xenco-San Antonio: Texas (T104704534-15-1)

Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)

Xenco-Phoenix Mobile (EPA Lab code: AZ00901): Arizona (AZM757)

Xenco-Atlanta (EPA Lab Code: GA00046):

Florida (E87429), North Carolina (483), South Carolina (98015), Kentucky (85), DoD (L10-135)

Texas (T104704477), Louisiana (04176), USDA (P330-07-00105)

Xenco-Lakeland: Florida (E84098)



24-MAY-16

Project Manager: **Ike Tavaréz**

**Tetra Tech- Midland**

4000 N. Big Spring Suite 401

Midland, TX 79705

Reference: XENCO Report No(s): **523498**

**Globe Eunice Yard**

Project Address: Lea Co, NM

**Ike Tavaréz:**

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 523498. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. The uncertainty of measurement associated with the results of analysis reported is available upon request. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 523498 will be filed for 60 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting XENCO Laboratories to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

**Kelsey Brooks**

Project Manager

***Recipient of the Prestigious Small Business Administration Award of Excellence in 1994.***

*Certified and approved by numerous States and Agencies.*

*A Small Business and Minority Status Company that delivers SERVICE and QUALITY*

Houston - Dallas - Odessa - San Antonio - Tampa - Lakeland - Atlanta - Phoenix - Oklahoma - Latin America

## Tetra Tech- Midland, Midland, TX

Globe Eunice Yard

| Sample Id    | Matrix | Date Collected | Sample Depth | Lab Sample Id |
|--------------|--------|----------------|--------------|---------------|
| AH-1H 0-1    | S      | 01-21-16 00:00 | 0 - 1 ft     | 523498-001    |
| AH-2H 0-1    | S      | 01-21-16 00:00 | 0 - 1 ft     | 523498-002    |
| AH-2H 1-1.5  | S      | 01-21-16 00:00 | 1 - 1.5 ft   | 523498-003    |
| AH-3H 0-1    | S      | 01-21-16 00:00 | 0 - 1 ft     | 523498-004    |
| AH-4H 0-1    | S      | 01-21-16 00:00 | 0 - 1 ft     | 523498-006    |
| AH-5H 0-1    | S      | 01-21-16 00:00 | 0 - 1 ft     | 523498-007    |
| AH-5H 1-1.5  | S      | 01-21-16 00:00 | 1 - 1.5 ft   | 523498-008    |
| AH-5H 2-2.5  | S      | 01-21-16 00:00 | 2 - 2.5 ft   | 523498-009    |
| AH-6H 0-1    | S      | 01-21-16 00:00 | 0 - 1 ft     | 523498-010    |
| AH-6H 1-1.5  | S      | 01-21-16 00:00 | 1 - 1.5 ft   | 523498-011    |
| AH-6H 2-2.5  | S      | 01-21-16 00:00 | 2 - 2.5 ft   | 523498-012    |
| AH-7H 0-1    | S      | 01-21-16 00:00 | 0 - 1 ft     | 523498-013    |
| AH-7H 1-1.5  | S      | 01-21-16 00:00 | 1 - 1.5 ft   | 523498-014    |
| AH-8H 0-1    | S      | 01-21-16 00:00 | 0 - 1 ft     | 523498-015    |
| AH-8H 1-1.5  | S      | 01-21-16 00:00 | 1 - 1.5 ft   | 523498-016    |
| AH-9H 0-1    | S      | 01-21-16 00:00 | 0 - 1 ft     | 523498-017    |
| AH-9H 1-1.5  | S      | 01-21-16 00:00 | 1 - 1.5 ft   | 523498-018    |
| AH-10H 0-1   | S      | 01-21-16 00:00 | 0 - 1 ft     | 523498-019    |
| AH-10H 1-1.5 | S      | 01-21-16 00:00 | 1 - 1.5 ft   | 523498-020    |
| AH-11H 0-1   | S      | 01-21-16 00:00 | 0 - 1 ft     | 523498-021    |
| AH-12H 0-1   | S      | 01-21-16 00:00 | 0 - 1 ft     | 523498-022    |
| AH-13H 0-6"  | S      | 01-21-16 00:00 | 0 - 6 In     | 523498-023    |
| AH-14H 0-6"  | S      | 01-21-16 00:00 | 0 - 6 In     | 523498-024    |
| AH-15H 0-1   | S      | 01-21-16 00:00 | 0 - 1 ft     | 523498-025    |
| AH-15H 1-1.5 | S      | 01-21-16 00:00 | 1 - 1.5 ft   | 523498-026    |
| AH-16H 0-6"  | S      | 01-21-16 00:00 | 0 - 6 In     | 523498-027    |
| AH-3H 1-1.5  | S      | 01-21-16 00:00 | 1 - 1.5 ft   | Not Analyzed  |



## CASE NARRATIVE



*Client Name: Tetra Tech- Midland*

*Project Name: Globe Eunice Yard*

Project ID: 212C-MD-00374  
Work Order Number(s): 523498

Report Date: 24-MAY-16  
Date Received: 01/22/2016

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**Sample receipt non conformances and comments:**

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**Sample receipt non conformances and comments per sample:**

None



# Certificate of Analysis Summary 523498

Tetra Tech- Midland, Midland, TX

Project Name: Globe Eunice Yard



Project Id: 212C-MD-00374

Contact: Ike Tavarez

Project Location: Lea Co, NM

Date Received in Lab: Fri Jan-22-16 02:05 pm

Report Date: 24-MAY-16

Project Manager: Kelsey Brooks

| <i>Analysis Requested</i>          | <i>Lab Id:</i>    | 523498-001      | 523498-002      | 523498-003      | 523498-004      | 523498-006      | 523498-007      |
|------------------------------------|-------------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|
|                                    | <i>Field Id:</i>  | AH-1H 0-1       | AH-2H 0-1       | AH-2H 1-1.5     | AH-3H 0-1       | AH-4H 0-1       | AH-5H 0-1       |
|                                    | <i>Depth:</i>     | 0-1 ft          | 0-1 ft          | 1-1.5 ft        | 0-1 ft          | 0-1 ft          | 0-1 ft          |
|                                    | <i>Matrix:</i>    | SOIL            | SOIL            | SOIL            | SOIL            | SOIL            | SOIL            |
|                                    | <i>Sampled:</i>   | Jan-21-16 00:00 | Jan-21-16 00:00 | Jan-21-16 00:00 | Jan-21-16 00:00 | Jan-21-16 00:00 | Jan-21-16 00:00 |
| Inorganic Anions by EPA 300/300.1  | <i>Extracted:</i> | Jan-28-16 11:00 | Jan-28-16 11:00 | Jan-28-16 11:00 |                 | Jan-28-16 11:00 | Jan-28-16 11:00 |
|                                    | <i>Analyzed:</i>  | Jan-28-16 17:05 | Jan-28-16 17:41 | Jan-28-16 17:59 |                 | Jan-28-16 18:18 | Jan-28-16 18:36 |
|                                    | <i>Units/RL:</i>  | mg/kg RL        | mg/kg RL        | mg/kg RL        |                 | mg/kg RL        | mg/kg RL        |
| Chloride                           |                   | 2.33 2.00       | ND 2.00         | 2.93 2.00       |                 | 531 10.0        | ND 2.00         |
| TPH By SW8015 Mod                  | <i>Extracted:</i> |                 |                 |                 | Jan-27-16 11:00 | Jan-27-16 11:00 | Jan-27-16 11:00 |
|                                    | <i>Analyzed:</i>  |                 |                 |                 | Jan-28-16 13:57 | Jan-28-16 14:25 | Jan-28-16 14:53 |
|                                    | <i>Units/RL:</i>  |                 |                 |                 | mg/kg RL        | mg/kg RL        | mg/kg RL        |
| C6-C10 Gasoline Range Hydrocarbons |                   |                 |                 |                 | ND 14.9         | ND 15.0         | ND 15.0         |
| C10-C28 Diesel Range Hydrocarbons  |                   |                 |                 |                 | ND 14.9         | ND 15.0         | ND 15.0         |
| Total TPH                          |                   |                 |                 |                 | ND 14.9         | ND 15.0         | ND 15.0         |

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Kelsey Brooks  
Project Manager



# Certificate of Analysis Summary 523498

Tetra Tech- Midland, Midland, TX

Project Name: Globe Eunice Yard



Project Id: 212C-MD-00374

Contact: Ike Tavaréz

Project Location: Lea Co, NM

Date Received in Lab: Fri Jan-22-16 02:05 pm

Report Date: 24-MAY-16

Project Manager: Kelsey Brooks

| <i>Analysis Requested</i>                | <i>Lab Id:</i>    | 523498-008      | 523498-009      | 523498-010      | 523498-011      | 523498-012      | 523498-013      |
|--|-------------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|
|  | <i>Field Id:</i>  | AH-5H 1-1.5     | AH-5H 2-2.5     | AH-6H 0-1       | AH-6H 1-1.5     | AH-6H 2-2.5     | AH-7H 0-1       |
|  | <i>Depth:</i>     | 1-1.5 ft        | 2-2.5 ft        | 0-1 ft          | 1-1.5 ft        | 2-2.5 ft        | 0-1 ft          |
|  | <i>Matrix:</i>    | SOIL            | SOIL            | SOIL            | SOIL            | SOIL            | SOIL            |
|  | <i>Sampled:</i>   | Jan-21-16 00:00 | Jan-21-16 00:00 | Jan-21-16 00:00 | Jan-21-16 00:00 | Jan-21-16 00:00 | Jan-21-16 00:00 |
| <b>Inorganic Anions by EPA 300/300.1</b> | <i>Extracted:</i> | Jan-28-16 11:00 | Jan-28-16 11:00 | Jan-28-16 11:00 | Jan-28-16 11:00 | Jan-28-16 11:00 | Jan-28-16 11:00 |
|  | <i>Analyzed:</i>  | Jan-28-16 18:54 | Jan-29-16 16:41 | Jan-28-16 20:07 | Jan-28-16 20:25 | Jan-29-16 17:00 | Jan-28-16 21:02 |
|  | <i>Units/RL:</i>  | mg/kg RL        | mg/kg RL        | mg/kg RL        | mg/kg RL        | mg/kg RL        | mg/kg RL        |
| Chloride                                 |                   | 3.45 2.00       | 316 10.0        | 2.80 2.00       | ND 2.00         | 4.00 2.00       | 30.1 2.00       |

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Kelsey Brooks  
Project Manager



# Certificate of Analysis Summary 523498

Tetra Tech- Midland, Midland, TX

Project Name: Globe Eunice Yard



Project Id: 212C-MD-00374

Contact: Ike Tavaréz

Project Location: Lea Co, NM

Date Received in Lab: Fri Jan-22-16 02:05 pm

Report Date: 24-MAY-16

Project Manager: Kelsey Brooks

| <i>Analysis Requested</i>                | <i>Lab Id:</i>    | 523498-014      | 523498-015      | 523498-016      | 523498-017      | 523498-018      | 523498-019      |
|--|-------------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|
|  | <i>Field Id:</i>  | AH-7H 1-1.5     | AH-8H 0-1       | AH-8H 1-1.5     | AH-9H 0-1       | AH-9H 1-1.5     | AH-10H 0-1      |
|  | <i>Depth:</i>     | 1-1.5 ft        | 0-1 ft          | 1-1.5 ft        | 0-1 ft          | 1-1.5 ft        | 0-1 ft          |
|  | <i>Matrix:</i>    | SOIL            | SOIL            | SOIL            | SOIL            | SOIL            | SOIL            |
|  | <i>Sampled:</i>   | Jan-21-16 00:00 | Jan-21-16 00:00 | Jan-21-16 00:00 | Jan-21-16 00:00 | Jan-21-16 00:00 | Jan-21-16 00:00 |
| <b>Inorganic Anions by EPA 300/300.1</b> | <i>Extracted:</i> | Jan-28-16 11:00 | Jan-28-16 11:00 | Jan-28-16 11:00 | Jan-28-16 11:00 | Jan-28-16 11:00 | Jan-28-16 11:00 |
|  | <i>Analyzed:</i>  | Jan-28-16 21:38 | Jan-28-16 21:56 | Jan-28-16 22:14 | Jan-28-16 22:33 | Jan-29-16 17:36 | Jan-28-16 23:46 |
|  | <i>Units/RL:</i>  | mg/kg RL        | mg/kg RL        | mg/kg RL        | mg/kg RL        | mg/kg RL        | mg/kg RL        |
| Chloride                                 |                   | 216 10.0        | 3.58 2.00       | 8.93 2.00       | 5.52 2.00       | 9.80 2.00       | 11.3 2.00       |

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Kelsey Brooks  
Project Manager



# Certificate of Analysis Summary 523498

Tetra Tech- Midland, Midland, TX

Project Name: Globe Eunice Yard



Project Id: 212C-MD-00374

Contact: Ike Tavarez

Project Location: Lea Co, NM

Date Received in Lab: Fri Jan-22-16 02:05 pm

Report Date: 24-MAY-16

Project Manager: Kelsey Brooks

| <i>Analysis Requested</i>                | <i>Lab Id:</i>    | 523498-020      | 523498-021      | 523498-022      | 523498-023      | 523498-024      | 523498-025      |
|--|-------------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|
|  | <i>Field Id:</i>  | AH-10H 1-1.5    | AH-11H 0-1      | AH-12H 0-1      | AH-13H 0-6"     | AH-14H 0-6"     | AH-15H 0-1      |
|  | <i>Depth:</i>     | 1-1.5 ft        | 0-1 ft          | 0-1 ft          | 0-6 In          | 0-6 In          | 0-1 ft          |
|  | <i>Matrix:</i>    | SOIL            | SOIL            | SOIL            | SOIL            | SOIL            | SOIL            |
|  | <i>Sampled:</i>   | Jan-21-16 00:00 | Jan-21-16 00:00 | Jan-21-16 00:00 | Jan-21-16 00:00 | Jan-21-16 00:00 | Jan-21-16 00:00 |
| <b>Inorganic Anions by EPA 300/300.1</b> | <i>Extracted:</i> | Jan-28-16 11:00 | Jan-28-16 11:00 |                 | Jan-28-16 11:00 | Jan-28-16 10:00 | Jan-28-16 10:00 |
|  | <i>Analyzed:</i>  | Jan-29-16 00:04 | Jan-29-16 00:22 |                 | Jan-29-16 00:40 | Jan-29-16 02:29 | Jan-29-16 03:06 |
|  | <i>Units/RL:</i>  | mg/kg RL        | mg/kg RL        |                 | mg/kg RL        | mg/kg RL        | mg/kg RL        |
| Chloride                                 |                   | 18.9 2.00       | 3.34 2.00       |                 | 4.31 2.00       | 18.8 2.00       | ND 2.00         |
| <b>TPH By SW8015 Mod</b>                 | <i>Extracted:</i> |                 |                 | Jan-27-16 11:00 | Jan-27-16 11:00 | Jan-27-16 11:00 | Jan-27-16 11:00 |
|  | <i>Analyzed:</i>  |                 |                 | Jan-28-16 15:19 | Jan-28-16 15:47 | Jan-28-16 16:41 | Jan-28-16 17:10 |
|  | <i>Units/RL:</i>  |                 |                 | mg/kg RL        | mg/kg RL        | mg/kg RL        | mg/kg RL        |
| C6-C10 Gasoline Range Hydrocarbons       |                   |                 |                 | ND 14.9         | ND 15.0         | 15.0 15.0       | ND 15.0         |
| C10-C28 Diesel Range Hydrocarbons        |                   |                 |                 | ND 14.9         | ND 15.0         | ND 15.0         | ND 15.0         |
| Total TPH                                |                   |                 |                 | ND 14.9         | ND 15.0         | 15.0 15.0       | ND 15.0         |

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Kelsey Brooks  
Project Manager





# Certificate of Analysis Summary 523498

Tetra Tech- Midland, Midland, TX

Project Name: Globe Eunice Yard



Project Id: 212C-MD-00374

Contact: Ike Tavarez

Project Location: Lea Co, NM

Date Received in Lab: Fri Jan-22-16 02:05 pm

Report Date: 24-MAY-16

Project Manager: Kelsey Brooks

|  |                   |                 |                 |  |  |  |  |
|--|-------------------|-----------------|-----------------|--|--|--|--|
| <b>Analysis Requested</b>                | <b>Lab Id:</b>    | 523498-026      | 523498-027      |  |  |  |  |
|  | <b>Field Id:</b>  | AH-15H 1-1.5    | AH-16H 0-6"     |  |  |  |  |
|  | <b>Depth:</b>     | 1-1.5 ft        | 0-6 In          |  |  |  |  |
|  | <b>Matrix:</b>    | SOIL            | SOIL            |  |  |  |  |
|  | <b>Sampled:</b>   | Jan-21-16 00:00 | Jan-21-16 00:00 |  |  |  |  |
| <b>Inorganic Anions by EPA 300/300.1</b> | <b>Extracted:</b> | Jan-28-16 10:00 | Jan-28-16 10:00 |  |  |  |  |
|  | <b>Analyzed:</b>  | Jan-29-16 03:24 | Jan-29-16 03:42 |  |  |  |  |
|  | <b>Units/RL:</b>  | mg/kg RL        | mg/kg RL        |  |  |  |  |
| Chloride                                 |                   | ND 2.00         | 2.62 2.00       |  |  |  |  |
| <b>TPH By SW8015 Mod</b>                 | <b>Extracted:</b> |                 | Jan-27-16 11:00 |  |  |  |  |
|  | <b>Analyzed:</b>  |                 | Jan-28-16 17:39 |  |  |  |  |
|  | <b>Units/RL:</b>  |                 | mg/kg RL        |  |  |  |  |
| C6-C10 Gasoline Range Hydrocarbons       |                   |                 | 23.4 15.0       |  |  |  |  |
| C10-C28 Diesel Range Hydrocarbons        |                   |                 | 711 15.0        |  |  |  |  |
| Total TPH                                |                   |                 | 734 15.0        |  |  |  |  |

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Kelsey Brooks  
Project Manager

- X** In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.
- B** A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.
- D** The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.
- E** The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.
- F** RPD exceeded lab control limits.
- J** The target analyte was positively identified below the quantitation limit and above the detection limit.
- U** Analyte was not detected.
- L** The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.
- H** The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.
- K** Sample analyzed outside of recommended hold time.
- JN** A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

\*\* Surrogate recovered outside laboratory control limit.

**BRL** Below Reporting Limit.

**RL** Reporting Limit

**MDL** Method Detection Limit      **SDL** Sample Detection Limit      **LOD** Limit of Detection

**PQL** Practical Quantitation Limit      **SQL** Method Quantitation Limit      **LOQ** Limit of Quantitation

**DL** Method Detection Limit

**NC** Non-Calculable

+ NELAC certification not offered for this compound.

\* (Next to analyte name or method description) = Outside XENCO's scope of NELAC accreditation

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 1211 W Florida Ave, Midland, TX 79701  
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| (214) 902 0300 | (214) 351-9139 |
| (210) 509-3334 | (210) 509-3335 |
| (432) 563-1800 | (432) 563-1713 |
| (602) 437-0330 |                |



## Form 2 - Surrogate Recoveries

Project Name: Globe Eunice Yard

Work Orders : 523498, 523498

Project ID: 212C-MD-00374

Lab Batch #: 986710

Sample: 523498-004 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 01/28/16 13:57

### SURROGATE RECOVERY STUDY

| TPH By SW8015 Mod<br>Analytes | Amount Found<br>[A] | True Amount<br>[B] | Recovery<br>%R<br>[D] | Control Limits<br>%R | Flags |
|-------------------------------|---------------------|--------------------|-----------------------|----------------------|-------|
| 1-Chlorooctane                | 78.1                | 99.6               | 78                    | 70-135               |       |
| o-Terphenyl                   | 38.7                | 49.8               | 78                    | 70-135               |       |

Lab Batch #: 986710

Sample: 523498-006 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 01/28/16 14:25

### SURROGATE RECOVERY STUDY

| TPH By SW8015 Mod<br>Analytes | Amount Found<br>[A] | True Amount<br>[B] | Recovery<br>%R<br>[D] | Control Limits<br>%R | Flags |
|-------------------------------|---------------------|--------------------|-----------------------|----------------------|-------|
| 1-Chlorooctane                | 80.0                | 99.7               | 80                    | 70-135               |       |
| o-Terphenyl                   | 39.4                | 49.9               | 79                    | 70-135               |       |

Lab Batch #: 986710

Sample: 523498-007 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 01/28/16 14:53

### SURROGATE RECOVERY STUDY

| TPH By SW8015 Mod<br>Analytes | Amount Found<br>[A] | True Amount<br>[B] | Recovery<br>%R<br>[D] | Control Limits<br>%R | Flags |
|-------------------------------|---------------------|--------------------|-----------------------|----------------------|-------|
| 1-Chlorooctane                | 85.2                | 100                | 85                    | 70-135               |       |
| o-Terphenyl                   | 41.9                | 50.0               | 84                    | 70-135               |       |

Lab Batch #: 986710

Sample: 523498-022 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 01/28/16 15:19

### SURROGATE RECOVERY STUDY

| TPH By SW8015 Mod<br>Analytes | Amount Found<br>[A] | True Amount<br>[B] | Recovery<br>%R<br>[D] | Control Limits<br>%R | Flags |
|-------------------------------|---------------------|--------------------|-----------------------|----------------------|-------|
| 1-Chlorooctane                | 84.2                | 99.6               | 85                    | 70-135               |       |
| o-Terphenyl                   | 41.2                | 49.8               | 83                    | 70-135               |       |

Lab Batch #: 986710

Sample: 523498-023 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 01/28/16 15:47

### SURROGATE RECOVERY STUDY

| TPH By SW8015 Mod<br>Analytes | Amount Found<br>[A] | True Amount<br>[B] | Recovery<br>%R<br>[D] | Control Limits<br>%R | Flags |
|-------------------------------|---------------------|--------------------|-----------------------|----------------------|-------|
| 1-Chlorooctane                | 82.9                | 99.9               | 83                    | 70-135               |       |
| o-Terphenyl                   | 41.4                | 50.0               | 83                    | 70-135               |       |

\* Surrogate outside of Laboratory QC limits

\*\* Surrogates outside limits; data and surrogates confirmed by reanalysis

\*\*\* Poor recoveries due to dilution

Surrogate Recovery [D] =  $100 * A / B$

All results are based on MDL and validated for QC purposes.



## Form 2 - Surrogate Recoveries

Project Name: Globe Eunice Yard

Work Orders : 523498, 523498

Project ID: 212C-MD-00374

Lab Batch #: 986710

Sample: 523498-024 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 01/28/16 16:41

### SURROGATE RECOVERY STUDY

| TPH By SW8015 Mod<br>Analytes | Amount Found<br>[A] | True Amount<br>[B] | Recovery<br>%R<br>[D] | Control Limits<br>%R | Flags |
|-------------------------------|---------------------|--------------------|-----------------------|----------------------|-------|
| 1-Chlorooctane                | 91.3                | 100                | 91                    | 70-135               |       |
| o-Terphenyl                   | 45.2                | 50.0               | 90                    | 70-135               |       |

Lab Batch #: 986710

Sample: 523498-025 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 01/28/16 17:10

### SURROGATE RECOVERY STUDY

| TPH By SW8015 Mod<br>Analytes | Amount Found<br>[A] | True Amount<br>[B] | Recovery<br>%R<br>[D] | Control Limits<br>%R | Flags |
|-------------------------------|---------------------|--------------------|-----------------------|----------------------|-------|
| 1-Chlorooctane                | 72.3                | 99.8               | 72                    | 70-135               |       |
| o-Terphenyl                   | 36.2                | 49.9               | 73                    | 70-135               |       |

Lab Batch #: 986710

Sample: 523498-027 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 01/28/16 17:39

### SURROGATE RECOVERY STUDY

| TPH By SW8015 Mod<br>Analytes | Amount Found<br>[A] | True Amount<br>[B] | Recovery<br>%R<br>[D] | Control Limits<br>%R | Flags |
|-------------------------------|---------------------|--------------------|-----------------------|----------------------|-------|
| 1-Chlorooctane                | 80.5                | 99.9               | 81                    | 70-135               |       |
| o-Terphenyl                   | 38.0                | 50.0               | 76                    | 70-135               |       |

Lab Batch #: 986710

Sample: 704112-1-BLK / BLK

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 01/28/16 12:07

### SURROGATE RECOVERY STUDY

| TPH By SW8015 Mod<br>Analytes | Amount Found<br>[A] | True Amount<br>[B] | Recovery<br>%R<br>[D] | Control Limits<br>%R | Flags |
|-------------------------------|---------------------|--------------------|-----------------------|----------------------|-------|
| 1-Chlorooctane                | 99.4                | 100                | 99                    | 70-135               |       |
| o-Terphenyl                   | 49.8                | 50.0               | 100                   | 70-135               |       |

Lab Batch #: 986710

Sample: 704112-1-BKS / BKS

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 01/28/16 12:35

### SURROGATE RECOVERY STUDY

| TPH By SW8015 Mod<br>Analytes | Amount Found<br>[A] | True Amount<br>[B] | Recovery<br>%R<br>[D] | Control Limits<br>%R | Flags |
|-------------------------------|---------------------|--------------------|-----------------------|----------------------|-------|
| 1-Chlorooctane                | 104                 | 100                | 104                   | 70-135               |       |
| o-Terphenyl                   | 46.2                | 50.0               | 92                    | 70-135               |       |

\* Surrogate outside of Laboratory QC limits

\*\* Surrogates outside limits; data and surrogates confirmed by reanalysis

\*\*\* Poor recoveries due to dilution

Surrogate Recovery [D] =  $100 * A / B$

All results are based on MDL and validated for QC purposes.



## Form 2 - Surrogate Recoveries

Project Name: Globe Eunice Yard

Work Orders : 523498, 523498

Project ID: 212C-MD-00374

Lab Batch #: 986710

Sample: 704112-1-BSD / BSD

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 01/28/16 13:02

### SURROGATE RECOVERY STUDY

| TPH By SW8015 Mod<br>Analytes | Amount Found<br>[A] | True Amount<br>[B] | Recovery<br>%R<br>[D] | Control Limits<br>%R | Flags |
|-------------------------------|---------------------|--------------------|-----------------------|----------------------|-------|
| 1-Chlorooctane                | 95.9                | 100                | 96                    | 70-135               |       |
| o-Terphenyl                   | 42.2                | 50.0               | 84                    | 70-135               |       |

Lab Batch #: 986710

Sample: 523500-024 S / MS

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 01/28/16 22:09

### SURROGATE RECOVERY STUDY

| TPH By SW8015 Mod<br>Analytes | Amount Found<br>[A] | True Amount<br>[B] | Recovery<br>%R<br>[D] | Control Limits<br>%R | Flags |
|-------------------------------|---------------------|--------------------|-----------------------|----------------------|-------|
| 1-Chlorooctane                | 82.4                | 99.9               | 82                    | 70-135               |       |
| o-Terphenyl                   | 36.2                | 50.0               | 72                    | 70-135               |       |

Lab Batch #: 986710

Sample: 523500-024 SD / MSD

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 01/28/16 22:42

### SURROGATE RECOVERY STUDY

| TPH By SW8015 Mod<br>Analytes | Amount Found<br>[A] | True Amount<br>[B] | Recovery<br>%R<br>[D] | Control Limits<br>%R | Flags |
|-------------------------------|---------------------|--------------------|-----------------------|----------------------|-------|
| 1-Chlorooctane                | 96.5                | 99.7               | 97                    | 70-135               |       |
| o-Terphenyl                   | 41.9                | 49.9               | 84                    | 70-135               |       |

\* Surrogate outside of Laboratory QC limits

\*\* Surrogates outside limits; data and surrogates confirmed by reanalysis

\*\*\* Poor recoveries due to dilution

Surrogate Recovery [D] =  $100 * A / B$

All results are based on MDL and validated for QC purposes.

**Project Name: Globe Eunice Yard**

**Work Order #:** 523498, 523498

**Project ID:** 212C-MD-00374

**Analyst:** MNR

**Date Prepared:** 01/28/2016

**Date Analyzed:** 01/28/2016

**Lab Batch ID:** 986826

**Sample:** 704135-1-BKS

**Batch #:** 1

**Matrix:** Solid

**Units:** mg/kg

**BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY**

| Inorganic Anions by EPA 300/300.1 | Blank Sample Result [A] | Spike Added [B] | Blank Spike Result [C] | Blank Spike %R [D] | Spike Added [E] | Blank Spike Duplicate Result [F] | Blk. Spk Dup. %R [G] | RPD % | Control Limits %R | Control Limits %RPD | Flag |
|-----------------------------------|-------------------------|-----------------|------------------------|--------------------|-----------------|----------------------------------|----------------------|-------|-------------------|---------------------|------|
| <b>Analytes</b>                   |                         |                 |                        |                    |                 |                                  |                      |       |                   |                     |      |
| Chloride                          | <2.00                   | 50.0            | 46.6                   | 93                 | 50.0            | 47.2                             | 94                   | 1     | 90-110            | 20                  |      |

**Analyst:** MNR

**Date Prepared:** 01/28/2016

**Date Analyzed:** 01/29/2016

**Lab Batch ID:** 986839

**Sample:** 704137-1-BKS

**Batch #:** 1

**Matrix:** Solid

**Units:** mg/kg

**BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY**

| Inorganic Anions by EPA 300/300.1 | Blank Sample Result [A] | Spike Added [B] | Blank Spike Result [C] | Blank Spike %R [D] | Spike Added [E] | Blank Spike Duplicate Result [F] | Blk. Spk Dup. %R [G] | RPD % | Control Limits %R | Control Limits %RPD | Flag |
|-----------------------------------|-------------------------|-----------------|------------------------|--------------------|-----------------|----------------------------------|----------------------|-------|-------------------|---------------------|------|
| <b>Analytes</b>                   |                         |                 |                        |                    |                 |                                  |                      |       |                   |                     |      |
| Chloride                          | <2.00                   | 50.0            | 46.7                   | 93                 | 50.0            | 47.1                             | 94                   | 1     | 90-110            | 20                  |      |

**Analyst:** PJB

**Date Prepared:** 01/27/2016

**Date Analyzed:** 01/28/2016

**Lab Batch ID:** 986710

**Sample:** 704112-1-BKS

**Batch #:** 1

**Matrix:** Solid

**Units:** mg/kg

**BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY**

| TPH By SW8015 Mod                  | Blank Sample Result [A] | Spike Added [B] | Blank Spike Result [C] | Blank Spike %R [D] | Spike Added [E] | Blank Spike Duplicate Result [F] | Blk. Spk Dup. %R [G] | RPD % | Control Limits %R | Control Limits %RPD | Flag |
|------------------------------------|-------------------------|-----------------|------------------------|--------------------|-----------------|----------------------------------|----------------------|-------|-------------------|---------------------|------|
| <b>Analytes</b>                    |                         |                 |                        |                    |                 |                                  |                      |       |                   |                     |      |
| C6-C10 Gasoline Range Hydrocarbons | <15.0                   | 1000            | 913                    | 91                 | 1000            | 859                              | 86                   | 6     | 70-135            | 35                  |      |
| C10-C28 Diesel Range Hydrocarbons  | <15.0                   | 1000            | 991                    | 99                 | 1000            | 925                              | 93                   | 7     | 70-135            | 35                  |      |

Relative Percent Difference RPD =  $200 * |(C-F)/(C+F)|$

Blank Spike Recovery [D] =  $100 * (C)/[B]$

Blank Spike Duplicate Recovery [G] =  $100 * (F)/[E]$

All results are based on MDL and Validated for QC Purposes

Work Order #: 523498

Lab Batch #: 986826

Date Analyzed: 01/28/2016

QC- Sample ID: 523498-001 S

Reporting Units: mg/kg

Date Prepared: 01/28/2016

Batch #: 1

Project ID: 212C-MD-00374

Analyst: MNR

Matrix: Soil

| MATRIX / MATRIX SPIKE RECOVERY STUDY |                          |                 |                          |        |                   |      |
|--------------------------------------|--------------------------|-----------------|--------------------------|--------|-------------------|------|
| Inorganic Anions by EPA 300          | Parent Sample Result [A] | Spike Added [B] | Spiked Sample Result [C] | %R [D] | Control Limits %R | Flag |
| Analytes                             |                          |                 |                          |        |                   |      |
| Chloride                             | 2.33                     | 50.0            | 46.6                     | 89     | 80-120            |      |

Lab Batch #: 986826

Date Analyzed: 01/28/2016

QC- Sample ID: 523498-013 S

Reporting Units: mg/kg

Date Prepared: 01/28/2016

Batch #: 1

Analyst: MNR

Matrix: Soil

| MATRIX / MATRIX SPIKE RECOVERY STUDY |                          |                 |                          |        |                   |      |
|--------------------------------------|--------------------------|-----------------|--------------------------|--------|-------------------|------|
| Inorganic Anions by EPA 300          | Parent Sample Result [A] | Spike Added [B] | Spiked Sample Result [C] | %R [D] | Control Limits %R | Flag |
| Analytes                             |                          |                 |                          |        |                   |      |
| Chloride                             | 30.1                     | 50.0            | 75.0                     | 90     | 80-120            |      |

Lab Batch #: 986839

Date Analyzed: 01/29/2016

QC- Sample ID: 523498-024 S

Reporting Units: mg/kg

Date Prepared: 01/28/2016

Batch #: 1

Analyst: MNR

Matrix: Soil

| MATRIX / MATRIX SPIKE RECOVERY STUDY |                          |                 |                          |        |                   |      |
|--------------------------------------|--------------------------|-----------------|--------------------------|--------|-------------------|------|
| Inorganic Anions by EPA 300          | Parent Sample Result [A] | Spike Added [B] | Spiked Sample Result [C] | %R [D] | Control Limits %R | Flag |
| Analytes                             |                          |                 |                          |        |                   |      |
| Chloride                             | 18.8                     | 50.0            | 63.5                     | 89     | 80-120            |      |

Lab Batch #: 986839

Date Analyzed: 01/29/2016

QC- Sample ID: 523500-007 S

Reporting Units: mg/kg

Date Prepared: 01/28/2016

Batch #: 1

Analyst: MNR

Matrix: Soil

| MATRIX / MATRIX SPIKE RECOVERY STUDY |                          |                 |                          |        |                   |      |
|--------------------------------------|--------------------------|-----------------|--------------------------|--------|-------------------|------|
| Inorganic Anions by EPA 300          | Parent Sample Result [A] | Spike Added [B] | Spiked Sample Result [C] | %R [D] | Control Limits %R | Flag |
| Analytes                             |                          |                 |                          |        |                   |      |
| Chloride                             | 505                      | 500             | 979                      | 95     | 80-120            |      |

Matrix Spike Percent Recovery [D] =  $100 \times (C-A)/B$   
 Relative Percent Difference [E] =  $200 \times (C-A)/(C+B)$   
 All Results are based on MDL and Validated for QC Purposes

BRL - Below Reporting Limit



# Form 3 - MS / MSD Recoveries



Project Name: Globe Eunice Yard

Work Order # : 523498

Project ID: 212C-MD-00374

Lab Batch ID: 986710

QC- Sample ID: 523500-024 S

Batch #: 1 Matrix: Soil

Date Analyzed: 01/28/2016

Date Prepared: 01/27/2016

Analyst: PJB

Reporting Units: mg/kg

## MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

| TPH By SW8015 Mod<br>Analytes      | Parent<br>Sample<br>Result<br>[A] | Spike<br>Added<br>[B] | Spiked Sample<br>Result<br>[C] | Spiked<br>Sample<br>%R<br>[D] | Spike<br>Added<br>[E] | Duplicate<br>Spiked Sample<br>Result [F] | Spiked<br>Dup.<br>%R<br>[G] | RPD<br>% | Control<br>Limits<br>%R | Control<br>Limits<br>%RPD | Flag |
|------------------------------------|-----------------------------------|-----------------------|--------------------------------|-------------------------------|-----------------------|--|-----------------------------|----------|-------------------------|---------------------------|------|
| C6-C10 Gasoline Range Hydrocarbons | <15.0                             | 999                   | 827                            | 83                            | 997                   | 880                                      | 88                          | 6        | 70-135                  | 35                        |      |
| C10-C28 Diesel Range Hydrocarbons  | <15.0                             | 999                   | 808                            | 81                            | 997                   | 946                                      | 95                          | 16       | 70-135                  | 35                        |      |

Matrix Spike Percent Recovery  $[D] = 100 * (C - A) / B$   
Relative Percent Difference  $RPD = 200 * |(C - F) / (C + F)|$

Matrix Spike Duplicate Percent Recovery  $[G] = 100 * (F - A) / E$

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not Applicable  
N = See Narrative, EQL = Estimated Quantitation Limit, NC = Non Calculable - Sample amount is > 4 times the amount spiked.





## PAGE: 2



(432) 682-4559 • Fax (432) 682-3946

523498

Globe

**SITE MANAGER:**

File 7 aware2

MD-00374

**PROJECT NAME:**

ECI NAME: Golobae-Enker Yard Lea Co. MN

## SAMPLE IDENTIFICATION

**NONE**

Major Anions/Cations, pH, TDS

| Date    | S | X       | I/N   | X |
|---------|---|---------|-------|---|
| 10/2/16 |   | X AH-6H | 1-1.5 |   |
|         |   |         | 2-2.5 |   |
|         |   | AH-7H   | 0-1   |   |
|         |   |         | 1-1.5 |   |
|         |   | AH-8H   | 0-1   |   |
|         |   |         | 1-1.5 |   |
|         |   | AH-9H   | 0-1   |   |
|         |   |         | 1-1.5 |   |
|         |   | AH-10H  | 0-1   |   |
|         |   |         | 1-1.5 |   |

Date: 1/21/75

Time: 12:10

AIRBILL #: \_\_\_\_\_

OTHER: \_\_\_\_\_

Results by:

|  |               |
|--|---------------|
|  | PLISH Charoon |
|--|---------------|

Authorized:

[illegible]

Please fill out all copies - Laboratory retains Yellow copy - Return Original copy to Tetra Tech - Project Manager retains Pink copy - Accounting receives Gold copy





**Client:** Tetra Tech- Midland

**Date/ Time Received:** 01/22/2016 02:05:00 PM

**Work Order #:** 523498

**Acceptable Temperature Range:** 0 - 6 degC

**Air and Metal samples Acceptable Range:** Ambient

**Temperature Measuring device used :** r8

| Sample Receipt Checklist   | Comments |
|--|----------|
| #1 *Temperature of cooler(s)?  | 1.8      |
| #2 *Shipping container in good condition?  | Yes      |
| #3 *Samples received on ice?   | Yes      |
| #4 *Custody Seals intact on shipping container/ cooler?  | N/A      |
| #5 Custody Seals intact on sample bottles?   | N/A      |
| #6 *Custody Seals Signed and dated?  | N/A      |
| #7 *Chain of Custody present?  | Yes      |
| #8 Sample instructions complete on Chain of Custody?   | Yes      |
| #9 Any missing/extra samples?  | No       |
| #10 Chain of Custody signed when relinquished/ received?   | Yes      |
| #11 Chain of Custody agrees with sample label(s)?  | Yes      |
| #12 Container label(s) legible and intact?   | Yes      |
| #13 Sample matrix/ properties agree with Chain of Custody?   | Yes      |
| #14 Samples in proper container/ bottle?   | Yes      |
| #15 Samples properly preserved?  | Yes      |
| #16 Sample container(s) intact?  | Yes      |
| #17 Sufficient sample amount for indicated test(s)?  | Yes      |
| #18 All samples received within hold time?   | Yes      |
| #19 Subcontract of sample(s)?  | No       |
| #20 VOC samples have zero headspace (less than 1/4 inch bubble)?   | N/A      |
| #21 <2 for all samples preserved with HNO <sub>3</sub> , HCL, H <sub>2</sub> SO <sub>4</sub> ? Except for samples for the analysis of HEM or HEM-SGT which are verified by the analysts. | N/A      |
| #22 >10 for all samples preserved with NaAsO <sub>2</sub> +NaOH, ZnAc+NaOH?  | N/A      |

**\* Must be completed for after-hours delivery of samples prior to placing in the refrigerator**

Analyst:

PH Device/Lot#:

**Checklist completed by:** Carley Owens  
Carley Owens

Date: 01/25/2016

**Checklist reviewed by:** Kelsey Brooks  
Kelsey Brooks

Date: 01/25/2016

# **Analytical Report 523500**

## **for Tetra Tech- Midland**

**Project Manager: Ike Tavaréz**

**Globe Eunice Yard**

**212C-MD-00374**

**24-MAY-16**

Collected By: Client



**1211 W. Florida Ave, Midland TX 79701**

Xenco-Houston (EPA Lab code: TX00122):

Texas (T104704215-15-19), Arizona (AZ0765), Florida (E871002), Louisiana (03054)  
Oklahoma (9218)

Xenco-Dallas (EPA Lab code: TX01468): Texas (T104704295)

Xenco-Odessa (EPA Lab code: TX00158): Texas (T104704400)

Xenco-San Antonio: Texas (T104704534-15-1)

Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)

Xenco-Phoenix Mobile (EPA Lab code: AZ00901): Arizona (AZM757)

Xenco-Atlanta (EPA Lab Code: GA00046):

Florida (E87429), North Carolina (483), South Carolina (98015), Kentucky (85), DoD (L10-135)

Texas (T104704477), Louisiana (04176), USDA (P330-07-00105)

Xenco-Lakeland: Florida (E84098)



24-MAY-16

Project Manager: **Ike Tavaréz**  
**Tetra Tech- Midland**  
4000 N. Big Spring Suite 401  
Midland, TX 79705

Reference: XENCO Report No(s): **523500**  
**Globe Eunice Yard**  
Project Address: Lea Co, NM

**Ike Tavaréz:**

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 523500. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. The uncertainty of measurement associated with the results of analysis reported is available upon request. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 523500 will be filed for 60 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting XENCO Laboratories to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

**Kelsey Brooks**

Project Manager

***Recipient of the Prestigious Small Business Administration Award of Excellence in 1994.***

*Certified and approved by numerous States and Agencies.*

*A Small Business and Minority Status Company that delivers SERVICE and QUALITY*

Houston - Dallas - Odessa - San Antonio - Tampa - Lakeland - Atlanta - Phoenix - Oklahoma - Latin America

## Tetra Tech- Midland, Midland, TX

Globe Eunice Yard

| Sample Id         | Matrix | Date Collected | Sample Depth | Lab Sample Id |
|-------------------|--------|----------------|--------------|---------------|
| BH-1 (AH-6) 0-1   | S      | 01-20-16 00:00 | 0 - 1 ft     | 523500-001    |
| BH-1 (AH-6) 2-3   | S      | 01-20-16 00:00 | 2 - 3 ft     | 523500-002    |
| BH-1 (AH-6) 4-5   | S      | 01-20-16 00:00 | 4 - 5 ft     | 523500-003    |
| BH-1 (AH-6) 6-7   | S      | 01-20-16 00:00 | 6 - 7 ft     | 523500-004    |
| BH-1 (AH-6) 9-10  | S      | 01-20-16 00:00 | 9 - 10 ft    | 523500-005    |
| BH-1 (AH-6) 14-15 | S      | 01-20-16 00:00 | 14 - 15 ft   | 523500-006    |
| BH-1 (AH-6) 19-20 | S      | 01-20-16 00:00 | 19 - 20 ft   | 523500-007    |
| BH-1 (AH-6) 24-25 | S      | 01-20-16 00:00 | 24 - 25 ft   | 523500-008    |
| BH-2 (AH-7) 0-1   | S      | 01-20-16 00:00 | 0 - 1 ft     | 523500-009    |
| BH-2 (AH-7) 2-3   | S      | 01-20-16 00:00 | 2 - 3 ft     | 523500-010    |
| BH-2 (AH-7) 4-5   | S      | 01-20-16 00:00 | 4 - 5 ft     | 523500-011    |
| BH-2 (AH-7) 6-7   | S      | 01-20-16 00:00 | 6 - 7 ft     | 523500-012    |
| BH-2 (AH-7) 9-10  | S      | 01-20-16 00:00 | 9 - 10 ft    | 523500-013    |
| BH-2 (AH-7) 14-15 | S      | 01-20-16 00:00 | 14 - 15 ft   | 523500-014    |
| BH-2 (AH-7) 19-20 | S      | 01-20-16 00:00 | 19 - 20 ft   | 523500-015    |
| BH-2 (AH-7) 24-25 | S      | 01-20-16 00:00 | 24 - 25 ft   | 523500-016    |
| BH-3 (AH-8) 2-3   | S      | 01-20-16 00:00 | 2 - 3 ft     | 523500-018    |
| BH-4 (AH-4) 0-1   | S      | 01-20-16 00:00 | 0 - 1 ft     | 523500-022    |
| BH-4 (AH-4) 2-3   | S      | 01-20-16 00:00 | 2 - 3 ft     | 523500-023    |
| BH-4 (AH-4) 4-5   | S      | 01-20-16 00:00 | 4 - 5 ft     | 523500-024    |
| BH-4 (AH-4) 6-7   | S      | 01-20-16 00:00 | 6 - 7 ft     | 523500-025    |
| BH-4 (AH-4) 9-10  | S      | 01-20-16 00:00 | 9 - 10 ft    | 523500-026    |
| BH-4 (AH-4) 14-15 | S      | 01-20-16 00:00 | 14 - 15 ft   | 523500-027    |
| BH-4 (AH-4) 19-20 | S      | 01-20-16 00:00 | 19 - 20 ft   | 523500-028    |
| BH-4 (AH-4) 24-25 | S      | 01-20-16 00:00 | 24 - 25 ft   | 523500-029    |
| BH-5 (AH-3) 0-1   | S      | 01-20-16 00:00 | 0 - 1 ft     | 523500-030    |
| BH-5 (AH-3) 2-3   | S      | 01-20-16 00:00 | 2 - 3 ft     | 523500-031    |
| BH-5 (AH-3) 4-5   | S      | 01-20-16 00:00 | 4 - 5 ft     | 523500-032    |
| BH-5 (AH-3) 6-7   | S      | 01-20-16 00:00 | 6 - 7 ft     | 523500-033    |
| BH-5 (AH-3) 9-10  | S      | 01-20-16 00:00 | 9 - 10 ft    | 523500-034    |
| BH-5 (AH-3) 14-15 | S      | 01-20-16 00:00 | 14 - 15 ft   | 523500-035    |
| BH-5 (AH-3) 19-20 | S      | 01-20-16 00:00 | 19 - 20 ft   | 523500-036    |
| BH-5 (AH-3) 24-25 | S      | 01-20-16 00:00 | 24 - 25 ft   | 523500-037    |
| BH-6 (AH-1) 0-1   | S      | 01-21-16 00:00 | 0 - 1 ft     | 523500-038    |
| BH-6 (AH-1) 2-3   | S      | 01-21-16 00:00 | 2 - 3 ft     | 523500-039    |
| BH-6 (AH-1) 4-5   | S      | 01-21-16 00:00 | 4 - 5 ft     | 523500-040    |
| BH-6 (AH-1) 6-7   | S      | 01-21-16 00:00 | 6 - 7 ft     | 523500-041    |
| BH-6 (AH-1) 9-10  | S      | 01-21-16 00:00 | 9 - 10 ft    | 523500-042    |
| BH-6 (AH-1) 14-15 | S      | 01-21-16 00:00 | 14 - 15 ft   | 523500-043    |
| BH-6 (AH-1) 19-20 | S      | 01-21-16 00:00 | 19 - 20 ft   | 523500-044    |
| BH-6 (AH-1) 24-25 | S      | 01-21-16 00:00 | 24 - 25 ft   | 523500-045    |
| BH-7 (AH-14) 0-1  | S      | 01-21-16 00:00 | 0 - 1 ft     | 523500-046    |
| BH-7 (AH-14) 2-3  | S      | 01-21-16 00:00 | 2 - 3 ft     | 523500-047    |



## Tetra Tech- Midland, Midland, TX

### Globe Eunice Yard

|                           |   |                |            |              |
|---------------------------|---|----------------|------------|--------------|
| BH-7 (AH-14) 4-5          | S | 01-21-16 00:00 | 4 - 5 ft   | 523500-048   |
| BH-8 (AH-15) 2-3          | S | 01-21-16 00:00 | 2 - 3 ft   | 523500-050   |
| BH-9 (AH-19 & AH-20) 2-3  | S | 01-21-16 00:00 | 2 - 3 ft   | 523500-055   |
| BH-10 (AH-17) 0-1         | S | 01-21-16 00:00 | 0 - 1 ft   | 523500-059   |
| BH-10 (AH-17) 2-3         | S | 01-21-16 00:00 | 2 - 3 ft   | 523500-060   |
| BH-10 (AH-17) 4-5         | S | 01-21-16 00:00 | 4 - 5 ft   | 523500-061   |
| BH-10 (AH-17) 6-7         | S | 01-21-16 00:00 | 6 - 7 ft   | 523500-062   |
| BH-10 (AH-17) 9-10        | S | 01-21-16 00:00 | 9 - 10 ft  | 523500-063   |
| BH-10 (AH-17) 14-15       | S | 01-21-16 00:00 | 14 - 15 ft | 523500-064   |
| BH-10 (AH-17) 19-20       | S | 01-21-16 00:00 | 19 - 20 ft | 523500-065   |
| BH-10 (AH-17) 24-25       | S | 01-21-16 00:00 | 24 - 25 ft | 523500-066   |
| BH-11 (AH-21) 0-1         | S | 01-21-16 00:00 | 0 - 1 ft   | 523500-067   |
| BH-11 (AH-21) 2-3         | S | 01-21-16 00:00 | 2 - 3 ft   | 523500-068   |
| BH-11 (AH-21) 4-5         | S | 01-21-16 00:00 | 4 - 5 ft   | 523500-069   |
| BH-11 (AH-21) 6-7         | S | 01-21-16 00:00 | 6 - 7 ft   | 523500-070   |
| BH-11 (AH-21) 9-10        | S | 01-21-16 00:00 | 9 - 10 ft  | 523500-071   |
| BH-11 (AH-21) 14-15       | S | 01-21-16 00:00 | 14 - 15 ft | 523500-072   |
| BH-11 (AH-21) 19-20       | S | 01-21-16 00:00 | 19 - 20 ft | 523500-073   |
| BH-12 (AH-22) 2-3         | S | 01-21-16 00:00 | 2 - 3 ft   | 523500-075   |
| BH-3 (AH-8) 0-1           | S | 01-20-16 00:00 | 0 - 1 ft   | Not Analyzed |
| BH-3 (AH-8) 4-5           | S | 01-20-16 00:00 | 4 - 5 ft   | Not Analyzed |
| BH-3 (AH-8) 6-7           | S | 01-20-16 00:00 | 6 - 7 ft   | Not Analyzed |
| BH-3 (AH-8) 9-10          | S | 01-20-16 00:00 | 9 - 10 ft  | Not Analyzed |
| BH-8 (AH-15) 0-1          | S | 01-21-16 00:00 | 0 - 1 ft   | Not Analyzed |
| BH-8 (AH-15) 4-5          | S | 01-21-16 00:00 | 4 - 5 ft   | Not Analyzed |
| BH-8 (AH-15) 6-7          | S | 01-21-16 00:00 | 6 - 7 ft   | Not Analyzed |
| BH-8 (AH-15) 9-10         | S | 01-21-16 00:00 | 9 - 10 ft  | Not Analyzed |
| BH-9 (AH-19 & AH-20) 0-1  | S | 01-21-16 00:00 | 0 - 1 ft   | Not Analyzed |
| BH-9 (AH-19 & AH-20) 4-5  | S | 01-21-16 00:00 | 4 - 5 ft   | Not Analyzed |
| BH-9 (AH-19 & AH-20) 6-7  | S | 01-21-16 00:00 | 6 - 7 ft   | Not Analyzed |
| BH-9 (AH-19 & AH-20) 9-10 | S | 01-21-16 00:00 | 9 - 10 ft  | Not Analyzed |
| BH-12 (AH-22) 0-1         | S | 01-21-16 00:00 | 0 - 1 ft   | Not Analyzed |
| BH-12 (AH-22) 4-5         | S | 01-21-16 00:00 | 4 - 5 ft   | Not Analyzed |
| BH-12 (AH-22) 6-7         | S | 01-21-16 00:00 | 6 - 7 ft   | Not Analyzed |
| BH-12 (AH-22) 9-10        | S | 01-21-16 00:00 | 9 - 10 ft  | Not Analyzed |





## CASE NARRATIVE



*Client Name: Tetra Tech- Midland*

*Project Name: Globe Eunice Yard*

Project ID: 212C-MD-00374  
Work Order Number(s): 523500

Report Date: 24-MAY-16  
Date Received: 01/22/2016

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**Sample receipt non conformances and comments:**

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**Sample receipt non conformances and comments per sample:**

None



# Certificate of Analysis Summary 523500

Tetra Tech- Midland, Midland, TX

Project Name: Globe Eunice Yard



Project Id: 212C-MD-00374

Contact: Ike Tavaréz

Project Location: Lea Co, NM

Date Received in Lab: Fri Jan-22-16 02:05 pm

Report Date: 24-MAY-16

Project Manager: Kelsey Brooks

| <i>Analysis Requested</i>                | <i>Lab Id:</i>    | 523500-001      | 523500-002      | 523500-003      | 523500-004      | 523500-005       | 523500-006        |
|--|-------------------|-----------------|-----------------|-----------------|-----------------|------------------|-------------------|
|  | <i>Field Id:</i>  | BH-1 (AH-6) 0-1 | BH-1 (AH-6) 2-3 | BH-1 (AH-6) 4-5 | BH-1 (AH-6) 6-7 | BH-1 (AH-6) 9-10 | BH-1 (AH-6) 14-15 |
|  | <i>Depth:</i>     | 0-1 ft          | 2-3 ft          | 4-5 ft          | 6-7 ft          | 9-10 ft          | 14-15 ft          |
|  | <i>Matrix:</i>    | SOIL            | SOIL            | SOIL            | SOIL            | SOIL             | SOIL              |
|  | <i>Sampled:</i>   | Jan-20-16 00:00 | Jan-20-16 00:00 | Jan-20-16 00:00 | Jan-20-16 00:00 | Jan-20-16 00:00  | Jan-20-16 00:00   |
| <b>Inorganic Anions by EPA 300/300.1</b> | <i>Extracted:</i> | Jan-28-16 10:00 | Jan-28-16 10:00 | Jan-28-16 10:00 | Jan-28-16 10:00 | Jan-28-16 10:00  | Jan-28-16 10:00   |
|  | <i>Analyzed:</i>  | Jan-29-16 04:00 | Jan-29-16 04:19 | Jan-29-16 11:43 | Jan-29-16 12:01 | Jan-29-16 12:26  | Jan-29-16 12:45   |
|  | <i>Units/RL:</i>  | mg/kg RL        | mg/kg RL        | mg/kg RL        | mg/kg RL        | mg/kg RL         | mg/kg RL          |
| Chloride                                 |                   | 11.4 10.0       | 2740 200        | 8850 400        | 2960 100        | 217 20.0         | 840 40.0          |

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Kelsey Brooks  
Project Manager



# Certificate of Analysis Summary 523500

Tetra Tech- Midland, Midland, TX

Project Name: Globe Eunice Yard



Project Id: 212C-MD-00374

Contact: Ike Tavaréz

Project Location: Lea Co, NM

Date Received in Lab: Fri Jan-22-16 02:05 pm

Report Date: 24-MAY-16

Project Manager: Kelsey Brooks

| <i>Analysis Requested</i>                | <i>Lab Id:</i>    | 523500-007        | 523500-008        | 523500-009      | 523500-010      | 523500-011      | 523500-012      |
|--|-------------------|-------------------|-------------------|-----------------|-----------------|-----------------|-----------------|
|  | <i>Field Id:</i>  | BH-1 (AH-6) 19-20 | BH-1 (AH-6) 24-25 | BH-2 (AH-7) 0-1 | BH-2 (AH-7) 2-3 | BH-2 (AH-7) 4-5 | BH-2 (AH-7) 6-7 |
|  | <i>Depth:</i>     | 19-20 ft          | 24-25 ft          | 0-1 ft          | 2-3 ft          | 4-5 ft          | 6-7 ft          |
|  | <i>Matrix:</i>    | SOIL              | SOIL              | SOIL            | SOIL            | SOIL            | SOIL            |
|  | <i>Sampled:</i>   | Jan-20-16 00:00   | Jan-20-16 00:00   | Jan-20-16 00:00 | Jan-20-16 00:00 | Jan-20-16 00:00 | Jan-20-16 00:00 |
| <b>Inorganic Anions by EPA 300/300.1</b> | <i>Extracted:</i> | Jan-28-16 10:00   | Jan-28-16 10:00   | Jan-28-16 10:00 | Jan-28-16 10:00 | Jan-28-16 10:00 | Jan-28-16 10:00 |
|  | <i>Analyzed:</i>  | Jan-29-16 13:03   | Jan-29-16 13:39   | Jan-29-16 13:57 | Jan-29-16 14:16 | Jan-29-16 14:34 | Jan-29-16 15:28 |
|  | <i>Units/RL:</i>  | mg/kg RL          | mg/kg RL          | mg/kg RL        | mg/kg RL        | mg/kg RL        | mg/kg RL        |
| Chloride                                 |                   | 505 20.0          | 286 40.0          | 2360 200        | 8890 400        | 2030 100        | 619 40.0        |

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Kelsey Brooks  
Project Manager



# Certificate of Analysis Summary 523500

Tetra Tech- Midland, Midland, TX

Project Name: Globe Eunice Yard



Project Id: 212C-MD-00374

Contact: Ike Tavarez

Project Location: Lea Co, NM

Date Received in Lab: Fri Jan-22-16 02:05 pm

Report Date: 24-MAY-16

Project Manager: Kelsey Brooks

| <i>Analysis Requested</i>                | <i>Lab Id:</i>    | 523500-013       | 523500-014        | 523500-015        | 523500-016        | 523500-018      | 523500-022      |
|--|-------------------|------------------|-------------------|-------------------|-------------------|-----------------|-----------------|
|  | <i>Field Id:</i>  | BH-2 (AH-7) 9-10 | BH-2 (AH-7) 14-15 | BH-2 (AH-7) 19-20 | BH-2 (AH-7) 24-25 | BH-3 (AH-8) 2-3 | BH-4 (AH-4) 0-1 |
|  | <i>Depth:</i>     | 9-10 ft          | 14-15 ft          | 19-20 ft          | 24-25 ft          | 2-3 ft          | 0-1 ft          |
|  | <i>Matrix:</i>    | SOIL             | SOIL              | SOIL              | SOIL              | SOIL            | SOIL            |
|  | <i>Sampled:</i>   | Jan-20-16 00:00  | Jan-20-16 00:00   | Jan-20-16 00:00   | Jan-20-16 00:00   | Jan-20-16 00:00 | Jan-20-16 00:00 |
| <b>Inorganic Anions by EPA 300/300.1</b> | <i>Extracted:</i> | Jan-28-16 10:00  | Jan-28-16 10:00   | Jan-28-16 10:00   | Jan-28-16 10:00   |                 | Jan-29-16 09:00 |
|  | <i>Analyzed:</i>  | Jan-29-16 15:47  | Jan-29-16 16:05   | Jan-29-16 16:23   | Jan-29-16 19:44   |                 | Jan-30-16 13:52 |
|  | <i>Units/RL:</i>  | mg/kg RL         | mg/kg RL          | mg/kg RL          | mg/kg RL          |                 | mg/kg RL        |
| Chloride                                 |                   | 338 20.0         | 381 20.0          | 99.0 10.0         | 455 20.0          |                 | 4880 400        |
| <b>TPH By SW8015 Mod</b>                 | <i>Extracted:</i> |                  |                   |                   |                   | Jan-27-16 11:00 |                 |
|  | <i>Analyzed:</i>  |                  |                   |                   |                   | Jan-28-16 18:45 |                 |
|  | <i>Units/RL:</i>  |                  |                   |                   |                   | mg/kg RL        |                 |
| C6-C10 Gasoline Range Hydrocarbons       |                   |                  |                   |                   |                   | ND 14.9         |                 |
| C10-C28 Diesel Range Hydrocarbons        |                   |                  |                   |                   |                   | ND 14.9         |                 |
| Total TPH                                |                   |                  |                   |                   |                   | ND 14.9         |                 |

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Kelsey Brooks  
Project Manager



# Certificate of Analysis Summary 523500

Tetra Tech- Midland, Midland, TX

Project Name: Globe Eunice Yard



Project Id: 212C-MD-00374

Contact: Ike Tavarez

Project Location: Lea Co, NM

Date Received in Lab: Fri Jan-22-16 02:05 pm

Report Date: 24-MAY-16

Project Manager: Kelsey Brooks

|  |                   |                 |                 |                 |                  |                   |                   |
|--|-------------------|-----------------|-----------------|-----------------|------------------|-------------------|-------------------|
| <b>Analysis Requested</b>                | <b>Lab Id:</b>    | 523500-023      | 523500-024      | 523500-025      | 523500-026       | 523500-027        | 523500-028        |
|  | <b>Field Id:</b>  | BH-4 (AH-4) 2-3 | BH-4 (AH-4) 4-5 | BH-4 (AH-4) 6-7 | BH-4 (AH-4) 9-10 | BH-4 (AH-4) 14-15 | BH-4 (AH-4) 19-20 |
|  | <b>Depth:</b>     | 2-3 ft          | 4-5 ft          | 6-7 ft          | 9-10 ft          | 14-15 ft          | 19-20 ft          |
|  | <b>Matrix:</b>    | SOIL            | SOIL            | SOIL            | SOIL             | SOIL              | SOIL              |
|  | <b>Sampled:</b>   | Jan-20-16 00:00 | Jan-20-16 00:00 | Jan-20-16 00:00 | Jan-20-16 00:00  | Jan-20-16 00:00   | Jan-20-16 00:00   |
| <b>Inorganic Anions by EPA 300/300.1</b> | <b>Extracted:</b> | Jan-29-16 09:00 | Jan-29-16 09:00 | Jan-29-16 09:00 | Jan-29-16 09:00  | Jan-29-16 09:00   | Jan-29-16 09:00   |
|  | <b>Analyzed:</b>  | Jan-30-16 14:29 | Jan-30-16 14:47 | Jan-30-16 15:05 | Jan-30-16 15:23  | Jan-30-16 15:42   | Jan-30-16 16:36   |
|  | <b>Units/RL:</b>  | mg/kg RL        | mg/kg RL        | mg/kg RL        | mg/kg RL         | mg/kg RL          | mg/kg RL          |
| Chloride                                 |                   | 6460 400        | 9060 400        | 6570 400        | 10200 400        | 10100 400         | 3780 400          |
| <b>TPH By SW8015 Mod</b>                 | <b>Extracted:</b> |                 | Jan-27-16 11:00 |                 |                  |                   |                   |
|  | <b>Analyzed:</b>  |                 | Jan-28-16 21:35 |                 |                  |                   |                   |
|  | <b>Units/RL:</b>  |                 | mg/kg RL        |                 |                  |                   |                   |
| C6-C10 Gasoline Range Hydrocarbons       |                   |                 | ND 15.0         |                 |                  |                   |                   |
| C10-C28 Diesel Range Hydrocarbons        |                   |                 | ND 15.0         |                 |                  |                   |                   |
| Total TPH                                |                   |                 | ND 15.0         |                 |                  |                   |                   |

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Kelsey Brooks  
Project Manager



# Certificate of Analysis Summary 523500

Tetra Tech- Midland, Midland, TX

Project Name: Globe Eunice Yard



Project Id: 212C-MD-00374

Contact: Ike Tavarez

Project Location: Lea Co, NM

Date Received in Lab: Fri Jan-22-16 02:05 pm

Report Date: 24-MAY-16

Project Manager: Kelsey Brooks

| <i>Analysis Requested</i>                | <i>Lab Id:</i>    | 523500-029        | 523500-030      | 523500-031      | 523500-032      | 523500-033      | 523500-034       |
|--|-------------------|-------------------|-----------------|-----------------|-----------------|-----------------|------------------|
|  | <i>Field Id:</i>  | BH-4 (AH-4) 24-25 | BH-5 (AH-3) 0-1 | BH-5 (AH-3) 2-3 | BH-5 (AH-3) 4-5 | BH-5 (AH-3) 6-7 | BH-5 (AH-3) 9-10 |
|  | <i>Depth:</i>     | 24-25 ft          | 0-1 ft          | 2-3 ft          | 4-5 ft          | 6-7 ft          | 9-10 ft          |
|  | <i>Matrix:</i>    | SOIL              | SOIL            | SOIL            | SOIL            | SOIL            | SOIL             |
|  | <i>Sampled:</i>   | Jan-20-16 00:00   | Jan-20-16 00:00 | Jan-20-16 00:00 | Jan-20-16 00:00 | Jan-20-16 00:00 | Jan-20-16 00:00  |
| <b>Inorganic Anions by EPA 300/300.1</b> | <i>Extracted:</i> | Jan-29-16 09:00   | Jan-29-16 09:00 | Jan-29-16 09:00 | Jan-29-16 09:00 | Jan-29-16 09:00 | Jan-29-16 09:00  |
|  | <i>Analyzed:</i>  | Jan-30-16 16:54   | Jan-30-16 17:13 | Jan-30-16 17:31 | Jan-30-16 17:49 | Jan-30-16 18:26 | Jan-30-16 18:44  |
|  | <i>Units/RL:</i>  | mg/kg RL          | mg/kg RL        | mg/kg RL        | mg/kg RL        | mg/kg RL        | mg/kg RL         |
| Chloride                                 |                   | 1320 100          | 133 20.0        | 7070 400        | 3150 200        | 1340 100        | 234 20.0         |
| <b>TPH By SW8015 Mod</b>                 | <i>Extracted:</i> |                   |                 | Jan-27-16 11:00 |                 |                 |                  |
|  | <i>Analyzed:</i>  |                   |                 | Jan-28-16 18:10 |                 |                 |                  |
|  | <i>Units/RL:</i>  |                   |                 | mg/kg RL        |                 |                 |                  |
| C6-C10 Gasoline Range Hydrocarbons       |                   |                   |                 | ND 15.0         |                 |                 |                  |
| C10-C28 Diesel Range Hydrocarbons        |                   |                   |                 | ND 15.0         |                 |                 |                  |
| Total TPH                                |                   |                   |                 | ND 15.0         |                 |                 |                  |

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Kelsey Brooks  
Project Manager





# Certificate of Analysis Summary 523500

Tetra Tech- Midland, Midland, TX

Project Name: Globe Eunice Yard



Project Id: 212C-MD-00374

Contact: Ike Tavaréz

Project Location: Lea Co, NM

Date Received in Lab: Fri Jan-22-16 02:05 pm

Report Date: 24-MAY-16

Project Manager: Kelsey Brooks

| <i>Analysis Requested</i>                | <i>Lab Id:</i>    | 523500-035        | 523500-036        | 523500-037        | 523500-038      | 523500-039      | 523500-040      |
|--|-------------------|-------------------|-------------------|-------------------|-----------------|-----------------|-----------------|
|  | <i>Field Id:</i>  | BH-5 (AH-3) 14-15 | BH-5 (AH-3) 19-20 | BH-5 (AH-3) 24-25 | BH-6 (AH-1) 0-1 | BH-6 (AH-1) 2-3 | BH-6 (AH-1) 4-5 |
|  | <i>Depth:</i>     | 14-15 ft          | 19-20 ft          | 24-25 ft          | 0-1 ft          | 2-3 ft          | 4-5 ft          |
|  | <i>Matrix:</i>    | SOIL              | SOIL              | SOIL              | SOIL            | SOIL            | SOIL            |
|  | <i>Sampled:</i>   | Jan-20-16 00:00   | Jan-20-16 00:00   | Jan-20-16 00:00   | Jan-21-16 00:00 | Jan-21-16 00:00 | Jan-21-16 00:00 |
| <b>Inorganic Anions by EPA 300/300.1</b> | <i>Extracted:</i> | Jan-29-16 09:00   | Jan-29-16 09:00   | Jan-29-16 09:00   | Jan-29-16 09:00 | Jan-29-16 09:00 | Jan-29-16 09:00 |
|  | <i>Analyzed:</i>  | Jan-30-16 19:02   | Jan-30-16 19:20   | Jan-31-16 11:17   | Jan-31-16 11:35 | Jan-31-16 11:53 | Jan-31-16 12:11 |
|  | <i>Units/RL:</i>  | mg/kg RL          | mg/kg RL          | mg/kg RL          | mg/kg RL        | mg/kg RL        | mg/kg RL        |
| Chloride                                 |                   | 146 10.0          | 44.2 10.0         | 426 20.0          | 525 20.0        | 3700 400        | 7630 400        |

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Kelsey Brooks  
Project Manager



# Certificate of Analysis Summary 523500

Tetra Tech- Midland, Midland, TX

Project Name: Globe Eunice Yard



Project Id: 212C-MD-00374

Contact: Ike Tavaréz

Project Location: Lea Co, NM

Date Received in Lab: Fri Jan-22-16 02:05 pm

Report Date: 24-MAY-16

Project Manager: Kelsey Brooks

| <i>Analysis Requested</i>                | <i>Lab Id:</i>    | 523500-041      | 523500-042       | 523500-043        | 523500-044        | 523500-045        | 523500-046       |
|--|-------------------|-----------------|------------------|-------------------|-------------------|-------------------|------------------|
|  | <i>Field Id:</i>  | BH-6 (AH-1) 6-7 | BH-6 (AH-1) 9-10 | BH-6 (AH-1) 14-15 | BH-6 (AH-1) 19-20 | BH-6 (AH-1) 24-25 | BH-7 (AH-14) 0-1 |
|  | <i>Depth:</i>     | 6-7 ft          | 9-10 ft          | 14-15 ft          | 19-20 ft          | 24-25 ft          | 0-1 ft           |
|  | <i>Matrix:</i>    | SOIL            | SOIL             | SOIL              | SOIL              | SOIL              | SOIL             |
|  | <i>Sampled:</i>   | Jan-21-16 00:00 | Jan-21-16 00:00  | Jan-21-16 00:00   | Jan-21-16 00:00   | Jan-21-16 00:00   | Jan-21-16 00:00  |
| <b>Inorganic Anions by EPA 300/300.1</b> | <i>Extracted:</i> | Jan-29-16 09:00 | Jan-29-16 12:00  | Jan-29-16 12:00   | Jan-29-16 12:00   | Jan-29-16 12:00   | Jan-29-16 12:00  |
|  | <i>Analyzed:</i>  | Jan-31-16 12:30 | Jan-31-16 13:42  | Jan-31-16 14:56   | Jan-31-16 15:14   | Jan-31-16 15:32   | Jan-31-16 15:50  |
|  | <i>Units/RL:</i>  | mg/kg RL        | mg/kg RL         | mg/kg RL          | mg/kg RL          | mg/kg RL          | mg/kg RL         |
| Chloride                                 |                   | 1920 100        | 1620 100         | 720 40.0          | 235 20.0          | 370 20.0          | 15.3 2.00        |

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Kelsey Brooks  
Project Manager



# Certificate of Analysis Summary 523500

Tetra Tech- Midland, Midland, TX

Project Name: Globe Eunice Yard



Project Id: 212C-MD-00374

Contact: Ike Tavarez

Project Location: Lea Co, NM

Date Received in Lab: Fri Jan-22-16 02:05 pm

Report Date: 24-MAY-16

Project Manager: Kelsey Brooks

|  |                   |                  |                  |                  |                          |                   |                   |
|--|-------------------|------------------|------------------|------------------|--------------------------|-------------------|-------------------|
| <b>Analysis Requested</b>                | <b>Lab Id:</b>    | 523500-047       | 523500-048       | 523500-050       | 523500-055               | 523500-059        | 523500-060        |
|  | <b>Field Id:</b>  | BH-7 (AH-14) 2-3 | BH-7 (AH-14) 4-5 | BH-8 (AH-15) 2-3 | BH-9 (AH-19 & AH-20) 2-3 | BH-10 (AH-17) 0-1 | BH-10 (AH-17) 2-3 |
|  | <b>Depth:</b>     | 2-3 ft           | 4-5 ft           | 2-3 ft           | 2-3 ft                   | 0-1 ft            | 2-3 ft            |
|  | <b>Matrix:</b>    | SOIL             | SOIL             | SOIL             | SOIL                     | SOIL              | SOIL              |
|  | <b>Sampled:</b>   | Jan-21-16 00:00  | Jan-21-16 00:00  | Jan-21-16 00:00  | Jan-21-16 00:00          | Jan-21-16 00:00   | Jan-21-16 00:00   |
| <b>Inorganic Anions by EPA 300/300.1</b> | <b>Extracted:</b> | Jan-29-16 12:00  | Jan-29-16 12:00  |                  |                          | Jan-29-16 12:00   | Jan-29-16 12:00   |
|  | <b>Analyzed:</b>  | Jan-31-16 16:08  | Jan-31-16 16:27  |                  |                          | Jan-31-16 16:45   | Jan-31-16 17:03   |
|  | <b>Units/RL:</b>  | mg/kg RL         | mg/kg RL         |                  |                          | mg/kg RL          | mg/kg RL          |
| Chloride                                 |                   | 41.5 10.0        | 8.38 2.00        |                  |                          | 131 10.0          | 4210 400          |
| <b>TPH By SW8015 Mod</b>                 | <b>Extracted:</b> |                  |                  | Jan-27-16 11:00  | Jan-27-16 11:00          |                   | Jan-27-16 11:00   |
|  | <b>Analyzed:</b>  |                  |                  | Jan-28-16 20:27  | Jan-28-16 19:20          |                   | Jan-28-16 21:04   |
|  | <b>Units/RL:</b>  |                  |                  | mg/kg RL         | mg/kg RL                 |                   | mg/kg RL          |
| C6-C10 Gasoline Range Hydrocarbons       |                   |                  |                  | ND 14.9          | ND 15.0                  |                   | ND 15.0           |
| C10-C28 Diesel Range Hydrocarbons        |                   |                  |                  | ND 14.9          | ND 15.0                  |                   | ND 15.0           |
| Total TPH                                |                   |                  |                  | ND 14.9          | ND 15.0                  |                   | ND 15.0           |

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Kelsey Brooks  
Project Manager



# Certificate of Analysis Summary 523500

Tetra Tech- Midland, Midland, TX

Project Name: Globe Eunice Yard



Project Id: 212C-MD-00374

Contact: Ike Tavaréz

Project Location: Lea Co, NM

Date Received in Lab: Fri Jan-22-16 02:05 pm

Report Date: 24-MAY-16

Project Manager: Kelsey Brooks

| <i>Analysis Requested</i>                | <i>Lab Id:</i>    | 523500-061        | 523500-062        | 523500-063         | 523500-064          | 523500-065          | 523500-066          |
|--|-------------------|-------------------|-------------------|--------------------|---------------------|---------------------|---------------------|
|  | <i>Field Id:</i>  | BH-10 (AH-17) 4-5 | BH-10 (AH-17) 6-7 | BH-10 (AH-17) 9-10 | BH-10 (AH-17) 14-15 | BH-10 (AH-17) 19-20 | BH-10 (AH-17) 24-25 |
|  | <i>Depth:</i>     | 4-5 ft            | 6-7 ft            | 9-10 ft            | 14-15 ft            | 19-20 ft            | 24-25 ft            |
|  | <i>Matrix:</i>    | SOIL              | SOIL              | SOIL               | SOIL                | SOIL                | SOIL                |
|  | <i>Sampled:</i>   | Jan-21-16 00:00   | Jan-21-16 00:00   | Jan-21-16 00:00    | Jan-21-16 00:00     | Jan-21-16 00:00     | Jan-21-16 00:00     |
| <b>Inorganic Anions by EPA 300/300.1</b> | <i>Extracted:</i> | Jan-29-16 12:00   | Jan-29-16 12:00   | Jan-29-16 12:00    | Jan-29-16 12:00     | Jan-29-16 12:00     | Jan-29-16 12:00     |
|  | <i>Analyzed:</i>  | Jan-31-16 17:21   | Jan-31-16 17:39   | Jan-31-16 18:52    | Jan-31-16 19:11     | Jan-31-16 19:29     | Jan-31-16 19:47     |
|  | <i>Units/RL:</i>  | mg/kg RL          | mg/kg RL          | mg/kg RL           | mg/kg RL            | mg/kg RL            | mg/kg RL            |
| Chloride                                 |                   | 259 20.0          | 128 10.0          | 254 20.0           | 196 10.0            | 50.8 10.0           | 76.1 10.0           |

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Kelsey Brooks  
Project Manager



# Certificate of Analysis Summary 523500

Tetra Tech- Midland, Midland, TX

Project Name: Globe Eunice Yard



Project Id: 212C-MD-00374

Contact: Ike Tavaréz

Project Location: Lea Co, NM

Date Received in Lab: Fri Jan-22-16 02:05 pm

Report Date: 24-MAY-16

Project Manager: Kelsey Brooks

| <i>Analysis Requested</i>                | <i>Lab Id:</i>    | 523500-067        | 523500-068        | 523500-069        | 523500-070        | 523500-071         | 523500-072          |
|--|-------------------|-------------------|-------------------|-------------------|-------------------|--------------------|---------------------|
|  | <i>Field Id:</i>  | BH-11 (AH-21) 0-1 | BH-11 (AH-21) 2-3 | BH-11 (AH-21) 4-5 | BH-11 (AH-21) 6-7 | BH-11 (AH-21) 9-10 | BH-11 (AH-21) 14-15 |
|  | <i>Depth:</i>     | 0-1 ft            | 2-3 ft            | 4-5 ft            | 6-7 ft            | 9-10 ft            | 14-15 ft            |
|  | <i>Matrix:</i>    | SOIL              | SOIL              | SOIL              | SOIL              | SOIL               | SOIL                |
|  | <i>Sampled:</i>   | Jan-21-16 00:00   | Jan-21-16 00:00   | Jan-21-16 00:00   | Jan-21-16 00:00   | Jan-21-16 00:00    | Jan-21-16 00:00     |
| <b>Inorganic Anions by EPA 300/300.1</b> | <i>Extracted:</i> | Jan-29-16 12:00   | Jan-29-16 15:00   | Jan-29-16 15:00   | Jan-29-16 15:00   | Jan-29-16 15:00    | Jan-29-16 15:00     |
|  | <i>Analyzed:</i>  | Jan-31-16 20:05   | Jan-31-16 21:18   | Jan-31-16 22:32   | Jan-31-16 22:50   | Jan-31-16 23:08    | Jan-31-16 23:26     |
|  | <i>Units/RL:</i>  | mg/kg RL          | mg/kg RL          | mg/kg RL          | mg/kg RL          | mg/kg RL           | mg/kg RL            |
| Chloride                                 |                   | ND 2.00           | 4170 400          | 82.2 10.0         | 14.3 2.00         | 78.0 2.00          | 40.7 2.00           |

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Kelsey Brooks  
Project Manager



# Certificate of Analysis Summary 523500

Tetra Tech- Midland, Midland, TX

Project Name: Globe Eunice Yard



Project Id: 212C-MD-00374

Contact: Ike Tavarez

Project Location: Lea Co, NM

Date Received in Lab: Fri Jan-22-16 02:05 pm

Report Date: 24-MAY-16

Project Manager: Kelsey Brooks

|  |                   |                     |                   |  |  |  |  |
|--|-------------------|---------------------|-------------------|--|--|--|--|
| <b>Analysis Requested</b>                | <b>Lab Id:</b>    | 523500-073          | 523500-075        |  |  |  |  |
|  | <b>Field Id:</b>  | BH-11 (AH-21) 19-20 | BH-12 (AH-22) 2-3 |  |  |  |  |
|  | <b>Depth:</b>     | 19-20 ft            | 2-3 ft            |  |  |  |  |
|  | <b>Matrix:</b>    | SOIL                | SOIL              |  |  |  |  |
|  | <b>Sampled:</b>   | Jan-21-16 00:00     | Jan-21-16 00:00   |  |  |  |  |
| <b>Inorganic Anions by EPA 300/300.1</b> | <b>Extracted:</b> | Jan-29-16 15:00     |                   |  |  |  |  |
|  | <b>Analyzed:</b>  | Jan-31-16 23:44     |                   |  |  |  |  |
|  | <b>Units/RL:</b>  | mg/kg RL            |                   |  |  |  |  |
| Chloride                                 |                   | 69.5 2.00           |                   |  |  |  |  |
| <b>TPH By SW8015 Mod</b>                 | <b>Extracted:</b> |                     | Jan-27-16 11:00   |  |  |  |  |
|  | <b>Analyzed:</b>  |                     | Jan-28-16 19:54   |  |  |  |  |
|  | <b>Units/RL:</b>  |                     | mg/kg RL          |  |  |  |  |
| C6-C10 Gasoline Range Hydrocarbons       |                   |                     | ND 15.0           |  |  |  |  |
| C10-C28 Diesel Range Hydrocarbons        |                   |                     | ND 15.0           |  |  |  |  |
| Total TPH                                |                   |                     | ND 15.0           |  |  |  |  |

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Kelsey Brooks  
Project Manager

- X** In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.
- B** A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.
- D** The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.
- E** The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.
- F** RPD exceeded lab control limits.
- J** The target analyte was positively identified below the quantitation limit and above the detection limit.
- U** Analyte was not detected.
- L** The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.
- H** The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.
- K** Sample analyzed outside of recommended hold time.
- JN** A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

\*\* Surrogate recovered outside laboratory control limit.

**BRL** Below Reporting Limit.

**RL** Reporting Limit

**MDL** Method Detection Limit      **SDL** Sample Detection Limit      **LOD** Limit of Detection

**PQL** Practical Quantitation Limit      **SQL** Method Quantitation Limit      **LOQ** Limit of Quantitation

**DL** Method Detection Limit

**NC** Non-Calculable

+ NELAC certification not offered for this compound.

\* (Next to analyte name or method description) = Outside XENCO's scope of NELAC accreditation

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| (602) 437-0330 |                |





## Form 2 - Surrogate Recoveries

Project Name: Globe Eunice Yard

Work Orders : 523500, 523500

Project ID: 212C-MD-00374

Lab Batch #: 986710

Sample: 523500-031 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 01/28/16 18:10

### SURROGATE RECOVERY STUDY

| TPH By SW8015 Mod<br>Analytes | Amount Found<br>[A] | True Amount<br>[B] | Recovery<br>%R<br>[D] | Control Limits<br>%R | Flags |
|-------------------------------|---------------------|--------------------|-----------------------|----------------------|-------|
| 1-Chlorooctane                | 76.9                | 99.9               | 77                    | 70-135               |       |
| o-Terphenyl                   | 37.8                | 50.0               | 76                    | 70-135               |       |

Lab Batch #: 986710

Sample: 523500-018 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 01/28/16 18:45

### SURROGATE RECOVERY STUDY

| TPH By SW8015 Mod<br>Analytes | Amount Found<br>[A] | True Amount<br>[B] | Recovery<br>%R<br>[D] | Control Limits<br>%R | Flags |
|-------------------------------|---------------------|--------------------|-----------------------|----------------------|-------|
| 1-Chlorooctane                | 81.1                | 99.6               | 81                    | 70-135               |       |
| o-Terphenyl                   | 40.1                | 49.8               | 81                    | 70-135               |       |

Lab Batch #: 986710

Sample: 523500-055 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 01/28/16 19:20

### SURROGATE RECOVERY STUDY

| TPH By SW8015 Mod<br>Analytes | Amount Found<br>[A] | True Amount<br>[B] | Recovery<br>%R<br>[D] | Control Limits<br>%R | Flags |
|-------------------------------|---------------------|--------------------|-----------------------|----------------------|-------|
| 1-Chlorooctane                | 76.5                | 99.8               | 77                    | 70-135               |       |
| o-Terphenyl                   | 38.3                | 49.9               | 77                    | 70-135               |       |

Lab Batch #: 986710

Sample: 523500-075 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 01/28/16 19:54

### SURROGATE RECOVERY STUDY

| TPH By SW8015 Mod<br>Analytes | Amount Found<br>[A] | True Amount<br>[B] | Recovery<br>%R<br>[D] | Control Limits<br>%R | Flags |
|-------------------------------|---------------------|--------------------|-----------------------|----------------------|-------|
| 1-Chlorooctane                | 85.3                | 99.9               | 85                    | 70-135               |       |
| o-Terphenyl                   | 42.0                | 50.0               | 84                    | 70-135               |       |

Lab Batch #: 986710

Sample: 523500-050 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 01/28/16 20:27

### SURROGATE RECOVERY STUDY

| TPH By SW8015 Mod<br>Analytes | Amount Found<br>[A] | True Amount<br>[B] | Recovery<br>%R<br>[D] | Control Limits<br>%R | Flags |
|-------------------------------|---------------------|--------------------|-----------------------|----------------------|-------|
| 1-Chlorooctane                | 84.2                | 99.6               | 85                    | 70-135               |       |
| o-Terphenyl                   | 41.7                | 49.8               | 84                    | 70-135               |       |

\* Surrogate outside of Laboratory QC limits

\*\* Surrogates outside limits; data and surrogates confirmed by reanalysis

\*\*\* Poor recoveries due to dilution

Surrogate Recovery [D] =  $100 * A / B$

All results are based on MDL and validated for QC purposes.



## Form 2 - Surrogate Recoveries

Project Name: Globe Eunice Yard

Work Orders : 523500, 523500

Project ID: 212C-MD-00374

Lab Batch #: 986710

Sample: 523500-060 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 01/28/16 21:04

### SURROGATE RECOVERY STUDY

| TPH By SW8015 Mod<br>Analytes | Amount Found<br>[A] | True Amount<br>[B] | Recovery<br>%R<br>[D] | Control Limits<br>%R | Flags |
|-------------------------------|---------------------|--------------------|-----------------------|----------------------|-------|
| 1-Chlorooctane                | 79.3                | 100                | 79                    | 70-135               |       |
| o-Terphenyl                   | 39.1                | 50.0               | 78                    | 70-135               |       |

Lab Batch #: 986710

Sample: 523500-024 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 01/28/16 21:35

### SURROGATE RECOVERY STUDY

| TPH By SW8015 Mod<br>Analytes | Amount Found<br>[A] | True Amount<br>[B] | Recovery<br>%R<br>[D] | Control Limits<br>%R | Flags |
|-------------------------------|---------------------|--------------------|-----------------------|----------------------|-------|
| 1-Chlorooctane                | 70.1                | 99.8               | 70                    | 70-135               |       |
| o-Terphenyl                   | 35.1                | 49.9               | 70                    | 70-135               |       |

Lab Batch #: 986710

Sample: 704112-1-BLK / BLK

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 01/28/16 12:07

### SURROGATE RECOVERY STUDY

| TPH By SW8015 Mod<br>Analytes | Amount Found<br>[A] | True Amount<br>[B] | Recovery<br>%R<br>[D] | Control Limits<br>%R | Flags |
|-------------------------------|---------------------|--------------------|-----------------------|----------------------|-------|
| 1-Chlorooctane                | 99.4                | 100                | 99                    | 70-135               |       |
| o-Terphenyl                   | 49.8                | 50.0               | 100                   | 70-135               |       |

Lab Batch #: 986710

Sample: 704112-1-BKS / BKS

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 01/28/16 12:35

### SURROGATE RECOVERY STUDY

| TPH By SW8015 Mod<br>Analytes | Amount Found<br>[A] | True Amount<br>[B] | Recovery<br>%R<br>[D] | Control Limits<br>%R | Flags |
|-------------------------------|---------------------|--------------------|-----------------------|----------------------|-------|
| 1-Chlorooctane                | 104                 | 100                | 104                   | 70-135               |       |
| o-Terphenyl                   | 46.2                | 50.0               | 92                    | 70-135               |       |

Lab Batch #: 986710

Sample: 704112-1-BSD / BSD

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 01/28/16 13:02

### SURROGATE RECOVERY STUDY

| TPH By SW8015 Mod<br>Analytes | Amount Found<br>[A] | True Amount<br>[B] | Recovery<br>%R<br>[D] | Control Limits<br>%R | Flags |
|-------------------------------|---------------------|--------------------|-----------------------|----------------------|-------|
| 1-Chlorooctane                | 95.9                | 100                | 96                    | 70-135               |       |
| o-Terphenyl                   | 42.2                | 50.0               | 84                    | 70-135               |       |

\* Surrogate outside of Laboratory QC limits

\*\* Surrogates outside limits; data and surrogates confirmed by reanalysis

\*\*\* Poor recoveries due to dilution

Surrogate Recovery [D] =  $100 * A / B$

All results are based on MDL and validated for QC purposes.



## Form 2 - Surrogate Recoveries

Project Name: Globe Eunice Yard

Work Orders : 523500, 523500

Project ID: 212C-MD-00374

Lab Batch #: 986710

Sample: 523500-024 S / MS

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 01/28/16 22:09

### SURROGATE RECOVERY STUDY

| TPH By SW8015 Mod<br>Analytes | Amount Found<br>[A] | True Amount<br>[B] | Recovery<br>%R<br>[D] | Control Limits<br>%R | Flags |
|-------------------------------|---------------------|--------------------|-----------------------|----------------------|-------|
| 1-Chlorooctane                | 82.4                | 99.9               | 82                    | 70-135               |       |
| o-Terphenyl                   | 36.2                | 50.0               | 72                    | 70-135               |       |

Lab Batch #: 986710

Sample: 523500-024 SD / MSD

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 01/28/16 22:42

### SURROGATE RECOVERY STUDY

| TPH By SW8015 Mod<br>Analytes | Amount Found<br>[A] | True Amount<br>[B] | Recovery<br>%R<br>[D] | Control Limits<br>%R | Flags |
|-------------------------------|---------------------|--------------------|-----------------------|----------------------|-------|
| 1-Chlorooctane                | 96.5                | 99.7               | 97                    | 70-135               |       |
| o-Terphenyl                   | 41.9                | 49.9               | 84                    | 70-135               |       |

\* Surrogate outside of Laboratory QC limits

\*\* Surrogates outside limits; data and surrogates confirmed by reanalysis

\*\*\* Poor recoveries due to dilution

Surrogate Recovery [D] =  $100 * A / B$

All results are based on MDL and validated for QC purposes.



# BS / BSD Recoveries



Project Name: Globe Eunice Yard

Work Order #: 523500, 523500

Project ID: 212C-MD-00374

Analyst: MNR

Date Prepared: 01/28/2016

Date Analyzed: 01/29/2016

Lab Batch ID: 986839

Sample: 704137-1-BKS

Batch #: 1

Matrix: Solid

Units: mg/kg

## BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

| Inorganic Anions by EPA 300/300.1 | Blank Sample Result [A] | Spike Added [B] | Blank Spike Result [C] | Blank Spike %R [D] | Spike Added [E] | Blank Spike Duplicate Result [F] | Blk. Spk Dup. %R [G] | RPD % | Control Limits %R | Control Limits %RPD | Flag |
|-----------------------------------|-------------------------|-----------------|------------------------|--------------------|-----------------|----------------------------------|----------------------|-------|-------------------|---------------------|------|
| Analytes                          |                         |                 |                        |                    |                 |                                  |                      |       |                   |                     |      |
| Chloride                          | <2.00                   | 50.0            | 46.7                   | 93                 | 50.0            | 47.1                             | 94                   | 1     | 90-110            | 20                  |      |

Analyst: MNR

Date Prepared: 01/29/2016

Date Analyzed: 01/30/2016

Lab Batch ID: 986872

Sample: 704166-1-BKS

Batch #: 1

Matrix: Solid

Units: mg/kg

## BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

| Inorganic Anions by EPA 300/300.1 | Blank Sample Result [A] | Spike Added [B] | Blank Spike Result [C] | Blank Spike %R [D] | Spike Added [E] | Blank Spike Duplicate Result [F] | Blk. Spk Dup. %R [G] | RPD % | Control Limits %R | Control Limits %RPD | Flag |
|-----------------------------------|-------------------------|-----------------|------------------------|--------------------|-----------------|----------------------------------|----------------------|-------|-------------------|---------------------|------|
| Analytes                          |                         |                 |                        |                    |                 |                                  |                      |       |                   |                     |      |
| Chloride                          | <2.00                   | 50.0            | 46.6                   | 93                 | 50.0            | 46.2                             | 92                   | 1     | 90-110            | 20                  |      |

Analyst: MNR

Date Prepared: 01/29/2016

Date Analyzed: 01/31/2016

Lab Batch ID: 986875

Sample: 704168-1-BKS

Batch #: 1

Matrix: Solid

Units: mg/kg

## BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

| Inorganic Anions by EPA 300/300.1 | Blank Sample Result [A] | Spike Added [B] | Blank Spike Result [C] | Blank Spike %R [D] | Spike Added [E] | Blank Spike Duplicate Result [F] | Blk. Spk Dup. %R [G] | RPD % | Control Limits %R | Control Limits %RPD | Flag |
|-----------------------------------|-------------------------|-----------------|------------------------|--------------------|-----------------|----------------------------------|----------------------|-------|-------------------|---------------------|------|
| Analytes                          |                         |                 |                        |                    |                 |                                  |                      |       |                   |                     |      |
| Chloride                          | <2.00                   | 50.0            | 50.7                   | 101                | 50.0            | 47.3                             | 95                   | 7     | 90-110            | 20                  |      |

Relative Percent Difference RPD =  $200 * |(C-F)/(C+F)|$

Blank Spike Recovery [D] =  $100 * (C)/[B]$

Blank Spike Duplicate Recovery [G] =  $100 * (F)/[E]$

All results are based on MDL and Validated for QC Purposes



## BS / BSD Recoveries



**Project Name: Globe Eunice Yard**

**Work Order #:** 523500, 523500

**Project ID:** 212C-MD-00374

**Analyst:** MNR

**Date Prepared:** 01/29/2016

**Date Analyzed:** 01/31/2016

**Lab Batch ID:** 986876

**Sample:** 704169-1-BKS

**Batch #:** 1

**Matrix:** Solid

**Units:** mg/kg

### BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

| Inorganic Anions by EPA 300/300.1 | Blank<br>Sample Result<br>[A] | Spike<br>Added<br>[B] | Blank<br>Spike<br>Result<br>[C] | Blank<br>Spike<br>%R<br>[D] | Spike<br>Added<br>[E] | Blank<br>Spike<br>Duplicate<br>Result [F] | Blk. Spk<br>Dup.<br>%R<br>[G] | RPD<br>% | Control<br>Limits<br>%R | Control<br>Limits<br>%RPD | Flag |
|-----------------------------------|-------------------------------|-----------------------|---------------------------------|-----------------------------|-----------------------|---|-------------------------------|----------|-------------------------|---------------------------|------|
| Analytes                          |                               |                       |                                 |                             |                       |   |                               |          |                         |                           |      |
| Chloride                          | <2.00                         | 50.0                  | 46.8                            | 94                          | 50.0                  | 46.6                                      | 93                            | 0        | 90-110                  | 20                        |      |

**Analyst:** PJB

**Date Prepared:** 01/27/2016

**Date Analyzed:** 01/28/2016

**Lab Batch ID:** 986710

**Sample:** 704112-1-BKS

**Batch #:** 1

**Matrix:** Solid

**Units:** mg/kg

### BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

| TPH By SW8015 Mod                  | Blank<br>Sample Result<br>[A] | Spike<br>Added<br>[B] | Blank<br>Spike<br>Result<br>[C] | Blank<br>Spike<br>%R<br>[D] | Spike<br>Added<br>[E] | Blank<br>Spike<br>Duplicate<br>Result [F] | Blk. Spk<br>Dup.<br>%R<br>[G] | RPD<br>% | Control<br>Limits<br>%R | Control<br>Limits<br>%RPD | Flag |
|------------------------------------|-------------------------------|-----------------------|---------------------------------|-----------------------------|-----------------------|---|-------------------------------|----------|-------------------------|---------------------------|------|
| Analytes                           |                               |                       |                                 |                             |                       |   |                               |          |                         |                           |      |
| C6-C10 Gasoline Range Hydrocarbons | <15.0                         | 1000                  | 913                             | 91                          | 1000                  | 859                                       | 86                            | 6        | 70-135                  | 35                        |      |
| C10-C28 Diesel Range Hydrocarbons  | <15.0                         | 1000                  | 991                             | 99                          | 1000                  | 925                                       | 93                            | 7        | 70-135                  | 35                        |      |

Relative Percent Difference RPD =  $200 * |(C-F)/(C+F)|$

Blank Spike Recovery [D] =  $100 * (C)/[B]$

Blank Spike Duplicate Recovery [G] =  $100 * (F)/[E]$

All results are based on MDL and Validated for QC Purposes



# Form 3 - MS Recoveries

Project Name: Globe Eunice Yard



Work Order #: 523500

Lab Batch #: 986839

Date Analyzed: 01/29/2016

QC- Sample ID: 523498-024 S

Reporting Units: mg/kg

Date Prepared: 01/28/2016

Batch #: 1

Project ID: 212C-MD-00374

Analyst: MNR

Matrix: Soil

| MATRIX / MATRIX SPIKE RECOVERY STUDY |                          |                 |                          |        |                   |      |
|--------------------------------------|--------------------------|-----------------|--------------------------|--------|-------------------|------|
| Inorganic Anions by EPA 300          | Parent Sample Result [A] | Spike Added [B] | Spiked Sample Result [C] | %R [D] | Control Limits %R | Flag |
| Analytes                             |                          |                 |                          |        |                   |      |
| Chloride                             | 18.8                     | 50.0            | 63.5                     | 89     | 80-120            |      |

Lab Batch #: 986839

Date Analyzed: 01/29/2016

QC- Sample ID: 523500-007 S

Reporting Units: mg/kg

Date Prepared: 01/28/2016

Batch #: 1

Analyst: MNR

Matrix: Soil

| MATRIX / MATRIX SPIKE RECOVERY STUDY |                          |                 |                          |        |                   |      |
|--------------------------------------|--------------------------|-----------------|--------------------------|--------|-------------------|------|
| Inorganic Anions by EPA 300          | Parent Sample Result [A] | Spike Added [B] | Spiked Sample Result [C] | %R [D] | Control Limits %R | Flag |
| Analytes                             |                          |                 |                          |        |                   |      |
| Chloride                             | 505                      | 500             | 979                      | 95     | 80-120            |      |

Lab Batch #: 986872

Date Analyzed: 01/30/2016

QC- Sample ID: 523500-022 S

Reporting Units: mg/kg

Date Prepared: 01/29/2016

Batch #: 1

Analyst: MNR

Matrix: Soil

| MATRIX / MATRIX SPIKE RECOVERY STUDY |                          |                 |                          |        |                   |      |
|--------------------------------------|--------------------------|-----------------|--------------------------|--------|-------------------|------|
| Inorganic Anions by EPA 300          | Parent Sample Result [A] | Spike Added [B] | Spiked Sample Result [C] | %R [D] | Control Limits %R | Flag |
| Analytes                             |                          |                 |                          |        |                   |      |
| Chloride                             | 4880                     | 10000           | 13900                    | 90     | 80-120            |      |

Lab Batch #: 986872

Date Analyzed: 01/30/2016

QC- Sample ID: 523500-032 S

Reporting Units: mg/kg

Date Prepared: 01/29/2016

Batch #: 1

Analyst: MNR

Matrix: Soil

| MATRIX / MATRIX SPIKE RECOVERY STUDY |                          |                 |                          |        |                   |      |
|--------------------------------------|--------------------------|-----------------|--------------------------|--------|-------------------|------|
| Inorganic Anions by EPA 300          | Parent Sample Result [A] | Spike Added [B] | Spiked Sample Result [C] | %R [D] | Control Limits %R | Flag |
| Analytes                             |                          |                 |                          |        |                   |      |
| Chloride                             | 3150                     | 5000            | 7990                     | 97     | 80-120            |      |

Matrix Spike Percent Recovery [D] =  $100 \times (C-A)/B$   
Relative Percent Difference [E] =  $200 \times (C-A)/(C+B)$   
All Results are based on MDL and Validated for QC Purposes

BRL - Below Reporting Limit



# Form 3 - MS Recoveries

Project Name: Globe Eunice Yard



Work Order #: 523500

Lab Batch #: 986875

Date Analyzed: 01/31/2016

QC- Sample ID: 523500-042 S

Reporting Units: mg/kg

Date Prepared: 01/29/2016

Batch #: 1

Project ID: 212C-MD-00374

Analyst: MNR

Matrix: Soil

| MATRIX / MATRIX SPIKE RECOVERY STUDY |                          |                 |                          |        |                   |      |
|--------------------------------------|--------------------------|-----------------|--------------------------|--------|-------------------|------|
| Inorganic Anions by EPA 300          | Parent Sample Result [A] | Spike Added [B] | Spiked Sample Result [C] | %R [D] | Control Limits %R | Flag |
| Analytes                             |                          |                 |                          |        |                   |      |
| Chloride                             | 1620                     | 2500            | 4240                     | 105    | 80-120            |      |

Lab Batch #: 986875

Date Analyzed: 01/31/2016

QC- Sample ID: 523500-062 S

Reporting Units: mg/kg

Date Prepared: 01/29/2016

Batch #: 1

Analyst: MNR

Matrix: Soil

| MATRIX / MATRIX SPIKE RECOVERY STUDY |                          |                 |                          |        |                   |      |
|--------------------------------------|--------------------------|-----------------|--------------------------|--------|-------------------|------|
| Inorganic Anions by EPA 300          | Parent Sample Result [A] | Spike Added [B] | Spiked Sample Result [C] | %R [D] | Control Limits %R | Flag |
| Analytes                             |                          |                 |                          |        |                   |      |
| Chloride                             | 128                      | 250             | 371                      | 97     | 80-120            |      |

Lab Batch #: 986876

Date Analyzed: 01/31/2016

QC- Sample ID: 523500-068 S

Reporting Units: mg/kg

Date Prepared: 01/29/2016

Batch #: 1

Analyst: MNR

Matrix: Soil

| MATRIX / MATRIX SPIKE RECOVERY STUDY |                          |                 |                          |        |                   |      |
|--------------------------------------|--------------------------|-----------------|--------------------------|--------|-------------------|------|
| Inorganic Anions by EPA 300          | Parent Sample Result [A] | Spike Added [B] | Spiked Sample Result [C] | %R [D] | Control Limits %R | Flag |
| Analytes                             |                          |                 |                          |        |                   |      |
| Chloride                             | 4170                     | 10000           | 14100                    | 99     | 80-120            |      |

Matrix Spike Percent Recovery [D] =  $100 \times (C-A)/B$   
Relative Percent Difference [E] =  $200 \times (C-A)/(C+B)$   
All Results are based on MDL and Validated for QC Purposes

BRL - Below Reporting Limit





# Form 3 - MS / MSD Recoveries



Project Name: Globe Eunice Yard

Work Order # : 523500

Project ID: 212C-MD-00374

Lab Batch ID: 986710

QC- Sample ID: 523500-024 S

Batch #: 1 Matrix: Soil

Date Analyzed: 01/28/2016

Date Prepared: 01/27/2016

Analyst: PJB

Reporting Units: mg/kg

## MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

| TPH By SW8015 Mod<br>Analytes      | Parent<br>Sample<br>Result<br>[A] | Spike<br>Added<br>[B] | Spiked Sample<br>Result<br>[C] | Spiked<br>Sample<br>%R<br>[D] | Spike<br>Added<br>[E] | Duplicate<br>Spiked Sample<br>Result [F] | Spiked<br>Dup.<br>%R<br>[G] | RPD<br>% | Control<br>Limits<br>%R | Control<br>Limits<br>%RPD | Flag |
|------------------------------------|-----------------------------------|-----------------------|--------------------------------|-------------------------------|-----------------------|--|-----------------------------|----------|-------------------------|---------------------------|------|
| C6-C10 Gasoline Range Hydrocarbons | <15.0                             | 999                   | 827                            | 83                            | 997                   | 880                                      | 88                          | 6        | 70-135                  | 35                        |      |
| C10-C28 Diesel Range Hydrocarbons  | <15.0                             | 999                   | 808                            | 81                            | 997                   | 946                                      | 95                          | 16       | 70-135                  | 35                        |      |

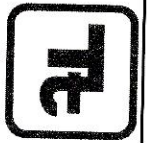
Matrix Spike Percent Recovery  $[D] = 100 * (C - A) / B$   
Relative Percent Difference  $RPD = 200 * |(C - F) / (C + F)|$

Matrix Spike Duplicate Percent Recovery  $[G] = 100 * (F - A) / E$

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not Applicable

N = See Narrative, EQL = Estimated Quantitation Limit, NC = Non Calculable - Sample amount is > 4 times the amount spiked.

# Analysis Request of Chain of Custody Record



**TETRA TECH**

1910 N. Big Spring St.  
Midland, Texas 79705  
(432) 682-4559 • Fax (432) 682-3946

503500

CLIENT NAME:

SITE MANAGER:

PROJECT NO.:

PROJECT NAME:

LAB I.D. NUMBER

DATE

TIME

MATRIX

COMP.

GRAB

SAMPLE IDENTIFICATION

NUMBER OF CONTAINERS

FILTERED (Y/N)

PRESERVATIVE METHOD

DATE

TIME

MATRIX

COMP.

GRAB

SAMPLE IDENTIFICATION

NUMBER OF CONTAINERS

FILTERED (Y/N)

PRESERVATIVE METHOD

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GRAB

SAMPLE IDENTIFICATION

NUMBER OF CONTAINERS

FILTERED (Y/N)

PRESERVATIVE METHOD

DATE

TIME

Please fill out all copies - Laboratory retains Yellow copy - Return Original copy to Tetra Tech - Project Manager retains Pink copy - Accounting receives Gold copy.

PAGE: 1

OF: 3

ANALYSIS REQUEST  
(Circle or Specify Method No.)

- BTEX 8021B
- TPH 8015 MOD. TX1005 (Ext. to C35)
- PAH 8270
- RCRA Metals Ag As Ba Cd Cr Pb Hg Se
- TCLP Metals Ag As Ba Cd Vr Pd Hg Se
- TCLP Volatiles
- TCLP Semi Volatiles
- RCI
- GC.MS Vol. 8240/8260/624
- GC.MS Semi. Vol. 8270/625
- PCB's 8080/608
- Pest. 808/608
- Chloride
- Gamma Spec.
- Alpha Beta (Air)
- PLM (Asbestos)
- Major Anions/Cations, pH, TDS

SAMPLED BY: (Print & Initial)

DATE: 1/20/10

SAMPLE SHIPPED BY: (Circle)

DATE: 1/20/10

TETRA TECH CONTACT PERSON:

RESULTS BY:

RUSH CHARGES AUTHORIZED:

Yes No

Run deeper samples if TPH exceeds 100 mg/kg (BHL - Heavy Metals)



## PAGE: 7 OF 8



(432) 682-4559 • Fax (432) 682-3946

503500

**SITE MANAGER:**

PROJECT NAME: 6710522

212C-MD-00374

Elmida

## SAMPLE IDENTIFICATION

Major Anions/Cations, pH, TDS

ANALYSIS REQUEST  
(Circle or Specify Method No.)

Date: 11-20-16  
Time: \_\_\_\_\_  
AIRBILL #: \_\_\_\_\_  
OTHER: \_\_\_\_\_  
Results by: \_\_\_\_\_

**RUSH Charges  
Authorized:**

1

180

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52500

Final 1.001



PAGE: 4 OF: 8



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Midland, Texas 79705**  
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52500

ANALYSIS REQUEST  
(Circle or Specify Method No.)

**Please fill out all copies - Laboratory retains Yellow copy - Return Original copy to Tetra Tech - Project Manager retains Pink copy - Accounting receives Gold copy**

## PAGE: 6 OF 8



(432) 682-4559 • Fax (432) 682-3946

503500

**SITE MANAGER:**

PROJECT NAME: 671D/22

Funke Yare

SAMPLE IDENTIFICATION  
lea Co MM

Major Anions/Cations, pH, TDS

HO  
AVE

date: 1/27/10  
time: 11:27  
BILL #: 1111

### Results by:

| Authorize.                                    | Yes | No |
|---|-----|----|
| 1. Do you have a valid passport?              |     |    |
| 2. Do you have a valid visa?                  |     |    |
| 3. Do you have a valid travel document?       |     |    |
| 4. Do you have a valid identification card?   |     |    |
| 5. Do you have a valid driver's license?      |     |    |
| 6. Do you have a valid health insurance card? |     |    |
| 7. Do you have a valid passport photo?        |     |    |
| 8. Do you have a valid passport stamp?        |     |    |
| 9. Do you have a valid passport seal?         |     |    |
| 10. Do you have a valid passport label?       |     |    |
| 11. Do you have a valid passport card?        |     |    |
| 12. Do you have a valid passport book?        |     |    |
| 13. Do you have a valid passport booklet?     |     |    |
| 14. Do you have a valid passport folder?      |     |    |
| 15. Do you have a valid passport cover?       |     |    |
| 16. Do you have a valid passport case?        |     |    |
| 17. Do you have a valid passport bag?         |     |    |
| 18. Do you have a valid passport pouch?       |     |    |
| 19. Do you have a valid passport sleeve?      |     |    |
| 20. Do you have a valid passport holder?      |     |    |
| 21. Do you have a valid passport stand?       |     |    |
| 22. Do you have a valid passport rack?        |     |    |
| 23. Do you have a valid passport display?     |     |    |
| 24. Do you have a valid passport board?       |     |    |
| 25. Do you have a valid passport sign?        |     |    |
| 26. Do you have a valid passport sticker?     |     |    |
| 27. Do you have a valid passport label?       |     |    |
| 28. Do you have a valid passport tag?         |     |    |
| 29. Do you have a valid passport mark?        |     |    |
| 30. Do you have a valid passport symbol?      |     |    |
| 31. Do you have a valid passport icon?        |     |    |
| 32. Do you have a valid passport logo?        |     |    |
| 33. Do you have a valid passport emblem?      |     |    |
| 34. Do you have a valid passport badge?       |     |    |
| 35. Do you have a valid passport pin?         |     |    |
| 36. Do you have a valid passport button?      |     |    |
| 37. Do you have a valid passport charm?       |     |    |
| 38. Do you have a valid passport pendant?     |     |    |
| 39. Do you have a valid passport necklace?    |     |    |
| 40. Do you have a valid passport bracelet?    |     |    |
| 41. Do you have a valid passport anklet?      |     |    |
| 42. Do you have a valid passport earring?     |     |    |
| 43. Do you have a valid passport ring?        |     |    |
| 44. Do you have a valid passport watch?       |     |    |
| 45. Do you have a valid passport bracelet?    |     |    |
| 46. Do you have a valid passport necklace?    |     |    |
| 47. Do you have a valid passport earring?     |     |    |
| 48. Do you have a valid passport ring?        |     |    |
| 49. Do you have a valid passport watch?       |     |    |
| 50. Do you have a valid passport bracelet?    |     |    |
| 51. Do you have a valid passport necklace?    |     |    |
| 52. Do you have a valid passport earring?     |     |    |
| 53. Do you have a valid passport ring?        |     |    |
| 54. Do you have a valid passport watch?       |     |    |
| 55. Do you have a valid passport bracelet?    |     |    |
| 56. Do you have a valid passport necklace?    |     |    |
| 57. Do you have a valid passport earring?     |     |    |
| 58. Do you have a valid passport ring?        |     |    |
| 59. Do you have a valid passport watch?       |     |    |
| 60. Do you have a valid passport bracelet?    |     |    |
| 61. Do you have a valid passport necklace?    |     |    |
| 62. Do you have a valid passport earring?     |     |    |
| 63. Do you have a valid passport ring?        |     |    |
| 64. Do you have a valid passport watch?       |     |    |
| 65. Do you have a valid passport bracelet?    |     |    |
| 66. Do you have a valid passport necklace?    |     |    |
| 67. Do you have a valid passport earring?     |     |    |
| 68. Do you have a valid passport ring?        |     |    |
| 69. Do you have a valid passport watch?       |     |    |
| 70. Do you have a valid passport bracelet?    |     |    |
| 71. Do you have a valid passport necklace?    |     |    |
| 72. Do you have a valid passport earring?     |     |    |
| 73. Do you have a valid passport ring?        |     |    |
| 74. Do you have a valid passport watch?       |     |    |
| 75. Do you have a valid passport bracelet?    |     |    |
| 76. Do you have a valid passport necklace?    |     |    |
| 77. Do you have a valid passport earring?     |     |    |
| 78. Do you have a valid passport ring?        |     |    |
| 79. Do you have a valid passport watch?       |     |    |
| 80. Do you have a valid passport bracelet?    |     |    |
| 81. Do you have a valid passport necklace?    |     |    |
| 82. Do you have a valid passport earring?     |     |    |
| 83. Do you have a valid passport ring?        |     |    |
| 84. Do you have a valid passport watch?       |     |    |
| 85. Do you have a valid passport bracelet?    |     |    |
| 86. Do you have a valid passport necklace?    |     |    |
| 87. Do you have a valid passport earring?     |     |    |
| 88. Do you have a valid passport ring?        |     |    |
| 89. Do you have a valid passport watch?       |     |    |
| 90. Do you have a valid passport bracelet?    |     |    |
| 91. Do you have a valid passport necklace?    |     |    |
| 92. Do you have a valid passport earring?     |     |    |
| 93. Do you have a valid passport ring?        |     |    |
| 94. Do you have a valid passport watch?       |     |    |
| 95. Do you have a valid passport bracelet?    |     |    |
| 96. Do you have a valid passport necklace?    |     |    |
| 97. Do you have a valid passport earring?     |     |    |
| 98. Do you have a valid passport ring?        |     |    |
| 99. Do you have a valid passport watch?       |     |    |
| 100. Do you have a valid passport bracelet?   |     |    |

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Final 1.001



# Analysis Request of Chain of Custody Record



**TETRA TECH**

1910 N. Big Spring St.  
Midland, Texas 79705  
(432) 682-4559 • Fax (432) 682-3946

5A3500

CLIENT NAME:

Globe Energy

SITE MANAGER:

180 Tavares

PROJECT NO.:

212C-MD-0374

PROJECT NAME:

Funice yard

LAB I.D. NUMBER

DATE

TIME

MATRIX

COMP.

GRAB

SAMPLE IDENTIFICATION

12a G. NM

NUMBER OF CONTAINERS

FILTERED (Y/N)

HCL

HNO3

ICE

NONE

PRESERVATIVE METHOD

BTEX 8021B

TPH 8015 MOD TX1005 (Ext. to C35)

PAH 8270

RCRA Metals Ag As Ba Cd Cr Pb Hg Se

TCLP Metals Ag As Ba Cd Vr Pd Hg Se

TCLP Volatiles

TCLP Semi Volatiles

RCI

GC.MS Vol. 8240/8260/624

GC.MS Semi. Vol. 8270/625

PCB's 8080/608

Pest. 808/608

Chloride

Gamma Spec.

Alpha Beta (Air)

PLM (Asbestos)

Major Anions/Cations, pH, TDS

PAGE:

OF:

8

ANALYSIS REQUEST  
(Circle or Specify Method No.)

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Vol. 8270/625 |  |  |  |  |  |  |  |  |  |  |  | PCB's 8080/608 |  |  |  |  |  |  |  |  |  |  |  | Pest. 808/608 |  |  |  |  |  |  |  |  |  |  |  | Chloride |  |  |  |  |  |  |  |  |  |  |  | Gamma Spec. |  |  |  |  |  |  |  |  |  |  |  | Alpha Beta (Air) |  |  |  |  |  |  |  |  |  |  |  | PLM (Asbestos) |  |  |  |  |  |  |  |  |  |  |  | Major Anions/Cations, pH, TDS |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  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RELINQUISHED BY: (Signature)

Date: 1/22/15

Time: 13:15

RECEIVED BY: (Signature)

Date: 1/22/15

Time: 13:15

SAMPLED BY: (Print & Initial)

Date: 1/22/15

Time: 12:11

RELINQUISHED BY: (Signature)

Date: 1/22/15

Time: 14:05

RECEIVED BY: (Signature)

Date: 1/22/15

Time: 14:05

SAMPLED BY: (Print & Initial)

Date: 1/22/15

Time: 12:11

RELINQUISHED BY: (Signature)

Date: 1/22/15

Time: 14:05

RECEIVED BY: (Signature)

Date: 1/22/15

Time: 14:05

SAMPLED BY: (Print & Initial)

Date: 1/22/15

Time: 12:11

RECEIVING LABORATORY:

ADDRESS:

STATE:

PHONE:

ZIP:

DATE:

TIME:

RECEIVED BY: (Signature)

DATE:

CITY:

STATE:

PHONE:

ZIP:

DATE:

TIME:

RECEIVED BY: (Signature)

DATE:

TIME:

RECEIVED BY: (Signature)

SAMPLE CONDITION WHEN RECEIVED:

18°C

REMARKS:

DATE:

TIME:

RECEIVED BY: (Signature)

DATE:

TIME:

RECEIVED BY: (Signature)











# XENCO Laboratories

## Prelogin/Nonconformance Report- Sample Log-In



**Client:** Tetra Tech- Midland

**Date/ Time Received:** 01/22/2016 02:05:00 PM

**Work Order #:** 523500

**Acceptable Temperature Range:** 0 - 6 degC

**Air and Metal samples Acceptable Range:** Ambient

**Temperature Measuring device used :** r8

| Sample Receipt Checklist   | Comments |
|--|----------|
| #1 *Temperature of cooler(s)?  | 1.8      |
| #2 *Shipping container in good condition?  | Yes      |
| #3 *Samples received on ice?   | Yes      |
| #4 *Custody Seals intact on shipping container/ cooler?  | N/A      |
| #5 Custody Seals intact on sample bottles?   | N/A      |
| #6 *Custody Seals Signed and dated?  | N/A      |
| #7 *Chain of Custody present?  | Yes      |
| #8 Sample instructions complete on Chain of Custody?   | Yes      |
| #9 Any missing/extra samples?  | No       |
| #10 Chain of Custody signed when relinquished/ received?   | Yes      |
| #11 Chain of Custody agrees with sample label(s)?  | Yes      |
| #12 Container label(s) legible and intact?   | Yes      |
| #13 Sample matrix/ properties agree with Chain of Custody?   | Yes      |
| #14 Samples in proper container/ bottle?   | Yes      |
| #15 Samples properly preserved?  | Yes      |
| #16 Sample container(s) intact?  | Yes      |
| #17 Sufficient sample amount for indicated test(s)?  | Yes      |
| #18 All samples received within hold time?   | Yes      |
| #19 Subcontract of sample(s)?  | No       |
| #20 VOC samples have zero headspace (less than 1/4 inch bubble)?   | N/A      |
| #21 <2 for all samples preserved with HNO <sub>3</sub> , HCL, H <sub>2</sub> SO <sub>4</sub> ? Except for samples for the analysis of HEM or HEM-SGT which are verified by the analysts. | N/A      |
| #22 >10 for all samples preserved with NaAsO <sub>2</sub> +NaOH, ZnAc+NaOH?  | N/A      |

**\* Must be completed for after-hours delivery of samples prior to placing in the refrigerator**

Analyst:

PH Device/Lot#:

**Checklist completed by:**

Carley Owens  
Carley Owens

Date: 01/25/2016

**Checklist reviewed by:**

Kelsey Brooks  
Kelsey Brooks

Date: 01/25/2016