

AE Order Number Banner

Report Description

This report shows an AE Order Number in Barcode format for purposes of scanning. The Barcode format is Code 39.



App Number: pGRL0930836186

1RP - 2318
MELROSE OPERATING COMPANY

<u>`District I</u> 1625 N. French Dr., Hobbs, NM 88240 District II
1301 W. Grand Avenue, Artesia, NM 88210
District III 1000 Rio Brazos Road, Aztec, NM 87410 District IV 1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico **Energy Minerals and Natural Resources**

Oil Conservation Division

RECEIVED MA 012011 1220 South St. Francis Dr. HOBBSOCD

Form C-141 Revised October 10, 2003

Submit 2 Copies to appropriate
District Office in accordance
with Rule 116 on back side of form

Santa Fe, NM 87505 Release Notification and Corrective Action

| | | | 1010 | ouse I totille | a tio | | ATOR | Ction | Initi | ial Report | v | Fina | l Report |
|------------------|---------------|-----------------|---|--|--------------|----------------------|------------------------------------|----------------|--------------|-----------------------------|---------|-----------|----------|
| Name of Co | mpany N | MELROSE C | PERAT | NG CO | | | am Robbins | | IIII | ai Report | | Filla | Report |
| | | | | Oklahoma CityOl | K | Telephone 1 | | 677 | | | | | |
| Facility Nan | | | *************************************** | | | Facility Typ | | | | | | | |
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| Surface Ow | ner State | | | Mineral O | wner | State | | | Lease P | No. 25203 | | - | |
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| Unit Letter O | Section 24 | Township 22S | Range 35E | Feet from the 330' | North NOR | /South Line TH | Feet from the 800' | East/V EAST | West Line | County LEA | | | |
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| By Whom? | Cam Robbi | ns | | | | Date and H | lour 10/2/09 1:3 | 0 PM | | | | | |
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| | | | Yes X | No | | | | | | | HOBBSOC | MAR | Z M |
| If a Watercou | irse was Im | pacted, Descr | ibe Fully. | | | | | | - | | B | 0 | 0 |
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| Describe Area | a Affected | and Cleanup A | Action Tak | cen.* | | | | | | | | | |
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| LOW LYING | AREA, SO | OUTH OF WI | ELL #634, | , IN SANDY SOIL | , HAI | ULED OFF S. | ATUATED SOIL | & REP | LACED W | ITH CLEAN | TOP | SOIL | |
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| or the environ | ment. In a | ddition, NMC | CD accep | tance of a C-141 re | | | | | | | 1.4 | - 41 | |
| federal, state, | or local lay | vs and/or regu | lations. | | | | | | | | | | |
| | 10 | 0 | 11 | | | | | | | | | | |
| Signature: | 6 | maler | her | | | | AF | | K | 01 | / 📑 | - 1 | |
| Printed Name | : Cam Ro | bbins | | | | Approved by | , | _ | | | | | |
| | | | | | | | 2/2/11 | . 1. | | | | | 1 |
| Title: Formar | n | | | | | Approval Dat | e: 2914 | | Expiration 1 | Date: | | | |
| E-mail Addre | ss: maxim | um@valornet. | com | | | Conditions of | Approval: | | | Attached | | | |
| Date: | | | Pho | one:575-390-4677 | | | | | | | | | |

^{*} Attach Additional Sheets If Necessary

'District I 1625 N. French Dr., Hobbs, NM 88240 <u>District II</u> 1301 W. Grand Avenue, Artesia, NM 88210 District III 1000 Rio Brazos Road, Aztec, NM 87410 District IV 1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources

MAY 0 1 2011 Surply Dr.

HOBBSOCD

Form C-141 Revised October 10, 2003

Submit 2 Copies to appropriate
District Office in accordance
with Rule 116 on back side of form

Santa Fe, NM 87505

| | | | Reie | ease Nounc | auon | and Co | rrective A | Cuon | l | | |
|---|---|---|--|--|--|--|--|--|---|--|-------|
| | | | | | | OPER | ATOR | | Initi | al Report X Final Re | eport |
| Name of Co | mpany (| QUANTUM | RESOUR | RCES | (| Contact C | am Robbins | | | | |
| Address 40 | 00 N. Big | Spring, Suite | e 305, M | idland TX 79705 | 5 | Telephone N | No. 575-390-4 | 677 | | | |
| Facility Nan | ne CJYF | U #605 | | |] | Facility Typ | e FLOWLIN | E | | | |
| Surface Own | ner State | | | Mineral O | wner | State | | | Lease N | lo. 25203 | |
| | | | | LOCA | TION | OF REI | EACE | | | | |
| Unit Letter | Section | Township | Danga | Feet from the | | South Line | Feet from the | Foot/V | Vest Line | Country | |
| O | 24 | 22S | Range 35E | 330' | NORT | | 800' | EAST | | County LEA | |
| | | | La | titude | | Longitud | e | | | | |
| | | | | NAT | URE | OF RELI | | | | | |
| | Type of Release FLOWLINE LEAK | | | | | | Release 50bbls | - | | Recovered 0 | |
| Source of Release CJYPU #605 | | | | | Date and H 10/2/09 | our of Occurrence | e | Date and 1PM | Hour of Discovery 10/2/09 | | |
| Was Immediate Notice Given? X Yes ☐ No ☐ Not Required | | | | inad | If YES, To | Whom? Geoffrey Leking | | | | | |
| D WII O | G P 11 | | ics [| No Not Keqt | ineu | | | 0 D) (| | | |
| By Whom? Was a Watero | | | | | | | our 10/2/09 1:3 | | Produce | | |
| was a water | course Reac | | Yes X | No | | II ILS, VO | nume impacting t | ne wate | acourse. | | |
| If a Watercou | irse was Im | pacted, Descri | be Fully.* | • | | | | | | | |
| Poly Flowline | e leak, well | em and Remed was SI, line c Replaced all c | lamped, in | | digging soil fro | out & haulir m Ranchers p | g off saturated so | oil, remo | oved all con plant Ranci | ntaminated soil, tested bottom her grass seed. | n |
| Describe Are | a Affected | and Cleanup A | Action Tak | en.* | ************************************** | | *************************************** | ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,, | | The state of the s | |
| LOW LYING | G AREA, S | OUTH OF WE | ELL #634, | , IN SANDY SOIL | ., HAU | LED OFF SA | ATUATED SOIL | & REP | LACED W | TTH CLEAN TOP SOIL | |
| regulations al public health should their o or the environ | I operators or the environment. In a | are required to ronment. The lave failed to a | o report ar acceptance adequately OCD accep | nd/or file certain re ce of a C-141 repor investigate and re | lease no rt by the mediate | otifications are NMOCD made contamination | nd perform correct arked as "Final Roon that pose a three the operator of a | tive acti eport" d eat to gr responsi | ons for rele oes not reli ound water bility for co | cuant to NMOCD rules and cases which may endanger eve the operator of liability surface water, human health ompliance with any other | h |
| | 10 |) / | 1. | | | | OIL CONS | SERV | ATION | DIVISION | |
| Signature: | Ca | m/C | obl | en | | | | | | | |
| Printed Name | : Cam Ro | bbins | | | 1 | Approved by | District Supervise | or: | | | |
| Title: Forma | n | | | | 1 | Approval Dat | e: |] | Expiration 1 | Date: | |
| E-mail Addre | ess: maxim | um@valornet. | com | | | Conditions of | Approval: | | | Attached | |
| Date: | | | Pho | one:575-390-4677 | | | | | | | |

^{*} Attach Additional Sheets If Necessary

Summary Report

Rick Navarratte Blade Services LLC. 1100 East Michigan Hobbs, NM 88240

Report Date: October 15, 2010

Work Order: 9101304

Project Name: Cone #605 Spill

| | | | Date | Time | Date |
|--------|-------------|--------|------------|-------|------------|
| Sample | Description | Matrix | Taken | Taken | Received |
| 212192 | North | soil | 2009-10-09 | 13:00 | 2009-10-13 |
| 212193 | Middle | soil | 2009-10-09 | 13:00 | 2009-10-13 |
| 212194 | South | soil | 2009-10-09 | 14:00 | 2009-10-13 |
| 212195 | Background | soil | 2009-10-09 | 14:00 | 2009-10-13 |

| | |] | BTEX | 75 | MTBE | TPH DRO | TPH GRO |
|---------------------|----------|----------|--------------|----------|---------|---------|---------|
| | Benzene | Toluene | Ethylbenzene | Xylene | MTBE | DRO | GRO |
| Sample - Field Code | (mg/Kg) | (mg/Kg) | (mg/Kg) | (mg/Kg) | (mg/Kg) | (mg/Kg) | (mg/Kg) |
| 212192 - North | < 0.0200 | < 0.0200 | < 0.0200 | < 0.0200 | | < 50.0 | < 2.00 |
| 212193 - Middle | < 0.0200 | < 0.0200 | < 0.0200 | < 0.0200 | | < 50.0 | < 2.00 |
| 212194 - South | < 0.0200 | < 0.0200 | < 0.0200 | < 0.0200 | | < 50.0 | < 2.00 |
| 212195 - Background | < 0.0200 | < 0.0200 | < 0.0200 | < 0.0200 | | < 50.0 | < 2.00 |

Sample: 212192 - North

| Param | Flag | Result | Units | RL |
|----------|------|--------|-------|------|
| Chloride | | 294 | mg/Kg | 3.25 |

Sample: 212193 - Middle

| Param | Flag | Result | Units | RL |
|----------|------|--------|-------|------|
| Chloride | | 328 | mg/Kg | 3.25 |

Sample: 212194 - South

| Param | Flag | Result | Units | RL |
|----------|------|--------|-------|------|
| Chloride | | 328 | mg/Kg | 3.25 |

Report Date: October 15, 2010 Work Order: 9101304

Chloride

Sample: 212195 - Background
Param Flag Result Units RL

<32.5

Page Number: 2 of 2

mg/Kg

3.25



6701 Aberdeen Avenue, Suite 9 200 East Sunset Road, Suite E 5002 Basin Street, Suite A1

Lubbock, Texas 79424 El Paso, Texas 79922 Midland, Texas 79703

800 • 378 • 1296 888 • 588 • 3443

806 • 794 • 1296 915 • 585 • 3443 432 • 689 • 6301

817 • 201 • 5260

FAX 806 • 794 • 1298 FAX 915 • 585 • 4944 FAX 432 • 689 • 6313

6015 Harris Parkway, Suite 110 Ft. Worth, Texas 76132

E-Mail: lab@traceanalysis.com

Certifications

WBENC: 237019

HUB:

1752439743100-86536

DBE: VN 20657

NCTRCA WFWB38444Y0909

NELAP Certifications

Lubbock:

T104704219-08-TX

LELAP-02003

Kansas E-10317

T104704221-08-TX El Paso:

LELAP-02002

Midland: T104704392-08-TX

Analytical and Quality Control Report

Rick Navarratte Blade Services LLC. 1100 East Michigan Hobbs, NM, 88240

Report Date: October 15, 2010

Work Order:

Project Name:

Cone #605 Spill Project Number: Cone #605 Spill

Enclosed are the Analytical Report and Quality Control Report for the following sample(s) submitted to TraceAnalysis, Inc.

| | | | Date | Time | Date | |
|--------|-------------|--------|------------|-------|------------|--|
| Sample | Description | Matrix | Taken | Taken | Received | |
| 212192 | North | soil | 2009-10-09 | 13:00 | 2009-10-13 | |
| 212193 | Middle | soil | 2009-10-09 | 13:00 | 2009-10-13 | |
| 212194 | South | soil | 2009-10-09 | 14:00 | 2009-10-13 | |
| 212195 | Background | soil | 2009-10-09 | 14:00 | 2009-10-13 | |

These results represent only the samples received in the laboratory. The Quality Control Report is generated on a batch basis. All information contained in this report is for the analytical batch(es) in which your sample(s) were analyzed.

This report consists of a total of 20 pages and shall not be reproduced except in its entirety, without written approval of TraceAnalysis, Inc.

Michael april

Dr. Blair Leftwich, Director Dr. Michael Abel, Project Manager

Standard Flags

 $\, B \,$ - $\,$ The sample contains less than ten times the concentration found in the method blank.

Case Narrative

Samples for project Cone #605 Spill were received by TraceAnalysis, Inc. on 2009-10-13 and assigned to work order 9101304. Samples for work order 9101304 were received intact at a temperature of 22.5 deg. C.

Samples were analyzed for the following tests using their respective methods.

| | | Prep | Prep | QC | Analysis |
|----------------------|--------------|-------|---------------------|-------|---------------------|
| Test | Method | Batch | Date | Batch | Date |
| BTEX | S 8021B | 54994 | 2009-10-13 at 14:46 | 64398 | 2009-10-13 at 14:46 |
| BTEX | S 8021B | 55024 | 2009-10-14 at 14:20 | 64438 | 2009-10-14 at 14:20 |
| Chloride (Titration) | SM 4500-Cl B | 55025 | 2009-10-14 at 15:54 | 64441 | 2009-10-14 at 15:55 |
| TPH DRO | Mod. 8015B | 54997 | 2009-10-13 at 15:00 | 64404 | 2009-10-13 at 16:00 |
| TPH GRO | S 8015B | 54994 | 2009-10-13 at 14:46 | 64399 | 2009-10-13 at 14:46 |
| TPH GRO | S 8015B | 55024 | 2009-10-14 at 14:20 | 64439 | 2009-10-14 at 14:20 |

Results for these samples are reported on a wet weight basis unless data package indicates otherwise.

A matrix spike (MS) and matrix spike duplicate (MSD) sample is chosen at random from each preparation batch. The MS and MSD will indicate if a site specific matrix problem is occurring, however, it may not pertain to the samples for work order 9101304 since the sample was chosen at random. Therefore, the validity of the analytical data reported has been determined by the laboratory control sample (LCS) and the method blank (MB). These quality control measures are performed with each preparation batch to ensure data integrity.

All other exceptions associated with this report have been footnoted on the appropriate analytical page to assist in general data comprehension. Please contact the laboratory directly if there are any questions regarding this project.

Cone #605 Spill

Work Order: 9101304 Cone #605 Spill

Page Number: 4 of 20

Analytical Report

Sample: 212192 - North

Laboratory:

Lubbock

Analysis: QC Batch:

BTEX 64398 Prep Batch: 54994

Analytical Method: Date Analyzed:

S 8021B

2009-10-13 Sample Preparation: 2009-10-13 Prep Method: S 5035

Analyzed By: ER Prepared By: ER

RI

| | | TUL | | | |
|--------------|------|----------|-------|----------|--------|
| Parameter | Flag | Result | Units | Dilution | RL |
| Benzene | | < 0.0200 | mg/Kg | 1 | 0.0200 |
| Toluene | | < 0.0200 | mg/Kg | 1 | 0.0200 |
| Ethylbenzene | | < 0.0200 | mg/Kg | 1 | 0.0200 |
| Xylene | | < 0.0200 | mg/Kg | 1 | 0.0200 |

| Surrogate | Flag | Result | Units | Dilution | Spike Amount | Percent Recovery | Recovery |
|------------------------------|------|--------|-------|----------|-----------------|---------------------|------------|
| Trifluorotoluene (TFT) | 1100 | 1.76 | mg/Kg | 1 | 2.00 | 88 | 71.8 - 112 |
| 4-Bromofluorobenzene (4-BFB) | | 1.99 | mg/Kg | 1 | 2.00 | 100 | 72.8 - 115 |

Sample: 212192 - North

Laboratory: Lubbock

Analysis: QC Batch:

Prep Batch: 55025

Chloride (Titration) 64441

Analytical Method: Date Analyzed:

SM 4500-Cl B 2009-10-14

Prep Method: N/A Analyzed By: KV

Sample Preparation: 2009-10-14

Prepared By: KV

RT.

| Parameter | Flag | Result | Units | Dilution | RL |
|-----------|------|--------|-------|----------|------|
| Chloride | | 294 | mg/Kg | 10 | 3.25 |

Sample: 212192 - North

Laboratory:

Lubbock

TPH DRO Analysis: QC Batch: 64404 Prep Batch: 54997

Analytical Method: Date Analyzed:

Sample Preparation:

Mod. 8015B 2009-10-13 2009-10-13

Prep Method: N/A Analyzed By: AW

Prepared By: AW

DI

| | | RL | | | |
|-----------|------|--------|-------|----------|------|
| Parameter | Flag | Result | Units | Dilution | RL |
| DRO | | < 50.0 | mg/Kg | 1 | 50.0 |

Cone #605 Spill

Work Order: 9101304 Cone #605 Spill

Page Number: 5 of 20

| Surrogate | Flag | Result | Units | Dilution | Spike Amount | Percent Recovery | Recovery Limits |
|---------------|------|--------|-------|----------|-----------------|---------------------|--------------------|
| n-Triacontane | | 87.4 | mg/Kg | 1 | 100 | 87 | 70 - 130 |

Sample: 212192 - North

Laboratory:

Lubbock Analysis: TPH GRO QC Batch: 64399 Prep Batch: 54994

Analytical Method: S 8015B Date Analyzed:

2009-10-13 Sample Preparation: 2009-10-13 Prep Method: S 5035 Analyzed By: ER Prepared By: ER

RL

| Parameter | Flag | Result | Units | Dilution | RL |
|-----------|------|--------|-------|----------|------|
| GRO | | < 2.00 | mg/Kg | 1 | 2.00 |

| Surrogate | Flag | Result | Units | Dilution | Spike Amount | Percent Recovery | Recovery Limits |
|------------------------------|------|--------|-------|----------|-----------------|---------------------|--------------------|
| Trifluorotoluene (TFT) | | 2.08 | mg/Kg | 1 | 2.00 | 104 | 86.9 - 113 |
| 4-Bromofluorobenzene (4-BFB) | | 2.13 | mg/Kg | 1 | 2.00 | 106 | 56.2 - 130 |

Sample: 212193 - Middle

Laboratory: Lubbock

Analysis: BTEX QC Batch: 64398 Prep Batch: 54994

Analytical Method: S 8021B Date Analyzed: 2009-10-13 Sample Preparation: 2009-10-13

RL

Prep Method: S 5035 Analyzed By: ER Prepared By: ER

| arameter | Flag | Res |
|----------|------|-----|
| | | |
| | | |

| Flag | Result | Units | Dilution | RL |
|------|----------|-------------------------------|---|---|
| | < 0.0200 | mg/Kg | 1 | 0.0200 |
| | < 0.0200 | mg/Kg | 1 | 0.0200 |
| | < 0.0200 | mg/Kg | 1 | 0.0200 |
| | < 0.0200 | mg/Kg | 1 | 0.0200 |
| | Flag | <0.0200 <0.0200 <0.0200 | <0.0200 mg/Kg <0.0200 mg/Kg <0.0200 mg/Kg | <0.0200 mg/Kg 1 <0.0200 mg/Kg 1 <0.0200 mg/Kg 1 |

| Surrogate | Flag | Result | Units | Dilution | Spike Amount | Percent Recovery | Recovery Limits |
|------------------------------|------|--------|-------|----------|-----------------|---------------------|--------------------|
| Trifluorotoluene (TFT) | | 1.62 | mg/Kg | 1 | 2.00 | 81 | 71.8 - 112 |
| 4-Bromofluorobenzene (4-BFB) | | 1.78 | mg/Kg | 1 | 2.00 | 89 | 72.8 - 115 |

Cone #605 Spill

Work Order: 9101304 Cone #605 Spill

Page Number: 6 of 20

Sample: 212193 - Middle

Laboratory:

Lubbock

Analysis: Chloride (Titration)

QC Batch: 64441 Prep Batch: 55025 Analytical Method:

SM 4500-Cl B

Date Analyzed: 2009-10-14 Sample Preparation: 2009-10-14

Prep Method: N/A Analyzed By:

Prepared By:

KVKV

RL

Result Parameter Flag Chloride 328

Units mg/Kg Dilution RL 10 3.25

Sample: 212193 - Middle

Laboratory:

Lubbock

Analysis: TPH DRO QC Batch: 64404 Prep Batch: 54997

Analytical Method: Date Analyzed:

Sample Preparation:

Mod. 8015B 2009-10-13

2009-10-13

Prep Method: N/A

Analyzed By: AW Prepared By: AW

RL

Parameter Flag Result Units Dilution RL DRO < 50.0 50.0 mg/Kg

| | | | | | Spike | Percent | Recovery |
|---------------|------|--------|-------|----------|--------|----------|----------|
| Surrogate | Flag | Result | Units | Dilution | Amount | Recovery | Limits |
| n-Triacontane | | 112 | mg/Kg | 1 | 100 | 112 | 70 - 130 |

Sample: 212193 - Middle

Laboratory:

Lubbock

Analysis: TPH GRO QC Batch: 64399 Prep Batch: 54994

Analytical Method: Date Analyzed:

Sample Preparation:

S 8015B 2009-10-13 2009-10-13 Prep Method: S 5035 Analyzed By: ER Prepared By: ER

RL

Result Dilution Parameter Flag Units RL < 2.00 GRO mg/Kg 2.00

| Surrogate | Flag | Result | Units | Dilution | Spike Amount | Percent Recovery | Recovery Limits |
|------------------------------|------|--------|-------|----------|-----------------|---------------------|--------------------|
| Trifluorotoluene (TFT) | 1145 | 1.97 | mg/Kg | 1 | 2.00 | 98 | 86.9 - 113 |
| 4-Bromofluorobenzene (4-BFB) | | 1.91 | mg/Kg | 1 | 2.00 | 96 | 56.2 - 130 |

Cone #605 Spill

Work Order: 9101304 Cone #605 Spill

Page Number: 7 of 20

Sample: 212194 - South

Laboratory: Analysis:

Lubbock BTEX

QC Batch: Prep Batch: 55024

Analytical Method: 64438 Date Analyzed:

S 8021B 2009-10-14

Sample Preparation: 2009-10-14

Prep Method: S 5035 Analyzed By: ER Prepared By: ER

RL

| | | 1613 | | | |
|--------------|------|----------|-------|----------|--------|
| Parameter | Flag | Result | Units | Dilution | RL |
| Benzene | | < 0.0200 | mg/Kg | 1 | 0.0200 |
| Toluene | | < 0.0200 | mg/Kg | 1 | 0.0200 |
| Ethylbenzene | | < 0.0200 | mg/Kg | 1 | 0.0200 |
| Xylene | | < 0.0200 | mg/Kg | 1 | 0.0200 |

| | | | | | Spike | Percent | Recovery |
|------------------------------|------|--------|-------|----------|--------|----------|------------|
| Surrogate | Flag | Result | Units | Dilution | Amount | Recovery | Limits |
| Trifluorotoluene (TFT) | 1 | 2.40 | mg/Kg | 1 | 2.00 | 120 | 71.8 - 112 |
| 4-Bromofluorobenzene (4-BFB) | 2 | 2.62 | mg/Kg | 1 | 2.00 | 131 | 72.8 - 115 |

Sample: 212194 - South

Laboratory:

Lubbock

Analysis: QC Batch:

Chloride (Titration)

64441

Analytical Method: Date Analyzed:

SM 4500-Cl B 2009-10-14

Prep Method: N/A Analyzed By: KV

Prep Batch: 55025

Sample Preparation:

2009-10-14

Prepared By: KV

| Parameter | Flag | Result | Units | Dilution | RL |
|-----------|------|--------|-------|----------|------|
| Chloride | | 328 | mg/Kg | 10 | 3.25 |

Sample: 212194 - South

Laboratory: Analysis:

Lubbock TPH DRO

QC Batch:

64404 Prep Batch: 54997 Analytical Method: Date Analyzed:

Mod. 8015B 2009-10-13 Sample Preparation: 2009-10-13

Prep Method: N/A Analyzed By: AW

Prepared By:

AW

RL

| Parameter | Flag | Result | Units | Dilution | RL |
|-----------|------|--------|-------|----------|------|
| DRO | | < 50.0 | mg/Kg | 1 | 50.0 |

¹High surrogate recovery. Sample non-detect, result bias high.

²High surrogate recovery. Sample non-detect, result bias high.

Cone #605 Spill

Work Order: 9101304

Cone #605 Spill

| Surrogate | Flag | Result | Units | Dilution | Spike Amount | Percent Recovery | Recovery Limits |
|---------------|------|--------|-------|----------|-----------------|---------------------|--------------------|
| n-Triacontane | | 97.3 | mg/Kg | 1 | 100 | 97 | 70 - 130 |

Sample: 212194 - South

Laboratory:

Analysis:

Parameter

GRO

Lubbock TPH GRO 64439

Analytical Method: Date Analyzed:

S 8015B 2009-10-14 Prep Method: S 5035 Analyzed By: ER Prepared By: ER

Page Number: 8 of 20

QC Batch: Prep Batch: 55024

Sample Preparation:

Flag

2009-10-14

RLResult Units Dilution RL mg/Kg < 2.00 2.00

| Surrogate | Flag | Result | Units | Dilution | Spike Amount | Percent Recovery | Recovery Limits |
|------------------------------|------|--------|-------|----------|-----------------|---------------------|--------------------|
| Trifluorotoluene (TFT) | 3 | 3.03 | mg/Kg | 1 | 2.00 | 152 | 86.9 - 113 |
| 4-Bromofluorobenzene (4-BFB) | 4 | 2.88 | mg/Kg | 1 | 2.00 | 144 | 56.2 - 130 |

Sample: 212195 - Background

Laboratory: Lubbock

Analysis: BTEX QC Batch: 64398 Prep Batch: 54994

Analytical Method: S 8021B Date Analyzed: 2009-10-13 Sample Preparation: 2009-10-13

Prep Method: S 5035 Analyzed By: ER Prepared By: ER

| | | RL | | | |
|--------------|------|----------|-------|----------|--------|
| Parameter | Flag | Result | Units | Dilution | RL |
| Benzene | | < 0.0200 | mg/Kg | 1 | 0.0200 |
| Toluene | | < 0.0200 | mg/Kg | 1 | 0.0200 |
| Ethylbenzene | | < 0.0200 | mg/Kg | 1 | 0.0200 |
| Xylene | | < 0.0200 | mg/Kg | 1 | 0.0200 |

| Surrogate | Flag | Result | Units | Dilution | Spike Amount | Percent Recovery | Recovery Limits |
|------------------------------|------|--------|-------|----------|-----------------|---------------------|--------------------|
| Trifluorotoluene (TFT) | | 1.49 | mg/Kg | 1 | 2.00 | 74 | 71.8 - 112 |
| 4-Bromofluorobenzene (4-BFB) | | 1.66 | mg/Kg | 1 | 2.00 | 83 | 72.8 - 115 |

Sample: 212195 - Background

Laboratory: Lubbock

Analysis: QC Batch:

Prep Batch: 55025

Chloride (Titration) 64441

Analytical Method: Date Analyzed: Sample Preparation:

SM 4500-Cl B 2009-10-14 2009-10-14

Prep Method: N/A Analyzed By: KV

KV

Prepared By:

³High surrogate recovery. Sample non-detect, result bias high.

⁴High surrogate recovery. Sample non-detect, result bias high.

Cone #605 Spill

Work Order: 9101304 Cone #605 Spill

Page Number: 9 of 20

| | | RL | | | |
|-----------|------|--------|-------|----------|------|
| Parameter | Flag | Result | Units | Dilution | RL |
| Chloride | | <32.5 | mg/Kg | 10 | 3.25 |

Sample: 212195 - Background

Laboratory:

Lubbock

Analysis:

TPH DRO

Analytical Method:

Mod. 8015B

Prep Method: N/A

Analyzed By: AW AW

QC Batch: Prep Batch:

64404 54997 Date Analyzed: Sample Preparation:

2009-10-13 2009-10-13

Prepared By:

RL

| Parameter | Flag | Result | Units | Dilution | RL |
|-----------|------|--------|-------|----------|------|
| DRO | | < 50.0 | mg/Kg | 1 | 50.0 |

| | | | | | Spike | Percent | Recovery |
|---------------|------|--------|-------|----------|--------|----------|----------|
| Surrogate | Flag | Result | Units | Dilution | Amount | Recovery | Limits |
| n-Triacontane | | 100 | mg/Kg | 1 | 100 | 100 | 70 - 130 |

Sample: 212195 - Background

Laboratory: Lubbock

GRO

TPH GRO Analysis: QC Batch: 64399 Prep Batch: 54994

Analytical Method: Date Analyzed:

S 8015B 2009-10-13

Prep Method: S 5035 Analyzed By: ER Prepared By: ER

RL

2.00

Sample Preparation: 2009-10-13

Parameter Flag Result

RLDilution Units < 2.00 mg/Kg

| | | | | | Spike | Percent | Recovery |
|------------------------------|------|--------|-------|----------|--------|----------|------------|
| Surrogate | Flag | Result | Units | Dilution | Amount | Recovery | Limits |
| Trifluorotoluene (TFT) | | 1.78 | mg/Kg | 1 | 2.00 | 89 | 86.9 - 113 |
| 4-Bromofluorobenzene (4-BFB) | | 1.78 | mg/Kg | 1 | 2.00 | 89 | 56.2 - 130 |

Method Blank (1)

QC Batch: 64398

QC Batch: 64398 Prep Batch: 54994 Date Analyzed: 2009-10-13 QC Preparation: 2009-10-13

Analyzed By: ER Prepared By:

MDL

Flag Units Parameter Result RL 0.02 < 0.00331 mg/Kg Benzene

continued ...

Cone #605 Spill

Work Order: 9101304 Cone #605 Spill

Page Number: 10 of 20

| method | blank | continued | | |
|--------|-------|-----------|--|--|
| | | | | |

| | | MDL | | |
|--------------|------|-----------|---------------------------|------|
| Parameter | Flag | Result | ${f Units}$ | RL |
| Toluene | | < 0.00528 | mg/Kg | 0.02 |
| Ethylbenzene | | < 0.00448 | mg/Kg | 0.02 |
| Xylene | | < 0.00456 | mg/Kg | 0.02 |

| Surrogate | Flag | Result | Units | Dilution | Spike Amount | Percent Recovery | Recovery Limits |
|------------------------------|------|--------|-------|----------|-----------------|---------------------|--------------------|
| Trifluorotoluene (TFT) | | 1.86 | mg/Kg | 1 | 2.00 | 93 | 71.8 - 112 |
| 4-Bromofluorobenzene (4-BFB) | | 1.98 | mg/Kg | 1 | 2.00 | 99 | 72.8 - 115 |

Method Blank (1)

QC Batch: 64399

QC Batch: Prep Batch: 54994

64399

Date Analyzed:

2009-10-13

Analyzed By: ER Prepared By: ER

QC Preparation: 2009-10-13

MDL

| Parameter | Flag | Result | Units | RL |
|-----------|------|---------|-------|----|
| GRO | | < 0.403 | mg/Kg | 2 |

| | | | | | Spike | Percent | Recovery |
|------------------------------|------|--------|-------|----------|--------|----------|------------|
| Surrogate | Flag | Result | Units | Dilution | Amount | Recovery | Limits |
| Trifluorotoluene (TFT) | | 2.21 | mg/Kg | 1 | 2.00 | 110 | 86.9 - 113 |
| 4-Bromofluorobenzene (4-BFB) | | 2.14 | mg/Kg | 1 | 2.00 | 107 | 56.2 - 130 |

Method Blank (1)

QC Batch: 64404

QC Batch: 64404 Date Analyzed:

2009-10-13

Analyzed By: AW Prepared By: AW

Prep Batch: 54997

QC Preparation: 2009-10-13

| | | MDL | | |
|-----------|------|--------|-------|----|
| Parameter | Flag | Result | Units | RL |
| DRO | | < 4.66 | mg/Kg | 50 |

| Surrogate | Flag | Result | Units | Dilution | Spike Amount | Percent Recovery | Recovery Limits |
|---------------|------|--------|-------|----------|-----------------|---------------------|--------------------|
| n-Triacontane | | 117 | mg/Kg | 1 | 100 | 117 | 70 - 130 |

Method Blank (1)

QC Batch: 64438

QC Batch:

64438

Date Analyzed:

2009-10-14

Analyzed By: ER

Prep Batch: 55024

QC Preparation: 2009-10-14

Prepared By: ER

Cone #605 Spill

Work Order: 9101304

Cone #605 Spill

Page Number: 11 of 20

| Parameter | Flag | MDL Result | Units | RL |
|--------------|------|---------------|-------|------|
| Benzene | | < 0.00331 | mg/Kg | 0.02 |
| Toluene | | < 0.00528 | mg/Kg | 0.02 |
| Ethylbenzene | | < 0.00448 | mg/Kg | 0.02 |
| Xylene | | < 0.00456 | mg/Kg | 0.02 |

| | | | | | Spike | Percent | Recovery |
|------------------------------|------|--------|-------|----------|--------|----------|------------|
| Surrogate | Flag | Result | Units | Dilution | Amount | Recovery | Limits |
| Trifluorotoluene (TFT) | | 1.74 | mg/Kg | 1 | 2.00 | 87 | 71.8 - 112 |
| 4-Bromofluorobenzene (4-BFB) | | 1.80 | mg/Kg | 1 | 2.00 | 90 | 72.8 - 115 |

Method Blank (1)

QC Batch: 64439

QC Batch: 64439

Date Analyzed:

2009-10-14

Analyzed By: ER

Prep Batch: 55024

QC Preparation: 2009-10-14

Prepared By: ER

MDL Parameter Flag GRO

Result Units RL< 0.403 mg/Kg 2

| | | | | | Spike | Percent | Recovery |
|------------------------------|------|--------|-------|----------|--------|----------|------------|
| Surrogate | Flag | Result | Units | Dilution | Amount | Recovery | Limits |
| Trifluorotoluene (TFT) | | 2.12 | mg/Kg | 1 | 2.00 | 106 | 86.9 - 113 |
| 4-Bromofluorobenzene (4-BFB) | | 1.98 | mg/Kg | 1 | 2.00 | 99 | 56.2 - 130 |

Method Blank (1)

QC Batch: 64441

QC Batch: 64441

Date Analyzed:

2009-10-14

Analyzed By: KV

Prep Batch: 55025

QC Preparation: 2009-10-14

Prepared By: KV

MDL Flag Result Units RL Parameter 3.25 Chloride <1.80 mg/Kg

Laboratory Control Spike (LCS-1)

QC Batch:

64398

Date Analyzed:

2009-10-13

Analyzed By: ER

Prep Batch:

54994

QC Preparation:

2009-10-13

Prepared By: ER

continued ...

Work Order: 9101304

Page Number: 12 of 20 Cone #605 Spill Cone #605 Spill

| control | S | pikes | continued | | |
|----------|---|--------|--------------|--|--|
| 00100100 | • | Pereco | COTTOUTTOWCO | | |

| | LCS | | | Spike | Matrix | | Rec. |
|--------------|--------|-------|------|--------|-----------|------|------------|
| Param | Result | Units | Dil. | Amount | Result | Rec. | Limit |
| | LCS | | | Spike | Matrix | | Rec. |
| Param | Result | Units | Dil. | Amount | Result | Rec. | Limit |
| Benzene | 1.88 | mg/Kg | 1 | 2.00 | < 0.00331 | 94 | 78.9 - 113 |
| Toluene | 1.90 | mg/Kg | 1 | 2.00 | < 0.00528 | 95 | 78.3 - 116 |
| Ethylbenzene | 1.82 | mg/Kg | 1 | 2.00 | < 0.00448 | 91 | 79.1 - 117 |
| Xylene | 5.48 | mg/Kg | 1 | 6.00 | < 0.00456 | 91 | 79.6 - 116 |

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

| Param | LCSD Result | Units | Dil. | Spike Amount | Matrix Result | Rec. | Rec. | RPD | RPD Limit |
|--------------|----------------|-------|------|-----------------|------------------|------|------------|-----|--------------|
| Benzene | 2.00 | mg/Kg | 1 | 2.00 | < 0.00331 | 100 | 78.9 - 113 | 6 | 20 |
| Toluene | 1.98 | mg/Kg | 1 | 2.00 | < 0.00528 | 99 | 78.3 - 116 | 4 | 20 |
| Ethylbenzene | 1.90 | mg/Kg | 1 | 2.00 | < 0.00448 | 95 | 79.1 - 117 | 4 | 20 |
| Xylene | 5.68 | mg/Kg | 1 | 6.00 | < 0.00456 | 94 | 79.6 - 116 | 4 | 20 |

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

| Surrogate | LCS Result | LCSD Result | Units | Dil. | Spike Amount | LCS Rec. | LCSD Rec. | Rec. |
|------------------------------|---------------|----------------|-------|------|-----------------|-------------|--------------|------------|
| Trifluorotoluene (TFT) | 1.81 | 1.80 | mg/Kg | 1 | 2.00 | 91 | 90 | 70.8 - 111 |
| 4-Bromofluorobenzene (4-BFB) | 1.96 | 1.98 | mg/Kg | 1 | 2.00 | 98 | 99 | 68.3 - 117 |

Laboratory Control Spike (LCS-1)

QC Batch:

64399

Date Analyzed:

2009-10-13

Analyzed By: ER Prepared By: ER

Prep Batch: 54994

QC Preparation: 2009-10-13

LCS Spike Matrix Rec. Param Result Units Dil. Amount Result Rec. Limit GRO 20.6 mg/Kg 20.0 < 0.403 103 72.6 - 121

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

| | LCSD | | | Spike | Matrix | | Rec. | | RPD |
|-------|--------|-------|------|--------|---------|------|------------|-----|-------|
| Param | Result | Units | Dil. | Amount | Result | Rec. | Limit | RPD | Limit |
| GRO | 21.1 | mg/Kg | 1 | 20.0 | < 0.403 | 106 | 72.6 - 121 | 2 | 20 |

| Surrogate | LCS Result | LCSD Result | Units | Dil. | Spike Amount | LCS Rec. | LCSD Rec. | Rec. |
|------------------------------|---------------|----------------|-------|------|-----------------|-------------|--------------|------------|
| Trifluorotoluene (TFT) | 2.14 | 2.04 | mg/Kg | 1 | 2.00 | 107 | 102 | 75.2 - 112 |
| 4-Bromofluorobenzene (4-BFB) | 2.27 | 2.15 | mg/Kg | 1 | 2.00 | 114 | 108 | 54.9 - 133 |

Cone #605 Spill

Work Order: 9101304 Cone #605 Spill

Page Number: 13 of 20

Laboratory Control Spike (LCS-1)

QC Batch:

64404

Date Analyzed:

2009-10-13

Analyzed By: AW

Prep Batch: 54997 QC Preparation: 2009-10-13 Prepared By: AW

| | LCS | | | Spike | Matrix | | Rec. |
|-------|--------|-------|------|--------|--------|------|----------|
| Param | Result | Units | Dil. | Amount | Result | Rec. | Limit |
| DRO | 273 | mg/Kg | 1 | 250 | < 4.66 | 109 | 70 - 130 |

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

| | LCSD | | | Spike | Matrix | | Rec. | | RPD |
|-------|--------|-------|------|--------|--------|------|----------|-----|-------|
| Param | Result | Units | Dil. | Amount | Result | Rec. | Limit | RPD | Limit |
| DRO | 284 | mg/Kg | 1 | 250 | < 4.66 | 114 | 70 - 130 | 4 | 20 |

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

| | LCS | LCSD | | | Spike | LCS | LCSD | Rec. |
|---------------|--------|--------|-------|------|--------|------|------|----------|
| Surrogate | Result | Result | Units | Dil. | Amount | Rec. | Rec. | Limit |
| n-Triacontane | 103 | 103 | mg/Kg | 1 | 100 | 103 | 103 | 70 - 130 |

Laboratory Control Spike (LCS-1)

QC Batch:

64438 Prep Batch: 55024 Date Analyzed:

2009-10-14 QC Preparation: 2009-10-14

Analyzed By: ER Prepared By: ER

| | LCS | | | Spike | Matrix | | Rec. |
|--------------|--------|-------|------|--------|-----------|------|------------|
| Param | Result | Units | Dil. | Amount | Result | Rec. | Limit |
| Benzene | 1.85 | mg/Kg | 1 | 2.00 | < 0.00331 | 93 | 78.9 - 113 |
| Toluene | 1.88 | mg/Kg | 1 | 2.00 | < 0.00528 | 94 | 78.3 - 116 |
| Ethylbenzene | 1.80 | mg/Kg | 1 | 2.00 | < 0.00448 | 90 | 79.1 - 117 |
| Xylene | 5.42 | mg/Kg | 1 | 6.00 | < 0.00456 | 90 | 79.6 - 116 |

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

| | LCSD | | | Spike | Matrix | | Rec. | | RPD |
|--------------|--------|-------|------|--------|-----------|------|------------|-----|-------|
| Param | Result | Units | Dil. | Amount | Result | Rec. | Limit | RPD | Limit |
| Benzene | 1.90 | mg/Kg | 1 | 2.00 | < 0.00331 | 95 | 78.9 - 113 | 3 | 20 |
| Toluene | 1.89 | mg/Kg | 1 | 2.00 | < 0.00528 | 94 | 78.3 - 116 | 0 | 20 |
| Ethylbenzene | 1.82 | mg/Kg | 1 | 2.00 | < 0.00448 | 91 | 79.1 - 117 | 1 | 20 |
| Xylene | 5.49 | mg/Kg | 1 | 6.00 | < 0.00456 | 92 | 79.6 - 116 | 1 | 20 |

| Surrogate | LCS Result | LCSD Result | Units | Dil. | Spike Amount | LCS Rec. | Rec. | Rec. Limit |
|------------------------------|---------------|----------------|-------|------|-----------------|-------------|------|---------------|
| Trifluorotoluene (TFT) | 1.77 | 1.77 | mg/Kg | 1 | 2.00 | 88 | 88 | 70.8 - 111 |
| 4-Bromofluorobenzene (4-BFB) | 1.84 | 1.87 | mg/Kg | 1 | 2.00 | 92 | 94 | 68.3 - 117 |

Cone #605 Spill

Work Order: 9101304 Cone #605 Spill

Page Number: 14 of 20

Laboratory Control Spike (LCS-1)

QC Batch:

64439

Date Analyzed:

2009-10-14

2009-10-13

2009-10-13

Analyzed By: ER Prepared By: ER

Prep Batch: 55024

QC Preparation: 2009-10-14

| | LCS | * | | Spike | Matrix | | Rec. |
|-------|--------|-------|------|--------|---------|------|------------|
| Param | Result | Units | Dil. | Amount | Result | Rec. | Limit |
| GRO | 20.5 | mg/Kg | 1 | 20.0 | < 0.403 | 102 | 72.6 - 121 |

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

| | LCSD | | | Spike | Matrix | | Rec. | | RPD |
|-------|--------|-------|------|--------|---------|------|------------|-----|-------|
| Param | Result | Units | Dil. | Amount | Result | Rec. | Limit | RPD | Limit |
| GRO | 21.2 | mg/Kg | 1 | 20.0 | < 0.403 | 106 | 72.6 - 121 | 3 | 20 |

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

| | LCS | LCSD | | | Spike | LCS | LCSD | Rec. |
|------------------------------|--------|--------|-------|------|--------|------|------|------------|
| Surrogate | Result | Result | Units | Dil. | Amount | Rec. | Rec. | Limit |
| Trifluorotoluene (TFT) | 2.00 | 2.04 | mg/Kg | 1 | 2.00 | 100 | 102 | 75.2 - 112 |
| 4-Bromofluorobenzene (4-BFB) | 2.10 | 2.17 | mg/Kg | 1 | 2.00 | 105 | 109 | 54.9 - 133 |

Spiked Sample: 212198 Matrix Spike (MS-1)

QC Batch:

64398 Prep Batch: 54994

Date Analyzed: QC Preparation:

Analyzed By: ER Prepared By: ER

MS Spike Matrix Rec. Result Units Dil. Result Limit Param Amount Rec. Benzene 1.70 mg/Kg 2.00 < 0.00331 85 61.5 - 134 2.00 90 64.2 - 143 Toluene 1.81 mg/Kg 1 < 0.00528 67.7 - 152Ethylbenzene 1.84 mg/Kg 1 2.00 < 0.00448 92 Xylene 67.8 - 152 5.58 mg/Kg 1 6.00 < 0.00456 93

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

| | MSD | | | Spike | Matrix | | Rec. | | RPD |
|--------------|--------|-------|------|--------|-----------|------|------------|-----|-------|
| Param | Result | Units | Dil. | Amount | Result | Rec. | Limit | RPD | Limit |
| Benzene | 1.58 | mg/Kg | 1 | 2.00 | < 0.00331 | 79 | 61.5 - 134 | 7 | 20 |
| Toluene | 1.68 | mg/Kg | 1 | 2.00 | < 0.00528 | 84 | 64.2 - 143 | 7 | 20 |
| Ethylbenzene | 1.71 | mg/Kg | 1 | 2.00 | < 0.00448 | 86 | 67.7 - 152 | 7 | 20 |
| Xylene | 5.17 | mg/Kg | 1 | 6.00 | < 0.00456 | 86 | 67.8 - 152 | 8 | 20 |

| Surrogate | MS Result | MSD Result | Units | Dil. | Spike Amount | MS Rec. | MSD Rec. | Rec. Limit |
|------------------------------|--------------|---------------|-------|------|-----------------|------------|-------------|---------------|
| Trifluorotoluene (TFT) | 1.74 | 1.58 | mg/Kg | 1 | 2 | 87 | 79 | 65.3 - 134 |
| 4-Bromofluorobenzene (4-BFB) | 1.94 | 1.78 | mg/Kg | 1 | 2 | 97 | 89 | 61.9 - 143 |

Cone #605 Spill

Work Order: 9101304 Cone #605 Spill

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Matrix Spike (MS-1)

Spiked Sample: 212192

QC Batch:

64399

Date Analyzed:

2009-10-13

Analyzed By: ER

Prep Batch: 54994

QC Preparation: 2009-10-13

Prepared By: ER

| | MS | | | Spike | Matrix | | Rec. |
|-------|--------|-------|------|--------|---------|------|------------|
| Param | Result | Units | Dil. | Amount | Result | Rec. | Limit |
| GRO | 10.2 | mg/Kg | 1 | 20.0 | < 0.403 | 51 | 34.1 - 160 |

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

| | | MSD | | | Spike | Matrix | | Rec. | | RPD |
|-------|---|--------|-------|------|--------|---------|------|------------|-----|-------|
| Param | | Result | Units | Dil. | Amount | Result | Rec. | Limit | RPD | Limit |
| GRO | 5 | 6.26 | mg/Kg | 1 | 20.0 | < 0.403 | 31 | 34.1 - 160 | 48 | 20 |

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

| | | MS | MSD | | | Spike | MS | MSD | Rec. |
|------------------------------|---|--------|--------|-------|------|--------|------|------|------------|
| Surrogate | | Result | Result | Units | Dil. | Amount | Rec. | Rec. | Limit |
| Trifluorotoluene (TFT) | 6 | 1.20 | 0.596 | mg/Kg | 1 | 2 | 60 | 30 | 56.9 - 137 |
| 4-Bromofluorobenzene (4-BFB) | 7 | 1.25 | 0.782 | mg/Kg | 1 | 2 | 62 | 39 | 42.1 - 171 |

Matrix Spike (MS-1)

Spiked Sample: 212192

QC Batch:

64404

Date Analyzed:

2009-10-13

Analyzed By: AW Prepared By: AW

Prep Batch: 54997

QC Preparation: 2009-10-13

| | MS | | | Spike | Matrix | | Rec. |
|-------|--------|-------|------|--------|--------|------|----------|
| Param | Result | Units | Dil. | Amount | Result | Rec. | Limit |
| DRO | 225 | mg/Kg | 1 | 250 | <4.66 | 90 | 70 - 130 |

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

| | MSD | | | Spike | Matrix | | Rec. | | RPD |
|-------|--------|-------|------|--------|--------|------|----------|-----|-------|
| Param | Result | Units | Dil. | Amount | Result | Rec. | Limit | RPD | Limit |
| DRO | 214 | mg/Kg | 1 | 250 | <4.66 | 86 | 70 - 130 | 5 | 20 |

| | MS | MSD | ** ** | Dil | Spike | MS | MSD | Rec. |
|---------------|--------|--------|-------|------|--------|------|------|----------|
| Surrogate | Result | Result | Units | Dil. | Amount | Rec. | Rec. | Limit |
| n-Triacontane | 80.4 | 79.1 | mg/Kg | 1 | 100 | 80 | 79 | 70 - 130 |

⁵Matrix spike recovery and RPD out of control limits due to matrix interference. Use LCS/LCSD to demonstrate analysis is under control.

⁶Matrix spike recovery out of control limits due to matrix interference. Use LCS/LCSD to demonstrate analysis is under control.

⁷Matrix spike recovery out of control limits. Use LCS/LCSD to demonstrate analysis is under control.

Cone #605 Spill

Work Order: 9101304 Cone #605 Spill

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Matrix Spike (MS-1)

Spiked Sample: 212203

QC Batch: Prep Batch: 55024

64438

Date Analyzed: QC Preparation: 2009-10-14

2009-10-14

Analyzed By: ER

Prepared By: ER

| | MS | | | Spike | Matrix | | Rec. |
|--------------|--------|-------|------|--------|----------|------|------------|
| Param | Result | Units | Dil. | Amount | Result | Rec. | Limit |
| Benzene | 1.76 | mg/Kg | 5 | 2.00 | < 0.0166 | 88 | 61.5 - 134 |
| Toluene | 1.90 | mg/Kg | 5 | 2.00 | < 0.0264 | 95 | 64.2 - 143 |
| Ethylbenzene | 1.94 | mg/Kg | 5 | 2.00 | < 0.0224 | 97 | 67.7 - 152 |
| Xylene | 5.88 | mg/Kg | 5 | 6.00 | < 0.0228 | 98 | 67.8 - 152 |

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

| | MSD | | | Spike | Matrix | | Rec. | | RPD |
|--------------|--------|-------|------|--------|----------|------|------------|-----|-------|
| Param | Result | Units | Dil. | Amount | Result | Rec. | Limit | RPD | Limit |
| Benzene | 1.75 | mg/Kg | 5 | 2.00 | < 0.0166 | 88 | 61.5 - 134 | 1 | 20 |
| Toluene | 1.87 | mg/Kg | 5 | 2.00 | < 0.0264 | 94 | 64.2 - 143 | 2 | 20 |
| Ethylbenzene | 1.90 | mg/Kg | 5 | 2.00 | < 0.0224 | 95 | 67.7 - 152 | 2 | 20 |
| Xylene | 5.76 | mg/Kg | 5 | 6.00 | < 0.0228 | 96 | 67.8 - 152 | 2 | 20 |

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

| | MS | MSD | | | Spike | MS | MSD | Rec. |
|------------------------------|--------|--------|-------|------|--------|------|------|------------|
| Surrogate | Result | Result | Units | Dil. | Amount | Rec. | Rec. | Limit |
| Trifluorotoluene (TFT) | 1.78 | 1.70 | mg/Kg | 5 | 2 | 89 | 85 | 65.3 - 134 |
| 4-Bromofluorobenzene (4-BFB) | 1.96 | 1.81 | mg/Kg | 5 | 2 | 98 | 90 | 61.9 - 143 |

Matrix Spike (MS-1)

Spiked Sample: 212194

QC Batch:

64439

Date Analyzed:

2009-10-14

Analyzed By: ER Prepared By: ER

Prep Batch: 55024 QC Preparation: 2009-10-14

MS Matrix Rec. Spike Dil. Param Result Units Amount Result Rec. Limit GRO 23.9 20.0 < 0.403 120 34.1 - 160 mg/Kg1

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

| | MSD | | | Spike | Matrix | | Rec. | | RPD |
|-------|--------|-------|------|--------|---------|------|------------|-----|-------|
| Param | Result | Units | Dil. | Amount | Result | Rec. | Limit | RPD | Limit |
| GRO | 22.9 | mg/Kg | 1 | 20.0 | < 0.403 | 114 | 34.1 - 160 | 4 | 20 |

| Surrogate | MS Result | MSD Result | Units | Dil. | Spike Amount | MS Rec. | MSD Rec. | Rec. Limit |
|------------------------------|--------------|---------------|-------|------|-----------------|------------|-------------|---------------|
| Trifluorotoluene (TFT) | 2.37 | 2.46 | mg/Kg | 1 | 2 | 118 | 123 | 56.9 - 137 |
| 4-Bromofluorobenzene (4-BFB) | 2.79 | 2.76 | mg/Kg | 1 | 2 | 140 | 138 | 42.1 - 171 |

Cone #605 Spill

Work Order: 9101304 Cone #605 Spill

Page Number: 17 of 20

Matrix Spike (MS-1)

Spiked Sample: 212195

QC Batch:

64441

Date Analyzed:

2009-10-14

Analyzed By: KV

Prep Batch: 55025

QC Preparation: 2009-10-14

Prepared By: KV

| | MS | | | Spike | Matrix | | Rec. |
|----------|--------|-------|------|--------|--------|------|----------|
| Param | Result | Units | Dil. | Amount | Result | Rec. | Limit |
| Chloride | 83.8 | mg/Kg | 10 | 100 | <18.0 | 84 | 80 - 120 |

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

| | MSD | | | Spike | Matrix | | Rec. | | RPD |
|----------|--------|-------|------|--------|--------|------|----------|-----|-------|
| Param | Result | Units | Dil. | Amount | Result | Rec. | Limit | RPD | Limit |
| Chloride | 87.7 | mg/Kg | 10 | 100 | <18.0 | 88 | 80 - 120 | 4 | 20 |

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Standard (CCV-1)

QC Batch: 64398

Date Analyzed: 2009-10-13

Analyzed By: ER

| D | Dia | TT:4 | CCVs True | CCVs Found | CCVs Percent | Percent Recovery | Date |
|--------------|------|-------|--------------|---------------|-----------------|---------------------|------------|
| Param | Flag | Units | Conc. | Conc. | Recovery | Limits | Analyzed |
| Benzene | | mg/Kg | 0.100 | 0.0924 | 92 | 80 - 120 | 2009-10-13 |
| Toluene | | mg/Kg | 0.100 | 0.0941 | 94 | 80 - 120 | 2009-10-13 |
| Ethylbenzene | | mg/Kg | 0.100 | 0.0912 | 91 | 80 - 120 | 2009-10-13 |
| Xylene | | mg/Kg | 0.300 | 0.275 | 92 | 80 - 120 | 2009-10-13 |

Standard (CCV-2)

QC Batch: 64398

Date Analyzed: 2009-10-13

Analyzed By: ER

| Param | Flag | Units | CCVs True Conc. | CCVs Found Conc. | CCVs Percent Recovery | Percent Recovery Limits | Date Analyzed |
|--------------|------|-------|-----------------------|------------------------|-----------------------------|-------------------------------|------------------|
| Benzene | | mg/Kg | 0.100 | 0.0953 | 95 | 80 - 120 | 2009-10-13 |
| Toluene | | mg/Kg | 0.100 | 0.0942 | 94 | 80 - 120 | 2009-10-13 |
| Ethylbenzene | | mg/Kg | 0.100 | 0.0895 | 90 | 80 - 120 | 2009-10-13 |
| Xylene | | mg/Kg | 0.300 | 0.271 | 90 | 80 - 120 | 2009-10-13 |

Standard (CCV-1)

QC Batch: 64399

Date Analyzed: 2009-10-13

Analyzed By: ER

Cone #605 Spill

Work Order: 9101304 Cone #605 Spill

Page Number: 18 of 20

| | | | CCVs True | CCVs Found | ${ m CCVs}$ ${ m Percent}$ | Percent Recovery | Date |
|-------|------|-------|--------------|---------------|----------------------------|---------------------|------------|
| Param | Flag | Units | Conc. | Conc. | Recovery | Limits | Analyzed |
| GRO | | mg/Kg | 1.00 | 1.05 | 105 | 80 - 120 | 2009-10-13 |

Standard (CCV-2)

QC Batch: 64399

Date Analyzed: 2009-10-13

Analyzed By: ER

| | | | CCVs | CCVs | CCVs | Percent | |
|-------|------|-------|-------|-------|----------|----------|------------|
| | | | True | Found | Percent | Recovery | Date |
| Param | Flag | Units | Conc. | Conc. | Recovery | Limits | Analyzed |
| GRO | | mg/Kg | 1.00 | 0.956 | 96 | 80 - 120 | 2009-10-13 |

Standard (CCV-1)

QC Batch: 64404

Date Analyzed: 2009-10-13

Analyzed By: AW

| | | | CCVs | CCVs | CCVs | Percent | |
|-------|------|-------|-------|-------|----------|----------|------------|
| | | | True | Found | Percent | Recovery | Date |
| Param | Flag | Units | Conc. | Conc. | Recovery | Limits | Analyzed |
| DRO | | mg/Kg | 250 | 260 | 104 | 80 - 120 | 2009-10-13 |

Standard (CCV-2)

QC Batch: 64404

Date Analyzed: 2009-10-13

Analyzed By: AW

| | | | CCVs True | CCVs Found | CCVs Percent | Percent Recovery | Date |
|-------|------|-------|--------------|---------------|-----------------|---------------------|------------|
| Param | Flag | Units | Conc. | Conc. | Recovery | Limits | Analyzed |
| DRO | | mg/Kg | 250 | 284 | 114 | 80 - 120 | 2009-10-13 |

Standard (CCV-1)

QC Batch: 64438

Date Analyzed: 2009-10-14

Analyzed By: ER

| | | | CCVs | CCVs | CCVs | Percent | D |
|--------------|------|-------|-------|--------|----------|----------|------------|
| | | | True | Found | Percent | Recovery | Date |
| Param | Flag | Units | Conc. | Conc. | Recovery | Limits | Analyzed |
| Benzene | | mg/Kg | 0.100 | 0.0918 | 92 | 80 - 120 | 2009-10-14 |
| Toluene | | mg/Kg | 0.100 | 0.0937 | 94 | 80 - 120 | 2009-10-14 |
| Ethylbenzene | | mg/Kg | 0.100 | 0.0932 | 93 | 80 - 120 | 2009-10-14 |
| Xylene | | mg/Kg | 0.300 | 0.279 | 93 | 80 - 120 | 2009-10-14 |

Cone #605 Spill

Work Order: 9101304 Cone #605 Spill Page Number: 19 of 20

Standard (CCV-2)

QC Batch: 64438

Date Analyzed: 2009-10-14

Analyzed By: ER

| | | | CCVs | CCVs | CCVs | Percent | |
|--------------|------|-------|-------|--------|----------|----------|------------|
| | | | True | Found | Percent | Recovery | Date |
| Param | Flag | Units | Conc. | Conc. | Recovery | Limits | Analyzed |
| Benzene | | mg/Kg | 0.100 | 0.0927 | 93 | 80 - 120 | 2009-10-14 |
| Toluene | | mg/Kg | 0.100 | 0.0899 | 90 | 80 - 120 | 2009-10-14 |
| Ethylbenzene | | mg/Kg | 0.100 | 0.0844 | 84 | 80 - 120 | 2009-10-14 |
| Xylene | | mg/Kg | 0.300 | 0.255 | 85 | 80 - 120 | 2009-10-14 |

Standard (CCV-1)

QC Batch: 64439

Date Analyzed: 2009-10-14

Analyzed By: ER

| | | | CCVs | CCVs | CCVs | Percent | |
|-------|------|-------|-------|-------|----------|----------|------------|
| | | | True | Found | Percent | Recovery | Date |
| Param | Flag | Units | Conc. | Conc. | Recovery | Limits | Analyzed |
| GRO | | mg/Kg | 1.00 | 0.990 | 99 | 80 - 120 | 2009-10-14 |

Standard (CCV-2)

QC Batch: 64439

Date Analyzed: 2009-10-14

Analyzed By: ER

| | | | CCVs | CCVs | CCVs | Percent | |
|-------|------|-------|-------|-------|----------|----------|------------|
| | | | True | Found | Percent | Recovery | Date |
| Param | Flag | Units | Conc. | Conc. | Recovery | Limits | Analyzed |
| GRO | | mg/Kg | 1.00 | 0.876 | 88 | 80 - 120 | 2009-10-14 |

Standard (ICV-1)

QC Batch: 64441

Date Analyzed: 2009-10-14

Analyzed By: KV

| | | | ICVs | ICVs | ICVs | Percent | |
|----------|------|-------|-------|-------|----------|----------|------------|
| | | | True | Found | Percent | Recovery | Date |
| Param | Flag | Units | Conc. | Conc. | Recovery | Limits | Analyzed |
| Chloride | | mg/Kg | 100 | 100 | 100 | 85 - 115 | 2009-10-14 |

Standard (CCV-1)

QC Batch: 64441

Date Analyzed: 2009-10-14

Analyzed By: KV

Report Date: October 15, 2010 Cone #605 Spill

Work Order: 9101304 Cone #605 Spill

Page Number: 20 of 20

| | | | CCVs | CCVs | CCVs | Percent | |
|----------|------|-------|-------|-------|----------|----------|------------|
| | | | True | Found | Percent | Recovery | Date |
| Param | Flag | Units | Conc. | Conc. | Recovery | Limits | Analyzed |
| Chloride | | mg/Kg | 100 | 99.5 | 100 | 85 - 115 | 2009-10-14 |

TraceAnalysis, Inc.

email: lab@traceanalysis.com

Phone #:

Company Name:

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