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Effective Solutions

REMEDIATION SUMMARY

AND SITE CLOSURE PROPOSAL

LEGACY RESERVES, LP
LR Chamberlain Tank Battery
Lea County, New Mexico
UNIT LTR "C" (NE ¼ NW ¼), Section 14, Township 15 South, Range 37 East
Latitude 33° 01' 20.3" North, Longitude 103° 10' 16.6" West
NMOCD Reference # 1RP-2390 and 1RP-2513

Prepared For:

Legacy Reserves, L.P.
P.O. Box 10848
Midland, TX 79702

RECEIVED
AUG 11 2010
HOBBSOCD

Prepared By:
Basin Environmental Consulting, LLC
2800 Plains Highway
Lovington, New Mexico 88260

August 2010

approved by
Geoff Leking
Environmental Engr
NMOCD-Hobbs
08/11/10

Camille J. Bryant
Project Manager

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INTRODUCTION AND BACKGROUND INFORMATION

Basin Environmental Consulting, LLC (Basin), on behalf of Legacy Reserves, LP (Legacy), has prepared this Remediation Summary and Site Closure Proposal for the release site known as LR Chamberlain Tank Battery. The legal description of the release site is Unit Letter "C" (NE ¼ NW ¼), Section 14, Township 15 South, Range 37 East, in Lea County, New Mexico. The property affected by the release is owned by Mr. Darr Angell. The release site latitude is 32° 01' 20.3" North and the longitude is 103° 10' 16.6" West. Please reference Figure 1 for a Site Location Map and Figure 2 for a Site Map. General photographs are provided as Appendix C.

On January 6, 2010, Legacy discovered a release had occurred at the LR Chamberlain Tank Battery. The transfer line on a 500 barrel tank was obstructed, resulting in a release of produced water and crude oil. The release was reported to the New Mexico Oil Conservation Division (NMOCD) Hobbs District Office on January 7, 2010. The Release Notification and Corrective Action (Form C-141) indicated approximately 680 barrels of produced water and crude oil was released and 600 barrels were recovered. The release was confined inside the tank battery. The Release Notification and Corrective Action (Form C-141) is provided as Appendix D.

On May 5, 2010, Legacy discovered an additional release had occurred at the LR Chamberlain Tank Battery. Equipment failure of a 3:1 swedge on the discharge side of the transfer pump resulted in a release of produced water. The release was reported to the NMOCD Hobbs District Office on May 6, 2010. The Release Notification and Corrective Action (Form C-141) indicated approximately 80 barrels of produced water was released and approximately 60 barrels were recovered. The release was confined inside the tank battery. The Release Notification and Corrective Action (Form C-141) is provided as Appendix D.

Remediation activities of the January 6, 2010 and May 5, 2010, releases will be conducted simultaneously.

NMOCD SITE CLASSIFICATION

A search of the New Mexico Office of the State Engineer (NMOSE) database indicates the average depth to groundwater is approximately forty (40) feet below ground surface (bgs) in the section. This depth to groundwater results in a score of twenty (20) points being assigned to the site based on the NMOCD depth to groundwater criteria.

The water well database, maintained by the NMOSE, indicated there are no water wells less than 1,000 feet from the release, resulting in zero (0) points being assigned to this site as a result of this criteria.

There are no surface water bodies located within 1,000 feet of the site. Based on the NMOCD ranking system zero (0) points will be assigned to the site as a result of the criteria.

The NMOCD guidelines indicate the LR Chamberlain Tank Battery release site has an initial ranking score of twenty (20). Based on this score, the soil remediation levels for a site with a ranking score of twenty (20) points are as follows:

- Benzene – 10 mg/Kg (ppm)

- BTEX – 50 mg/Kg (ppm)
- TPH – 100 mg/Kg (ppm)

The NMOCD chloride clean up level concentrations are site specific and will be determined by the NMOCD Hobbs District Office.

SUMMARY OF SOIL REMEDIATION ACTIVITIES

On January 22, 2010, Basin began excavation activities at the LR Chamberlain Tank Battery release site. The area inside the tank battery was excavated to approximately 1.5 feet bgs. Approximately 1,200 cubic yards (cy) of impacted soil was excavated and stockpiled on-site pending final disposition.

On March 30, 2010, two (2) trenches (NE Corner and S. Middle) were advanced at the site to investigate the vertical and horizontal extent of impact at the site. Selected soil samples were submitted to the laboratory and analyzed for concentrations of benzene, toluene, ethyl-benzene and xylenes (BTEX), total petroleum hydrocarbons (TPH) and chlorides using EPA SW 846-8021b, SW 846-8015M and E 300, respectively. A summary of the analytical results are included in Table 1, Concentrations of BTEX, TPH and Chlorides in Soil. Laboratory analytical reports are provided as Appendix B.

The NE trench was advanced in the northeast corner of the tank battery to approximately seventeen (17) feet bgs. Four (4) soil samples (NE Corner 5', NE Corner 10', NE Corner @ 15' and NE Corner 17') were collected from the trench and submitted to the laboratory for analysis. Following soil sample collection the trench was backfilled. Laboratory analytical results indicated benzene concentrations were less than the appropriate laboratory method detection limit (MDL) for all the submitted soil samples. BTEX concentrations ranged from 0.0256 mg/Kg for soil sample NE Corner @ 17' to 25.5 mg/Kg for soil sample NE Corner @ 15'. TPH concentrations ranged from 431 mg/Kg for soil sample NE Corner @ 17' to 5,435 mg/Kg for soil sample NE Corner @ 15'. Chloride concentrations ranged from 624 mg/Kg for soil sample NE Corner @ 15' to 1,420 mg/Kg for soil sample NE Corner @ 5'.

The S. Middle trench was advanced in the center of the tank battery approximately forty (40) feet south of the eastern most tank, to approximately fifteen (15) feet bgs. Four (4) soil samples (S. Middle @ 5', S. Middle @ 10, S. Middle @ 12' and S. Middle @ 15') were collected from the trench and submitted to the laboratory for analysis. Following soil sample collection the trench was backfilled. Laboratory analytical results indicated benzene concentrations were less than the appropriate laboratory MDL for all the submitted soil samples. BTEX concentrations ranged from 2.773 mg/Kg for soil sample S. Middle @ 5' to 173.5 mg/Kg for soil sample S. Middle @ 12'. TPH concentrations ranged from 3,391 mg/Kg for soil sample S. Middle @ 5' to 9,477 mg/Kg for soil sample S. Middle @ 12'. Chloride concentrations ranged from 1,680 mg/Kg for soil sample S. Middle @ 10' to 3,110 mg/Kg for soil sample S. Middle @ 12'.

On April 28, 2010, five (5) delineation trenches (T-1, T-2, T-3, T-4 and T-5) were advanced outside of the tank battery to investigate the vertical and horizontal extent of impacted soil at the site. One (1) trench was advanced to the east (T-5) and west (T-4) of the tank battery and three (3) trenches (T-1, T-2 and T-3) were advanced to the north of the tank battery. The delineation

trenches were positioned against the berm and extended perpendicular to the direction of the berm. Selected soil samples were collected from the trenches and submitted to the laboratory for determination of BTEX, TPH and chloride concentrations.

Trench #1 was advanced on the northwest side of the tank battery to an approximate depth of seventeen (17) feet bgs. Twelve (12) soil samples (T-1 Sample 1 @ 2', T-1 Sample 1 @ 7', T-1 Sample 1 @ 15', T-1 Sample 1 @ 17', T-1 Sample 2 @ 2', T-1 Sample 2 @ 5', T-1 Sample 3 @ 2', T-1 Sample 3 @ 5', T-1 Sample 4 @ 2', T-1 Sample 4 @ 5', T-1 Sample 5 @ 2' and T-1 Sample 5 @ 3') were collected and submitted to the laboratory for analysis. Following soil sample collection the trench was backfilled. Laboratory analytical results indicated benzene and BTEX concentrations were less than the appropriate laboratory MDL for all the submitted soil samples. TPH concentrations were less than the appropriate laboratory MDL for all the submitted soil samples, with the exception of soil samples T-1 Sample 5 @ 2' and T-1 Sample 5 @ 3' which exhibited TPH concentrations of 113.5 mg/Kg and 180.6 mg/Kg, respectively. Chloride concentrations ranged from 8.95 mg/Kg for soil sample T-1 Sample 5 @ 3' to 1,460 mg/Kg for soil sample T-1 Sample 4 @ 5'.

Trench #2 was advanced on the north central side of the tank battery to an approximate depth of thirteen (13) feet bgs, where a solid rock layer was encountered. Eight (8) soil samples (T-2 Sample 1 @ 2', T-2 Sample 1 @ 7', T-2 Sample 1 @ 12', T-2 Sample 1 @ 13', T-2 Sample 2 @ 2', T-2 Sample 2 @ 5', T-2 Sample 3 @ 2' and T-2 Sample 3 @ 5') were collected and submitted to the laboratory for analysis. Following soil sample collection the trench was backfilled. Laboratory analytical results indicated benzene, BTEX and TPH concentrations were less than the appropriate laboratory MDL for all the submitted soil samples. Chloride concentrations ranged from 66.3 mg/Kg for soil sample T-2 Sample 3 @ 5' to 837 mg/Kg for soil sample T-2 Sample 1 @ 2'.

Trench #3 was advanced on the northeast side of the tank battery to an approximate depth of seven (7) feet bgs. Seven (7) soil samples (T-3 Sample 1 @ 2', T-3 Sample 1 @ 5', T-3 Sample 1 @ 7', T-3 Sample 2 @ 5', T-3 Sample 3 @ 5', T-3 Sample 4 @ 2' and T-3 Sample 4 @ 5') were collected and submitted to the laboratory for analysis. Following soil sample collection the trench was backfilled. Laboratory analytical results indicated benzene, BTEX and TPH concentrations were less than the appropriate laboratory MDL for all submitted soil samples. Chloride concentrations ranged from 71.6 mg/Kg for soil sample T-3 Sample 4 @ 2' to 981 mg/Kg for soil sample T-3 Sample 3 @ 5'.

Trench #4 was advanced on the west side of the tank battery to an approximate depth of three (3) feet bgs. A solid rock layer was encountered on the west side of the tank battery at depths ranging from one and half (1.5) feet to three (3) feet bgs. Four soil samples (T-4 Sample 1 @ 1.5', T-4 Sample 2 @ 1.5', T-4 Sample 3 @ 2' and T-4 Sample 3 @ 3') were collected and submitted to the laboratory for analysis. Following soil sample collection the trench was backfilled. Laboratory analytical results indicated benzene, BTEX and TPH concentrations were less than the appropriate laboratory MDL for all the submitted soil samples. Chloride concentrations ranged from 67.6 mg/Kg for soil sample T-4 Sample 3 @ 2' to 885 mg/Kg for soil sample T-4 Sample 2 @ 1.5'.

Trench #5 was advanced on the east side of the tank battery to an approximate depth of three and a half (3.5) feet bgs. A solid rock layer was encountered on the east side of the battery at depths

ranging from approximately one and a half (1.5) feet to three and a half (3.5) feet bgs. Three (3) soil samples were collected and submitted to the laboratory for analysis. Following soil sample collection the trench was backfilled. Laboratory analytical results indicated benzene, BTEX and TPH concentrations were less than the appropriate laboratory MDL for all the submitted soil samples. Chloride concentrations ranged from 66.4 mg/Kg for soil sample T-5 Sample 2 @ 2' to 2,870 mg/Kg for soil sample T-5 Sample 1 @ 2'.

On June 29, 2010, with NMOCD approval, one (1) soil boring (SB-1) was advanced inside the LR Chamberlain Tank Battery to investigate the vertical extent of soil impact. Soil boring logs are provided as Appendix A. Soil samples were collected a five (5) foot drilling intervals and field screened using a Photo-Ionization Detector (PID) and a chloride field screening kit. Selected soil samples were submitted to the laboratory for determination of concentrations of BTEX, TPH and chlorides.

Soil boring SB-1 was advanced in the southern portion of the tank battery to a total depth of approximately thirty (30) feet bgs. Soil samples collected at five (5) feet, ten (10) feet, fifteen (15) feet, twenty (20) feet, twenty five (25) feet and thirty (30) feet were submitted to the lab for analysis. Laboratory analytical results indicated benzene and BTEX concentrations were less than the appropriate laboratory MDL for all the submitted soil samples. TPH concentrations ranged from less than the appropriate laboratory MDL for soil samples SB-1 @ 10', SB-1 @ 15', SB-1 @ 20' and SB-1 @ 25' to 51.9 mg/Kg for soil sample SB-1 @ 5'. Chloride concentrations ranged from 72.7 mg/Kg for soil sample SB-1 @ 25' to 2,170 mg/Kg for soil sample SB-1 @ 5'.

PROPOSED ACTIONS

Legacy proposes the following risk-based closure strategy designed to progress the LR Chamberlain Tank Battery release site toward an NMOCD approved closure:

- The area defined by and including Trench #1 will be excavated to approximately ten (10) feet bgs. The area defined by and including Trench #2 will be excavated to approximately eight (8) feet bgs. The area defined by and including Trench #3 will be excavated to approximately five (5) feet bgs. The area defined by and including Trench #4 will be excavated to approximately one and a half (1.5) feet bgs or to the solid rock layer. No excavation activities will be conducted on the east side of the tank battery in the area defined by Trench #5 due to multiple pipelines in the area. A map depicting the Proposed Excavation Area is provided as Figure 3. The limits of the excavation will be determined by field screening using a chloride field test kit. Due to this being an active tank battery and a high traffic area the excavation will be backfilled based on chloride field test results. Soil samples will be collected at approximately seventy five (75) foot intervals from the excavation sidewalls and field tested for concentrations of chlorides. When chloride field tests indicate chloride concentrations of the soil samples collected from the sidewalls of the excavation are less than 500 mg/Kg excavation activities will cease. All excavated soil will be transported to Gandy-Marley Inc. (NMOCD permit # DP-1041) for disposal.
- Following excavation activities, the area will be backfilled with non-impacted soil obtained from the landowner, to approximately two and a half (2.5) feet bgs. A one (1) foot clay cap will be installed and compacted in the excavation to inhibit vertical

migration of the contaminants left in place below the clay cap, while allowing for the natural attenuation of the contaminants left in-situ. The remaining portion of the excavation will be backfilled with caliche obtained from the landowner and compacted.

- The area inside the tank battery will be excavated to the solid rock layer. The areas defined by and including the Northeast Corner Trench and the South Middle Trench will be excavated to approximately fifteen (15) feet bgs.
- Following excavation activities, the deeper excavated areas will be backfilled and compacted with non-impacted soil obtained from the landowner, to approximately one and a half (1.5) feet bgs. A one (1) foot of clay cap will be installed and compacted in the excavation to inhibit vertical migration of the contaminants left in place below the clay cap, while allowing for the natural attenuation of the contaminants left in-situ. The excavation will be backfilled with caliche obtained from the landowner and compacted. Following backfilling activities, the berms around the tank battery will be repaired.

REPORTING

On review and approval of this proposal by the NMOCD, Legacy is prepared to begin the field activities and perform the corrective actions summarized in this Remediation Summary and Site Closure Proposal. Upon completion of the field activities summarized in this proposal, Legacy will submit a Site Closure Request to the NMOCD, documenting the results of confirmation soil samples, and final site activities.

LIMITATIONS

Basin Environmental Consulting, LLC has prepared this Remediation Summary and Site Closure Proposal to the best of its ability. No other warranty, expressed or implied, is made or intended.

Basin Environmental Consulting, LLC has examined and relied upon documents referenced in the report and has relied on oral statements made by certain individuals. Basin Environmental Consulting, LLC has not conducted an independent examination of the facts contained in referenced materials and statements. We have presumed the genuineness of the documents and that the information provided in documents or statements is true and accurate. Basin Environmental Consulting, LLC has prepared this report, in a professional manner, using the degree of skill and care exercised by similar environmental consultants. Basin Environmental Consulting, LLC also notes that the facts and conditions referenced in this report may change over time and the conclusions and recommendations set forth herein are applicable only to the facts and conditions as described at the time of this report.

This report has been prepared for the benefit of Legacy Reserves, L.P. The information contained in this report, including all exhibits and attachments, may not be used by any other party without the express consent of Basin Environmental Consulting, LLC and/or Legacy Reserves, L.P.

DISTRIBUTION:

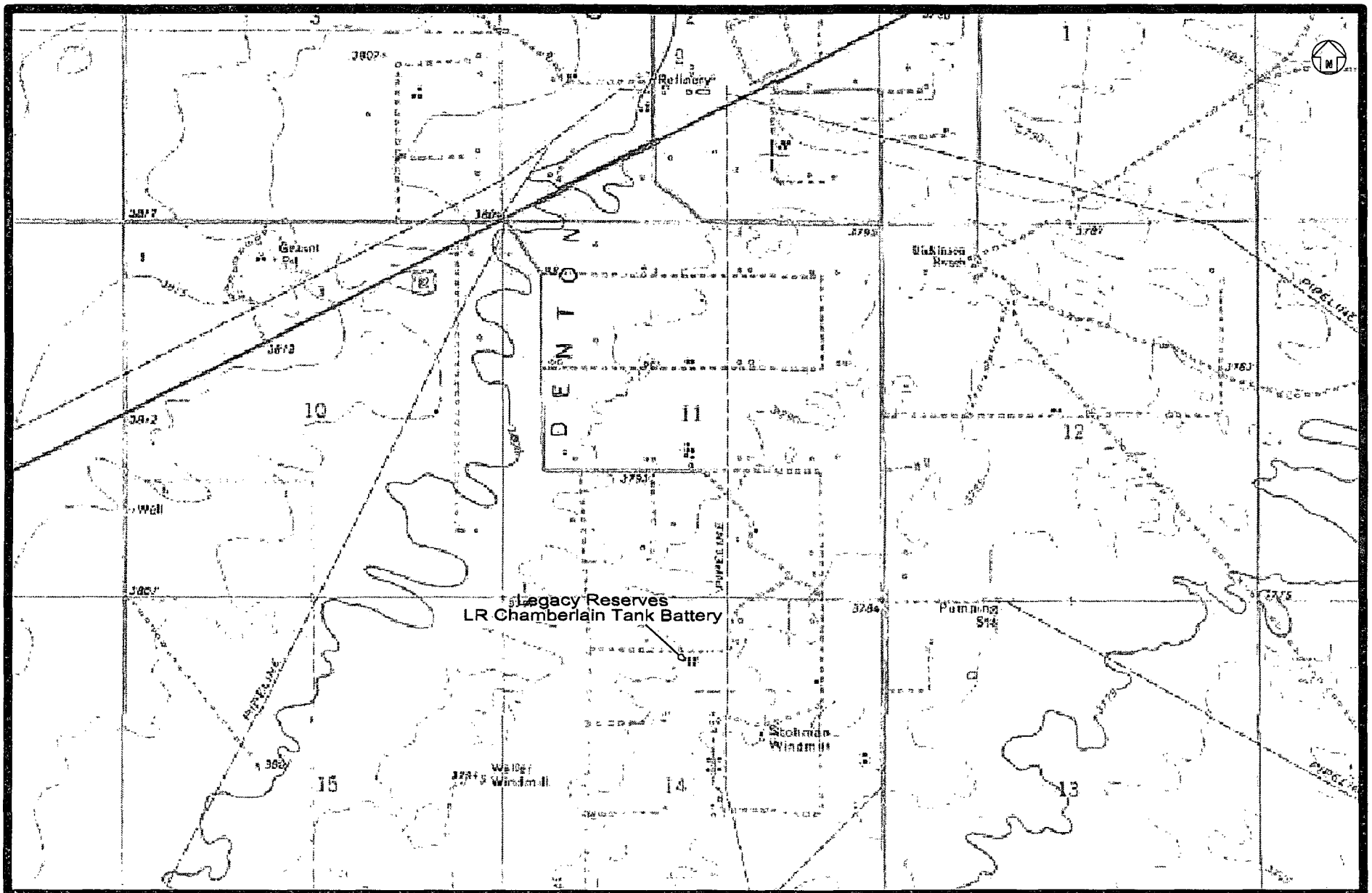
Copy 1: Geoffrey Leking
New Mexico Energy, Minerals and Natural Resources Department
Oil Conservation Division (District 1)
625 N. French Drive
Hobbs, New Mexico 88240

Copy 2: Kevin Bracey
Legacy Reserves, LP
PO Box 10848
Midland, Texas 79702

Copy 3: Mr. Darr Angell
P.O. Box 190
Lovington, New Mexico 88260

Copy 3: Basin Environmental Consulting, LLC
P.O. Box 381
Lovington, New Mexico 88260

Figures



3000 1500 0 1500 3000

Distance in Feet

Figure 1
Site Location Map
LR Chamberlain Tank Battery

Legacy Reserves, LP
Lea County, New Mexico

Basin Environmental Consulting

Prep By: CDS	Checked By: CJB
April 14, 2010	Scale 1"=3000'

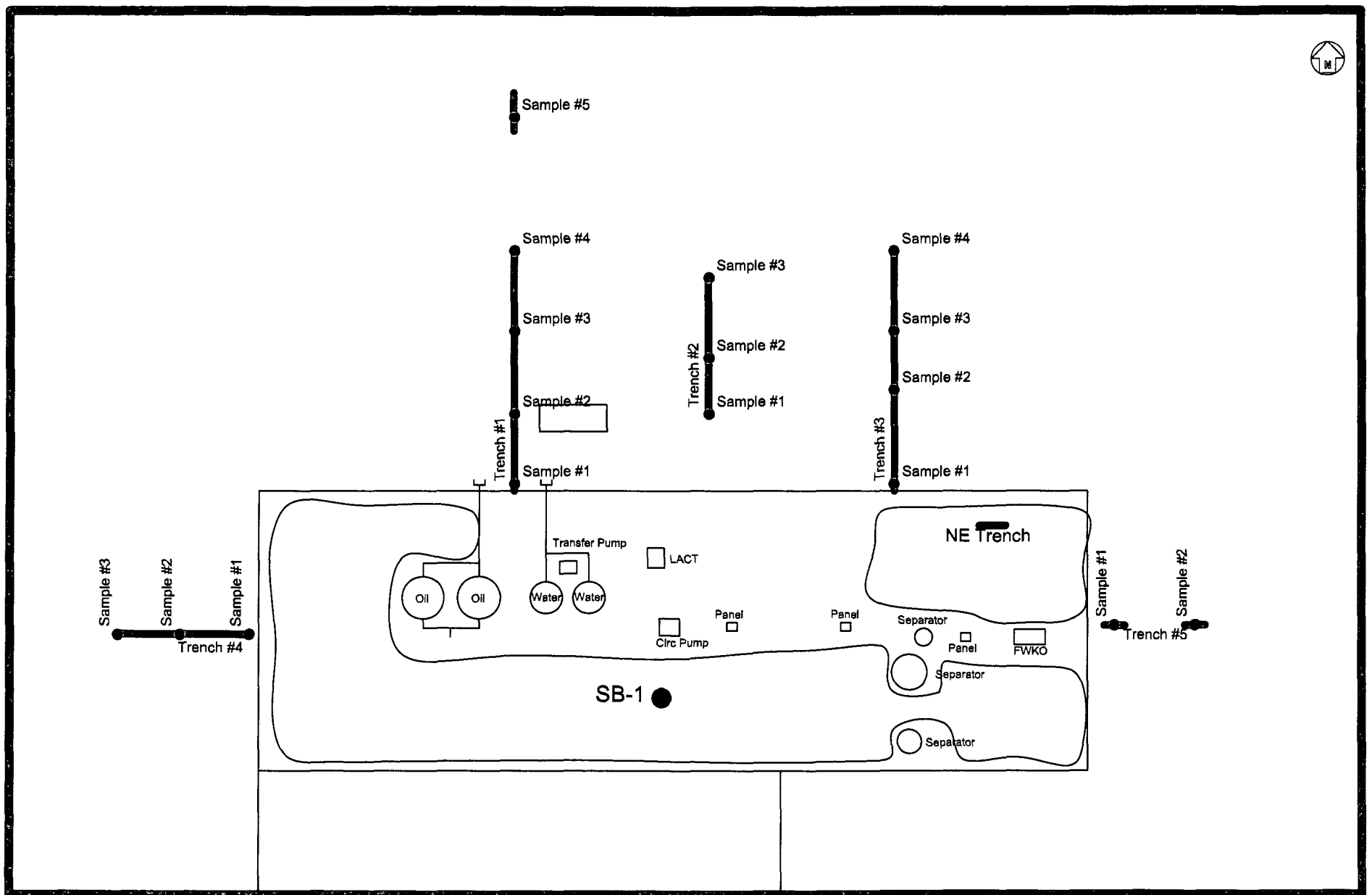
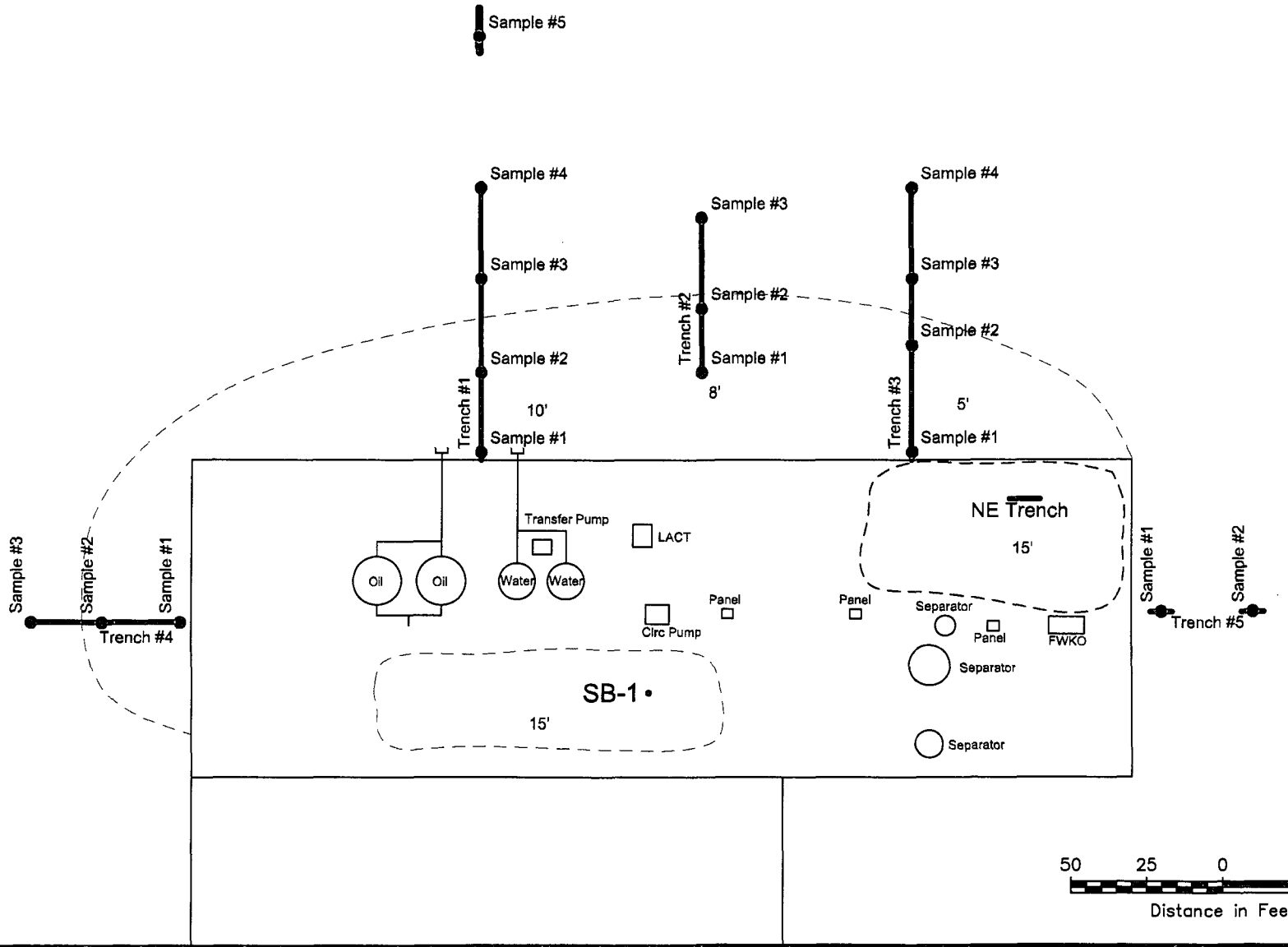


Figure 2
Site Map
Chamberlain Tank Battery
Legacy Reserves
Lea County, New Mexico

Basin Environmental Consulting

Prep By: CDS	Checked By: CJB
May 4, 2010	Scale 1"=50'



Legend:

——— Excavation Extents

– – – Proposed Excavation

● Soil Boring

Figure 3
Proposed Excavation Area
Chamberlain Tank Battery
Legacy Reserves
Lea County, New Mexico

Basin Environmental Consulting

Prep By: JWL	Checked By: CJB
June 8, 2010	Scale 1"=50'

Tables

Analytical Report 367582

for

Basin Environmental Consulting, LLC

Project Manager: Camille Bryant

LR Chamberlain Tank Battery

Legacy Reserves West

07-APR-10

12600 West I-20 East Odessa, Texas 79765

Xenco-Houston (EPA Lab code: TX00122):
Texas (T104704215-TX), Arizona (AZ0738), Arkansas (08-039-0), Connecticut (PH-0102), Florida (E871002)
Illinois (002082), Indiana (C-TX-02), Iowa (392), Kansas (E-10380), Kentucky (45), Louisiana (03054)
New Hampshire (297408), New Jersey (TX007), New York (11763), Oklahoma (9218), Pennsylvania (68-03610)
Rhode Island (LAO00312), USDA (S-44102)

Xenco-Atlanta (EPA Lab Code: GA00046):
Florida (E87429), North Carolina (483), South Carolina (98015), Utah (AALI1), West Virginia (362), Kentucky (85)
Louisiana (04176), USDA (P330-07-00105)

Xenco-Miami (EPA Lab code: FL01152): Florida (E86678), Maryland (330)
Xenco-Tampa Mobile (EPA Lab code: FL01212): Florida (E84900)
Xenco-Odessa (EPA Lab code: TX00158): Texas (T104704400-TX)
Xenco-Dallas (EPA Lab code: TX01468): Texas (T104704295-TX)
Xenco-Corpus Christi (EPA Lab code: TX02613): Texas (T104704370)
Xenco-Boca Raton (EPA Lab Code: FL00449):
Florida(E86240),South Carolina(96031001), Louisiana(04154), Georgia(917)
North Carolina(444), Texas(T104704468-TX), Illinois(002295)

07-APR-10

Project Manager: **Camille Bryant**
Basin Environmental Consulting, LLC
P.O. Box 381
Lovington, NM 88260

Reference: XENCO Report No: **367582**
LR Chamberlain Tank Battery
Project Address: Lea County, NM

Camille Bryant:

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 367582. 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. Estimation of data uncertainty for this report is found in the quality control section of this report unless otherwise noted. 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. 367582 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,

Brent Barron, II
Odessa Laboratory Manager

Sample Cross Reference 367582

Basin Environmental Consulting, LLC, Lovington, NM

LR Chamberlain Tank Battery

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
NE Corner @ 5'	S	Mar-30-10 12:30		367582-001
NE Corner @ 10'	S	Mar-30-10 12:45		367582-002
NE Corner @ 15'	S	Mar-30-10 13:10		367582-003
NE Corner @ 17'	S	Mar-30-10 13:30		367582-004
S. Middle @ 5'	S	Mar-30-10 14:10		367582-005
S. Middle @ 10'	S	Mar-30-10 14:30		367582-006
S. Middle @ 12'	S	Mar-30-10 14:45		367582-007
S. Middle @ 15'	S	Mar-30-10 15:00		367582-008

CASE NARRATIVE

Client Name: Basin Environmental Consulting, LLC
Project Name: LR Chamberlain Tank Battery

Project ID:	*Legacy Reserves West*	*Report Date:*	*07-APR-10*
Work Order Number:	*367582*	*Date Received:*	*04/01/2010*

Sample receipt non conformances and Comments:

None

Sample receipt Non Conformances and Comments per Sample:

None

Analytical Non Conformances and Comments:

Batch: LBA-800761 TPH By SW8015 Mod
SW8015MOD_NM

Batch 800761, o-Terphenyl recovered above QC limits . Matrix interferences is suspected; data not confirmed by re-analysis
Samples affected are: 367582-001.
1-Chlorooctane recovered above QC limits . Matrix interferences is suspected; data not confirmed by re-analysis
Samples affected are: 367582-001,367582-002.

Batch: LBA-800773 Percent Moisture
None

Batch: LBA-800848 BTEX by EPA 8021B
SW8021BM
Batch 800848, Ethylbenzene, m,p-Xylenes , o-Xylene RPD is outside the QC limit. This is most likely due to sample non-homogeneity.
Samples affected are: 367582-003, -002.

SW8021BM

Batch 800848, 1,4-Difluorobenzene recovered below QC limits . Matrix interferences is suspected; data confirmed by re-analysis
Samples affected are: 367078-001 D,367582-002,367582-003.
4-Bromofluorobenzene recovered below QC limits . Matrix interferences is suspected; data confirmed by re-analysis
Samples affected are: 367078-001 D,367582-003,367582-002.

Batch: LBA-801040 BTEX by EPA 8021B
SW8021BM

Batch 801040, 1,4-Difluorobenzene recovered below QC limits . Matrix interferences is suspected; data not confirmed by re-analysis
Samples affected are: 367582-005,367582-007,367582-006.
4-Bromofluorobenzene recovered above QC limits . Matrix interferences is suspected; data not confirmed by re-analysis
Samples affected are: 367582-005.

Batch: LBA-801122 Inorganic Anions by EPA 300
None

Batch: LBA-801206 BTEX by EPA 8021B
SW8021BM

Batch 801206, 1,4-Difluorobenzene recovered below QC limits . Matrix interferences is suspected; data confirmed by re-analysis
Samples affected are: 367582-004,367582-001.
4-Bromofluorobenzene recovered above QC limits . Matrix interferences is suspected; data confirmed by re-analysis
Samples affected are: 367432-001 D,367582-004,367582-001.

SW8021BM
Batch 801206, Ethylbenzene, m,p-Xylenes , o-Xylene RPD is outside the QC limit. This is most likely due to sample non-homogeneity.
Samples affected are: 367582-004, -001.

Certificate of Analysis Summary 367582

Basin Environmental Consulting, LLC, Lovington, NM

Project Name: LR Chamberlain Tank Battery

Project Id: Legacy Reserves West
Contact: Camille Bryant
Project Location: Lea County, NM

Date Received in Lab: Thu Apr-01-10 08:52 am
Report Date: 07-APR-10
Project Manager: Brent Barron, II

Analysis Requested													
	Lab Id:	367582-001		367582-002		367582-003		367582-004		367582-005		367582-006	
	Field Id:	NE Corner @ 5'		NE Corner @ 10'		NE Corner @ 15'		NE Corner @ 17'		S. Middle @ 5'		S. Middle @ 10'	
	Depth:												
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Mar-30-10 12:30		Mar-30-10 12:45		Mar-30-10 13:10		Mar-30-10 13:30		Mar-30-10 14:10		Mar-30-10 14:30	
Anions by E300	*Extracted:*												
	Analyzed:	Apr-05-10 20:14		Apr-05-10 20:14		Apr-05-10 20:14		Apr-05-10 20:14		Apr-05-10 20:14		Apr-05-10 20:14	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		1420	25.1	867	9.63	624	9.47	755	9.60	2790	49.6	1680	23.4
BTEX by EPA 8021B	*Extracted:*	Apr-06-10 07:30		Apr-01-10 09:00		Apr-01-10 09:00		Apr-06-10 07:30		Apr-03-10 11:00		Apr-03-10 11:00	
	Analyzed:	Apr-06-10 13:21		Apr-01-10 18:02		Apr-01-10 18:43		Apr-06-10 11:51		Apr-03-10 19:06		Apr-03-10 19:28	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Benzene		ND	0.0012	ND	0.1147	ND	0.5637	ND	0.0011	ND	0.0118	ND	5.562
Toluene		ND	0.0024	ND	0.2294	ND	1.127	ND	0.0023	0.0281	0.0236	ND	11.12
Ethylbenzene		0.0077	0.0012	0.7867	0.1147	8.455	0.5637	0.0035	0.0011	0.4166	0.0118	32.48	5.562
m,p-Xylenes		0.0257	0.0024	2.546	0.2294	11.23	1.127	0.0142	0.0023	1.366	0.0236	54.84	11.12
o-Xylene		0.0222	0.0012	0.1846	0.1147	5.829	0.5637	0.0079	0.0011	0.9622	0.0118	10.18	5.562
Total Xylenes		0.0479	0.0012	2.731	0.1147	17.06	0.5637	0.0221	0.0011	2.328	0.0118	65.02	5.562
Total BTEX		0.0556	0.0012	3.517	0.1147	25.51	0.5637	0.0256	0.0011	2.773	0.0118	97.50	5.562
Percent Moisture	*Extracted:*												
	Analyzed:	Apr-01-10 17:00		Apr-01-10 17:00		Apr-01-10 17:00		Apr-01-10 17:00		Apr-01-10 17:00		Apr-01-10 17:00	
	Units/RL:	%	RL	%	RL	%	RL	%	RL	%	RL	%	RL
Percent Moisture		16.5	1.00	12.8	1.00	11.3	1.00	12.5	1.00	15.3	1.00	10.1	1.00
TPH By SW8015 Mod	*Extracted:*	Apr-01-10 14:00		Apr-01-10 14:00		Apr-01-10 14:00		Apr-01-10 14:00		Apr-01-10 14:00		Apr-01-10 14:00	
	Analyzed:	Apr-01-10 19:07		Apr-01-10 19:34		Apr-01-10 20:01		Apr-01-10 20:28		Apr-01-10 20:55		Apr-01-10 21:23	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
C6-C12 Gasoline Range Hydrocarbons		137	90.1	621	86.2	1870	84.6	102	17.1	611	17.8	3240	167
C12-C28 Diesel Range Hydrocarbons		475	90.1	1020	86.2	3340	84.6	308	17.1	2600	17.8	4290	167
C28-C35 Oil Range Hydrocarbons		111	90.1	90.6	86.2	225	84.6	21.0	17.1	180	17.8	334	167
Total TPH		723	90.1	1732	86.2	5435	84.6	431	17.1	3391	17.8	7864	167

Brent Barron, II
Odessa Laboratory Manager

Certificate of Analysis Summary 367582

Basin Environmental Consulting, LLC, Lovington, NM

Project Name: LR Chamberlain Tank Battery

Project Id: Legacy Reserves West
Contact: Camille Bryant
Project Location: Lea County, NM

Date Received in Lab: Thu Apr-01-10 08:52 am
Report Date: 07-APR-10
Project Manager: Brent Barron, II

Analysis Requested	*Lab Id:*	367582-007		367582-008					
	Field Id:	S. Middle @ 12'		S. Middle @ 15'					
	Depth:								
	Matrix:	SOIL		SOIL					
	Sampled:	Mar-30-10 14:45		Mar-30-10 15:00					
Anions by E300	*Extracted:*								
	Analyzed:	Apr-05-10 20:14		Apr-05-10 20:14					
	Units/RL:	mg/kg	RL	mg/kg	RL				
Chloride		3110	47.7	1700	23.5				
BTEX by EPA 8021B	*Extracted:*	Apr-03-10 11:00		Apr-03-10 11:00					
	Analyzed:	Apr-03-10 20:36		Apr-03-10 20:58					
	Units/RL:	mg/kg	RL	mg/kg	RL				
Benzene		ND	5.682	ND	5.605				
Toluene		ND	11.36	ND	11.21				
Ethylbenzene		43.07	5.682	26.68	5.605				
m,p-Xylenes		104.1	11.36	64.24	11.21				
o-Xylene		26.31	5.682	16.87	5.605				
Total Xylenes		130.4	5.682	81.11	5.605				
Total BTEX		173.5	5.682	107.79	5.605				
Percent Moisture	*Extracted:*								
	Analyzed:	Apr-01-10 17:00		Apr-01-10 17:00					
	Units/RL:	%	RL	%	RL				
Percent Moisture		12.0	1.00	10.8	1.00				
TPH By SW8015 Mod	*Extracted:*	Apr-01-10 14:00		Apr-01-10 14:00					
	Analyzed:	Apr-01-10 21:50		Apr-01-10 22:46					
	Units/RL:	mg/kg	RL	mg/kg	RL				
C6-C12 Gasoline Range Hydrocarbons		3770	171	2680	168				
C12-C28 Diesel Range Hydrocarbons		5330	171	3770	168				
C28-C35 Oil Range Hydrocarbons		377	171	279	168				
Total TPH		9477	171	6729	168				

Brent Barron, II
Odessa Laboratory Manager

Flagging Criteria

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 effect the recovery of the spike concentration. This condition could also effect 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 MQL and above the SQL.

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.

BRL Below Reporting Limit.

RL Reporting Limit

* Outside XENCO's scope of NELAC Accreditation.

XENCO Laboratories

Form 2 - Surrogate Recoveries

Project Name: LR Chamberlain Tank Battery

Work Orders : 367582,

Project ID: Legacy Reserves West

Lab Batch #: 800848 **Sample:** 559729-1-BKS / BKS **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 04/01/10 10:27

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0309	0.0300	103	80-120	
4-Bromofluorobenzene	0.0272	0.0300	91	80-120	

Lab Batch #: 800848 **Sample:** 559729-1-BSD / BSD **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 04/01/10 10:48

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0324	0.0300	108	80-120	
4-Bromofluorobenzene	0.0270	0.0300	90	80-120	

Lab Batch #: 800848 **Sample:** 559729-1-BLK / BLK **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 04/01/10 11:51

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0281	0.0300	94	80-120	
4-Bromofluorobenzene	0.0281	0.0300	94	80-120	

Lab Batch #: 800848 **Sample:** 367582-002 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 04/01/10 18:02

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0173	0.0300	58	80-120	**
4-Bromofluorobenzene	0.0204	0.0300	68	80-120	**

Lab Batch #: 800848 **Sample:** 367582-003 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 04/01/10 18:43

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0219	0.0300	73	80-120	**
4-Bromofluorobenzene	0.0232	0.0300	77	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: LR Chamberlain Tank Battery

Work Orders : 367582,

Project ID: Legacy Reserves West

Lab Batch #: 800848 **Sample:** 367078-001 D / MD **Batch:** 1 **Matrix:** Sludge

Units: mg/kg **Date Analyzed:** 04/01/10 21:09

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0235	0.0300	78	80-120	**
4-Bromofluorobenzene	0.0170	0.0300	57	80-120	**

Lab Batch #: 801040 **Sample:** 559843-1-BKS / BKS **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 04/03/10 11:58

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0291	0.0300	97	80-120	
4-Bromofluorobenzene	0.0313	0.0300	104	80-120	

Lab Batch #: 801040 **Sample:** 559843-1-BSD / BSD **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 04/03/10 12:21

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0293	0.0300	98	80-120	
4-Bromofluorobenzene	0.0305	0.0300	102	80-120	

Lab Batch #: 801040 **Sample:** 559843-1-BLK / BLK **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 04/03/10 13:29

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0244	0.0300	81	80-120	
4-Bromofluorobenzene	0.0315	0.0300	105	80-120	

Lab Batch #: 801040 **Sample:** 367582-005 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 04/03/10 19:06

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0221	0.0300	74	80-120	*
4-Bromofluorobenzene	0.1796	0.0300	599	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: LR Chamberlain Tank Battery

Work Orders : 367582,

Project ID: Legacy Reserves West

Lab Batch #: 801040 **Sample:** 367582-006 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 04/03/10 19:28

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0227	0.0300	76	80-120	*
4-Bromofluorobenzene	0.0353	0.0300	118	80-120	

Lab Batch #: 801040 **Sample:** 367582-007 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 04/03/10 20:36

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0221	0.0300	74	80-120	*
4-Bromofluorobenzene	0.0357	0.0300	119	80-120	

Lab Batch #: 801040 **Sample:** 367582-008 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 04/03/10 20:58

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0227	0.0300	76	80-120	*
4-Bromofluorobenzene	0.0348	0.0300	116	80-120	

Lab Batch #: 801206 **Sample:** 559940-1-BKS / BKS **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 04/06/10 08:07

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0313	0.0300	104	80-120	
4-Bromofluorobenzene	0.0326	0.0300	109	80-120	

Lab Batch #: 801206 **Sample:** 559940-1-BSD / BSD **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 04/06/10 08:29

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0300	0.0300	100	80-120	
4-Bromofluorobenzene	0.0327	0.0300	109	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: LR Chamberlain Tank Battery

Work Orders : 367582,

Project ID: Legacy Reserves West

Lab Batch #: 801206 **Sample:** 559940-1-BLK / BLK **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 04/06/10 10:21

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0239	0.0300	80	80-120	
4-Bromofluorobenzene	0.0320	0.0300	107	80-120	

Lab Batch #: 801206 **Sample:** 367582-004 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 04/06/10 11:51

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0237	0.0300	79	80-120	**
4-Bromofluorobenzene	0.0862	0.0300	287	80-120	**

Lab Batch #: 801206 **Sample:** 367582-001 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 04/06/10 13:21

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0233	0.0300	78	80-120	**
4-Bromofluorobenzene	0.0668	0.0300	223	80-120	**

Lab Batch #: 801206 **Sample:** 367432-001 D / MD **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 04/06/10 14:52

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0242	0.0300	81	80-120	
4-Bromofluorobenzene	0.0499	0.0300	166	80-120	**

Lab Batch #: 800761 **Sample:** 559673-1-BKS / BKS **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 04/01/10 16:27

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	116	101	115	70-135	
o-Terphenyl	54.8	50.3	109	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: LR Chamberlain Tank Battery

Work Orders : 367582,

Project ID: Legacy Reserves West

Lab Batch #: 800761 **Sample:** 559673-1-BSD / BSD **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 04/01/10 16:54

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	124	100	124	70-135	
o-Terphenyl	58.4	50.2	116	70-135	

Lab Batch #: 800761 **Sample:** 559673-1-BLK / BLK **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 04/01/10 17:20

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	129	99.8	129	70-135	
o-Terphenyl	64.2	49.9	129	70-135	

Lab Batch #: 800761 **Sample:** 367582-001 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 04/01/10 19:07

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	140	100	140	70-135	*
o-Terphenyl	73.0	50.2	145	70-135	*

Lab Batch #: 800761 **Sample:** 367582-002 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 04/01/10 19:34

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	137	100	137	70-135	*
o-Terphenyl	65.5	50.1	131	70-135	

Lab Batch #: 800761 **Sample:** 367582-003 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 04/01/10 20:01

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	126	100	126	70-135	
o-Terphenyl	64.7	50.0	129	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: LR Chamberlain Tank Battery

Work Orders : 367582,

Project ID: Legacy Reserves West

Lab Batch #: 800761 **Sample:** 367582-004 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 04/01/10 20:28

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	121	99.5	122	70-135	
o-Terphenyl	60.0	49.8	120	70-135	

Lab Batch #: 800761 **Sample:** 367582-005 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 04/01/10 20:55

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	130	100	130	70-135	
o-Terphenyl	63.7	50.2	127	70-135	

Lab Batch #: 800761 **Sample:** 367582-006 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 04/01/10 21:23

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	127	100	127	70-135	
o-Terphenyl	65.4	50.1	131	70-135	

Lab Batch #: 800761 **Sample:** 367582-007 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 04/01/10 21:50

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	119	101	118	70-135	
o-Terphenyl	64.0	50.3	127	70-135	

Lab Batch #: 800761 **Sample:** 367582-008 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 04/01/10 22:46

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	126	99.7	126	70-135	
o-Terphenyl	64.3	49.9	129	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.

Blank Spike Recovery

Project Name: LR Chamberlain Tank Battery

Work Order #: 367582 **Project ID:** Legacy Reserves West

Lab Batch #: 801122 **Sample:** 801122-1-BKS **Matrix:** Solid

Date Analyzed: 04/05/2010 **Date Prepared:** 04/05/2010 **Analyst:** LATCOR

Reporting Units: mg/kg **Batch #:** 1

	BLANK /BLANK SPIKE RECOVERY STUDY					
Anions by E300 **Analytes**	**Blank Result [A]**	**Spike Added [B]**	**Blank Spike Result [C]**	**Blank Spike %R [D]**	**Control Limits %R**	**Flags**
Chloride	ND	11.0	11.1	101	75-125	

Blank Spike Recovery [D] = 100*[C]/[B]
All results are based on MDL and validated for QC purposes.
BRL - Below Reporting Limit

BS / BSD Recoveries

Project Name: LR Chamberlain Tank Battery

Work Order #: 367582 **Project ID:** Legacy Reserves West

Analyst: ASA **Date Prepared:** 04/01/2010 **Date Analyzed:** 04/01/2010

Lab Batch ID: 800848 **Sample:** 559729-1-BKS **Batch #:** 1 **Matrix:** Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	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
Benzene	ND	0.1000	0.0961	96	0.1	0.1020	102	6	70-130	35	
Toluene	ND	0.1000	0.0967	97	0.1	0.1028	103	6	70-130	35	
Ethylbenzene	ND	0.1000	0.0985	99	0.1	0.1046	105	6	71-129	35	
m,p-Xylenes	ND	0.2000	0.1999	100	0.2	0.2130	107	6	70-135	35	
o-Xylene	ND	0.1000	0.0985	99	0.1	0.1054	105	7	71-133	35	

Analyst: JLG **Date Prepared:** 04/03/2010 **Date Analyzed:** 04/03/2010

Lab Batch ID: 801040 **Sample:** 559843-1-BKS **Batch #:** 1 **Matrix:** Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	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
Benzene	ND	0.1000	0.0979	98	0.1	0.1045	105	7	70-130	35	
Toluene	ND	0.1000	0.0952	95	0.1	0.1017	102	7	70-130	35	
Ethylbenzene	ND	0.1000	0.0970	97	0.1	0.1033	103	6	71-129	35	
m,p-Xylenes	ND	0.2000	0.1922	96	0.2	0.2044	102	6	70-135	35	
o-Xylene	ND	0.1000	0.0960	96	0.1	0.1024	102	6	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

BS / BSD Recoveries

Project Name: LR Chamberlain Tank Battery

Work Order #: 367582 **Project ID:** Legacy Reserves West

Analyst: ASA **Date Prepared:** 04/06/2010 **Date Analyzed:** 04/06/2010

Lab Batch ID: 801206 **Sample:** 559940-1-BKS **Batch #:** 1 **Matrix:** Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	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
Benzene	ND	0.1000	0.0936	94	0.1	0.1011	101	8	70-130	35	
Toluene	ND	0.1000	0.0915	92	0.1	0.0992	99	8	70-130	35	
Ethylbenzene	ND	0.1000	0.0933	93	0.1	0.1010	101	8	71-129	35	
m,p-Xylenes	ND	0.2000	0.1853	93	0.2	0.2007	100	8	70-135	35	
o-Xylene	ND	0.1000	0.0930	93	0.1	0.1013	101	9	71-133	35	

Analyst: BEV **Date Prepared:** 04/01/2010 **Date Analyzed:** 04/01/2010

Lab Batch ID: 800761 **Sample:** 559673-1-BKS **Batch #:** 1 **Matrix:** Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	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
C6-C12 Gasoline Range Hydrocarbons	ND	1010	1160	115	1000	1210	121	4	70-135	35	
C12-C28 Diesel Range Hydrocarbons	ND	1010	985	98	1000	1010	101	3	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: LR Chamberlain Tank Battery

Work Order #: 367582

Lab Batch #: 801122

Project ID: Legacy Reserves West

Date Analyzed: 04/05/2010

Date Prepared: 04/05/2010

Analyst: LATCOR

QC- Sample ID: 367288-001 S

Batch #: 1

Matrix: Soil

Reporting Units: mg/kg

Inorganic Anions by EPA 300	MATRIX / MATRIX SPIKE RECOVERY STUDY					
Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	%R [D]	Control Limits %R	Flag
Chloride	1540	1290	2870	103	75-125	

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

BRL - Below Reporting Limit

Sample Duplicate Recovery

Project Name: LR Chamberlain Tank Battery

Work Order #: 367582

Lab Batch #: 801122 **Project ID:** Legacy Reserves West
Date Analyzed: 04/05/2010 **Date Prepared:** 04/05/2010 **Analyst:** LATCOR
QC- Sample ID: 367288-001 D **Batch #:** 1 **Matrix:** Soil
Reporting Units: mg/kg

Anions by E300 Analyte	SAMPLE / SAMPLE DUPLICATE RECOVERY				
	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Chloride	1540	1540	0	20	

Lab Batch #: 800848
Date Analyzed: 04/01/2010 **Date Prepared:** 04/01/2010 **Analyst:** ASA
QC- Sample ID: 367078-001 D **Batch #:** 1 **Matrix:** Sludge
Reporting Units: mg/kg

BTEX by EPA 8021B Analyte	SAMPLE / SAMPLE DUPLICATE RECOVERY				
	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Benzene	0.0028	0.0022	24	35	
Toluene	0.0057	0.0054	5	35	
Ethylbenzene	0.0021	0.0066	103	35	F
m,p-Xylenes	0.0033	0.0050	41	35	F
o-Xylene	0.0011	0.0066	143	35	F
a,a,a-Trifluorotoluene	0.030	0.030	0	35	

Lab Batch #: 801206
Date Analyzed: 04/06/2010 **Date Prepared:** 04/06/2010 **Analyst:** ASA
QC- Sample ID: 367432-001 D **Batch #:** 1 **Matrix:** Soil
Reporting Units: mg/kg

BTEX by EPA 8021B Analyte	SAMPLE / SAMPLE DUPLICATE RECOVERY				
	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Benzene	ND	ND	NC	35	
Toluene	ND	ND	NC	35	
Ethylbenzene	0.0025	0.0015	50	35	F
m,p-Xylenes	0.0099	0.0057	54	35	F
o-Xylene	0.0067	0.0034	65	35	F
a,a,a-Trifluorotoluene	0.032	0.032	0	35	

Spike Relative Difference RPD 200 * | (B-A)/(B+A) |
All Results are based on MDL and validated for QC purposes.
BRL - Below Reporting Limit

Sample Duplicate Recovery

Project Name: LR Chamberlain Tank Battery

Work Order #: 367582

Lab Batch #: 800773 **Project ID:** Legacy Reserves West

Date Analyzed: 04/01/2010 **Date Prepared:** 04/01/2010 **Analyst:** JLG

QC- Sample ID: 367572-001 D **Batch #:** 1 **Matrix:** Soil

Reporting Units: %

Percent Moisture Analyte	SAMPLE / SAMPLE DUPLICATE RECOVERY				
	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Percent Moisture	16.0	16.0	0	20	

Spike Relative Difference RPD 200 * | (B-A)/(B+A) |

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

BRL - Below Reporting Limit

Environmental Lab of Texas

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

12600 West I-20 East
Odessa, Texas 79765

Phone: 432-563-1800
Fax: 432-563-1713

Project Manager: Camille Bryant
Project Name: LR Chamberlain Tank Battery
Company Name: Basin Environmental Consulting, LLC
Project #: Legacy Reserves West
Company Address: P. O. Box 381
Project Loc: Lea County, NM
City/State/Zip: Lovington, NM 88260
PO #: Please bill Basin Consulting
Telephone No: (575)605-7210
Fax No: (505) 396-1429
Report Format: [X] Standard [ ] TRRP [ ] NPDES
Sampler Signature: Camille Bryant
e-mail: cjbryant@basin-consulting.com

(lab use only)
ORDER #: 367582

LAB # (lab use only)	FIELD CODE	Beginning Depth	Ending Depth	Date Sampled	Time Sampled	Field Filtered	Total # of Containers	Preservation & # of Containers: Ice	HNO3	HCl	H2SO4	NaOH	Na2S2O3	None	Other (Specify)	Matrix: DW=Drinking Water SL=Sludge GW = Groundwater S=Soil/Solid NP=Non-Potable Specify Other	Analyze For: TCLP: TPH: 418.1 8015M	TPH: TX 1005 TX 1006	Cations (Ca, Mg, Na, K)	Anions (Cl, SO4, Alkalinity)	SAR / ESP / CEC	Metals: As Ag Ba Cd Cr Pb Hg Se	Volatiles	Semivolatiles	TOTAL: BTEX 8021B/5030 or BTEX 8260 X	RCI	N.O.R.M.	Chlorides (8021)	RUSH TAT (Pre-Schedule) 24, 48, 72 hrs	Standard TAT 4 DAY
01	NE Corner @ 5'			30-Mar-10	1230		1	X								Soil	X								X			X		X
02	NE Corner @ 10'			30-Mar-10	1245		1	X								Soil	X								X			X		X
03	NE Corner @ 15'			30-Mar-10	1310		1	X								Soil	X								X			X		X
04	NE Corner @ 17'			30-Mar-10	1330		1	X								Soil	X								X			X		X
05	S. Middle @ 5'			30-Mar-10	1410		1	X								Soil	X								X			X		X
06	S. Middle @ 10'			30-Mar-10	1430		1	X								Soil	X								X			X		X
07	S. Middle @ 12'			30-Mar-10	1445		1	X								Soil	X								X			X		X
08	S. Middle @ 15'			30-Mar-10	1500		1	X								Soil	X								X			X		X

Special Instructions:

Relinquished by:	Date	Time	Received by:	Date	Time
Camille Bryant	3/31/10	1139	[signature]	3/31/10	1139
[signature]	4/1/10	0852		Date	Time
Relinquished by:	Date	Time	Received by ELOT:	Date	Time
			[signature]	4/1/10	08:52

Laboratory Comments:
Sample Containers Intact? (Y) N
VOCs Free of Headspace? (Y) N
Labels on container(s) (Y) N
Custody seals on container(s) N/A (Y) N
Custody seals on cooler(s) N/A Y (N)
Sample Hand Delivered by Sampler/Client Rep. ? (Y) N
by Courier? UPS DHL FedEx Lone Star
407c9.
Temperature Upon Receipt: 3.6 °C

Appendix B
Analytical Reports

Soil Boring SB-1

Depth below ground surface	Soil Columns	Chloride Field Test	PID Reading	Petroleum Odor	Petroleum Stain	Soil Description
0						
5		2,040	6.3	Slight	Slight	0-10' - Caliche, tan, minor clay, dry
10		1,788	4.8	None	None	
15		1,256	15.8	None	None	
20		280	2.2	None	None	10-30' - Sand, tan, fine grained, minor sandstone nodules, dry
25		128	3.3	None	None	
30		128	6.1	None	None	

Boring SB-1

Date Drilled June 29, 2010
Thickness of Bentonite Seal 30 Ft
Depth of Exploratory Boring 30 Ft bgs
Depth to Groundwater _____
Ground Water Elevation _____

▼ Indicates the PSH level measured on _____
▼ Indicates the groundwater level measured on _____
⬭ Indicates samples selected for Laboratory Analysis.
PID Head-space reading in ppm obtained with a photo-ionization detector.

Completion Notes

1.) The monitor well was advanced on date using air rotary drilling techniques.
2.) The lines between material types shown on the profile log represent approximate boundaries. Actual transitions may be gradual.

Soil Boring SB-1

Legacy Reserves
Chamberlain Tank Battery
Lea County, New Mexico

Basin Environmental Consulting

Prep By: JWL	Checked By: CJB
July 7, 2010	

Appendices

Appendix A
Soil Boring Logs

TABLE 1

CONCENTRATIONS OF BTEX, TPH AND CHLORIDES IN SOIL

LEGACY RESERVES, LP
LR CHAMBERLAIN TANK BATTERY
LEA COUNTY, NEW MEXICO
NMOCD # 1RP-2390

SAMPLE LOCATION	SAMPLE DEPTH (Below Grade Surface)	SAMPLE DATE	SOIL STATUS	METHOD: EPA SW 846-8021B, 5030						SW 846-8015M				300.1
				BENZENE (mg/Kg)	TOLUENE (mg/Kg)	ETHYL-BENZENE (mg/Kg)	M,P-XYLENE (mg/Kg)	O-XYLENE (mg/Kg)	TOTAL BTEX (mg/Kg)	GRO C_6-C_{12} (mg/Kg)	DRO C_{12}-C_{28} (mg/Kg)	ORO C_{28}-C_{35} (mg/Kg)	TOTAL TPH C_6-C_{35} (mg/Kg)	CHLORIDE (mg/Kg)
NE Corner @ 5'	5 Feet	03/30/10	In-Situ	<0.0012	<0.0024	0.0077	0.0257	0.0222	0.0556	137	475	111	**723**	**1,420**
NE Corner @ 10'	10 Feet	03/30/10	In-Situ	<0.1147	<0.2294	0.7867	2.546	0.1846	3.517	621	1,020	90.6	**1,731.6**	**867**
NE Corner @ 15'	15 Feet	03/30/10	In-Situ	<0.5637	<1.127	8.455	11.23	5.829	25.5	1,870	3,340	225	**5,435**	**624**
NE Corner @ 17'	17 Feet	03/30/10	In-Situ	<0.0011	<0.0023	0.0035	0.0142	0.0079	0.0256	102	308	21.0	**431**	**755**
S. Middle @ 5'	5 Feet	03/30/10	In-Situ	<0.0118	0.0281	0.4166	1.366	0.9622	2.773	611	2,600	180	**3,391**	**2,790**
S. Middle @ 10'	10 Feet	03/30/10	In-Situ	<5.562	<11.12	32.48	54.84	10.18	**97.5**	3,240	4,290	334	**7,864**	**1,680**
S. Middle @ 12'	12 Feet	03/30/10	In-Situ	<5.682	<11.36	43.07	104.1	26.31	**173.5**	3,770	5,330	377	**9,477**	**3,110**
S. Middle @ 15'	15 Feet	03/30/10	In-Situ	<5.605	<11.21	26.68	64.24	16.87	**107.79**	2,680	3,770	279	**6,729**	**1,700**
T-1 Sample 1 @ 2'	2 Feet	04/28/10	In-Situ	<0.0012	<0.0023	<0.0012	<0.0023	<0.0012	<0.0023	<17.3	<17.3	<17.3	<17.3	**1,180**
T-1 Sample 1 @ 7'	7 Feet	04/28/10	In-Situ	<0.0012	<0.0024	<0.0012	<0.0024	<0.0012	<0.0024	<17.7	<17.7	<17.7	<17.7	**976**
T-1 Sample 1 @ 15'	15 Feet	04/28/10	In-Situ	<0.0011	<0.0022	<0.0011	<0.0022	<0.0011	<0.0022	<17.0	<17.0	<17.0	<17.0	**317**
T-1 Sample 1 @ 17'	17 Feet	04/28/10	In-Situ	<0.0011	<0.0022	<0.0011	<0.0022	<0.0011	<0.0022	<16.7	<16.7	<16.7	<16.7	144
T-1 Sample 2 @ 2'	2 Feet	04/28/10	In-Situ	<0.0011	<0.0023	<0.0011	<0.0023	<0.0011	<0.0023	<17.1	<17.1	<17.1	<17.1	**530**
T-1 Sample 2 @ 5'	5 Feet	04/28/10	In-Situ	<0.0011	<0.0023	<0.0011	<0.0023	<0.0011	<0.0023	<17.1	<17.1	<17.1	<17.1	**387**
T-1 Sample 3 @ 2'	2 Feet	04/28/10	In-Situ	<0.0012	<0.0023	<0.0012	<0.0023	<0.0012	<0.0023	<17.4	<17.4	<17.4	<17.4	218
T-1 Sample 3 @ 5'	5 Feet	04/28/10	In-Situ	<0.0012	<0.0025	<0.0012	<0.0025	<0.0012	<0.0025	<18.3	<18.3	<18.3	<18.3	**428**
T-1 Sample 4 @ 2'	2 Feet	04/28/10	In-Situ	<0.0011	<0.0022	<0.0011	<0.0022	<0.0011	<0.0022	<16.0	<16.0	<16.0	<16.0	23.2
T-1 Sample 4 @ 5'	5 Feet	04/28/10	In-Situ	<0.0011	<0.0023	<0.0011	<0.0023	<0.0011	<0.0023	<16.8	<16.8	<16.8	<16.8	**1,460**
T-1 Sample 5 @ 2'	2 Feet	04/30/10	In-Situ	<0.0011	<0.0023	<0.0011	<0.0023	<0.0011	<0.0023	<17.0	88.1	25.4	**113.5**	14.1
T-1 Sample 5 @ 3'	3 Feet	04/30/10	In-Situ	<0.0011	<0.0022	<0.0011	<0.0022	<0.0011	<0.0022	<16.8	129	51.6	**180.6**	8.95
T-2 Sample 1 @ 2'	2 Feet	04/28/10	In-Situ	<0.0012	<0.0023	<0.0012	<0.0023	<0.0012	<0.0023	<17.3	<17.3	<17.3	<17.3	**837**
T-2 Sample 1 @ 7'	7 Feet	04/28/10	In-Situ	<0.0012	<0.0024	<0.0012	<0.0024	<0.0012	<0.0024	<18.2	<18.2	<18.2	<18.2	**818**
T-2 Sample 1 @ 12'	12 Feet	04/28/10	In-Situ	<0.0011	<0.0021	<0.0011	<0.0021	<0.0011	<0.0021	<16.1	<16.1	<16.1	<16.1	250
T-2 Sample 1 @ 13'	13 Feet	04/28/10	In-Situ	<0.0011	<0.0021	<0.0011	<0.0021	<0.0011	<0.0021	<16.1	<16.1	<16.1	<16.1	228
T-2 Sample 2 @ 2'	2 Feet	04/28/10	In-Situ	<0.0012	<0.0025	<0.0012	<0.0025	<0.0012	<0.0025	<18.3	<18.3	<18.3	<18.3	**820**
T-2 Sample 2 @ 5'	5 Feet	04/28/10	In-Situ	<0.0013	<0.0025	<0.0013	<0.0025	<0.0013	<0.0025	<18.9	<18.9	<18.9	<18.9	**553**
T-2 Sample 3 @ 2'	2 Feet	04/29/10	In-Situ	<0.0011	<0.0022	<0.0011	<0.0022	<0.0011	<0.0022	<16.4	<16.4	<16.4	<16.4	184
T-2 Sample 3 @ 5'	5 Feet	04/29/10	In-Situ	<0.0012	<0.0024	<0.0012	<0.0024	<0.0012	<0.0024	<18.2	<18.2	<18.2	<18.2	66.3
T-3 Sample 1 @ 2'	2 Feet	04/29/10	In-Situ	<0.0011	<0.0022	<0.0011	<0.0022	<0.0011	<0.0022	<16.9	<16.9	<16.9	<16.9	**497**

TABLE 1

CONCENTRATIONS OF BTEX, TPH AND CHLORIDES IN SOIL

LEGACY RESERVES, LP
LR CHAMBERLAIN TANK BATTERY
LEA COUNTY, NEW MEXICO
NMOCD # 1RP-2390

SAMPLE LOCATION	SAMPLE DEPTH (Below Grade Surface)	SAMPLE DATE	SOIL STATUS	METHOD: EPA SW 846-8021B, 5030						SW 846-8015M				300.1
				BENZENE (mg/Kg)	TOLUENE (mg/Kg)	ETHYL-BENZENE (mg/Kg)	M,P-XYLENE (mg/Kg)	O-XYLENE (mg/Kg)	TOTAL BTEX (mg/Kg)	GRO C_6-C_{12} (mg/Kg)	DRO C_{12}-C_{28} (mg/Kg)	ORO C_{28}-C_{35} (mg/Kg)	TOTAL TPH C_6-C_{35} (mg/Kg)	CHLORIDE (mg/Kg)
T-3 Sample 1 @ 5'	5 Feet	04/29/10	In-Situ	<0.0011	<0.0023	<0.0011	<0.0023	<0.0011	<0.0023	<17.0	<17.0	<17.0	<17.0	135
T-3 Sample 1 @ 7'	7 Feet	04/29/10	In-Situ	<0.0012	<0.0023	<0.0012	<0.0023	<0.0012	<0.0023	<17.4	<17.4	<17.4	<17.4	117
T-3 Sample 2 @ 5'	5 Feet	04/29/10	In-Situ	<0.0012	<0.0024	<0.0012	<0.0024	<0.0012	<0.0024	<17.8	<17.8	<17.8	<17.8	**784**
T-3 Sample 3 @ 5'	5 Feet	04/29/10	In-Situ	<0.0011	<0.0023	<0.0011	<0.0023	<0.0011	<0.0023	<16.9	<16.9	<16.9	<16.9	**981**
T-3 Sample 4 @ 2'	2 Feet	04/29/10	In-Situ	<0.0011	<0.0022	<0.0011	<0.0022	<0.0011	<0.0022	<16.4	<16.4	<16.4	<16.4	71.6
T-3 Sample 4 @ 5'	5 Feet	04/29/10	In-Situ	<0.0011	<0.0021	<0.0011	<0.0021	<0.0011	<0.0021	<16.0	<16.0	<16.0	<16.0	84.3
T-4 Sample 1 @ 1.5'	1.5 Feet	04/29/10	In-Situ	<0.0011	<0.0021	<0.0011	<0.0021	<0.0011	<0.0021	<15.8	<15.8	<15.8	<15.8	**669**
T-4 Sample 2 @ 1.5'	1.5 Feet	04/29/10	In-Situ	<0.0011	<0.0022	<0.0011	<0.0022	<0.0011	<0.0022	<16.4	<16.4	<16.4	<16.4	**885**
T-4 Sample 3 @ 2'	2 Feet	04/29/10	In-Situ	<0.0011	<0.0023	<0.0011	<0.0023	<0.0011	<0.0023	<17.1	<17.1	<17.1	<17.1	67.6
T-4 Sample 3 @ 3'	3 Feet	04/29/10	In-Situ	<0.0012	<0.0024	<0.0012	<0.0024	<0.0012	<0.0024	<18.0	<18.0	<18.0	<18.0	123
T-5 Sample 1 @ 2'	2 Feet	04/29/10	In-Situ	<0.0012	<0.0024	<0.0012	<0.0024	<0.0012	<0.0024	<18.1	<18.1	<18.1	<18.1	**2,870**
T-5 Sample 1 @ 3.5'	3.5 Feet	04/29/10	In-Situ	<0.0011	<0.0022	<0.0011	<0.0022	<0.0011	<0.0022	<16.6	<16.6	<16.6	<16.6	**1,550**
T-5 Sample 2 @ 2'	2 Feet	04/29/10	In-Situ	<0.0012	<0.0024	<0.0012	<0.0024	<0.0012	<0.0024	<17.5	<17.5	<17.5	<17.5	66.4
SB-1 @ 5'	5 Feet	06/29/10	In-Situ	<0.0011	<0.0023	<0.0011	<0.0023	<0.0011	<0.0023	<17.2	51.9	<17.2	51.9	**2,170**
SB-1 @ 10'	10 Feet	06/29/10	In-Situ	<0.0011	<0.0023	<0.0011	<0.0023	<0.0011	<0.0023	<16.8	<16.8	<16.8	<16.8	**1,250**
SB-1 @ 15'	15 Feet	06/29/10	In-Situ	<0.0011	<0.0022	<0.0011	<0.0022	<0.0011	<0.0022	<16.7	<16.7	<16.7	<16.7	**778**
SB-1 @ 20'	20 Feet	06/29/10	In-Situ	<0.0010	<0.0021	<0.0010	<0.0021	<0.0010	<0.0021	<15.8	<15.8	<15.8	<15.8	169
SB-1 @ 25'	25 Feet	06/29/10	In-Situ	<0.0011	<0.0022	<0.0011	<0.0022	<0.0011	<0.0022	<16.1	<16.1	<16.1	<16.1	72.7
SB-1 @ 30'	30 Feet	06/29/10	In-Situ	<0.0011	<0.0021	<0.0011	<0.0021	<0.0011	<0.0021	<15.8	26.3	<15.8	26.3	103
NMOCD Regulatory Standard				**10**					**50**				**100**	**250**

Environmental Lab of Texas

Variance/ Corrective Action Report- Sample Log-In

lient: Basin

late/ Time: 4/1/10 08:52

.ab ID #: 367582

nitials: AS

Sample Receipt Checklist

					Client Initials
#1	Temperature of container/ cooler?	(Yes)	No	36 °C	
#2	Shipping container in good condition?	(Yes)	No		
#3	Custody Seals intact on shipping container/ cooler?	Yes	No	(Not Present)	
#4	Custody Seals intact on sample bottles/ container?	(Yes)	No	Not Present	
#5	Chain of Custody present?	(Yes)	No		
#6	Sample instructions complete of Chain of Custody?	(Yes)	No		
#7	Chain of Custody signed when relinquished/ received?	(Yes)	No		
#8	Chain of Custody agrees with sample label(s)?	(Yes)	No	ID written on Cont./ Lid	
#9	Container label(s) legible and intact?	(Yes)	No	Not Applicable	
#10	Sample matrix/ properties agree with Chain of Custody?	(Yes)	No		
#11	Containers supplied by ELOT?	(Yes)	No		
#12	Samples in proper container/ bottle?	(Yes)	No	See Below	
#13	Samples properly preserved?	(Yes)	No	See Below	
#14	Sample bottles intact?	(Yes)	No		
#15	Preservations documented on Chain of Custody?	(Yes)	No		
#16	Containers documented on Chain of Custody?	(Yes)	No		
#17	Sufficient sample amount for indicated test(s)?	(Yes)	No	See Below	
#18	All samples received within sufficient hold time?	(Yes)	No	See Below	
#19	Subcontract of sample(s)?	Yes	No	(Not Applicable)	
#20	VOC samples have zero headspace?	(Yes)	No	Not Applicable	

Variance Documentation

Contact: _____ Contacted by: _____ Date/ Time: _____

Regarding: _____

Corrective Action Taken: _____

Check all that Apply:

- ☐ See attached e-mail/ fax
- ☐ Client understands and would like to proceed with analysis
- ☐ Cooling process had begun shortly after sampling event

Analytical Report 371873

for

Basin Environmental Consulting, LLC

Project Manager: Camille Bryant

LR Chamberlain Tank Battery

14-MAY-10

12600 West I-20 East Odessa, Texas 79765

Xenco-Houston (EPA Lab code: TX00122):
Texas (T104704215-TX), Arizona (AZ0738), Arkansas (08-039-0), Connecticut (PH-0102), Florida (E871002)
Illinois (002082), Indiana (C-TX-02), Iowa (392), Kansas (E-10380), Kentucky (45), Louisiana (03054)
New Hampshire (297408), New Jersey (TX007), New York (11763), Oklahoma (9218), Pennsylvania (68-03610)
Rhode Island (LAO00312), USDA (S-44102)

Xenco-Atlanta (EPA Lab Code: GA00046):
Florida (E87429), North Carolina (483), South Carolina (98015), Utah (AALI1), West Virginia (362), Kentucky (85)
Louisiana (04176), USDA (P330-07-00105)

Xenco-Miami (EPA Lab code: FL01152): Florida (E86678), Maryland (330)
Xenco-Tampa Mobile (EPA Lab code: FL01212): Florida (E84900)
Xenco-Odessa (EPA Lab code: TX00158): Texas (T104704400-TX)
Xenco-Dallas (EPA Lab code: TX01468): Texas (T104704295-TX)
Xenco-Corpus Christi (EPA Lab code: TX02613): Texas (T104704370)
Xenco-Boca Raton (EPA Lab Code: FL00449):
Florida(E86240),South Carolina(96031001), Louisiana(04154), Georgia(917)
North Carolina(444), Texas(T104704468-TX), Illinois(002295)

14-MAY-10

Project Manager: **Camille Bryant**
Basin Environmental Consulting, LLC
P.O. Box 381
Lovington, NM 88260

Reference: XENCO Report No: **371873**
LR Chamberlain Tank Battery
Project Address: Lea County, NM

Camille Bryant:

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 371873. 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. Estimation of data uncertainty for this report is found in the quality control section of this report unless otherwise noted. 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. 371873 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,

Brent Barron, II
Odessa Laboratory Manager

Sample Cross Reference 371873

Basin Environmental Consulting, LLC, Lovington, NM

LR Chamberlain Tank Battery

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
T-1 Sample 1 @ 2'	S	Apr-28-10 08:00		371873-001
T-1 Sample 1 @ 7'	S	Apr-28-10 08:20		371873-002
T-1 Sample 1 @ 15'	S	Apr-28-10 08:40		371873-003
T-1 Sample 1 @ 17'	S	Apr-28-10 09:00		371873-004
T-1 Sample 2 @ 2'	S	Apr-28-10 09:40		371873-005
T-1 Sample 2 @ 5'	S	Apr-28-10 10:00		371873-006
T-1 Sample 3 @ 2'	S	Apr-28-10 10:40		371873-007
T-1 Sample 3 @ 5'	S	Apr-28-10 11:00		371873-008
T-1 Sample 4 @ 2'	S	Apr-28-10 11:20		371873-009
T-1 Sample 4 @ 5'	S	Apr-28-10 11:40		371873-010
T-1 Sample 5 @ 2'	S	Apr-30-10 11:00		371873-011
T-1 Sample 5 @ 3'	S	Apr-30-10 11:30		371873-012
T-2 Sample 1 @ 2'	S	Apr-28-10 12:00		371873-013
T-2 Sample 1 @ 7'	S	Apr-28-10 12:30		371873-014
T-2 Sample 1 @ 12'	S	Apr-28-10 13:00		371873-015
T-2 Sample 1 @ 13'	S	Apr-28-10 13:20		371873-016
T-2 Sample 2 @ 2'	S	Apr-28-10 14:20		371873-017
T-2 Sample 2 @ 5'	S	Apr-28-10 14:40		371873-018
T-2 Sample 3 @ 2'	S	Apr-29-10 08:00		371873-019
T-2 Sample 3 @ 5'	S	Apr-29-10 08:30		371873-020
T-3 Sample 1 @ 2'	S	Apr-29-10 09:00		371873-021
T-3 Sample 1 @ 5'	S	Apr-29-10 09:20		371873-022
T-3 Sample 1 @ 7'	S	Apr-29-10 09:40		371873-023
T-3 Sample 2 @ 5'	S	Apr-29-10 10:00		371873-024
T-3 Sample 3 @ 5'	S	Apr-29-10 11:00		371873-025
T-3 Sample 4 @ 2'	S	Apr-29-10 12:00		371873-026
T-3 Sample 4 @ 5'	S	Apr-29-10 12:20		371873-027
T-4 Sample 1 @ 1.5'	S	Apr-29-10 13:00		371873-028
T-4 Sample 2 @ 1.5'	S	Apr-29-10 13:30		371873-029
T-4 Sample 3 @ 2'	S	Apr-29-10 14:00		371873-030
T-4 Sample 3 @ 3'	S	Apr-29-10 14:20		371873-031
T-5 Sample 1 @ 2'	S	Apr-29-10 14:40		371873-032
T-5 Sample 1 @ 3.5'	S	Apr-29-10 15:00		371873-033
T-5 Sample 2 @ 2'	S	Apr-29-10 15:30		371873-034

CASE NARRATIVE

Client Name: Basin Environmental Consulting, LLC
Project Name: LR Chamberlain Tank Battery

Project ID:
Work Order Number: 371873

Report Date: 14-MAY-10
Date Received: 05/06/2010

Sample receipt non conformances and Comments:

None

Sample receipt Non Conformances and Comments per Sample:

None

Analytical Non Conformances and Comments:

Batch: LBA-805736 TPH By SW8015 Mod
None

Batch: LBA-805744 Percent Moisture
None

Batch: LBA-805751 Percent Moisture
None

Batch: LBA-805752 TPH By SW8015 Mod
SW8015MOD_NM

Batch 805752, C12-C28 Diesel Range Hydrocarbons recovered below QC limits in the Matrix Spike Duplicate.
Samples affected are: 371873-025, -030, -032, -026, -028, -033, -021, -023, -024, -027, -029, -034, -031, -022.
The Laboratory Control Sample for C12-C28 Diesel Range Hydrocarbons is within laboratory Control Limits

Batch: LBA-805828 BTEX by EPA 8021B
SW8021BM

Batch 805828, o-Xylene recovered below QC limits in the Matrix Spike and Matrix Spike Duplicate. Benzene, Ethylbenzene, Toluene, m,p-Xylenes recovered below QC limits in the Matrix Spike Duplicate.
Samples affected are: 371873-007, -015, -002, -016, -004, -008, -011, -017, -018, -013, -001, -003, -010, -014, -020, -006, -009, -012, -005, -019.
The Laboratory Control Sample for Toluene, m,p-Xylenes , Benzene, o-Xylene, Ethylbenzene is within laboratory Control Limits

SW8021BM

Batch 805828, 1,4-Difluorobenzene recovered below QC limits . Matrix interferences is suspected; data not confirmed by re-analysis
Samples affected are: 371873-012,371873-011.

Batch: LBA-805963 BTEX by EPA 8021B
SW8021BM

Batch 805963, 1,4-Difluorobenzene recovered above QC limits . Matrix interferences is suspected; QC data not confirmed by re-analysis
Samples affected are: 371873-021 S.

SW8021BM

Batch 805963, Benzene, Ethylbenzene, Toluene recovered below QC limits in the Matrix Spike and Matrix Spike Duplicate. m,p-Xylenes recovered below QC limits in the Matrix Spike Duplicate.
Samples affected are: 371873-025, -030, -032, -026, -028, -033, -021, -023, -024, -027, -029, -034, -031, -022.
The Laboratory Control Sample for Toluene, m,p-Xylenes , Benzene, Ethylbenzene is within laboratory Control Limits

SW8021BM

Batch 805963, o-Xylene RPD was outside QC limits.
Samples affected are: 371873-025, -030, -032, -026, -028, -033, -021, -023, -024, -027, -029, -034, -031, -022

Batch: LBA-806338 Inorganic Anions by EPA 300
None

Batch: LBA-806340 Inorganic Anions by EPA 300
None

Certificate of Analysis Summary 371873

Basin Environmental Consulting, LLC, Lovington, NM

Project Name: LR Chamberlain Tank Battery

Project Id:

Contact: Camille Bryant

Project Location: Lea County, NM

Date Received in Lab: Thu May-06-10 05:08 pm

Report Date: 14-MAY-10

Project Manager: Brent Barron, II

Analysis Requested	*Lab Id:*	371873-001		371873-002		371873-003		371873-004		371873-005		371873-006	
	Field Id:	T-1 Sample 1 @ 2'		T-1 Sample 1 @ 7'		T-1 Sample 1 @ 15'		T-1 Sample 1 @ 17'		T-1 Sample 2 @ 2'		T-1 Sample 2 @ 5'	
	Depth:												
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Apr-28-10 08:00		Apr-28-10 08:20		Apr-28-10 08:40		Apr-28-10 09:00		Apr-28-10 09:40		Apr-28-10 10:00	
Anions by E300	*Extracted:*												
	Analyzed:	May-12-10 10:32		May-12-10 10:32		May-12-10 10:32		May-12-10 10:32		May-12-10 10:32		May-12-10 10:32	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		1180	19.3	976	49.5	317	9.48	144	4.70	530	9.55	387	19.2
BTEX by EPA 8021B	*Extracted:*	May-08-10 11:30		May-08-10 11:30		May-08-10 11:30		May-08-10 11:30		May-08-10 11:30		May-08-10 11:30	
	Analyzed:	May-08-10 18:01		May-08-10 18:24		May-08-10 18:46		May-08-10 19:08		May-08-10 19:31		May-08-10 19:53	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Benzene		ND	0.0012	ND	0.0012	ND	0.0011	ND	0.0011	ND	0.0011	ND	0.0011
Toluene		ND	0.0023	ND	0.0024	ND	0.0022	ND	0.0022	ND	0.0023	ND	0.0023
Ethylbenzene		ND	0.0012	ND	0.0012	ND	0.0011	ND	0.0011	ND	0.0011	ND	0.0011
m,p-Xylenes		ND	0.0023	ND	0.0024	ND	0.0022	ND	0.0022	ND	0.0023	ND	0.0023
o-Xylene		ND	0.0012	ND	0.0012	ND	0.0011	ND	0.0011	ND	0.0011	ND	0.0011
Total Xylenes		ND	0.0012	ND	0.0012	ND	0.0011	ND	0.0011	ND	0.0011	ND	0.0011
Total BTEX		ND	0.0012	ND	0.0012	ND	0.0011	ND	0.0011	ND	0.0011	ND	0.0011
Percent Moisture	*Extracted:*												
	Analyzed:	May-07-10 17:00		May-07-10 17:00		May-07-10 17:00		May-07-10 17:00		May-07-10 17:00		May-07-10 17:00	
	Units/RL:	%	RL	%	RL	%	RL	%	RL	%	RL	%	RL
Percent Moisture		13.0	1.00	15.1	1.00	11.4	1.00	10.6	1.00	12.0	1.00	12.3	1.00
TPH By SW8015 Mod	*Extracted:*	May-07-10 13:15		May-07-10 13:15		May-07-10 13:15		May-07-10 13:15		May-07-10 13:15		May-07-10 13:15	
	Analyzed:	May-07-10 18:14		May-07-10 18:41		May-07-10 19:08		May-07-10 19:35		May-07-10 20:02		May-07-10 20:29	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
C6-C12 Gasoline Range Hydrocarbons		ND	17.3	ND	17.7	ND	17.0	ND	16.7	ND	17.1	ND	17.1
C12-C28 Diesel Range Hydrocarbons		ND	17.3	ND	17.7	ND	17.0	ND	16.7	ND	17.1	ND	17.1
C28-C35 Oil Range Hydrocarbons		ND	17.3	ND	17.7	ND	17.0	ND	16.7	ND	17.1	ND	17.1
Total TPH		ND	17.3	ND	17.7	ND	17.0	ND	16.7	ND	17.1	ND	17.1

Brent Barron, II
Odessa Laboratory Manager

Certificate of Analysis Summary 371873

Basin Environmental Consulting, LLC, Lovington, NM

Project Name: LR Chamberlain Tank Battery

Project Id:

Contact: Camille Bryant

Project Location: Lea County, NM

Date Received in Lab: Thu May-06-10 05:08 pm

Report Date: 14-MAY-10

Project Manager: Brent Barron, II

Analysis Requested													
	Lab Id:	371873-007		371873-008		371873-009		371873-010		371873-011		371873-012	
	Field Id:	T-1 Sample 3 @ 2'		T-1 Sample 3 @ 5'		T-1 Sample 4 @ 2'		T-1 Sample 4 @ 5'		T-1 Sample 5 @ 2'		T-1 Sample 5 @ 3'	
	Depth:												
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Apr-28-10 10:40		Apr-28-10 11:00		Apr-28-10 11:20		Apr-28-10 11:40		Apr-30-10 11:00		Apr-30-10 11:30	
Anions by E300	*Extracted:*												
	Analyzed:	May-12-10 10:32		May-12-10 10:32		May-12-10 10:32		May-12-10 10:32		May-12-10 10:32		May-12-10 10:32	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		218	9.71	428	10.3	23.2	4.49	1460	23.6	14.1	4.77	8.95	4.71
BTEX by EPA 8021B	*Extracted:*	May-08-10 11:30		May-08-10 11:30		May-08-10 11:30		May-08-10 11:30		May-08-10 11:30		May-08-10 11:30	
	Analyzed:	May-08-10 20:16		May-08-10 20:38		May-08-10 21:01		May-08-10 21:23		May-08-10 22:30		May-08-10 22:53	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Benzene		ND	0.0012	ND	0.0012	ND	0.0011	ND	0.0011	ND	0.0011	ND	0.0011
Toluene		ND	0.0023	ND	0.0025	ND	0.0022	ND	0.0023	ND	0.0023	ND	0.0022
Ethylbenzene		ND	0.0012	ND	0.0012	ND	0.0011	ND	0.0011	ND	0.0011	ND	0.0011
m,p-Xylenes		ND	0.0023	ND	0.0025	ND	0.0022	ND	0.0023	ND	0.0023	ND	0.0022
o-Xylene		ND	0.0012	ND	0.0012	ND	0.0011	ND	0.0011	ND	0.0011	ND	0.0011
Total Xylenes		ND	0.0012	ND	0.0012	ND	0.0011	ND	0.0011	ND	0.0011	ND	0.0011
Total BTEX		ND	0.0012	ND	0.0012	ND	0.0011	ND	0.0011	ND	0.0011	ND	0.0011
Percent Moisture	*Extracted:*												
	Analyzed:	May-07-10 17:00		May-07-10 17:00		May-07-10 17:00		May-07-10 17:00		May-07-10 17:00		May-07-10 17:00	
	Units/RL:	%	RL	%	RL	%	RL	%	RL	%	RL	%	RL
Percent Moisture		13.5	1.00	18.2	1.00	6.43	1.00	11.1	1.00	12.0	1.00	10.9	1.00
TPH By SW8015 Mod	*Extracted:*	May-07-10 13:15		May-07-10 13:15		May-07-10 13:15		May-07-10 13:15		May-07-10 13:15		May-07-10 13:15	
	Analyzed:	May-07-10 20:56		May-07-10 21:23		May-07-10 21:50		May-07-10 22:16		May-07-10 23:11		May-07-10 23:38	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
C6-C12 Gasoline Range Hydrocarbons		ND	17.4	ND	18.3	ND	16.0	ND	16.8	ND	17.0	ND	16.8
C12-C28 Diesel Range Hydrocarbons		ND	17.4	ND	18.3	ND	16.0	ND	16.8	88.1	17.0	129	16.8
C28-C35 Oil Range Hydrocarbons		ND	17.4	ND	18.3	ND	16.0	ND	16.8	25.4	17.0	51.6	16.8
Total TPH		ND	17.4	ND	18.3	ND	16.0	ND	16.8	113.5	17.0	181	16.8

Brent Barron, II
Odessa Laboratory Manager

Certificate of Analysis Summary 371873

Basin Environmental Consulting, LLC, Lovington, NM

Project Name: LR Chamberlain Tank Battery

Project Id:

Contact: Camille Bryant

Project Location: Lea County, NM

Date Received in Lab: Thu May-06-10 05:08 pm

Report Date: 14-MAY-10

Project Manager: Brent Barron, II

Analysis Requested													
	Lab Id:	371873-013		371873-014		371873-015		371873-016		371873-017		371873-018	
	Field Id:	T-2 Sample 1 @ 2'		T-2 Sample 1 @ 7'		T-2 Sample 1 @ 12'		T-2 Sample 1 @ 13'		T-2 Sample 2 @ 2'		T-2 Sample 2 @ 5'	
	Depth:												
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Apr-28-10 12:00		Apr-28-10 12:30		Apr-28-10 13:00		Apr-28-10 13:20		Apr-28-10 14:20		Apr-28-10 14:40	
Anions by E300	*Extracted:*												
	Analyzed:	May-12-10 10:32		May-12-10 10:32		May-12-10 10:32		May-12-10 10:32		May-12-10 10:32		May-12-10 10:32	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		837	19.5	818	20.2	250	9.08	228	9.04	820	20.5	553	52.8
BTEX by EPA 8021B	*Extracted:*	May-08-10 11:30		May-08-10 11:30		May-08-10 11:30		May-08-10 11:30		May-08-10 11:30		May-08-10 11:30	
	Analyzed:	May-08-10 23:15		May-08-10 23:38		May-09-10 00:00		May-09-10 00:22		May-09-10 00:44		May-09-10 01:06	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Benzene		ND	0.0012	ND	0.0012	ND	0.0011	ND	0.0011	ND	0.0012	ND	0.0013
Toluene		ND	0.0023	ND	0.0024	ND	0.0021	ND	0.0021	ND	0.0025	ND	0.0025
Ethylbenzene		ND	0.0012	ND	0.0012	ND	0.0011	ND	0.0011	ND	0.0012	ND	0.0013
m,p-Xylenes		ND	0.0023	ND	0.0024	ND	0.0021	ND	0.0021	ND	0.0025	ND	0.0025
o-Xylene		ND	0.0012	ND	0.0012	ND	0.0011	ND	0.0011	ND	0.0012	ND	0.0013
Total Xylenes		ND	0.0012	ND	0.0012	ND	0.0011	ND	0.0011	ND	0.0012	ND	0.0013
Total BTEX		ND	0.0012	ND	0.0012	ND	0.0011	ND	0.0011	ND	0.0012	ND	0.0013
Percent Moisture	*Extracted:*												
	Analyzed:	May-07-10 17:00		May-07-10 17:00		May-07-10 17:00		May-07-10 17:00		May-07-10 17:00		May-07-10 17:00	
	Units/RL:	%	RL	%	RL	%	RL	%	RL	%	RL	%	RL
Percent Moisture		13.8	1.00	17.0	1.00	7.46	1.00	7.12	1.00	18.2	1.00	20.5	1.00
TPH By SW8015 Mod	*Extracted:*	May-07-10 13:15		May-07-10 13:15		May-07-10 13:15		May-07-10 13:15		May-07-10 13:15		May-07-10 13:15	
	Analyzed:	May-08-10 00:05		May-08-10 00:32		May-08-10 00:59		May-08-10 01:26		May-08-10 01:53		May-08-10 02:20	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
C6-C12 Gasoline Range Hydrocarbons		ND	17.3	ND	18.2	ND	16.1	ND	16.1	ND	18.3	ND	18.9
C12-C28 Diesel Range Hydrocarbons		ND	17.3	ND	18.2	ND	16.1	ND	16.1	ND	18.3	ND	18.9
C28-C35 Oil Range Hydrocarbons		ND	17.3	ND	18.2	ND	16.1	ND	16.1	ND	18.3	ND	18.9
Total TPH		ND	17.3	ND	18.2	ND	16.1	ND	16.1	ND	18.3	ND	18.9

Houston - Dallas - San Antonio - Atlanta - Tampa - Boca Raton - Latin America - Odessa - Corpus Christi

Brent Barron, II
Odessa Laboratory Manager

Certificate of Analysis Summary 371873

Basin Environmental Consulting, LLC, Lovington, NM

Project Name: LR Chamberlain Tank Battery

Project Id:
Contact: Camille Bryant
Project Location: Lea County, NM

Date Received in Lab: Thu May-06-10 05:08 pm
Report Date: 14-MAY-10
Project Manager: Brent Barron, II

Analysis Requested													
	Lab Id:	371873-019		371873-020		371873-021		371873-022		371873-023		371873-024	
	Field Id:	T-2 Sample 3 @ 2'		T-2 Sample 3 @ 5'		T-3 Sample 1 @ 2'		T-3 Sample 1 @ 5'		T-3 Sample 1 @ 7'		T-3 Sample 2 @ 5'	
	Depth:												
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Apr-29-10 08:00		Apr-29-10 08:30		Apr-29-10 09:00		Apr-29-10 09:20		Apr-29-10 09:40		Apr-29-10 10:00	
Anions by E300	*Extracted:*												
	Analyzed:	May-12-10 10:32		May-12-10 10:32		May-12-10 19:30		May-12-10 19:30		May-12-10 19:30		May-12-10 19:30	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		184	9.22	66.3	5.08	497	9.44	135	9.52	117	9.70	784	20.0
BTEX by EPA 8021B	*Extracted:*	May-08-10 11:30		May-08-10 11:30		May-10-10 14:30		May-10-10 14:30		May-10-10 14:30		May-10-10 14:30	
	Analyzed:	May-09-10 01:28		May-09-10 01:51		May-10-10 15:23		May-10-10 15:44		May-10-10 16:04		May-10-10 16:25	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Benzene		ND	0.0011	ND	0.0012	ND	0.0011	ND	0.0011	ND	0.0012	ND	0.0012
Toluene		ND	0.0022	ND	0.0024	ND	0.0022	ND	0.0023	ND	0.0023	ND	0.0024
Ethylbenzene		ND	0.0011	ND	0.0012	ND	0.0011	ND	0.0011	ND	0.0012	ND	0.0012
m,p-Xylenes		ND	0.0022	ND	0.0024	ND	0.0022	ND	0.0023	ND	0.0023	ND	0.0024
o-Xylene		ND	0.0011	ND	0.0012	ND	0.0011	ND	0.0011	ND	0.0012	ND	0.0012
Total Xylenes		ND	0.0011	ND	0.0012	ND	0.0011	ND	0.0011	ND	0.0012	ND	0.0012
Total BTEX		ND	0.0011	ND	0.0012	ND	0.0011	ND	0.0011	ND	0.0012	ND	0.0012
Percent Moisture	*Extracted:*												
	Analyzed:	May-07-10 17:00		May-07-10 17:00		May-07-10 17:00		May-07-10 17:00		May-07-10 17:00		May-07-10 17:00	
	Units/RL:	%	RL	%	RL	%	RL	%	RL	%	RL	%	RL
Percent Moisture		8.85	1.00	17.4	1.00	11.0	1.00	11.8	1.00	13.4	1.00	15.8	1.00
TPH By SW8015 Mod	*Extracted:*	May-07-10 13:15		May-07-10 13:15		May-07-10 13:15		May-07-10 13:15		May-07-10 13:15		May-07-10 13:15	
	Analyzed:	May-08-10 02:48		May-08-10 03:15		May-07-10 22:16		May-07-10 22:46		May-07-10 23:15		May-07-10 23:44	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
C6-C12 Gasoline Range Hydrocarbons		ND	16.4	ND	18.2	ND	16.9	ND	17.0	ND	17.4	ND	17.8
C12-C28 Diesel Range Hydrocarbons		ND	16.4	ND	18.2	ND	16.9	ND	17.0	ND	17.4	ND	17.8
C28-C35 Oil Range Hydrocarbons		ND	16.4	ND	18.2	ND	16.9	ND	17.0	ND	17.4	ND	17.8
Total TPH		ND	16.4	ND	18.2	ND	16.9	ND	17.0	ND	17.4	ND	17.8

Brent Barron, II
Odessa Laboratory Manager

Certificate of Analysis Summary 371873

Basin Environmental Consulting, LLC, Lovington, NM

Project Name: LR Chamberlain Tank Battery

Project Id:

Contact: Camille Bryant

Project Location: Lea County, NM

Date Received in Lab: Thu May-06-10 05:08 pm

Report Date: 14-MAY-10

Project Manager: *Brent Barron, II*

Analysis Requested	*Lab Id:*	371873-025		371873-026		371873-027		371873-028		371873-029		371873-030	
	Field Id:	T-3 Sample 3 @ 5'		T-3 Sample 4 @ 2'		T-3 Sample 4 @ 5'		T-4 Sample 1 @ 1.5'		T-4 Sample 2 @ 1.5'		T-4 Sample 3 @ 2'	
	Depth:												
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Apr-29-10 11:00		Apr-29-10 12:00		Apr-29-10 12:20		Apr-29-10 13:00		Apr-29-10 13:30		Apr-29-10 14:00	
Anions by E300	*Extracted:*												
	Analyzed:	May-12-10 19:30		May-12-10 19:30		May-12-10 19:30		May-12-10 19:30		May-12-10 19:30		May-12-10 19:30	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		981	47.5	71.6	4.58	84.3	4.48	669	17.8	885	18.4	67.6	9.61
BTEX by EPA 8021B	*Extracted:*	May-10-10 14:30		May-10-10 14:30		May-10-10 14:30		May-10-10 14:30		May-10-10 14:30		May-10-10 14:30	
	Analyzed:	May-10-10 16:45		May-10-10 17:06		May-10-10 17:27		May-10-10 17:47		May-10-10 18:08		May-10-10 18:29	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Benzene		ND	0.0011	ND	0.0011	ND	0.0011	ND	0.0011	ND	0.0011	ND	0.0011
Toluene		ND	0.0023	ND	0.0022	ND	0.0021	ND	0.0021	ND	0.0022	ND	0.0023
Ethylbenzene		ND	0.0011	ND	0.0011	ND	0.0011	ND	0.0011	ND	0.0011	ND	0.0011
m,p-Xylenes		ND	0.0023	ND	0.0022	ND	0.0021	ND	0.0021	ND	0.0022	ND	0.0023
o-Xylene		ND	0.0011	ND	0.0011	ND	0.0011	ND	0.0011	ND	0.0011	ND	0.0011
Total Xylenes		ND	0.0011	ND	0.0011	ND	0.0011	ND	0.0011	ND	0.0011	ND	0.0011
Total BTEX		ND	0.0011	ND	0.0011	ND	0.0011	ND	0.0011	ND	0.0011	ND	0.0011
Percent Moisture	*Extracted:*												
	Analyzed:	May-07-10 17:00		May-07-10 17:00		May-07-10 17:00		May-07-10 17:00		May-07-10 17:00		May-07-10 17:00	
	Units/RL:	%	RL	%	RL	%	RL	%	RL	%	RL	%	RL
Percent Moisture		11.5	1.00	8.31	1.00	6.17	1.00	5.74	1.00	8.62	1.00	12.6	1.00
TPH By SW8015 Mod	*Extracted:*	May-07-10 13:15		May-07-10 13:15		May-07-10 13:15		May-07-10 13:15		May-07-10 13:15		May-07-10 13:15	
	Analyzed:	May-08-10 00:15		May-08-10 00:46		May-08-10 01:18		May-08-10 01:50		May-08-10 02:22		May-08-10 02:53	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
C6-C12 Gasoline Range Hydrocarbons		ND	16.9	ND	16.4	ND	16.0	ND	15.8	ND	16.4	ND	17.1
C12-C28 Diesel Range Hydrocarbons		ND	16.9	ND	16.4	ND	16.0	ND	15.8	ND	16.4	ND	17.1
C28-C35 Oil Range Hydrocarbons		ND	16.9	ND	16.4	ND	16.0	ND	15.8	ND	16.4	ND	17.1
Total TPH		ND	16.9	ND	16.4	ND	16.0	ND	15.8	ND	16.4	ND	17.1

Brent Barron, II
Odessa Laboratory Manager

Certificate of Analysis Summary 371873

Basin Environmental Consulting, LLC, Lovington, NM

Project Name: LR Chamberlain Tank Battery

Project Id:
Contact: Camille Bryant
Project Location: Lea County, NM

Date Received in Lab: Thu May-06-10 05:08 pm
Report Date: 14-MAY-10
Project Manager: Brent Barron, II

Analysis Requested	*Lab Id:*	371873-031		371873-032		371873-033		371873-034			
	Field Id:	T-4 Sample 3 @ 3'		T-5 Sample 1 @ 2'		T-5 Sample 1 @ 3.5'		T-5 Sample 2 @ 2'			
	Depth:										
	Matrix:	SOIL		SOIL		SOIL		SOIL			
	Sampled:	Apr-29-10 14:20		Apr-29-10 14:40		Apr-29-10 15:00		Apr-29-10 15:30			
Anions by E300	*Extracted:*										
	Analyzed:	May-12-10 19:30		May-12-10 19:30		May-12-10 19:30		May-12-10 19:30			
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL		
Chloride		123	10.1	2870	50.6	1550	23.2	66.4	4.94		
BTEX by EPA 8021B	*Extracted:*	May-10-10 14:30		May-10-10 14:30		May-10-10 14:30		May-10-10 14:30			
	Analyzed:	May-10-10 19:31		May-10-10 19:52		May-10-10 20:12		May-10-10 20:33			
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL		
Benzene		ND	0.0012	ND	0.0012	ND	0.0011	ND	0.0012		
Toluene		ND	0.0024	ND	0.0024	ND	0.0022	ND	0.0024		
Ethylbenzene		ND	0.0012	ND	0.0012	ND	0.0011	ND	0.0012		
m,p-Xylenes		ND	0.0024	ND	0.0024	ND	0.0022	ND	0.0024		
o-Xylene		ND	0.0012	ND	0.0012	ND	0.0011	ND	0.0012		
Total Xylenes		ND	0.0012	ND	0.0012	ND	0.0011	ND	0.0012		
Total BTEX		ND	0.0012	ND	0.0012	ND	0.0011	ND	0.0012		
Percent Moisture	*Extracted:*										
	Analyzed:	May-07-10 17:00		May-07-10 17:00		May-07-10 17:00		May-07-10 17:00			
	Units/RL:	%	RL	%	RL	%	RL	%	RL		
Percent Moisture		16.9	1.00	17.0	1.00	9.31	1.00	14.9	1.00		
TPH By SW8015 Mod	*Extracted:*	May-07-10 13:15		May-07-10 13:15		May-07-10 13:15		May-07-10 13:15			
	Analyzed:	May-08-10 03:54		May-08-10 04:25		May-08-10 04:56		May-08-10 05:29			
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL		
C6-C12 Gasoline Range Hydrocarbons		ND	18.0	ND	18.1	ND	16.6	ND	17.5		
C12-C28 Diesel Range Hydrocarbons		ND	18.0	ND	18.1	ND	16.6	ND	17.5		
C28-C35 Oil Range Hydrocarbons		ND	18.0	ND	18.1	ND	16.6	ND	17.5		
Total TPH		ND	18.0	ND	18.1	ND	16.6	ND	17.5		

Brent Barron, II
Odessa Laboratory Manager

Flagging Criteria

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 effect the recovery of the spike concentration. This condition could also effect 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 MQL and above the SQL.

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.

BRL Below Reporting Limit.

RL Reporting Limit

* Outside XENCO's scope of NELAC Accreditation.

Form 2 - Surrogate Recoveries

Project Name: LR Chamberlain Tank Battery

Work Orders : 371873,

Project ID:

Lab Batch #: 805828 **Sample:** 562820-1-BKS / BKS **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 05/08/10 16:10

BTEX by EPA 8021B	SURROGATE RECOVERY STUDY				
Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0295	0.0300	98	80-120	
4-Bromofluorobenzene	0.0300	0.0300	100	80-120	

Lab Batch #: 805828 **Sample:** 562820-1-BSD / BSD **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 05/08/10 16:33

BTEX by EPA 8021B	SURROGATE RECOVERY STUDY				
Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0300	0.0300	100	80-120	
4-Bromofluorobenzene	0.0293	0.0300	98	80-120	

Lab Batch #: 805828 **Sample:** 562820-1-BLK / BLK **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 05/08/10 17:39

BTEX by EPA 8021B	SURROGATE RECOVERY STUDY				
Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0243	0.0300	81	80-120	
4-Bromofluorobenzene	0.0294	0.0300	98	80-120	

Lab Batch #: 805828 **Sample:** 371873-001 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 05/08/10 18:01

BTEX by EPA 8021B	SURROGATE RECOVERY STUDY				
Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0243	0.0300	81	80-120	
4-Bromofluorobenzene	0.0300	0.0300	100	80-120	

Lab Batch #: 805828 **Sample:** 371873-002 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 05/08/10 18:24

BTEX by EPA 8021B	SURROGATE RECOVERY STUDY				
Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0244	0.0300	81	80-120	
4-Bromofluorobenzene	0.0297	0.0300	99	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: LR Chamberlain Tank Battery

Work Orders : 371873,

Project ID:

Lab Batch #: 805828 **Sample:** 371873-003 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 05/08/10 18:46

BTEX by EPA 8021B	SURROGATE RECOVERY STUDY				
Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0242	0.0300	81	80-120	
4-Bromofluorobenzene	0.0287	0.0300	96	80-120	

Lab Batch #: 805828 **Sample:** 371873-004 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 05/08/10 19:08

BTEX by EPA 8021B	SURROGATE RECOVERY STUDY				
Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0239	0.0300	80	80-120	
4-Bromofluorobenzene	0.0293	0.0300	98	80-120	

Lab Batch #: 805828 **Sample:** 371873-005 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 05/08/10 19:31

BTEX by EPA 8021B	SURROGATE RECOVERY STUDY				
Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0243	0.0300	81	80-120	
4-Bromofluorobenzene	0.0291	0.0300	97	80-120	

Lab Batch #: 805828 **Sample:** 371873-006 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 05/08/10 19:53

BTEX by EPA 8021B	SURROGATE RECOVERY STUDY				
Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0241	0.0300	80	80-120	
4-Bromofluorobenzene	0.0286	0.0300	95	80-120	

Lab Batch #: 805828 **Sample:** 371873-007 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 05/08/10 20:16

BTEX by EPA 8021B	SURROGATE RECOVERY STUDY				
Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0241	0.0300	80	80-120	
4-Bromofluorobenzene	0.0284	0.0300	95	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: LR Chamberlain Tank Battery

Work Orders : 371873,

Project ID:

Lab Batch #: 805828 **Sample:** 371873-008 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 05/08/10 20:38

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0239	0.0300	80	80-120	
4-Bromofluorobenzene	0.0282	0.0300	94	80-120	

Lab Batch #: 805828 **Sample:** 371873-009 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 05/08/10 21:01

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0247	0.0300	82	80-120	
4-Bromofluorobenzene	0.0305	0.0300	102	80-120	

Lab Batch #: 805828 **Sample:** 371873-010 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 05/08/10 21:23

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0245	0.0300	82	80-120	
4-Bromofluorobenzene	0.0303	0.0300	101	80-120	

Lab Batch #: 805828 **Sample:** 371873-011 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 05/08/10 22:30

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0238	0.0300	79	80-120	*
4-Bromofluorobenzene	0.0273	0.0300	91	80-120	

Lab Batch #: 805828 **Sample:** 371873-012 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 05/08/10 22:53

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0235	0.0300	78	80-120	*
4-Bromofluorobenzene	0.0273	0.0300	91	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: LR Chamberlain Tank Battery

Work Orders : 371873,

Project ID:

Lab Batch #: 805828 **Sample:** 371873-013 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 05/08/10 23:15

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0244	0.0300	81	80-120	
4-Bromofluorobenzene	0.0291	0.0300	97	80-120	

Lab Batch #: 805828 **Sample:** 371873-014 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 05/08/10 23:38

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0242	0.0300	81	80-120	
4-Bromofluorobenzene	0.0290	0.0300	97	80-120	

Lab Batch #: 805828 **Sample:** 371873-015 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 05/09/10 00:00

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0243	0.0300	81	80-120	
4-Bromofluorobenzene	0.0302	0.0300	101	80-120	

Lab Batch #: 805828 **Sample:** 371873-016 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 05/09/10 00:22

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0242	0.0300	81	80-120	
4-Bromofluorobenzene	0.0291	0.0300	97	80-120	

Lab Batch #: 805828 **Sample:** 371873-017 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 05/09/10 00:44

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0245	0.0300	82	80-120	
4-Bromofluorobenzene	0.0296	0.0300	99	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: LR Chamberlain Tank Battery

Work Orders : 371873,

Project ID:

Lab Batch #: 805828 **Sample:** 371873-018 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 05/09/10 01:06

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0242	0.0300	81	80-120	
4-Bromofluorobenzene	0.0293	0.0300	98	80-120	

Lab Batch #: 805828 **Sample:** 371873-019 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 05/09/10 01:28

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0242	0.0300	81	80-120	
4-Bromofluorobenzene	0.0287	0.0300	96	80-120	

Lab Batch #: 805828 **Sample:** 371873-020 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 05/09/10 01:51

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0244	0.0300	81	80-120	
4-Bromofluorobenzene	0.0302	0.0300	101	80-120	

Lab Batch #: 805828 **Sample:** 371873-020 S / MS **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 05/09/10 02:13

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0287	0.0300	96	80-120	
4-Bromofluorobenzene	0.0296	0.0300	99	80-120	

Lab Batch #: 805828 **Sample:** 371873-020 SD / MSD **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 05/09/10 02:36

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0284	0.0300	95	80-120	
4-Bromofluorobenzene	0.0292	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.

Form 2 - Surrogate Recoveries

Project Name: LR Chamberlain Tank Battery

Work Orders : 371873,

Project ID:

Lab Batch #: 805963 **Sample:** 562918-1-BKS / BKS **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 05/10/10 09:12

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0301	0.0300	100	80-120	
4-Bromofluorobenzene	0.0300	0.0300	100	80-120	

Lab Batch #: 805963 **Sample:** 562918-1-BSD / BSD **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 05/10/10 09:33

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0304	0.0300	101	80-120	
4-Bromofluorobenzene	0.0301	0.0300	100	80-120	

Lab Batch #: 805963 **Sample:** 562918-1-BLK / BLK **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 05/10/10 10:35

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0273	0.0300	91	80-120	
4-Bromofluorobenzene	0.0296	0.0300	99	80-120	

Lab Batch #: 805963 **Sample:** 371873-021 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 05/10/10 15:23

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY 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	0.0278	0.0300	93	80-120	

Lab Batch #: 805963 **Sample:** 371873-022 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 05/10/10 15:44

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0269	0.0300	90	80-120	
4-Bromofluorobenzene	0.0306	0.0300	102	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: LR Chamberlain Tank Battery

Work Orders : 371873,

Project ID:

Lab Batch #: 805963 **Sample:** 371873-023 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 05/10/10 16:04

BTEX by EPA 8021B	SURROGATE RECOVERY STUDY				
Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0273	0.0300	91	80-120	
4-Bromofluorobenzene	0.0310	0.0300	103	80-120	

Lab Batch #: 805963 **Sample:** 371873-024 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 05/10/10 16:25

BTEX by EPA 8021B	SURROGATE RECOVERY STUDY				
Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0269	0.0300	90	80-120	
4-Bromofluorobenzene	0.0300	0.0300	100	80-120	

Lab Batch #: 805963 **Sample:** 371873-025 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 05/10/10 16:45

BTEX by EPA 8021B	SURROGATE RECOVERY STUDY				
Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0279	0.0300	93	80-120	
4-Bromofluorobenzene	0.0292	0.0300	97	80-120	

Lab Batch #: 805963 **Sample:** 371873-026 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 05/10/10 17:06

BTEX by EPA 8021B	SURROGATE RECOVERY STUDY				
Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0276	0.0300	92	80-120	
4-Bromofluorobenzene	0.0270	0.0300	90	80-120	

Lab Batch #: 805963 **Sample:** 371873-027 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 05/10/10 17:27

BTEX by EPA 8021B	SURROGATE RECOVERY STUDY				
Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0274	0.0300	91	80-120	
4-Bromofluorobenzene	0.0330	0.0300	110	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: LR Chamberlain Tank Battery

Work Orders : 371873,

Project ID:

Lab Batch #: 805963 **Sample:** 371873-028 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 05/10/10 17:47

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0268	0.0300	89	80-120	
4-Bromofluorobenzene	0.0272	0.0300	91	80-120	

Lab Batch #: 805963 **Sample:** 371873-029 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 05/10/10 18:08

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0272	0.0300	91	80-120	
4-Bromofluorobenzene	0.0285	0.0300	95	80-120	

Lab Batch #: 805963 **Sample:** 371873-030 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 05/10/10 18:29

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0278	0.0300	93	80-120	
4-Bromofluorobenzene	0.0303	0.0300	101	80-120	

Lab Batch #: 805963 **Sample:** 371873-031 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 05/10/10 19:31

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0279	0.0300	93	80-120	
4-Bromofluorobenzene	0.0285	0.0300	95	80-120	

Lab Batch #: 805963 **Sample:** 371873-032 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 05/10/10 19:52

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0285	0.0300	95	80-120	
4-Bromofluorobenzene	0.0294	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: LR Chamberlain Tank Battery

Work Orders : 371873,

Project ID:

Lab Batch #: 805963 **Sample:** 371873-033 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 05/10/10 20:12

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0275	0.0300	92	80-120	
4-Bromofluorobenzene	0.0285	0.0300	95	80-120	

Lab Batch #: 805963 **Sample:** 371873-034 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 05/10/10 20:33

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0269	0.0300	90	80-120	
4-Bromofluorobenzene	0.0301	0.0300	100	80-120	

Lab Batch #: 805963 **Sample:** 371873-021 S / MS **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 05/10/10 21:56

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0362	0.0300	121	80-120	*
4-Bromofluorobenzene	0.0313	0.0300	104	80-120	

Lab Batch #: 805963 **Sample:** 371873-021 SD / MSD **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 05/10/10 22:17

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0289	0.0300	96	80-120	
4-Bromofluorobenzene	0.0338	0.0300	113	80-120	

Lab Batch #: 805736 **Sample:** 562786-1-BKS / BKS **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 05/07/10 16:54

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	113	100	113	70-135	
o-Terphenyl	44.7	50.2	89	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: LR Chamberlain Tank Battery

Work Orders : 371873,

Project ID:

Lab Batch #: 805736 **Sample:** 562786-1-BSD / BSD **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 05/07/10 17:20

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	113	100	113	70-135	
o-Terphenyl	44.0	50.2	88	70-135	

Lab Batch #: 805736 **Sample:** 562786-1-BLK / BLK **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 05/07/10 17:47

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	96.2	99.6	97	70-135	
o-Terphenyl	48.1	49.8	97	70-135	

Lab Batch #: 805736 **Sample:** 371873-001 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 05/07/10 18:14

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	98.5	100	99	70-135	
o-Terphenyl	49.0	50.2	98	70-135	

Lab Batch #: 805736 **Sample:** 371873-002 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 05/07/10 18:41

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	96.0	100	96	70-135	
o-Terphenyl	48.0	50.2	96	70-135	

Lab Batch #: 805736 **Sample:** 371873-003 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 05/07/10 19:08

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	98.2	100	98	70-135	
o-Terphenyl	48.8	50.2	97	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: LR Chamberlain Tank Battery

Work Orders : 371873,

Project ID:

Lab Batch #: 805736 **Sample:** 371873-004 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 05/07/10 19:35

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	93.8	99.8	94	70-135	
o-Terphenyl	46.3	49.9	93	70-135	

Lab Batch #: 805736 **Sample:** 371873-005 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 05/07/10 20:02

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	94.7	100	95	70-135	
o-Terphenyl	46.3	50.1	92	70-135	

Lab Batch #: 805736 **Sample:** 371873-006 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 05/07/10 20:29

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	95.5	100	96	70-135	
o-Terphenyl	47.1	50.0	94	70-135	

Lab Batch #: 805736 **Sample:** 371873-007 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 05/07/10 20:56

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	94.8	100	95	70-135	
o-Terphenyl	47.9	50.2	95	70-135	

Lab Batch #: 805736 **Sample:** 371873-008 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 05/07/10 21:23

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	95.5	99.8	96	70-135	
o-Terphenyl	47.9	49.9	96	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: LR Chamberlain Tank Battery

Work Orders : 371873,

Project ID:

Lab Batch #: 805736 **Sample:** 371873-009 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 05/07/10 21:50

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	94.3	100	94	70-135	
o-Terphenyl	46.8	50.1	93	70-135	

Lab Batch #: 805736 **Sample:** 371873-010 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 05/07/10 22:16

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	95.5	99.8	96	70-135	
o-Terphenyl	47.5	49.9	95	70-135	

Lab Batch #: 805736 **Sample:** 371873-011 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 05/07/10 23:11

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	95.3	99.8	95	70-135	
o-Terphenyl	47.5	49.9	95	70-135	

Lab Batch #: 805736 **Sample:** 371873-012 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 05/07/10 23:38

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	94.3	99.8	94	70-135	
o-Terphenyl	47.3	49.9	95	70-135	

Lab Batch #: 805736 **Sample:** 371873-013 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 05/08/10 00:05

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	94.8	99.5	95	70-135	
o-Terphenyl	47.3	49.8	95	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: LR Chamberlain Tank Battery

Work Orders : 371873,

Project ID:

Lab Batch #: 805736 **Sample:** 371873-014 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 05/08/10 00:32

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	95.0	101	94	70-135	
o-Terphenyl	47.5	50.3	94	70-135	

Lab Batch #: 805736 **Sample:** 371873-015 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 05/08/10 00:59

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	96.3	99.5	97	70-135	
o-Terphenyl	47.9	49.8	96	70-135	

Lab Batch #: 805736 **Sample:** 371873-016 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 05/08/10 01:26

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	92.9	99.5	93	70-135	
o-Terphenyl	46.1	49.8	93	70-135	

Lab Batch #: 805736 **Sample:** 371873-017 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 05/08/10 01:53

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	90.5	100	91	70-135	
o-Terphenyl	46.3	50.0	93	70-135	

Lab Batch #: 805736 **Sample:** 371873-018 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 05/08/10 02:20

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	94.0	100	94	70-135	
o-Terphenyl	47.2	50.0	94	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: LR Chamberlain Tank Battery

Work Orders : 371873,

Project ID:

Lab Batch #: 805736 **Sample:** 371873-019 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 05/08/10 02:48

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	98.2	99.5	99	70-135	
o-Terphenyl	48.6	49.8	98	70-135	

Lab Batch #: 805736 **Sample:** 371873-020 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 05/08/10 03:15

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	94.8	100	95	70-135	
o-Terphenyl	47.1	50.0	94	70-135	

Lab Batch #: 805736 **Sample:** 371873-020 S / MS **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 05/08/10 03:42

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	123	100	123	70-135	
o-Terphenyl	48.2	50.1	96	70-135	

Lab Batch #: 805736 **Sample:** 371873-020 SD / MSD **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 05/08/10 04:09

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	119	99.5	120	70-135	
o-Terphenyl	47.2	49.8	95	70-135	

Lab Batch #: 805752 **Sample:** 562796-1-BKS / BKS **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 05/07/10 20:43

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	98.2	100	98	70-135	
o-Terphenyl	45.0	50.2	90	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: LR Chamberlain Tank Battery

Work Orders : 371873,

Project ID:

Lab Batch #: 805752 **Sample:** 562796-1-BLK / BLK **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 05/07/10 21:46

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	84.6	99.6	85	70-135	
o-Terphenyl	46.9	49.8	94	70-135	

Lab Batch #: 805752 **Sample:** 371873-021 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 05/07/10 22:16

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	82.0	100	82	70-135	
o-Terphenyl	44.6	50.1	89	70-135	

Lab Batch #: 805752 **Sample:** 371873-022 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 05/07/10 22:46

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	81.3	99.9	81	70-135	
o-Terphenyl	44.3	50.0	89	70-135	

Lab Batch #: 805752 **Sample:** 371873-023 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 05/07/10 23:15

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	105	100	105	70-135	
o-Terphenyl	57.9	50.2	115	70-135	

Lab Batch #: 805752 **Sample:** 371873-024 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 05/07/10 23:44

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	104	100	104	70-135	
o-Terphenyl	57.3	50.0	115	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: LR Chamberlain Tank Battery

Work Orders : 371873,

Project ID:

Lab Batch #: 805752 **Sample:** 371873-025 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 05/08/10 00:15

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	87.9	99.5	88	70-135	
o-Terphenyl	48.0	49.8	96	70-135	

Lab Batch #: 805752 **Sample:** 371873-026 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 05/08/10 00:46

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	97.0	100	97	70-135	
o-Terphenyl	53.2	50.0	106	70-135	

Lab Batch #: 805752 **Sample:** 371873-027 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 05/08/10 01:18

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	101	100	101	70-135	
o-Terphenyl	55.2	50.0	110	70-135	

Lab Batch #: 805752 **Sample:** 371873-028 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 05/08/10 01:50

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	93.7	99.5	94	70-135	
o-Terphenyl	50.8	49.8	102	70-135	

Lab Batch #: 805752 **Sample:** 371873-029 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 05/08/10 02:22

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	95.0	100	95	70-135	
o-Terphenyl	52.4	50.1	105	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: LR Chamberlain Tank Battery

Work Orders : 371873,

Project ID:

Lab Batch #: 805752 **Sample:** 371873-030 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 05/08/10 02:53

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	95.9	99.6	96	70-135	
o-Terphenyl	52.0	49.8	104	70-135	

Lab Batch #: 805752 **Sample:** 371873-031 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 05/08/10 03:54

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	87.8	99.8	88	70-135	
o-Terphenyl	48.2	49.9	97	70-135	

Lab Batch #: 805752 **Sample:** 371873-032 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 05/08/10 04:25

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	83.0	100	83	70-135	
o-Terphenyl	45.5	50.1	91	70-135	

Lab Batch #: 805752 **Sample:** 371873-033 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 05/08/10 04:56

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	101	100	101	70-135	
o-Terphenyl	55.5	50.1	111	70-135	

Lab Batch #: 805752 **Sample:** 371873-034 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 05/08/10 05:29

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	90.1	99.5	91	70-135	
o-Terphenyl	49.5	49.8	99	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: LR Chamberlain Tank Battery

Work Orders : 371873,

Project ID:

Lab Batch #: 805752 **Sample:** 371873-034 S / MS **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 05/08/10 08:09

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	93.2	99.6	94	70-135	
o-Terphenyl	42.7	49.8	86	70-135	

Lab Batch #: 805752 **Sample:** 371873-034 SD / MSD **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 05/08/10 08:42

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	97.9	100	98	70-135	
o-Terphenyl	44.8	50.2	89	70-135	

Lab Batch #: 805752 **Sample:** 562796-1-BSD / BSD **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 05/10/10 11:00

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	118	100	118	70-135	
o-Terphenyl	53.6	50.2	107	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: LR Chamberlain Tank Battery

Work Order #: 371873 **Project ID:**

Analyst: ASA **Date Prepared:** 05/08/2010 **Date Analyzed:** 05/08/2010

Lab Batch ID: 805828 **Sample:** 562820-1-BKS **Batch #:** 1 **Matrix:** Solid

Units: mg/kg

BTEX by EPA 8021B	BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY										
Analytes	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
Benzene	ND	0.1000	0.1042	104	0.1	0.1056	106	1	70-130	35	
Toluene	ND	0.1000	0.1006	101	0.1	0.1013	101	1	70-130	35	
Ethylbenzene	ND	0.1000	0.1051	105	0.1	0.1055	106	0	71-129	35	
m,p-Xylenes	ND	0.2000	0.2026	101	0.2	0.2032	102	0	70-135	35	
o-Xylene	ND	0.1000	0.0970	97	0.1	0.0973	97	0	71-133	35	

Analyst: ASA **Date Prepared:** 05/10/2010 **Date Analyzed:** 05/10/2010

Lab Batch ID: 805963 **Sample:** 562918-1-BKS **Batch #:** 1 **Matrix:** Solid

Units: mg/kg

BTEX by EPA 8021B	BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY										
Analytes	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
Benzene	ND	0.1000	0.0861	86	0.1	0.0857	86	0	70-130	35	
Toluene	ND	0.1000	0.0896	90	0.1	0.0891	89	1	70-130	35	
Ethylbenzene	ND	0.1000	0.0872	87	0.1	0.0867	87	1	71-129	35	
m,p-Xylenes	ND	0.2000	0.1948	97	0.2	0.1938	97	1	70-135	35	
o-Xylene	ND	0.1000	0.0964	96	0.1	0.0959	96	1	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

BS / BSD Recoveries

Project Name: LR Chamberlain Tank Battery

Work Order #: 371873 **Project ID:**

Analyst: LATCOR **Date Prepared:** 05/12/2010 **Date Analyzed:** 05/12/2010

Lab Batch ID: 806338 **Sample:** 806338-1-BKS **Batch #:** 1 **Matrix:** Solid

Units: mg/kg

Anions by E300	BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY										
Analytes	**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**
Chloride	ND	10.0	9.94	99	10	9.82	98	1	75-125	20	

Analyst: LATCOR **Date Prepared:** 05/12/2010 **Date Analyzed:** 05/12/2010

Lab Batch ID: 806340 **Sample:** 806340-1-BKS **Batch #:** 1 **Matrix:** Solid

Units: mg/kg

Anions by E300	BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY										
Analytes	**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**
Chloride	ND	10.0	10.4	104	10	9.90	99	5	75-125	20	

Analyst: BEV **Date Prepared:** 05/07/2010 **Date Analyzed:** 05/07/2010

Lab Batch ID: 805736 **Sample:** 562786-1-BKS **Batch #:** 1 **Matrix:** Solid

Units: mg/kg

TPH By SW8015 Mod	BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY										
Analytes	**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**
C6-C12 Gasoline Range Hydrocarbons	ND	1000	1120	112	1000	1110	111	1	70-135	35	
C12-C28 Diesel Range Hydrocarbons	ND	1000	724	72	1000	774	77	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

BS / BSD Recoveries

Project Name: LR Chamberlain Tank Battery

Work Order #: 371873
Analyst: BEV
Lab Batch ID: 805752
Sample: 562796-1-BKS
Units: mg/kg

Date Prepared: 05/07/2010
Batch #: 1

Project ID:
Date Analyzed: 05/07/2010
Matrix: Solid

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	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
C6-C12 Gasoline Range Hydrocarbons	ND	1000	1050	105	1000	1220	122	15	70-135	35	
C12-C28 Diesel Range Hydrocarbons	ND	1000	813	81	1000	891	89	9	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: LR Chamberlain Tank Battery

Work Order #: 371873

Lab Batch #: 806338 **Project ID:**

Date Analyzed: 05/12/2010 **Date Prepared:** 05/12/2010 **Analyst:** LATCOR

QC- Sample ID: 371873-001 S **Batch #:** 1 **Matrix:** Soil

Reporting Units: mg/kg

	MATRIX / MATRIX SPIKE RECOVERY STUDY					
Inorganic Anions by EPA 300 **Analytes**	**Parent Sample Result [A]**	**Spike Added [B]**	**Spiked Sample Result [C]**	**%R [D]**	**Control Limits %R**	**Flag**
Chloride	1180	460	1680	109	75-125	

Lab Batch #: 806340

Date Analyzed: 05/12/2010 **Date Prepared:** 05/12/2010 **Analyst:** LATCOR

QC- Sample ID: 371873-021 S **Batch #:** 1 **Matrix:** Soil

Reporting Units: mg/kg

	MATRIX / MATRIX SPIKE RECOVERY STUDY					
Inorganic Anions by EPA 300 **Analytes**	**Parent Sample Result [A]**	**Spike Added [B]**	**Spiked Sample Result [C]**	**%R [D]**	**Control Limits %R**	**Flag**
Chloride	497	225	687	84	75-125	

Matrix Spike Percent Recovery [D] = 100*(C-A)/B
Relative Percent Difference [E] = 200*(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: LR Chamberlain Tank Battery

Work Order # : 371873 **Project ID:**

Lab Batch ID: 805828 **QC- Sample ID:** 371873-020 S **Batch #:** 1 **Matrix:** Soil

Date Analyzed: 05/09/2010 **Date Prepared:** 05/08/2010 **Analyst:** ASA

Reporting Units: mg/kg

BTEX by EPA 8021B Analytes	MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY										
	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Benzene	ND	0.1213	0.0905	75	0.1208	0.0778	64	15	70-130	35	X
Toluene	ND	0.1213	0.0875	72	0.1208	0.0763	63	14	70-130	35	X
Ethylbenzene	ND	0.1213	0.0884	73	0.1208	0.0780	65	13	71-129	35	X
m,p-Xylenes	ND	0.2426	0.1700	70	0.2416	0.1521	63	11	70-135	35	X
o-Xylene	ND	0.1213	0.0830	68	0.1208	0.0734	61	12	71-133	35	X

Lab Batch ID: 805963 **QC- Sample ID:** 371873-021 S **Batch #:** 1 **Matrix:** Soil

Date Analyzed: 05/10/2010 **Date Prepared:** 05/10/2010 **Analyst:** ASA

Reporting Units: mg/kg

BTEX by EPA 8021B Analytes	MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY										
	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Benzene	ND	0.1130	0.0752	67	0.1135	0.0732	64	3	70-130	35	X
Toluene	ND	0.1130	0.0654	58	0.1135	0.0644	57	2	70-130	35	X
Ethylbenzene	ND	0.1130	0.0765	68	0.1135	0.0678	60	12	71-129	35	X
m,p-Xylenes	ND	0.2261	0.1703	75	0.2270	0.1470	65	15	70-135	35	X
o-Xylene	ND	0.1130	0.1278	113	0.1135	0.0832	73	42	71-133	35	F

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 ApplicableN = See Narrative, EQL = Estimated Quantitation Limit

Form 3 - MS / MSD Recoveries

Project Name: LR Chamberlain Tank Battery

Work Order # : 371873 **Project ID:**

Lab Batch ID: 805736 **QC- Sample ID:** 371873-020 S **Batch #:** 1 **Matrix:** Soil

Date Analyzed: 05/08/2010 **Date Prepared:** 05/07/2010 **Analyst:** BEV

Reporting Units: mg/kg

TPH By SW8015 Mod Analytes	MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY										
	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
C6-C12 Gasoline Range Hydrocarbons	ND	1210	1430	118	1200	1390	116	3	70-135	35	
C12-C28 Diesel Range Hydrocarbons	ND	1210	1130	93	1200	909	76	22	70-135	35	

Lab Batch ID: 805752 **QC- Sample ID:** 371873-034 S **Batch #:** 1 **Matrix:** Soil

Date Analyzed: 05/08/2010 **Date Prepared:** 05/07/2010 **Analyst:** BEV

Reporting Units: mg/kg

TPH By SW8015 Mod Analytes	MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY										
	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
C6-C12 Gasoline Range Hydrocarbons	ND	1170	1160	99	1180	1260	107	8	70-135	35	
C12-C28 Diesel Range Hydrocarbons	ND	1170	895	76	1180	839	71	6	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 ApplicableN = See Narrative, EQL = Estimated Quantitation Limit

Sample Duplicate Recovery

Project Name: LR Chamberlain Tank Battery

Work Order #: 371873

Lab Batch #: 806338 **Project ID:**

Date Analyzed: 05/12/2010 **Date Prepared:** 05/12/2010 **Analyst:** LATCOR

QC- Sample ID: 371873-001 D **Batch #:** 1 **Matrix:** Soil

Reporting Units: mg/kg

Anions by E300 / Analyte	SAMPLE / SAMPLE DUPLICATE RECOVERY				
	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Chloride	1180	1170	1	20	

Lab Batch #: 806340

Date Analyzed: 05/12/2010 **Date Prepared:** 05/12/2010 **Analyst:** LATCOR

QC- Sample ID: 371873-021 D **Batch #:** 1 **Matrix:** Soil

Reporting Units: mg/kg

Anions by E300 / Analyte	SAMPLE / SAMPLE DUPLICATE RECOVERY				
	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Chloride	497	487	2	20	

Lab Batch #: 805744

Date Analyzed: 05/07/2010 **Date Prepared:** 05/07/2010 **Analyst:** JLG

QC- Sample ID: 371873-001 D **Batch #:** 1 **Matrix:** Soil

Reporting Units: %

Percent Moisture / Analyte	SAMPLE / SAMPLE DUPLICATE RECOVERY				
	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Percent Moisture	13.0	13.7	6	20	

Lab Batch #: 805751

Date Analyzed: 05/07/2010 **Date Prepared:** 05/07/2010 **Analyst:** JLG

QC- Sample ID: 371873-021 D **Batch #:** 1 **Matrix:** Soil

Reporting Units: %

Percent Moisture / Analyte	SAMPLE / SAMPLE DUPLICATE RECOVERY				
	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Percent Moisture	11.0	9.94	10	20	

Spike Relative Difference RPD 200 * | (B-A)/(B+A) |
All Results are based on MDL and validated for QC purposes.
BRL - Below Reporting Limit

Environmental Lab of Texas

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

12600 West I-20 East
Odessa, Texas 79765
Phone: 432-563-1800
Fax: 432-563-1713

1 of 4

Project Manager: Camille Bryant
Company Name: Basin Environmental Consulting, LLC
Company Address: P. O. Box 381
City/State/Zip: Lovington, NM 88260
Telephone No: (575)605-7210 Fax No: (505) 396-1429
Sampler Signature: C.D. Singleton for C.J. Bryant

Project Name: LR Chamberlain Tank Battery
Project #:
Project Loc: Lea County, NM
PO #: Please bill Basin Consulting
Report Format: [X] Standard [ ] TRRP [ ] NPDES
email: cjbryant@basin-consulting.com

(lab use only)
ORDER #: 371873

LAB # (lab use only)	FIELD CODE	Beginning Depth	Ending Depth	Date Sampled	Time Sampled	Field Filtered	Total #. of Containers	Preservation & # of Containers: Ice	HNO_3	HCl	H_2SO_4	NaOH	$Na_2S_2O_3$	None	Other (Specify)	Matrix: DW=Drinking Water SL=Sludge GW = Groundwater S=Soil/Solid NP=Non-Potable Specify Other	Analyze For: TPH: 418.1 / 8015M	TPH: TX 1005 / TX 1006	Cations (Ca, Mg, Na, K)	Anions (Cl, SO4, Alkalinity)	SAR / ESP / CEC	Metals: As Ag Ba Cd Cr Pb Hg Se	Volatiles	Semivolatiles	BTEX 8021B/5030 or BTEX 8260	RCI	N.O.R.M.	Chloride E300	RUSH TAT (Pre-Schedule) 24, 48, 72 hrs	Standard TAT 4 DAY
								TCLP:																						
								TOTAL:																X						
01	T-1 Sample 1 @ 2'			28-Apr-10	0800		1	X								Soil	X							X			X		X
02	T-1 Sample 1 @ 7'			28-Apr-10	0820		1	X								Soil	X							X			X		X
03	T-1 Sample 1 @ 15'			28-Apr-10	0840		1	X								Soil	X							X			X		X
04	T-1 Sample 1 @ 17'			28-Apr-10	0900		1	X								Soil	X							X			X		X
05	T-1 Sample 2 @ 2'			28-Apr-10	0940		1	X								Soil	X							X			X		X
06	T-1 Sample 2 @ 5'			28-Apr-10	1000		1	X								Soil	X							X			X		X
07	T-1 Sample 3 @ 2'			28-Apr-10	1040		1	X								Soil	X							X			X		X
08	T-1 Sample 3 @ 5'			28-Apr-10	1100		1	X								Soil	X							X			X		X
09	T-1 Sample 4 @ 2'			28-Apr-10	1120		1	X								Soil	X							X			X		X
10	T-1 Sample 4 @ 5'			28-Apr-10	1140		1	X								Soil	X							X			X		X

Special Instructions:

	Date	Time		Date	Time
Relinquished by: Camille Bryant	5/6/10	1537	Received by:	5/6/10	1537
Relinquished by:	5/6/10	1702	Received by:		
Relinquished by:	Date	Time	Received by ELOT: Andrea Sam	5.6.10	17:08

Laboratory Comments:

Sample Containers Intact?	Y	N
VOCs Free of Headspace?		N
Labels on container(s)		N
Custody seals on container(s)		N
Custody seals on cooler(s)	Y	N
Sample Hand Delivered		N
by Sampler/Client Rep. ?		N

by Courier? UPS DHL FedEx Lone Star
4029455
Temperature Upon Receipt: 4.6 °C

Environmental Lab of Texas

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

12600 West I-20 East
Odessa, Texas 79765
Phone: 432-563-1800
Fax: 432-563-1713

2 of 4

Project Manager: Camille Bryant
Company Name: Basin Environmental Consulting, LLC
Company Address: P. O. Box 381
City/State/Zip: Lovington, NM 88260
Telephone No: (575)605-7210 Fax No: (505) 396-1429
Sampler Signature: for C. Bryant e-mail: cibryant@basin-consulting.com

Project Name: LR Chamberlain Tank Battery
Project #:
Project Loc: Lea County, NM
PO #: Please bill Basin Consulting
Report Format: [X] Standard [ ] TRRP [ ] NPDES

(lab use only)
ORDER #: 371873

Analyze For:

LAB # (lab use only)	FIELD CODE	Beginning Depth	Ending Depth	Date Sampled	Time Sampled	Field Filtered	Total # of Containers	Preservation & # of Containers: Ice	HNO3	HCl	H2SO4	NaOH	Na2S2O3	None	Other (Specify)	Matrix: DW=Drinking Water GW=Groundwater NP=Non-Potable SL=Sludge S=Soil/Solid Specify Other	TPH: 418.1 / 8015M	TPH: TX 1005 / TX1006	Cations (Ca, Mg, Na, K)	Anions (Cl, SO4, Alkalinity)	SAR / ESP / CEC	Metals: As Ag Ba Cd Cr Pb Hg Se	Volatiles	Semivolatiles	BTEX 8021B/5030 or BTEX 8260	RCI	N.O.R.M.	Chloride 300			RUSH TAT (Pre-Schedule) 24, 48, 72 hrs	Standard TAT 4 DAY
11	T-1 Sample 5 @ 2'			30-Apr-10	1100		1	X								Soil	X								X			X				X
12	T-1 Sample 5 @ 3'			30-Apr-10	1130		1	X								Soil	X								X			X				X
13	T-2 Sample 1 @ 2'			28-Apr-10	1200		1	X								Soil	X								X			X				X
14	T-2 Sample 1 @ 7'			28-Apr-10	1230		1	X								Soil	X								X			X				X
15	T-2 Sample 1 @ 12'			28-Apr-10	1300		1	X								Soil	X								X			X				X
16	T-2 Sample 1 @ 13'			28-Apr-10	1320		1	X								Soil	X								X			X				X
17	T-2 Sample 2 @ 2'			28-Apr-10	1420		1	X								Soil	X								X			X				X
18	T-2 Sample 2 @ 5'			28-Apr-10	1440		1	X								Soil	X								X			X				X
19	T-2 Sample 3 @ 2'			29-Apr-10	0800		1	X								Soil	X								X			X				X
20	T-2 Sample 3 @ 5'			29-Apr-10	0830		1	X								Soil	X								X			X				X

Special Instructions:

Relinquished by:	Date	Time	Received by:	Date	Time
Camille Bryant	5/6/10	1537		5/6/10	1537
Relinquished by:	Date	Time	Received by:	Date	Time
	5/6/10	1708			
Relinquished by:	Date	Time	Received by ELOT:	Date	Time
			Andrea Sam	5-6-10	17:08

Laboratory Comments:

Sample Containers Intact?	N
VOCs Free of Headspace?	N N N
Labels on container(s)	N
Custody seals on container(s)	N
Custody seals on cooler(s)	N
Sample Hand Delivered	N
by Sampler/Client Rep. ?	N
by Courier? UPS DHL FedEx Lone Star	
4 0z glass	
Temperature Upon Receipt: 4.6 °C	

Environmental Lab of Texas

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

12600 West I-20 East
Odessa, Texas 79765

Phone: 432-563-1800
Fax: 432-563-1713

3 of 4

Project Manager: Camille Bryant
Company Name: Basin Environmental Consulting, LLC
Company Address: P. O. Box 381
City/State/Zip: Lovington, NM 88260
Telephone No: (575)605-7210 Fax No: (605) 396-1429
Sampler Signature: C. J. Bryant

Project Name: LR Chamberlain Tank Battery
Project #:
Project Loc: Lea County, NM
PO #: Please bill Basin Consulting
Report Format: [X] Standard [ ] TRRP [ ] NPDES
email: cjbryant@basin-consulting.com

(lab use only)
ORDER #: 371873

LAB # (lab use only)	FIELD CODE	Beginning Depth	Ending Depth	Date Sampled	Time Sampled	Field Filtered	Total #. of Containers	Preservation & # of Containers: Ice	HNO_3	HCl	H_2SO_4	NaOH	$Na_2S_2O_3$	None	Other (Specify)	Matrix: DW=Drinking Water SL=Sludge GW = Groundwater S=Soil/Solid NP=Non-Potable Specify Other	Analyze For: TCLP: TPH: 418.1 / 8015M 8015B	TPH: TX 1005 TX 1006	Cations (Ca, Mg, Na, K)	Anions (Cl, SO4, Alkalinity)	SAR / ESP / CEC	Metals: As Ag Ba Cd Cr Pb Hg Se	Volatiles	Semivolatiles	TOTAL: BTEX 8021B/5030 or BTEX 8260	RCI	N.O.R.M.			RUSH TAT (Pre-Schedule) 24, 48, 72 hrs	Standard TAT 4 DAY
21	T-3 Sample 1 @ 2'			29-Apr-10	0900		1	X								Soil	X								X			X				X
22	T-3 Sample 1 @ 5'			29-Apr-10	0920		1	X								Soil	X								X			X				X
23	T-3 Sample 1 @ 7'			29-Apr-10	0940		1	X								Soil	X								X			X				X
24	T-3 Sample 2 @ 5'			29-Apr-10	1000		1	X								Soil	X								X			X				X
25	T-3 Sample 3 @ 5'			29-Apr-10	1100		1	X								Soil	X								X			X				X
26	T-3 Sample 4 @ 2'			29-Apr-10	1200		1	X								Soil	X								X			X				X
27	T-3 Sample 4 @ 5'			29-Apr-10	1220		1	X								Soil	X								X			X				X
28	T-4 Sample 1 @ 1.5'			29-Apr-10	1300		1	X								Soil	X								X			X				X
29	T-4 Sample 2 @ 1.5'			29-Apr-10	1330		1	X								Soil	X								X			X				X
30	T-4 Sample 3 @ 2'			29-Apr-10	1400		1	X								Soil	X								X			X				X

Chloride 300.0

Special Instructions:

	Date	Time		Date	Time
Relinquished by: Camille Bryant	5/6/10	1537	Received by:	5/6/10	1537
Relinquished by:	5/6/10	1708	Received by:		
Relinquished by:			Received by ELOT: Andrea Sam	5.6.10	17:08

Laboratory Comments:

Sample Containers Intact?	N
VOCs Free of Headspace?	N
Labels on container(s)	N
Custody seals on container(s)	N
Custody seals on cooler(s)	N
Sample Hand Delivered	N
by Sampler/Client Rep. ?	N
by Courier? UPS DHL FedEx Lone Star	
4029195S	
Temperature Upon Receipt: 4.6 °C	

Environmental Lab of Texas

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

12600 West I-20 East
Odessa, Texas 79765

Phone: 432-563-1800
Fax: 432-563-1713

4 of 4

Project Manager: Camille Bryant
Company Name: Basin Environmental Consulting, LLC
Company Address: P. O. Box 381
City/State/Zip: Lovington, NM 88260
Telephone No: (575)605-7210
Fax No: (505) 396-1429
Sampler Signature: C. H. [signature] for C. J. Bryant
e-mail: cjbryant@basin-consulting.com

Project Name: LR Chamberlain Tank Battery
Project #:
Project Loc: Lea County, NM
PO #: Please bill Basin Consulting
Report Format: [X] Standard [ ] TRRP [ ] NPDES

(lab use only)
ORDER #: 371873

Preservation & # of Containers: Ice, HNO_3, HCl, H_2SO_4, NaOH, $Na_2S_2O_3$, None, Other (Specify)

Matrix: DW=Drinking Water SL=Sludge; GW = Groundwater S=Soil/Solid; NP=Non-Potable Specify Other

Analyze For: TCLP: / TOTAL: (X marked under the BTEX column)

LAB # (lab use only)	FIELD CODE	Beginning Depth	Ending Depth	Date Sampled	Time Sampled	Field Filtered	Total #. of Containers	Ice	HNO_3	HCl	H_2SO_4	NaOH	$Na_2S_2O_3$	None	Other (Specify)	Matrix	TPH: 418.1 8015M 8015B	TPH: TX 1005 TX 1006	Cations (Ca, Mg, Na, K)	Anions (Cl, SO4, Alkalinity)	SAR / ESP / CEC	Metals: As Ag Ba Cd Cr Pb Hg Se	Volatiles	Semivolatiles	BTEX 8021B/5030 or BTEX 8260	RCI	N.O.R.M.	Chloride E300			RUSH TAT (Pre-Schedule) 24, 48, 72 hrs	Standard TAT 4 DAY
31	T-4 Sample 3 @ 3'			29-Apr-10	1420		1	X								Soil	X								X			X				X
32	T-5 Sample 1 @ 2'			29-Apr-10	1440		1	X								Soil	X								X			X				X
33	T-5 Sample 1 @ 3.5'			29-Apr-10	1500		1	X								Soil	X								X			X				X
34	T-5 Sample 2 @ 2'			29-Apr-10	1530		1	X								Soil	X								X			X				X

Special Instructions:

Relinquished by:	Date	Time	Received by:	Date	Time
Camille Bryant	5/6/10	1537	[signature]	5/6/10	1537
[signature]	5/6/10	1708			
			Received by ELOT: Andrea Lam	5.6.10	17:08

Laboratory Comments:

Sample Containers Intact? (Y) N
VOCs Free of Headspace? (Y) N
Labels on container(s) (Y) N
Custody seals on container(s) (Y) N
Custody seals on cooler(s) Y (N)
Sample Hand Delivered (Y) N
by Sampler/Client Rep. ? (Y) N
by Courier? UPS DHL FedEx Lone Star
4029455
Temperature Upon Receipt: 4.6 °C

Environmental Lab of Texas

Variance/ Corrective Action Report- Sample Log-In

Client: Basin Env.

Date/ Time: 5.6.10 17.08

Lab ID # : 371873

Initials: AL

Sample Receipt Checklist

					Client Initials
#1	Temperature of container/ cooler?	(Yes)	No	4.6 °C	
#2	Shipping container in good condition?	(Yes)	No		
#3	Custody Seals intact on shipping container/ cooler?	Yes	No	(Not Present)	
#4	Custody Seals intact on sample bottles/ container?	(Yes)	No	Not Present	
#5	Chain of Custody present?	(Yes)	No		
#6	Sample instructions complete of Chain of Custody?	(Yes)	No		
#7	Chain of Custody signed when relinquished/ received?	(Yes)	No		
#8	Chain of Custody agrees with sample label(s)?	(Yes)	No	ID written on Cont./ Lid	
#9	Container label(s) legible and intact?	(Yes)	No	Not Applicable	
#10	Sample matrix/ properties agree with Chain of Custody?	(Yes)	No		
#11	Containers supplied by ELOT?	(Yes)	No		
#12	Samples in proper container/ bottle?	(Yes)	No	See Below	
#13	Samples properly preserved?	(Yes)	No	See Below	
#14	Sample bottles intact?	(Yes)	No		
#15	Preservations documented on Chain of Custody?	(Yes)	No		
#16	Containers documented on Chain of Custody?	(Yes)	No		
#17	Sufficient sample amount for indicated test(s)?	(Yes)	No	See Below	
#18	All samples received within sufficient hold time?	(Yes)	No	See Below	
#19	Subcontract of sample(s)?	Yes	No	(Not Applicable)	
#20	VOC samples have zero headspace?	(Yes)	No	Not Applicable	

Variance Documentation

Contact: _____ Contacted by: _____ Date/ Time: _____

Regarding: _____

Corrective Action Taken: _____

Check all that Apply:

- ☐ See attached e-mail/ fax
- ☐ Client understands and would like to proceed with analysis
- ☐ Cooling process had begun shortly after sampling event

Analytical Report 379583

for

Basin Environmental Consulting, LLC

Project Manager: Camille Bryant

LR Chamberlain Tank Battery

02-JUL-10

12600 West I-20 East Odessa, Texas 79765

Xenco-Houston (EPA Lab code: TX00122):
Texas (T104704215-TX), Arizona (AZ0738), Arkansas (08-039-0), Connecticut (PH-0102), Florida (E871002)
Illinois (002082), Indiana (C-TX-02), Iowa (392), Kansas (E-10380), Kentucky (45), Louisiana (03054)
New Hampshire (297408), New Jersey (TX007), New York (11763), Oklahoma (9218), Pennsylvania (68-03610)
Rhode Island (LAO00312), USDA (S-44102)

Xenco-Atlanta (EPA Lab Code: GA00046):
Florida (E87429), North Carolina (483), South Carolina (98015), Utah (AALI1), West Virginia (362), Kentucky (85)
Louisiana (04176), USDA (P330-07-00105)

Xenco-Miami (EPA Lab code: FL01152): Florida (E86678), Maryland (330)
Xenco-Tampa Mobile (EPA Lab code: FL01212): Florida (E84900)
Xenco-Odessa (EPA Lab code: TX00158): Texas (T104704400-TX)
Xenco-Dallas (EPA Lab code: TX01468): Texas (T104704295-TX)
Xenco-Corpus Christi (EPA Lab code: TX02613): Texas (T104704370)
Xenco-Boca Raton (EPA Lab Code: FL00449):
Florida(E86240),South Carolina(96031001), Louisiana(04154), Georgia(917)
North Carolina(444), Texas(T104704468-TX), Illinois(002295), Florida(E86349)

02-JUL-10

Project Manager: **Camille Bryant**
Basin Environmental Consulting, LLC
P.O. Box 381
Lovington, NM 88260

Reference: XENCO Report No: **379583**
LR Chamberlain Tank Battery
Project Address: Lea County, NM

Camille Bryant:

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 379583. 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. Estimation of data uncertainty for this report is found in the quality control section of this report unless otherwise noted. 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. 379583 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,

Brent Barron, II
Odessa Laboratory Manager

Sample Cross Reference 379583

Basin Environmental Consulting, LLC, Lovington, NM

LR Chamberlain Tank Battery

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
SB-1 @ 5'	S	Jun-29-10 09:00		379583-001
SB-1 @ 10'	S	Jun-29-10 09:20		379583-002
SB-1 @ 15'	S	Jun-29-10 09:40		379583-003
SB-1 @ 20'	S	Jun-29-10 10:00		379583-004
SB-1 @ 25'	S	Jun-29-10 10:20		379583-005
SB-1 @ 30'	S	Jun-29-10 10:40		379583-006

CASE NARRATIVE

Client Name: Basin Environmental Consulting, LLC
Project Name: LR Chamberlain Tank Battery

Project ID:
Work Order Number: 379583

Report Date: 02-JUL-10
Date Received: 06/30/2010

Sample receipt non conformances and Comments:

None

Sample receipt Non Conformances and Comments per Sample:

None

Analytical Non Conformances and Comments:

Batch: LBA-812913 Percent Moisture
None

Batch: LBA-812925 Inorganic Anions by EPA 300
None

Batch: LBA-812933 BTEX by EPA 8021B
SW8021BM

Batch 812933, Benzene, Ethylbenzene, Toluene, m,p-Xylenes, o-Xylene recovered below QC limits in the Matrix Spike and Matrix Spike Duplicate.
Samples affected are: 379583-004, -001, -003, -005, -002, -006.
The Laboratory Control Sample for Toluene, m,p-Xylenes , Benzene, Ethylbenzene, o-Xylene is within laboratory Control Limits

Batch: LBA-813037 TPH By SW8015 Mod
None

Certificate of Analysis Summary 379583

Basin Environmental Consulting, LLC, Lovington, NM

Project Name: LR Chamberlain Tank Battery

Project Id:
Contact: Camille Bryant
Project Location: Lea County, NM

Date Received in Lab: Wed Jun-30-10 11:44 am
Report Date: 02-JUL-10
Project Manager: Brent Barron, II

Analysis Requested		Lab Id:	379583-001		379583-002		379583-003		379583-004		379583-005		379583-006	
		Field Id:	SB-1 @ 5'		SB-1 @ 10'		SB-1 @ 15'		SB-1 @ 20'		SB-1 @ 25'		SB-1 @ 30'	
		Depth:												
		Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
		Sampled:	Jun-29-10 09:00		Jun-29-10 09:20		Jun-29-10 09:40		Jun-29-10 10:00		Jun-29-10 10:20		Jun-29-10 10:40	
Anions by E300		Extracted:												
		Analyzed:	Jun-30-10 16:16		Jun-30-10 16:33		Jun-30-10 16:50		Jun-30-10 17:07		Jun-30-10 17:24		Jun-30-10 17:41	
		Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride			2170	48.1	1250	23.6	778	18.7	169	8.82	72.7	4.52	103	4.46
BTEX by EPA 8021B		Extracted:	Jun-30-10 13:45		Jun-30-10 13:45		Jun-30-10 13:45		Jun-30-10 13:45		Jun-30-10 13:45		Jun-30-10 13:45	
		Analyzed:	Jun-30-10 17:02		Jun-30-10 18:31		Jun-30-10 18:53		Jun-30-10 19:16		Jun-30-10 19:38		Jun-30-10 20:01	
		Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Benzene			ND	0.0011	ND	0.0011	ND	0.0011	ND	0.0010	ND	0.0011	ND	0.0011
Toluene			ND	0.0023	ND	0.0023	ND	0.0022	ND	0.0021	ND	0.0022	ND	0.0021
Ethylbenzene			ND	0.0011	ND	0.0011	ND	0.0011	ND	0.0010	ND	0.0011	ND	0.0011
m,p-Xylenes			ND	0.0023	ND	0.0023	ND	0.0022	ND	0.0021	ND	0.0022	ND	0.0021
o-Xylene			ND	0.0011	ND	0.0011	ND	0.0011	ND	0.0010	ND	0.0011	ND	0.0011
Total Xylenes			ND	0.0011	ND	0.0011	ND	0.0011	ND	0.0010	ND	0.0011	ND	0.0011
Total BTEX			ND	0.0011	ND	0.0011	ND	0.0011	ND	0.0010	ND	0.0011	ND	0.0011
Percent Moisture		Extracted:												
		Analyzed:	Jul-01-10 08:34		Jul-01-10 08:34		Jul-01-10 08:34		Jul-01-10 08:34		Jul-01-10 08:34		Jul-01-10 08:34	
		Units/RL:	%	RL	%	RL	%	RL	%	RL	%	RL	%	RL
Percent Moisture			12.7	1.00	11.1	1.00	9.96	1.00	4.72	1.00	7.16	1.00	5.73	1.00
TPH By SW8015 Mod		Extracted:	Jun-30-10 13:10		Jun-30-10 13:10		Jun-30-10 13:10		Jun-30-10 13:10		Jun-30-10 13:10		Jun-30-10 13:10	
		Analyzed:	Jun-30-10 19:19		Jun-30-10 19:48		Jun-30-10 20:18		Jun-30-10 20:47		Jun-30-10 21:17		Jun-30-10 21:48	
		Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
C6-C12 Gasoline Range Hydrocarbons			ND	17.2	ND	16.8	ND	16.7	ND	15.8	ND	16.1	ND	15.8
C12-C28 Diesel Range Hydrocarbons			51.9	17.2	ND	16.8	ND	16.7	ND	15.8	ND	16.1	26.3	15.8
C28-C35 Oil Range Hydrocarbons			ND	17.2	ND	16.8	ND	16.7	ND	15.8	ND	16.1	ND	15.8
Total TPH			51.9	17.2	ND	16.8	ND	16.7	ND	15.8	ND	16.1	26.3	15.8

Brent Barron, II
Odessa Laboratory Manager

Final 1.000

Flagging Criteria

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 effect the recovery of the spike concentration. This condition could also effect 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 MQL and above the SQL.

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.

BRL Below Reporting Limit.

RL Reporting Limit

MDL Method Detection Limit

PQL Practical Quantitation Limit

* Outside XENCO's scope of NELAC Accreditation.

Form 2 - Surrogate Recoveries

Project Name: LR Chamberlain Tank Battery

Work Orders : 379583,

Project ID:

Lab Batch #: 812933 **Sample:** 567101-1-BKS / BKS **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 06/30/10 15:08

BTEX by EPA 8021B	SURROGATE RECOVERY STUDY				
Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0306	0.0300	102	80-120	
4-Bromofluorobenzene	0.0287	0.0300	96	80-120	

Lab Batch #: 812933 **Sample:** 567101-1-BSD / BSD **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 06/30/10 15:31

BTEX by EPA 8021B	SURROGATE RECOVERY STUDY				
Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0309	0.0300	103	80-120	
4-Bromofluorobenzene	0.0295	0.0300	98	80-120	

Lab Batch #: 812933 **Sample:** 567101-1-BLK / BLK **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 06/30/10 16:39

BTEX by EPA 8021B	SURROGATE RECOVERY STUDY				
Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0256	0.0300	85	80-120	
4-Bromofluorobenzene	0.0297	0.0300	99	80-120	

Lab Batch #: 812933 **Sample:** 379583-001 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 06/30/10 17:02

BTEX by EPA 8021B	SURROGATE RECOVERY STUDY				
Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0257	0.0300	86	80-120	
4-Bromofluorobenzene	0.0290	0.0300	97	80-120	

Lab Batch #: 812933 **Sample:** 379583-001 S / MS **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 06/30/10 17:23

BTEX by EPA 8021B	SURROGATE RECOVERY STUDY				
Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0287	0.0300	96	80-120	
4-Bromofluorobenzene	0.0286	0.0300	95	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: LR Chamberlain Tank Battery

Work Orders : 379583,

Project ID:

Lab Batch #: 812933 **Sample:** 379583-001 SD / MSD **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 06/30/10 17:46

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0292	0.0300	97	80-120	
4-Bromofluorobenzene	0.0289	0.0300	96	80-120	

Lab Batch #: 812933 **Sample:** 379583-002 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 06/30/10 18:31

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0260	0.0300	87	80-120	
4-Bromofluorobenzene	0.0318	0.0300	106	80-120	

Lab Batch #: 812933 **Sample:** 379583-003 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 06/30/10 18:53

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0257	0.0300	86	80-120	
4-Bromofluorobenzene	0.0306	0.0300	102	80-120	

Lab Batch #: 812933 **Sample:** 379583-004 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 06/30/10 19:16

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0256	0.0300	85	80-120	
4-Bromofluorobenzene	0.0294	0.0300	98	80-120	

Lab Batch #: 812933 **Sample:** 379583-005 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 06/30/10 19:38

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0257	0.0300	86	80-120	
4-Bromofluorobenzene	0.0306	0.0300	102	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: LR Chamberlain Tank Battery

Work Orders : 379583,

Project ID:

Lab Batch #: 812933 **Sample:** 379583-006 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 06/30/10 20:01

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0255	0.0300	85	80-120	
4-Bromofluorobenzene	0.0298	0.0300	99	80-120	

Lab Batch #: 813037 **Sample:** 567144-1-BKS / BKS **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 06/30/10 17:49

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	120	99.9	120	70-135	
o-Terphenyl	63.2	50.0	126	70-135	

Lab Batch #: 813037 **Sample:** 567144-1-BSD / BSD **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 06/30/10 18:19

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	110	99.6	110	70-135	
o-Terphenyl	53.7	49.8	108	70-135	

Lab Batch #: 813037 **Sample:** 567144-1-BLK / BLK **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 06/30/10 18:49

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	98.4	99.8	99	70-135	
o-Terphenyl	57.4	49.9	115	70-135	

Lab Batch #: 813037 **Sample:** 379583-001 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 06/30/10 19:19

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	101	100	101	70-135	
o-Terphenyl	58.4	50.0	117	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: LR Chamberlain Tank Battery

Work Orders : 379583,

Project ID:

Lab Batch #: 813037 **Sample:** 379583-002 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 06/30/10 19:48

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	87.7	99.5	88	70-135	
o-Terphenyl	50.5	49.8	101	70-135	

Lab Batch #: 813037 **Sample:** 379583-003 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 06/30/10 20:18

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	90.7	101	90	70-135	
o-Terphenyl	52.2	50.3	104	70-135	

Lab Batch #: 813037 **Sample:** 379583-004 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 06/30/10 20:47

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	89.5	100	90	70-135	
o-Terphenyl	50.9	50.2	101	70-135	

Lab Batch #: 813037 **Sample:** 379583-005 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 06/30/10 21:17

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	99.2	99.5	100	70-135	
o-Terphenyl	57.3	49.8	115	70-135	

Lab Batch #: 813037 **Sample:** 379583-006 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 06/30/10 21:48

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	93.6	99.5	94	70-135	
o-Terphenyl	53.4	49.8	107	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: LR Chamberlain Tank Battery

Work Orders : 379583,

Project ID:

Lab Batch #: 813037 **Sample:** 379583-002 S / MS **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 07/01/10 13:40

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	112	100	112	70-135	
o-Terphenyl	54.7	50.2	109	70-135	

Lab Batch #: 813037 **Sample:** 379583-002 SD / MSD **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 07/01/10 14:09

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	112	100	112	70-135	
o-Terphenyl	53.4	50.2	106	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: LR Chamberlain Tank Battery

Work Order #: 379583 **Project ID:**

Analyst: ASA **Date Prepared:** 06/30/2010 **Date Analyzed:** 06/30/2010

Lab Batch ID: 812933 **Sample:** 567101-1-BKS **Batch #:** 1 **Matrix:** Solid

Units: mg/kg

BTEX by EPA 8021B	BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY										
Analytes	**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**
Benzene	ND	0.1000	0.1096	110	0.1	0.1150	115	5	70-130	35	
Toluene	ND	0.1000	0.1006	101	0.1	0.1058	106	5	70-130	35	
Ethylbenzene	ND	0.1000	0.1054	105	0.1	0.1113	111	5	71-129	35	
m,p-Xylenes	ND	0.2000	0.2136	107	0.2	0.2253	113	5	70-135	35	
o-Xylene	ND	0.1000	0.1042	104	0.1	0.1108	111	6	71-133	35	

Analyst: LATCOR **Date Prepared:** 06/30/2010 **Date Analyzed:** 06/30/2010

Lab Batch ID: 812925 **Sample:** 812925-1-BKS **Batch #:** 1 **Matrix:** Solid

Units: mg/kg

Anions by E300	BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY										
Analytes	**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**
Chloride	ND	11.0	11.3	103	11	11.3	103	0	75-125	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: LR Chamberlain Tank Battery

Work Order #: 379583 **Project ID:**

Analyst: BEV **Date Prepared:** 06/30/2010 **Date Analyzed:** 06/30/2010

Lab Batch ID: 813037 **Sample:** 567144-1-BKS **Batch #:** 1 **Matrix:** Solid

Units: mg/kg

TPH By SW8015 Mod Analytes	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
	BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY										
C6-C12 Gasoline Range Hydrocarbons	ND	999	1200	120	996	999	100	18	70-135	35	
C12-C28 Diesel Range Hydrocarbons	ND	999	858	86	996	813	82	5	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: LR Chamberlain Tank Battery

Work Order #: 379583

Lab Batch #: 812925

Project ID:

Date Analyzed: 06/30/2010

Date Prepared: 06/30/2010

Analyst: LATCOR

QC- Sample ID: 379564-001 S

Batch #: 1

Matrix: Soil

Reporting Units: mg/kg

Inorganic Anions by EPA 300	MATRIX / MATRIX SPIKE RECOVERY STUDY					
Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	%R [D]	Control Limits %R	Flag
Chloride	6.53	116	122	100	75-125	

Matrix Spike Percent Recovery [D] = 100*(C-A)/B
Relative Percent Difference [E] = 200*(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: LR Chamberlain Tank Battery

Work Order # : 379583 **Project ID:**

Lab Batch ID: 812933 **QC- Sample ID:** 379583-001 S **Batch #:** 1 **Matrix:** Soil

Date Analyzed: 06/30/2010 **Date Prepared:** 06/30/2010 **Analyst:** ASA

Reporting Units: mg/kg

BTEX by EPA 8021B Analytes	MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY										
	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Benzene	ND	0.1150	0.0468	41	0.1145	0.0588	51	23	70-130	35	X
Toluene	ND	0.1150	0.0382	33	0.1145	0.0440	38	14	70-130	35	X
Ethylbenzene	ND	0.1150	0.0325	28	0.1145	0.0335	29	3	71-129	35	X
m,p-Xylenes	ND	0.2300	0.0660	29	0.2291	0.0670	29	2	70-135	35	X
o-Xylene	ND	0.1150	0.0299	26	0.1145	0.0304	27	2	71-133	35	X

Lab Batch ID: 813037 **QC- Sample ID:** 379583-002 S **Batch #:** 1 **Matrix:** Soil

Date Analyzed: 07/01/2010 **Date Prepared:** 06/30/2010 **Analyst:** BEV

Reporting Units: mg/kg

TPH By SW8015 Mod Analytes	MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY										
	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
C6-C12 Gasoline Range Hydrocarbons	ND	1130	1130	100	1130	1120	99	1	70-135	35	
C12-C28 Diesel Range Hydrocarbons	ND	1130	1040	92	1130	964	85	8	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 ApplicableN = See Narrative, EQL = Estimated Quantitation Limit

Sample Duplicate Recovery

Project Name: LR Chamberlain Tank Battery

Work Order #: 379583

Lab Batch #: 812925 **Project ID:**

Date Analyzed: 06/30/2010 **Date Prepared:** 06/30/2010 **Analyst:** LATCOR

QC- Sample ID: 379564-001 D **Batch #:** 1 **Matrix:** Soil

Reporting Units: mg/kg

Anions by E300	SAMPLE / SAMPLE DUPLICATE RECOVERY				
Analyte	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Chloride	6.53	ND	NC	20	

Lab Batch #: 812913

Date Analyzed: 07/01/2010 **Date Prepared:** 07/01/2010 **Analyst:** JLG

QC- Sample ID: 379564-001 D **Batch #:** 1 **Matrix:** Soil

Reporting Units: %

Percent Moisture	SAMPLE / SAMPLE DUPLICATE RECOVERY				
Analyte	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Percent Moisture	13.5	13.5	0	20	

Spike Relative Difference RPD 200 * | (B-A)/(B+A) |
All Results are based on MDL and validated for QC purposes.
BRL - Below Reporting Limit

Environmental Lab of Texas

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

12600 West I-20 East
Odessa, Texas 79765

Phone: 432-563-1800
Fax: 432-563-1713

Project Manager: Camille Bryant

Company Name: Basin Environmental Consulting, LLC

Company Address: P. O. Box 381

City/State/Zip: Lovington, NM 88260

Telephone No: (575)605-7210 Fax No: (505) 396-1429

Sampler Signature: Camille Bryant e-mail: cjbryant@basin-consulting.com

Project Name: LR Chamberlain Tank Battery

Project #:

Project Loc: Lea County, NM

PO #: Please bill Basin Consulting

Report Format: [X] Standard [ ] TRRP [ ] NPDES

(lab use only) ORDER #: 379583

LAB # (lab use only)	FIELD CODE	Beginning Depth	Ending Depth	Date Sampled	Time Sampled	Field Filtered	Total # of Containers	Preservation & # of Containers: Ice	HNO3	HCl	H2SO4	NaOH	Na2S2O3	None	Other (Specify)	Matrix: DW=Drinking Water SL=Sludge GW=Groundwater S=Soil/Solid NP=Non-Potable Specify Other	Analyze For: TPH: 418.1 / 8015M	TPH: TX 1005 / TX 1006	Cations (Ca, Mg, Na, K)	Anions (Cl, SO4, Alkalinity)	SAR / ESP / CEC	Metals: As Ag Ba Cd Cr Pb Hg Se	Volatiles	Semivolatiles	BTEX 8021B/5030 or BTEX 8260	RCI	N.O.R.M.	Chlorides 300	RUSH TAT (Pre-Schedule) 24, 48, 72 hrs	Standard TAT 4 DAY
01	SB-1 @ 5'			29-Jun-10	0900		1	X								Soil	X								X			X		X
02	SB-1 @ 10'			29-Jun-10	0920		1	X								Soil	X								X			X		X
03	SB-1 @ 15'			29-Jun-10	0940		1	X								Soil	X								X			X		X
04	SB-1 @ 20'			29-Jun-10	1000		1	X								Soil	X								X			X		X
05	SB-1 @ 25'			29-Jun-10	1020		1	X								Soil	X								X			X		X
06	SB-1 @ 30'			29-Jun-10	1040		1	X								Soil	X								X			X		X

Special Instructions:

	Relinquished by:	Date	Time	Received by:	Date	Time
1	Camille Bryant	6-30-10	9:30	Coby Reynolds	6-30-10	8:30
2	Relinquished by:	Date	Time	Received by:	Date	Time
3	Relinquished by:	Date 6-30-10	Time 11:44	Received by ELOT: Andrea Lam	6-30-10	11:44

Laboratory Comments:

Sample Containers Intact? Y N

VOCs Free of Headspace? Y N

Labels on containers? Y N

Custody seals on container(s) Y N

Custody seals on cooler(s) Y N

Sample Hand Delivered Y N

by Sampler/Client Rep. ? Y N

by Courier? UPS DHL FedEx Lone Star

402965

Temperature Upon Receipt: 2.6 °C

XENCO Laboratories	Document Title: Sample Receipt Checklist
Atlanta, Boca Raton, Corpus Christi, Dallas	Document No.: SYS-SRC
Houston, Miami, Odessa, Philadelphia	Revision/Date: No. 01, 5/27/2010
Phoenix, San Antonio, Tampa	Effective Date: 6/1/2010 Page 1 of 1

Prelogin / Nonconformance Report - Sample Log-In

Client: Basin Env.

Date/Time: 6.30.10 11:44

Lab ID #: 379583

Initials: AL

Sample Receipt Checklist

1. Samples on ice?	Blue	(Water)	No	
2. Shipping container in good condition?	(Yes)	No	None	
3. Custody seals intact on shipping container (cooler) and bottles?	(Yes)	No	N/A	
4. Chain of Custody present?	(Yes)	No		
5. Sample instructions complete on chain of custody?	(Yes)	No		
6. Any missing / extra samples?	Yes	(No)		
7. Chain of custody signed when relinquished / received?	(Yes)	No		
8. Chain of custody agrees with sample label(s)?	(Yes)	No		
9. Container labels legible and intact?	(Yes)	No		
10. Sample matrix / properties agree with chain of custody?	(Yes)	No		
11. Samples in proper container / bottle?	(Yes)	No		
12. Samples properly preserved?	(Yes)	No	N/A	
13. Sample container intact?	(Yes)	No		
14. Sufficient sample amount for indicated test(s)?	(Yes)	No		
15. All samples received within sufficient hold time?	(Yes)	No		
16. Subcontract of sample(s)?	Yes	No	(N/A)	
17. VOC sample have zero head space?	(Yes)	No	N/A	

18. Cooler 1 No.		Cooler 2 No.		Cooler 3 No.		Cooler 4 No.		Cooler 5 No.	
lbs	2.6 °C	lbs	°C	lbs	°C	lbs	°C	lbs	°C

Nonconformance Documentation

Contact: _____ **Contacted by:** _____ **Date/Time:** _____

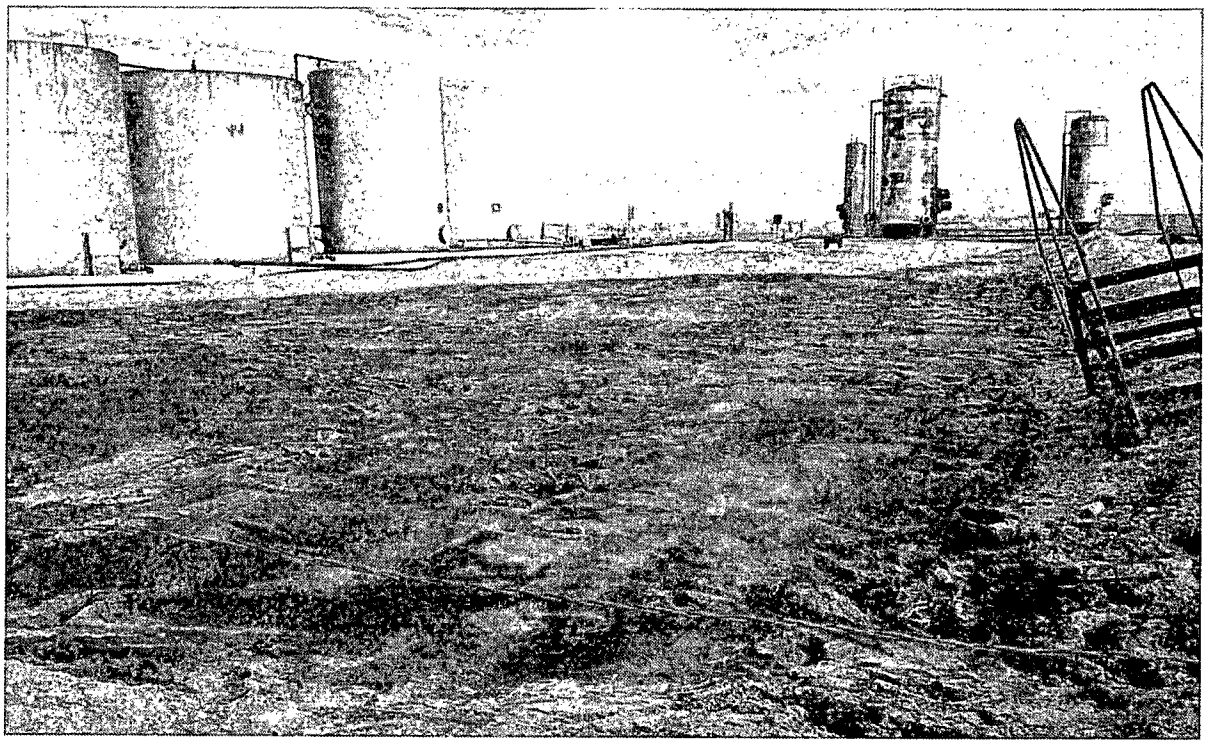
Regarding: _____

Corrective Action Taken: _____

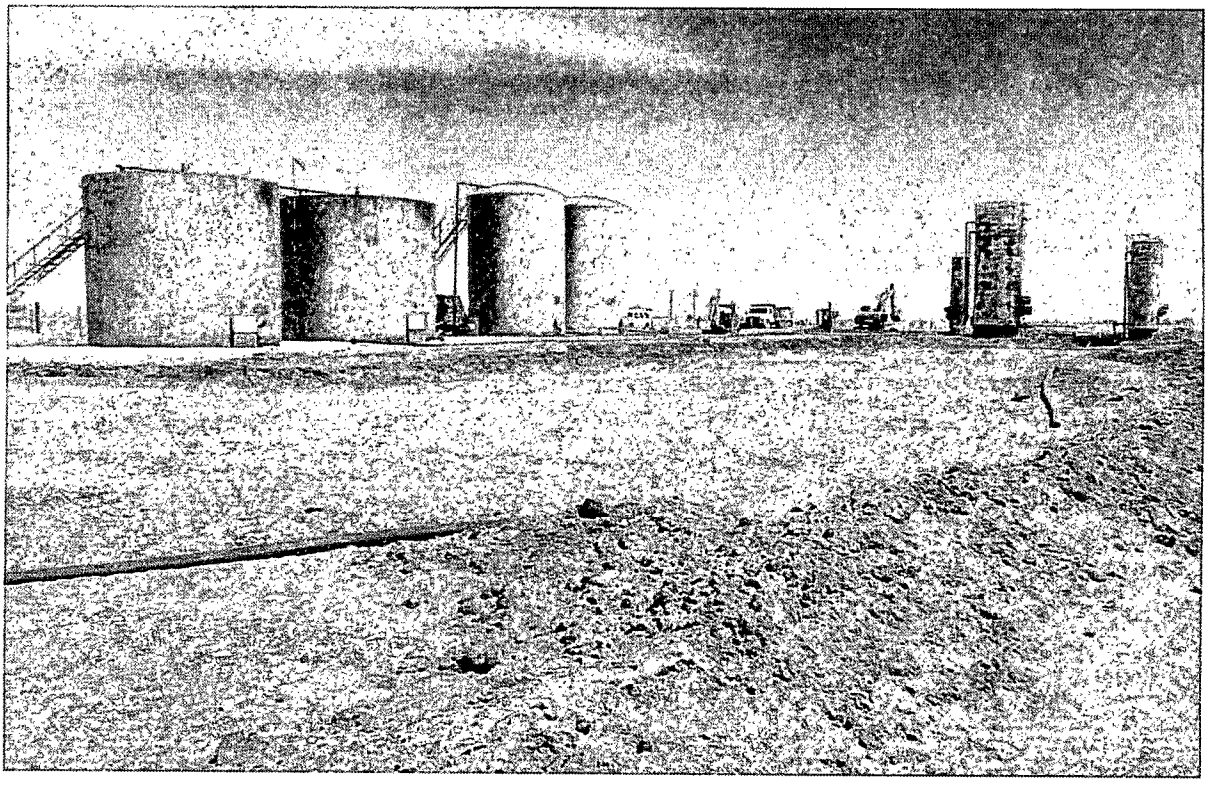
Check all that apply:

- ☐ Cooling process has begun shortly after sampling event and out of temperature condition acceptable by NELAC 5.5.8.3.1.a.1.
- ☐ Initial and Backup Temperature confirm out of temperature conditions
- ☐ Client understands and would like to proceed with analysis

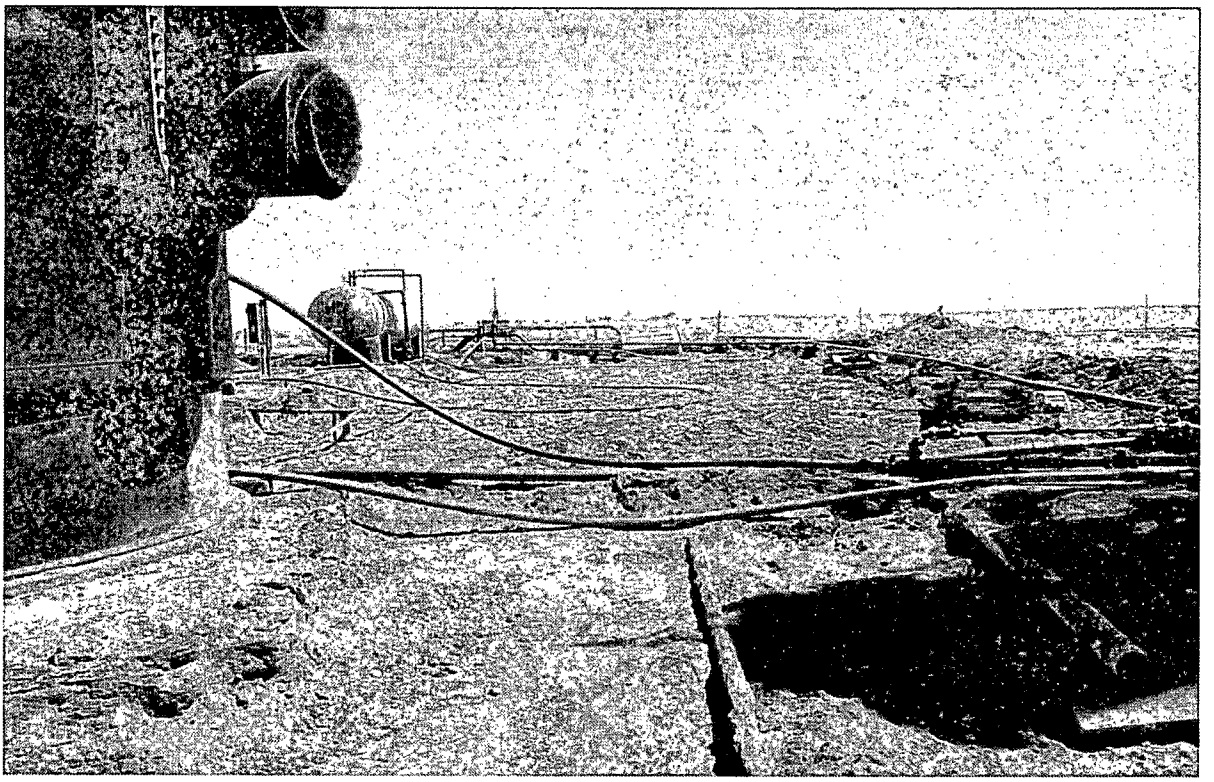
Appendix C
Photographs



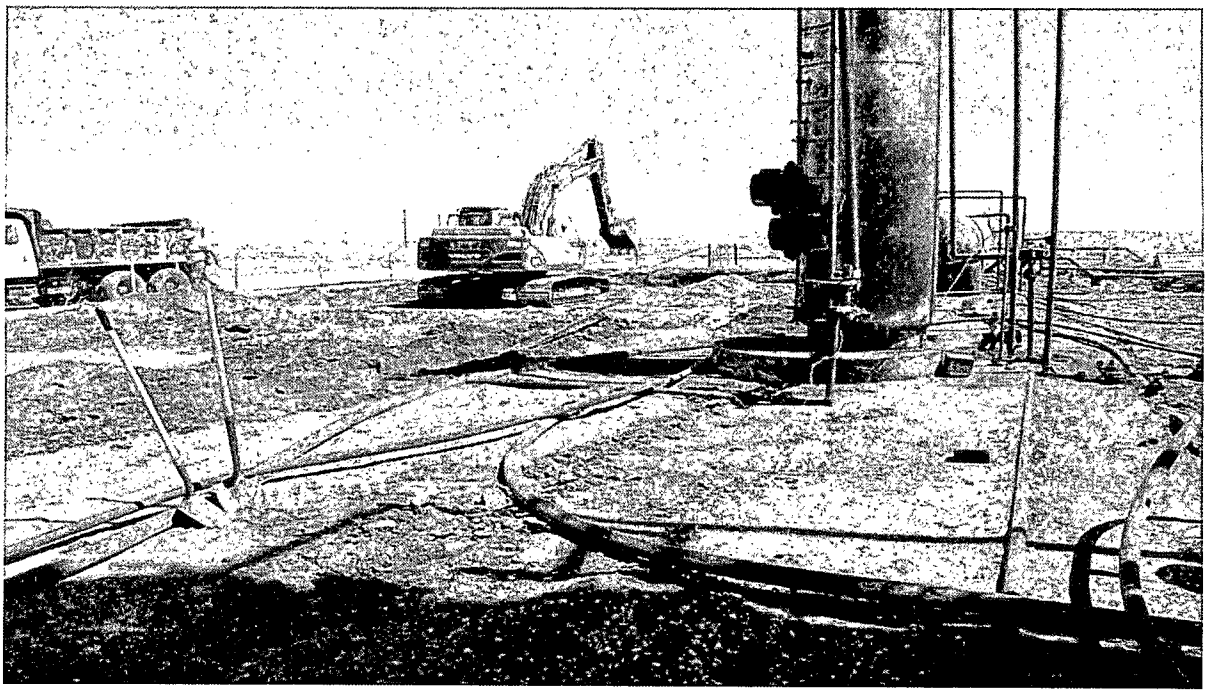
Initial Release at the LR Chamberlain Tank Battery



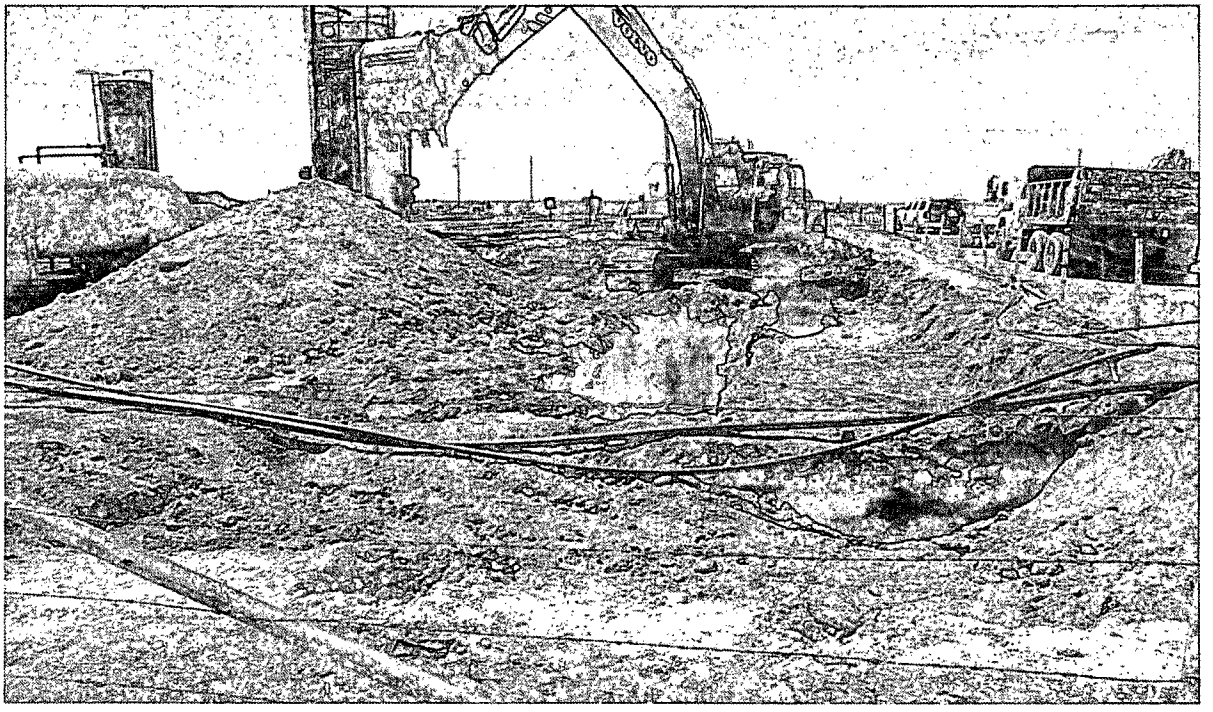
Excavation Activities at the LR Chamberlain Tank Battery Release Site



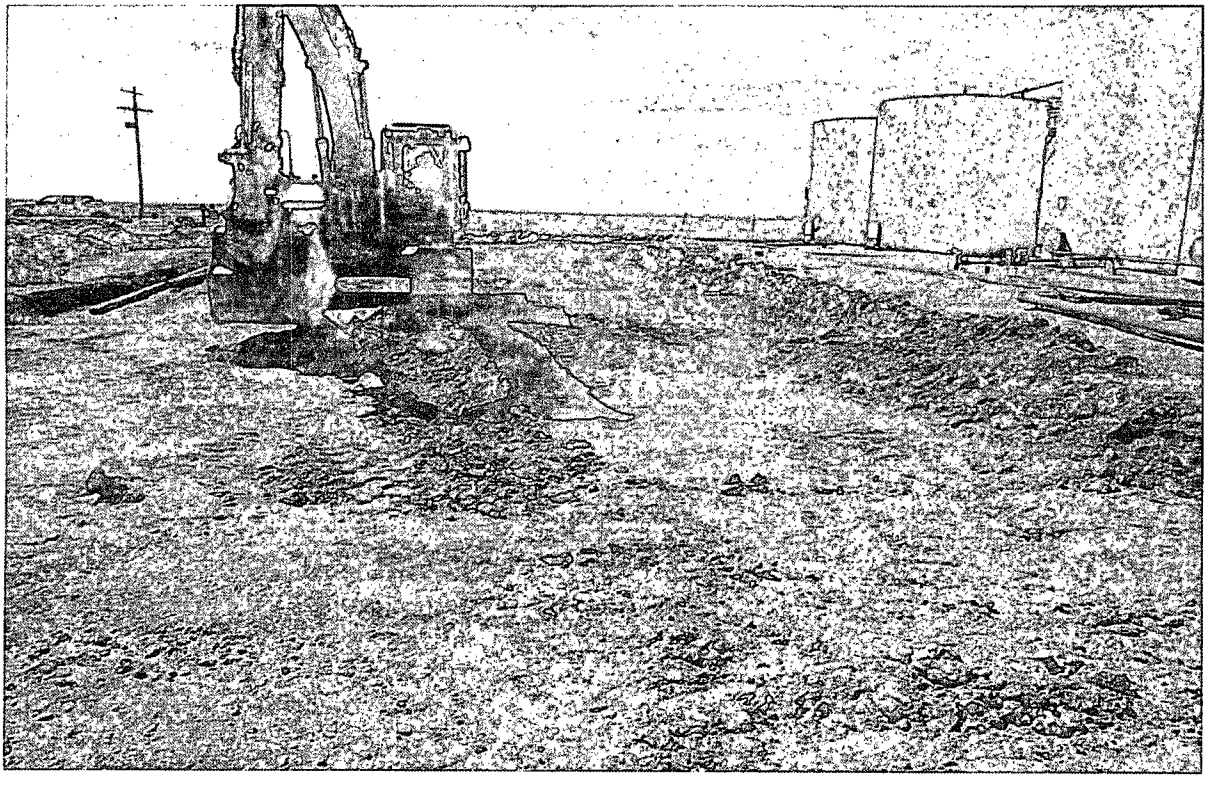
Excavation Activities at the LR Chamberlain Tank Battery Release Site



NE Corner Delineation Trench at the LR Chamberlain Tank Battery Release Site

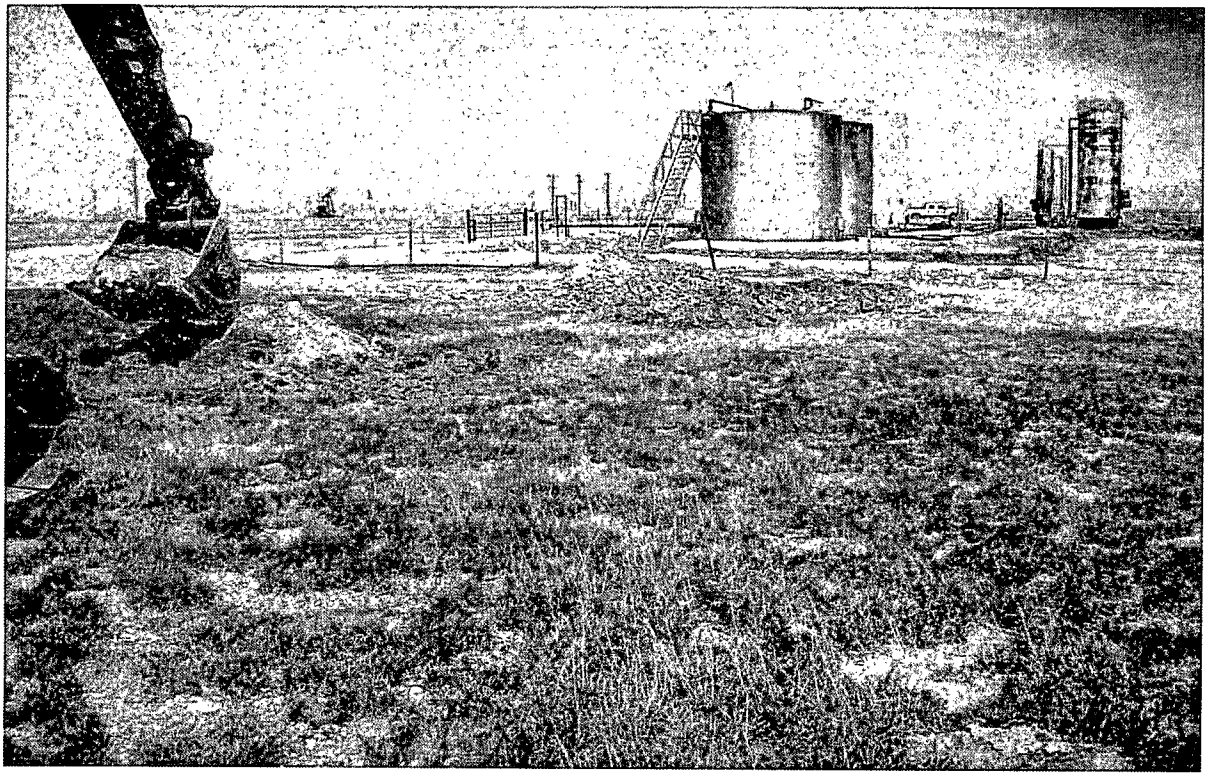


NE Corner Delineation Trench at the LR Chamberlain Tank Battery Release Site



S. Middle Delineation Trench at the LR Chamberlain Tank Battery Release Site

Delineation Trench #1 on the north side of the LR Chamberlain Tank Battery Release Site



Delineation Trench #4 on the west side of the LR Chamberlain Tank Battery Release Site

Appendix D
Release Notification and Corrective Action
(Form C-141)

District I
625 N. French Dr., Hobbs, NM 88240
District II
301 W. Grand Avenue, Artesia, NM 88210
District III
000 Rio Brazos Road, Aztec, NM 87410
District IV
220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-141
Revised October 10, 2003

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

Release Notification and Corrective Action

OPERATOR

☒ Initial Report ☐ Final Report

Name of Company Legacy Reserves, LP	Contact Kevin Bracey
Address P. O. Box 10848, Midland, Texas 79702	Telephone No. 432-238-2856
Facility Name LR Chamberlain Tank Battery	Facility Type Tank Battery

Surface Owner Darr Angell	Mineral Owner	Lease No.

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
C	14	15S	37E					Lea

Latitude 33° 01 20.3" North Longitude 103° 10 16.6" West

NATURE OF RELEASE

Type of Release Produced Water and crude oil	Volume of Release 680 bbls	Volume Recovered 600 bbls
Source of Release Tank	Date and Hour of Occurrence 1/6/2010 @ 0800	Date and Hour of Discovery 1/6/2010 @ 1000
Was Immediate Notice Given? X Yes No Not Required	If YES, To Whom? Geoff Leking	
By Whom? Camille Bryant	Date and Hour 1/7/2010 @ 1344	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.*

Describe Cause of Problem and Remedial Action Taken: The transfer line on a 500 barrel tank became obstructed resulting in a release of produced water and crude oil. The site will be remediated to NMOCD guidelines.

Describe Area Affected and Cleanup Action Taken. Release impacted approximately 27,000 square feet inside the tank battery.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases, which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Signature: Kevin Bracey	OIL CONSERVATION DIVISION
Printed Name: Kevin Bracey	Approved by District Supervisor: Geoffrey Leking
Title: Production Foreman	Approval Date: 01/11/10 Expiration Date: 03/11/10
E-mail Address: kbracey@legacylp.com	Conditions of Approval: DELINEATE TO CLOSURE, SUBMIT FINAL BY
Date: 1/7/2010 Phone: 432-238-2856	IRP-10-01-2390

RECEIVED

JAN [illegible]

HOBBSOCD

District I
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
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-141
Revised October 10, 2006

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

Release Notification and Corrective Action

OPERATOR

☒ Initial Report Final Report

Name of Company: Legacy Reserves, LP	Contact: Kevin Bracey
Address: P. O. Box 10848, Midland, Texas 79702	Telephone No. 432-238-2856
Facility Name: LR Chamberlain Tank Battery Sec. 14	Facility Type: Tank Battery

Surface Owner: Darr Angell	Mineral Owner	Lease No.

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
C	14	16S	37E					Lea

Latitude 33° 01 20.3" North Longitude 103° 10 16.6" West

NATURE OF RELEASE

Type of Release: Produced Water	Volume of Release: 80 bbls	Volume Recovered: 60 bbls
Source of Release: Transfer pump	Date and Hour of Occurrance: 5/1/10 @ 0800	Date and Hour of Discovery: 5/1/10 @ 0830
Was Immediate Notice Given? X Yes No Not Required	If YES, To Whom? Geoff Leking	
By Whom? Camille Bryant	Date and Hour: 5/6/10 @ 0900	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse:	

If a Watercourse was Impacted, Describe Fully.*

Describe Cause of Problem and Remedial Action Taken: Equipment failure of a 3:1 swedge on discharge side of transfer pump resulted in a release of produced water. The site will be remediated to NMOCD guidelines.

Describe Area Affected and Cleanup Action Taken. Release impacted approximately 8,470 square feet inside the tank battery.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases, which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

OIL CONSERVATION DIVISION

ENVIRONMENTAL ENGINEER

Signature: Kevin Bracey

Approved by District Supervisor:

Printed Name: Kevin Bracey

Title: Production Foreman

Approval Date: 06/10/10 Expiration Date: 08/10/10

E-mail Address: kbracey@legacylp.com

Conditions of Approval:

Date: 5/7/10 Phone: 432-238-2856

RP-1055 2RP

RECEIVED
JUN 10 2010
HOBBSOCD