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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 1 1 2010 HOBBSOCD

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

August 2010

Jannine J. Bryant

Project Manager

approved for Traff dering Entrenmental enzo NMOCD-Holbs ABILLIO

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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 @ 2', 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 @ 5', 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.

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Hobbs, New Mexico 88240

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Legacy Reserves, LP

PO Box 10848

Midland, Texas 79702

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P.O. Box 190

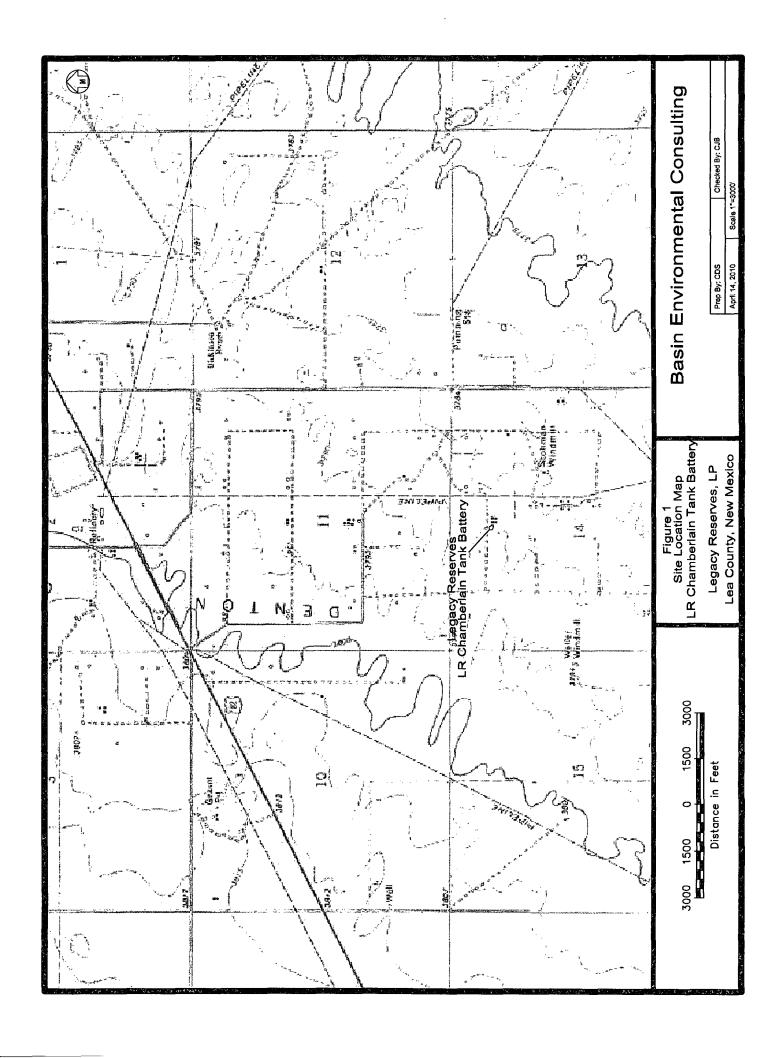
Lovington, New Mexico 88260

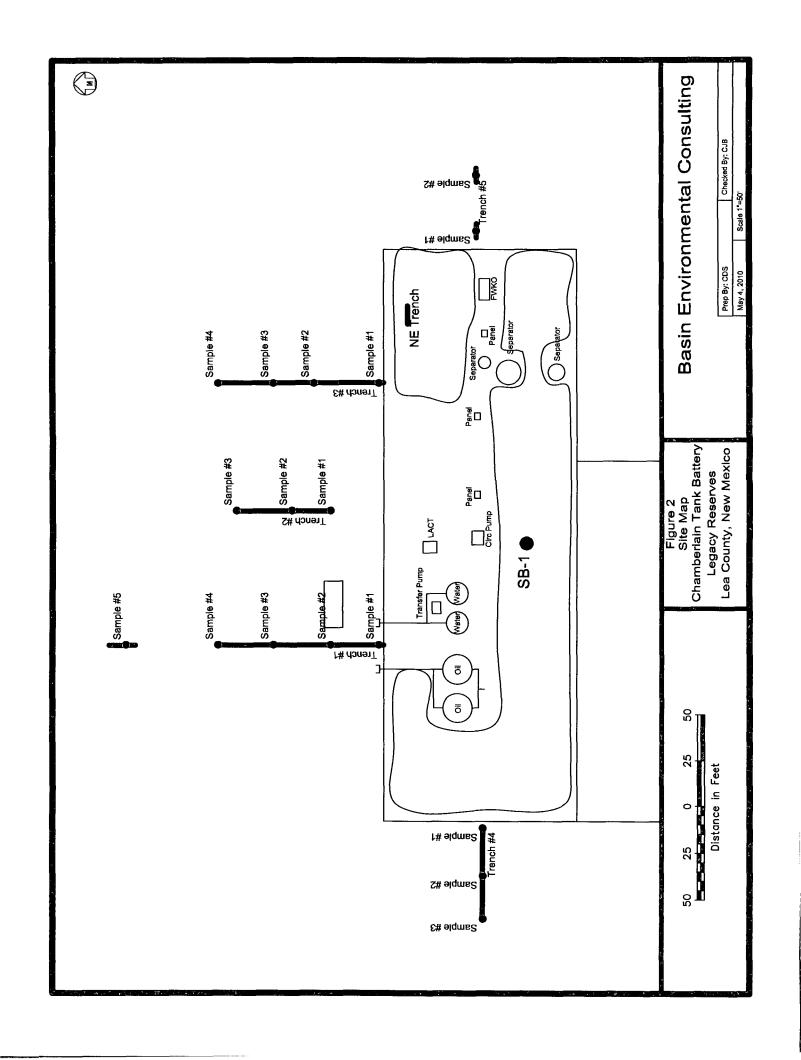
Copy 3: Basin Environmental Consulting, LLC

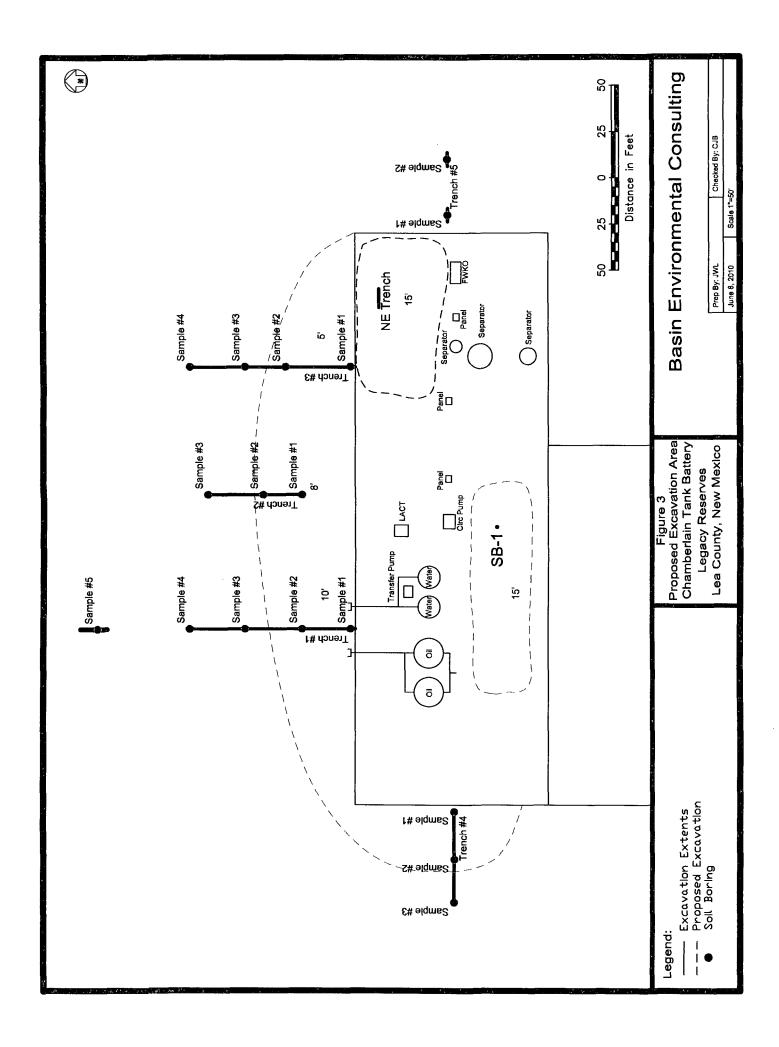
P.O. Box 381

Lovington, New Mexico 88260

Figures







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

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

Certified and approved by numerous States and Agencies.

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

Houston - Dallas - San Antonio - Austin - Tampa - Miami - Atlanta - Corpus Christi - Latin America



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

Work Order Number: 367582

Report Date: 07-APR-10 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.





Client Name: Basin Environmental Consulting, LLC

Project Name: LR Chamberlain Tank Battery



Project ID:

Legacy Reserves West

Work Order Number: 367582

Report Date: 07-APR-10 Date Received: 04/01/2010

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.



Project Id: Legacy Reserves West

Project Location: Lea County, NM Contact: Camille Bryant

Basin Environmental Consulting, LLC, Lovington, NM Certificate of Analysis Summary 367582

Project Name: LR Chamberlain Tank Battery

Date Received in Lab: Thu Apr-01-10 08:52 am

Report Date: 07-APR-10

					Project Manager:	Brent Barron, II	
	Lab Id:	367582-001	367582-002	367582-003	367582-004	367582-005	367582-006
Amaliais Dansactad	Field Id:	NE Corner @ 5'	NE Comer @ 10'	NE Corner @ 15'	NE Comer @ 17	S. Middle @ 5'	S. Middle @ 10'
Anatysis Nequesieu	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

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Odessa Laboratory Manager

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Project Id: Legacy Reserves West

Project Location: Lea County, NM Contact: Camille Bryant

Basin Environmental Consulting, LLC, Lovington, NM Certificate of Analysis Summary 367582

Project Name: LR Chamberlain Tank Battery

Date Received in Lab: Thu Apr-01-10 08:52 am Report Date: 07-APR-10

Project Manager: Brent Barron, II

	Lab Id:	367582-007	367582-008	
Analysis Requested	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	
A ALLER AND THE STATE OF THE ST	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	Total distriction of the state
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	

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Odessa Laboratory Manager Brent Barron, II

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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.

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5332 Blackberry Drive, San Antonio TX 78238	(210) 509-3334	(210) 509-3335
2505 North Falkenburg Rd, Tampa, FL 33619	(813) 620-2000	(813) 620-2033
5757 NW 158th St. Miami Lakes, FL 33014	(305) 823-8500	(305) 823-8555
12600 West I-20 East, Odessa, TX 79765	(432) 563-1800	(432) 563-1713
842 Cantwell Lane, Corpus Christi, TX 78408	(361) 884-0371	(361) 884-9116



Project Name: LR Chamberlain Tank Battery

Work Orders: 367582,

Project ID: Legacy Reserves West

Lab Batch #: 800848

Sample: 559729-1-BKS / BKS

Matrix: Solid Batch:

Units: mg/kg Date Analyzed: 04/01/10 10:27	SU	RROGATE R	ECOVERY	STUDY	
BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
Analytes			{D}		
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

Matrix: Solid Batch:

Units: mg/kg Date Analyzed: 04/01/10 10:48	SU	SURROGATE RECOVERY STUDY					
BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags		
Analytes		1	[D]				
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	SURROGATE RECOVERY STUDY						
BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags		
Analytes 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	SURROGATE RECOVERY STUDY					
BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags	
Analytes			[D]			
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	SURROGATE RECOVERY STUDY						
BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags		
Analytes			[12]				
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

Surrogate Recovery [D] = 100 * A / B

^{**} Surrogates outside limits; data and surrogates confirmed by reanalysis

^{***} Poor recoveries due to dilution



Project Name: LR Chamberlain Tank Battery

Work Orders: 367582,

Project ID: Legacy Reserves West

Lab Batch #: 800848

Sample: 367078-001 D / MD

Matrix: Sludge Batch: 1

Units: mg/kg	Date Analyzed: 04/01/10 21:09	SU	RROGATE R	ECOVERY	STUDY	
BTE	X by EPA 8021B Analytes	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	SU	RROGATE R	RECOVERY	STUDY	
BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
Analytes]	[D]]	ļ
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	SURROGATE RECOVERY STUDY					
BTE	X by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
	Analytes			[D]		
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	SURROGATE RECOVERY STUDY						
BTE	X by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags		
	Analytes			[D]				
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	SURROGATE RECOVERY STUDY					
BTEX by EPA 8021B Analytes	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

Surrogate Recovery [D] = 100 * A / B

^{**} Surrogates outside limits; data and surrogates confirmed by reanalysis

^{***} Poor recoveries due to dilution



Project Name: LR Chamberlain Tank Battery

Work Orders: 367582,

Project ID: Legacy Reserves West

Lab Batch #: 801040

Sample: 367582-006 / SMP

Matrix: Soil Batch:

Units: mg/kg Date Analyzed: 04/03/10 19:28	St.	SURROGATE RECOVERY STUDY					
BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags		
Analytes			[D]				
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	SURROGATE RECOVERY STUDY					
BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags	
Analytes			[D]			
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:

Matrix: Soil

Units: mg/kg Date Analyzed: 04/03/10 20:58	SURROGATE RECOVERY STUDY					
BTEX by EPA 8021B	Amount Found JAJ	True Amount [B]	Recovery %R	Control Limits %R	Flags	
Analytes			[D]	}		
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	SURROGATE RECOVERY STUDY					
BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags	
Analytes			[D]			
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	SURROGATE RECOVERY STUDY						
BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags		
Analytes		_	[D]				
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

Surrogate Recovery [D] = 100 * A / B

^{**} Surrogates outside limits; data and surrogates confirmed by reanalysis

^{***} Poor recoveries due to dilution



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

Units: mg/kg Dat	e Analyzed: 04/06/10 11:51	SURROGATE RECOVERY STUDY					
BTEX by EI		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	SURROGATE RECOVERY STUDY						
BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags		
Analytes			[D]				
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	SURROGATE RECOVERY STUDY					
BTEX by EPA 8021B	Amount Found [A]	True Amount {B	Recovery %R	Control Limits %R	Flags	
Analytes			[D]			
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	SURROGATE RECOVERY STUDY						
ТРН	By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags		
	Analytes	(1	[-]	[D]	/•••	'		
1-Chlorooctane		116	101	115	70-135			
o-Terphenyl		54.8	50.3	109	70-135			

^{*} Surrogate outside of Laboratory QC limits

Surrogate Recovery [D] = 100 * A / B

^{**} Surrogates outside limits; data and surrogates confirmed by reanalysis

^{***} Poor recoveries due to dilution



Project Name: LR Chamberlain Tank Battery

Work Orders: 367582,

Project ID: Legacy Reserves West

Lab Batch #: 800761

Sample: 559673-1-BSD / BSD

Matrix: Solid Batch:

Units: mg/kg Date Analyzed: 04/01/10 16:54 SURROGATE RECOVERY STUDY						
ТРН	By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
	Analytes			[D]		
I-Chlorooctane		124	100	124	70-135	
o-Terphenyl		58.4	50.2	116	70-135	

Lab Batch #: 800761

Sample: 559673-1-BLK / BLK

Matrix: Solid Batch: 1

Units: mg/kg Date Analyzed: 04/01/10 17:20	SURROGATE RECOVERY STUDY					
TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags	
Analytes			[2]			
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:

Matrix: Soil

Units: mg/kg Date Analyzed: 04/01/10 19:07	SU	RROGATE R	ECOVERY	STUDY	
TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
Analytes			[D]		
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 Chlorooctane	SURROGATE RECOVERY STUDY					
·	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags	
Analytes			[D]			
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	SU	RROGATE R	ECOVERY	STUDY	
TPH By SW8015 Mod Analytes	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

Surrogate Recovery [D] = 100 * A / B

^{**} Surrogates outside limits; data and surrogates confirmed by reanalysis

^{***} Poor recoveries due to dilution



Project Name: LR Chamberlain Tank Battery

Work Orders: 367582,

Project ID: Legacy Reserves West

Lab Batch #: 800761

Sample: 367582-004 / SMP

Matrix: Soil Batch: 1

Units: mg/kg	Date Analyzed: 04/01/10 20:28	SURROGATE RECOVERY STUDY					
ТРН	By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags	
	Analytes			[D]			
1-Chlorooctane		121	99.5	122	70-135		
o-Terphenyl		60.0	49.8	120	70-135		

Lab Batch #: 800761

Sample: 367582-005 / SMP

Matrix: Soil Batch: 1

Units: mg/kg Date	te Analyzed: 04/01/10 20:55	SURROGATE RECOVERY STUDY					
TPH By SW Analy		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	SURROGATE RECOVERY STUDY					
TPH By SW8015 Mod Analytes	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	SU	RROGATE R	ECOVERY :	COVERY STUDY Control Limits %R %R %R				
TPH	By SW8015 Mod	Amount Found [A]	True Amount B	, ,	Limits	Flags			
	Analytes			[D]					
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	SU	RROGATE R	ECOVERY:	STUDY	
TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
Analytes		<u>.</u>	[D]		
1-Chlorooctane	126	99.7	126	70-135	
o-Terphenyl	64.3	49.9	129	70-135	_

^{*} Surrogate outside of Laboratory QC limits

Surrogate Recovery [D] = 100 * A / B

^{**} Surrogates outside limits; data and surrogates confirmed by reanalysis

^{***} Poor recoveries due to dilution



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 #		BLANK /I	BLANK SPI	KE REC	OVERY	STUDY
Anions by E300	Blank Result	Spike Added	Blank Spike	Blank Spike %R	Control Limits %R	Flags
Analytes	[A]	[B]	Result [C]	76K [D]	76K	
Chloride	ND	11.0	11.1	101	75-125	



BS / BSD Recoveries



Project Name: LR Chamberlain Tank Battery

Work Order #: 367582

Analyst: ASA

Lab Batch ID: 800848

Units: mg/kg

Date Prepared: 04/01/2010

Batch #: 1

Project ID: Legacy Reserves West Date Analyzed: 04/01/2010

Matrix: Solid

Sample: 559729-1-BKS

Flag Limits %RPD Control BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY Control Limits %R RPD % Blk. Spk Blank Spike Duplicate Result [F] Spike Added Blank Spike %R [D] Blank Spike Result [C] Spike Added Blank Sample Result M BTEX by EPA 8021B

70-130 70-130 71-129 70-135 71-133 9 9 Dup. | %R | [G] 102 105 107 103 105 0.1028 0.1054 0.1020 0.1046 0.2130 Ξ -0.2 0.1 0.1 0.1 8 100 8 6 66 0.0985 0.0985 0.1999 0.0967 0.0961 0.1000 0.1000 0.2000 0.1000 0.1000 <u>8</u> Ð S 見 呈 N N Analytes Ethylbenzene m,p-Xylenes o-Xylene Toluene Benzene

35 35 35 35

35

Analyst: JLG

Date Prepared: 04/03/2010

Date Analyzed: 04/03/2010 Matrix: Solid

Lab Batch ID: 801040	Sample: 559843-1-BKS	3KS	Batch #: 1	1#: 1					Matrix: Solid	olid		
Units: mg/kg			BLAN	BLANK/BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY	PIKE / B	LANKS	PIKE DUPL	ICATE I	RECOVE	RY STUD	,	
BTEX by EPA 8021B	A 8021B	Blank Sample Result	Spike Added	Blank Spike Result	Blank Spike	Spike Added	Blank Spike Dunlicate	Bik. Spk Dup.	RPD	Control Limits	Control Limits %RPD	Flag
Analytes		<u>C</u>	[8]	[2]	ē	a	Result [F]	<u>5</u>				
Benzene		Ð	0.1000	0.0979	86	0.1	0.1045	105	7	70-130	35	
Toluene		£	0.1000	0.0952	95	0.1	0.1017	102	7	70-130	35	
Ethylbenzene		R	0.1000	0.0970	76	0.1	0.1033	103	9	71-129	35	
m,p-Xylenes		R	0.2000	0.1922	96	0.2	0.2044	102	9	70-135	35	
o-Xylene		Q	0.1000	0960'0	96	0.1	0.1024	102	9	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

Analyst: ASA

Date Prepared: 04/06/2010

Project ID: Legacy Reserves West Date Analyzed: 04/06/2010

Matrix: Solid

Sample: 559940-1-BKS Lab Batch ID: 801206

Batch #: 1

Units: mg/kg		BLAN	BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY	PIKE / B	LANKS	PIKE DUPL	ICATE F	RECOVE	RY STUD	Į.	
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	2	0.1000	0.0936	94	0.1	0.1011	101	80	70-130	35	
Toluene	Ð	0.1000	0.0915	92	0.1	0.0992	66	8	70-130	35	
Ethylbenzene	Ð	0.1000	0.0933	93	0.1	0.1010	101	8	71-129	35	
m,p-Xylenes	Ð	0.2000	0.1853	93	0.2	0.2007	100	8	70-135	35	
o-Xylene	Ð	0.1000	0.0930	93	0.1	0.1013	101	6	71-133	35	

Analyst: BEV

Lab Batch ID: 800761

Date Prepared: 04/01/2010

Batch #: 1

Sample: 559673-1-BKS

Matrix: Solid

Date Analyzed: 04/01/2010

Units: mg/kg		BLAN	BLANK/BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY	PIKE / B	LANKS	PIKE DUPI	ICATE I	RECOVE	RY STUD	Y	
TPH By SW8015 Mod	Blank Sample Result	Spike Added	Blank Spike Result	Blank Spike	Spike Added	Blank Spike Dunlicate	Bik. Spk Dup. %R	RPD	Control Limits	Control Limits	Flag
Analytes	<u> </u>	<u>e</u>	[C]	ē	(E)	Result [F]	ত্ৰ		{		!
C6-C12 Gasoline Range Hydrocarbons	Ð	1010	1160	115	1000	1210	121	4	70-135	35	
C12-C28 Diesel Range Hydrocarbons	Q.	1010	586	86	1000	1010	101	3	70-135	38	

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

Date Prepared: 04/05/2010

Project ID: Legacy Reserves West

Analyst: LATCOR

Matrix: Soil

Date Analyzed: 04/05/2010 QC- Sample ID: 367288-001 S

Batch #:

Reporting Units: mg/kg	MATI	RIX / MA	TRIX SPIKE	RECO	VERY STU	DY
Inorganic Anions by EPA 300	Parent Sample Result	Spike Added	Spiked Sample Result [C]	%R [D]	Control Limits %R	Flag
Analytes	[A]	[B]				
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

SAMPLE / SAMPLE DUPLICATE RECOVERY

Anions by E300 Analyte	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

SAMPLE / SAMPLE DUPLICATE RECOVERY

Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
0.0028	0.0022	24	35	
0.0057	0.0054	5	35	
0.0021	0.0066	103	35	F
0.0033	0.0050	41	35	F
0.0011	0.0066	143	35	F
0.030	0.030	0	35	
	Result [A] 0.0028 0.0057 0.0021 0.0033 0.0011	Result Duplicate Result	Result [A] Duplicate Result [B] RPD 0.0028 0.0022 24 0.0057 0.0054 5 0.0021 0.0066 103 0.0033 0.0050 41 0.0011 0.0066 143	Result [A] Duplicate Result [B] RPD Limits %RPD 0.0028 0.0022 24 35 0.0057 0.0054 5 35 0.0021 0.0066 103 35 0.0033 0.0050 41 35 0.0011 0.0066 143 35

Lab Batch #: 801206

Date Analyzed: 04/06/2010

Date Prepared: 04/06/2010

Analyst: ASA

OC-Sample ID: 367432-001 D

Batch #:

Matrix: Soil

Reporting Units: mg/kg	SAMPLE /	SAMPLE	DUPLIC	ATE REC	OVERY
BTEX by EPA 8021B Analyte	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

Date Prepared: 04/01/2010

Project ID: Legacy Reserves West

Date Analyzed: 04/01/2010 QC- Sample ID: 367572-001 D

Analyst: JLG

Reporting Units: %

Batch #: Matrix: Soil SAMPLE / SAMPLE DUPLICATE RECOVERY

Reporting Units: 70	SAMPLE	SAMPLE	DUPLIC	AIE REC	OVERY
Percent Moisture	Parent Sample Result [A]	Sample Duplicate Result	RPD	Control Limits %RPD	Flag
Analyte	'	[B]			
Percent Moisture	16.0	16.0	0	20	

Environmental Lab of Texas

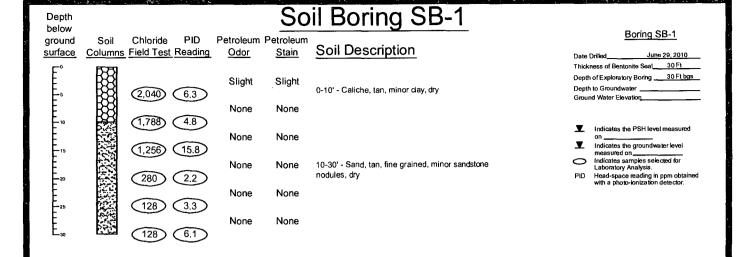
CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST 12800 West 1-20 East

Odessa, Texas 79765

Fax: 432-563-1713

YAC # TAT brebnet2 **阿3** ☐ NPDES RUSH TAT (Pre-Schedule) 24, 48, 72 hrs Project #: LEGACY KESERUES Project Name: LR Chamberlain Tank Battery (X) BUIL ES × × × TRRP M.S.O.V PO #: Please bill Basin Consulting ВСІ 402.6.9 . emperature Upon Becelpt: BIEX 8021 B/59 30 or BIEX 8260 × × × × × × × VOCs Free of Headspace? Sample Containers Intact? Analyze For Laboratory Comments Project Loc: Lea County, NM X Standard yelele: As Ag Ba Cd Cr Pb Hg Se TCLP: 88 a a Prions (Cl. SO4, Alkalinity) Cations (Ca, Mg, Na, K) Report Format: LG:30 9001 XT 9001 XI :मवा 3/31/10 1139 Date Time 89108 M8108 814 Нал × × × × cibryant@basin-consulting.com Soil Soil Soil 잃 Soi ŝ Sol Sogi DW=Drinking Water St=Sludge Other (Specify) COZSZEN HOBN *OSEH 505) 386-1429 нсі EONH × 80 × × × × otal #. of Containers benefiiii blei Fax No: e-mail: 1310 1230 1245 1330 1410 1430 1445 1500 Time Sampled teceived by ELOT 30-Mar-10 30-Mar-10 30-Mar-10 30-Mar-10 30-Mar-10 30-Mar-10 30-Mar-10 30-Mar-10 Date Sampled Basin Environmental Consulting, LLC 1139 Ending Depth E E Beginning Depth 38110 Lovington, NM 88260 "Granille Camille Bryant (575)605-7210 Company Address: P.O. Box 381 NE Corner @ 10 NE Corner @ 15' NE Corner @ 17 NE Corner @ 5' S. Middle @ 10' S. Middle @ 12' S. Middle @ 15' S. Middle @ 5' FIELD CODE Sampler Signature Project Manager: Company Name Telephone No: City/State/Zip: Special Instructions: nguished by: (lab use orrhy) ORDER #: 8 R S B 6 ਨ \overline{c} (yino esu del) # 8A

Appendix B Analytical Reports



Completion Notes

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

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

					METHC	METHOD: EPA SW 846-8021B, 5030	846-8021B,	5030			SW 84	SW 846-8015M		300.1
SAMPLE LOCATION	SAMPLE DEPTH (Below Grade Surface)	SAMPLE DATE	SOIL STATUS	BENZENE (mg/Kg)	TOLUENE (mg/Kg)	ETHYL- BENZENE (mg/Kg)	M.P. XYLENE (mg/Kg)	O. XYLENE (mg/Kg)	TOTAL GRO BTEX C ₆ .C ₁₂ (mg/Kg) (mg/Kg)	GRO C _e .C ₁₂ (mg/Kg)	DRO C ₁₂ -C ₂₈ (mg/Kg)	ORO C ₂₈ -C _{3s} (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	9.06	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 Comer @ 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	926
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	ln-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

					METH	METHOD: EPA SW 846-8021B, 5030	846-8021B,	5030			SW 84	SW 846-8015M		300.1
SAMPLE LOCATION	SAMPLE DEPTH (Below Grade Surface)	SAMPLE DATE	SOIL	BENZENE TOLUENE (mg/Kg) (mg/Kg)	TOLUENE (mg/Kg)	ETHYL- BENZENE (mg/Kg)	M.P. XYLENE (mg/Kg)	O- XYLENE (mg/Kg)	TOTAL GRO BTEX C ₆ C ₁₂ (mg/Kg) (mg/Kg)	GRO C _e .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	04/59/10	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	04/59/10	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	04/53/10	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	04/56/10	In-Situ	<0.0011	<0.0021	<0.0011	<0.0021	<0.0011	<0.0021	<15.8	<15.8	<15.8	<15.8	699
T-4 Sample 2 @ 1.5'	1.5 Feet	04/59/10	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	04/59/10	In-Situ	<0.0011	<0.0023	<0.0011	<0.0023	<0.0011	<0.0023	<17.1	<17.1	<17.1	<17.1	9.79
T-4 Sample 3 @ 3'	3 Feet	04/59/10	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	ard			10					20				100	250

Environmental Lab of Texas

Variance/ Corrective Action Report- Sample Log-In

lient. Basin				
late/ Time: 4/1/10 08:52				
ab ID#: 36758Z				
18				
nitials:				
Sample Receipt	Checklist			
			Client init	elsi
#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?	Tes	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)?	TES	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?	7 ES	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?	(es)	No		\neg
#15 Preservations documented on Chain of Custody?	(es)	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	
	11:00		, mor, spinoabio	
Variance Docu	mentation			
Contact: Contacted by:			Date/ Time:	
				-
Regarding:				
			· ·	
Corrective Action Taken:				
· · · · · · · · · · · · · · · · · · ·				
		,		
Chack oil that Analy 57 Constant of a second				
Check all that Apply: See attached e-mail/ fax	-1 -1 19			
Client understands and wou				
Cooling process had begun	shortly after s	ampling	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

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

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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





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

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.





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

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-Xvlene 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



Contact: Camille Bryant Project Location: Lea County, NM

Project Id:

Certificate of Analysis Summary 371873 Basin Environmental Consulting, LLC, Lovington, NM

Project Name: LR Chamberlain Tank Battery

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

Report Date: 14-MAY-10



Particle		,						
Hudbysis Requested Field II. 7-1 Sumpte 1 (@ 7 m) T-1 Sumpte 1 (@ 7 m) T-1 Sumpte 1 (@ 1 m) T-1 Sumpte 1 (@ 2 m) T-1 Sumpte 1 (m) T-1 Sumpte 1 (m) T-1 Sumpte 1 (m)		Lab Id:	371873-001	371873-002	371873-003	371873-004	371873-005	371873-006
Authors by E300 Exercised Deptit SOIL SOIL SOIL	Annheie Ronnostad	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'
Approved Parameter Approve	maisan kathan Vinniy	Depth:						
Apr. 28-10 08-30 Apr. 28-10		Matrix:	SOIL	SOIL	TIOS	SOIL	SOIL	SOIL
Anions by E300 Extracted: may-12-10 10-32 May-12-10 10-32 <t< th=""><th></th><th>Sampled:</th><th>Apr-28-10 08:00</th><th>Apr-28-10 08:20</th><th>Apr-28-10 08:40</th><th>Apr-28-10 09:00</th><th>Apr-28-10 09:40</th><th>Apr-28-10 10:00</th></t<>		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
BTEX by EPA 8021B Extracted: May-12-10 10:32 May-08-10 11:30 May-08-10 11:30	Anions by E300	Extracted:						
Direction Control of Control		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
HETC by EPA 8021B Extracted. May-08-10 11:30 May-08-10 11:3		Units/RL:						mg/kg RL
BTEX by EPA 8021B Extracted, Analyzed: May-08-10 11:30	Chloride							387 19.2
Chiefe Rec. May-08-10 18:04 May-08-10 18:04 May-08-10 18:04 May-08-10 19:08 May-08-10 19:09 May-08-10 19:0	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
Diese Range Rate mg/kg Mg/kg Mg/kg Mg/kg Mg/kg Mg/kg Mg/kg Mg/kg Mg/kg		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
National Parison		Units/RL:						mg/kg RL
ND 0.0023 ND 0.0024 ND 0.0022 ND 0.0022 ND 0.0022 ND 0.0022 ND 0.0023 ND 0.0023 ND 0.0012 ND 0.0011 ND 0	Benzene		ND 0.0012	ND 0.0012				ND 0.0011
Percent Moisture ND 0.0012 ND 0.0012 ND 0.0011 ND 0.0011 ND 0.0011 ND 0.0011 ND 0.0011 ND 0.0012 ND 0.0022 ND 0.0023 ND 0.0011 ND 0.0011	Toluene				ND 0.0022	ND 0.0022	ND 0.0023	ND 0.0023
Percent Moisture Extracted: ND 0.0012 ND 0.0012 ND 0.0011 ND 0.001	Ethylbenzene			l				ND 0.0011
ND 0.0012 ND 0.0012 ND 0.0011 ND 0	m,p-Xylenes		ND 0.0023					ND 0.0023
Percent Moisture Extracted: ND 0.0012 ND 0.0012 ND 0.0011 ND 0.001	o-Xylene		ND 0.0012		ND 0.0011		ND 0.0011	ND 0.0011
Percent Moisture	Total Xylenes				ND 0.0011	ND 0.0011	ND 0.0011	ND 0.0011
Percent Moisture Extracted: May-07-10 17:00 May-07-10 17:15 May-07-10 17:1	Total BTEX		ND 0.0012			ND 0.0011		ND 0.0011
TPH By SW8015 Mod Extracted: May-07-10 17:00 May-07-10 17:	Percent Moisture	Extracted:						
TPH By SW8015 Mod Extracted: May-07-10 13:15 May-07-10 13:		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
TPH By SW8015 Mod Extracted: May-07-10 13:15 May-07-10 13:		Units/RL:						% RL
TPH By SW8015 Mod Extracted: May-07-10 13:15 May-07-10 20:02 asoline Range Hydrocarbons ND 17.3 ND 17.7 ND 17.7 ND 17.1 ND 17.1 pil Range Hydrocarbons ND 17.3 ND 17.7 ND 17.7 ND 17.1 ND 17.1	Percent Moisture							12.3 1.00
Analyzed: May-07-10 18:14 May-07-10 18:41 May-07-10 19:08 May-07-10 19:35 May-07-10 19:05 May-07-10 20:02 asoline Range Hydrocarbons Nil Sall Range Hydrocarbo	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
ssoline Range Hydrocarbons Units/RL: mg/kg RL mg/kg		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
asoline Range Hydrocarbons ND 17.3 ND 17.7 ND 17.9 ND 16.7 ND 17.1 Siesel Range Hydrocarbons ND 17.3 ND 17.7 ND 17.9 ND 16.7 ND 17.1 Sil Range Hydrocarbons ND 17.3 ND 17.7 ND 17.0 ND 17.1 ND 17.1		Units/RL:						mg/kg RL
Diesel Range Hydrocarbons ND 17.3 ND 17.7 ND 17.9 ND 16.7 ND Dil Range Hydrocarbons ND 17.3 ND 17.7 ND 17.9 ND 16.7 ND	C6-C12 Gasoline Range Hydrocarbons							ND 17.1
Nil Range Hydrocarbons ND 17.3 ND 17.7 ND 16.7 ND	C12-C28 Diesel Range Hydrocarbons							ND 17.1
THE TOTAL OFFI THE PER PER PER PER PER PER PER PER PER PE	C28-C35 Oil Range Hydrocarbons							ND 17.1
ND 17.3 ND 17.1 ND 17.1 ND 10.1	Total TPH		ND 17.3	7.71 QN	ND 17.0	ND 16.7	ND 17.1	ND 17.1

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

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Brefit Barron, II Odessa Laboratory Manager

Page 7 of 43



Certificate of Analysis Summary 371873 Basin Environmental Consulting, LLC, Lovington, NM

Project Name: LR Chamberlain Tank Battery

Project Name: LR C

Contact: Camille Bryant Project Location: Lea County, NM

Project Id:

Date Received in Lab: Thu May-06-10 05:08 pm Report Date: 14-MAY-10

Principle Prin						Project Manager:	Brent Barron, II	
Anichasis Requested Field tit T.1 Sample 3 @ 2 T.1 Sample 4 @		Lab Id:	371873-007	371873-008	371873-009	371873-010	371873-011	371873-012
Animolas by E300	Analucia Damand	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'
Amions by E300 Amive: Souther SOIL Apr-38-10 11:30	naisanhau sis innit	Depth:						
Anions by E300 Exeracted Apr-28-10 10:40 Apr-28-10 11:20 Apr-28-10 11:20 Apr-28-10 11:30 Apr-28-10 11:30 </th <th></th> <th>Matrix:</th> <th>SOIL</th> <th>SOIL</th> <th>SOIL</th> <th>SOIL</th> <th>SOIL</th> <th>SOIL</th>		Matrix:	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
Anions by E300 Extracted: May-12-10 10-32 May-12-10 10-32 <t< th=""><th></th><th>Sampled:</th><th>Apr-28-10 10:40</th><th>Apr-28-10 11:00</th><th>Apr-28-10 11:20</th><th>Apr-28-10 11:40</th><th>Apr-30-10 11:00</th><th>Apr-30-10 11:30</th></t<>		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
BTEX by EPA 8021B Extracted May-08-10 10-32 May-12-10 10-32 May-12-10 10-32 May-12-10 10-32 May-08-10 11-30 May-08-10 11-3	Anions by E300	Extracted:						
BTEX by EPA 8021B Catacacted: ng/kg RL ng/kg R		Analyzed:	May-12-10 10:32					
BTEX by EPA 8021B Extracted. May-08-10 11:30		Units/RL:						mg/kg RL
BTEX by EPA 801B Extracted: Analyzed: May-08-10 11:30	Chloride		· ×					8.95 4.71
May-08-10 20:16 May-08-10 20:16 May-08-10 20:38 May-08-10 20:39 May-08-10	BTEX by EPA 8021B	Extracted:	May-08-10 11:30					
District Colored Col		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
ND 0.0012 ND 0.0011 ND 0		Units/RL:						mg/kg RL
ND 0.0023 ND 0.0025 ND 0.0025 ND 0.0025 ND 0.0021 ND 0.0011 ND 0	Benzene		ND 0.0012					ND 0.0011
Percent Moisture ND 0.0012 ND 0.0012 ND 0.0013 ND 0.0011 ND 0.0011	Toluene		ND 0.0023	l .			ND 0.0023	ND 0.0022
Percent Moisture ND 0.0023 ND 0.0012 ND 0.0013 ND 0.0013 ND 0.0011 ND 0.0011	Ethylbenzene			ı	ı		,	ND 0.0011
ND 0.0012 ND 0.0012 ND 0.0011 ND 0	m,p-Xylenes							ND 0.0022
Percent Moisture	o-Xylene		ND 0.0012		ND 0.0011	ł	ł .	ND 0.0011
Percent Moisture Extracted: ND 0.0012 ND 0.0012 ND 0.0011	Total Xylenes		ND 0.0012	l			ND 0.0011	ND 0.0011
Percent Moisture Extracted: May-07-10 17:00 May-07-10 17:0	Total BTEX			1	1 1	l 1	1 1	ND 0.0011
TPH By SW8015 Mod Extracted: May-07-10 17:00 May-07-10 17:	Percent Moisture	Extracted:						
TPH By SW8015 Mod Extracted: May-07-10 13:15 1.00 6.43 1.00 6.43 1.00 6.43 1.00 6.43 1.00 6.43 1.00 11.1 1.00		Analyzed:	May-07-10 17:00					
TPH By SW8015 Mod Extracted: May-07-10 13:15 May-07-10 23:11 M		Units/RL:						% RL
TPH By SW8015 Mod Extracted: May-07-10 13:15 May-07-10 23:11 May-07-10 23:	Percent Moisture							10.9
Analyzed: May-07-10 20:36 May-07-10 21:23 May-07-10 21:50 May-07-10 22:16 May-07-10 22:16<	TPH By SW8015 Mod	Extracted:	May-07-10 13:15					
sasoline Range Hydrocarbons Dritx/RL. mg/kg RL. RL. RL. RL.		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
asoline Range Hydrocarbons ND 17.4 ND 18.3 ND 16.0 ND 16.8 ND Diesel Range Hydrocarbons ND 17.4 ND 18.3 ND 16.0 ND 16.8 88.1 Dil Range Hydrocarbons ND 17.4 ND 18.3 ND 16.0 ND 16.8 25.4 ND 17.4 ND 18.3 ND 16.0 ND 16.8 113.4		Units/RL:						mg/kg RL
Diesel Range Hydrocarbons ND 17.4 ND 18.3 ND 16.9 ND 16.8 88.1 Dil Range Hydrocarbons ND 17.4 ND 18.3 ND 16.0 ND 16.8 25.4 NN 17.4 NN 18.3 NN 16.9 NN 16.8 113.4	C6-C12 Gasoline Range Hydrocarbons							ND 16.8
Dil Range Hydrocarbons ND 17.4 ND 18.3 ND 16.9 ND 16.8 25.4	C12-C28 Diesel Range Hydrocarbons							129 16.8
135 UN 183 UN 183 UN 185 UN 185	C28-C35 Oil Range Hydrocarbons							51.6 16.8
110.1 U.V. CIVI CIVI CIVI CIVI CIVI	Total TPH		ND 17.4	ND 18.3	ND 16.0	ND 16.8	113.5 17.0	181 16.8

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

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Odessa Laboratory Manager

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Basin Environmental Consulting, LLC, Lovington, NM Certificate of Analysis Summary 371873

Project Name: LR Chamberlain Tank Battery

Contact: Camille Bryant

Project Id:

Project Location: Lea County, NM

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

Brent Barron II 14-MAY-10 Report Date: Project Manager.

Analysis Requexted Lab Id. Diquis. Diquis. Diquis. SOIL. \$71873-014 \$71873-015 \$71873-014						Project Manager: Brent Barron, Il	Srent Barron, II		
Field Id: 7.2 Sample 1 @ 7. T.2 Sample 1 & 7.		Lab Id:	371873-013	371873-014	371873-015	371873-016	371873-017	371873-018	
Marie: SOIL	Analysis Domostod	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'	
Matrix SOIL SOIL SOIL SOIL SOIL	naisay yednesien	Depth:							
Extracted:		Matrix:	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	
Bigg		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	
May-7cat. May-12-10 10:32 May-08-10 11:30 May-08-10 10:30 May-07-10 13:15 May-08-10 0:32 May-07-10 13:15 May-07-10 13:15 May-08-10 0:32 May-07-10 13:15 May-07-10 13:15 May-08-10 0:33 May-08-10	Anions by E300	Extracted:							
Deciminary Color Units/RL mg/kg RL mg/kg Mg-07-10 13:15 Mg-07-10 13:15 Mg-07-10 13:15 Mg-07-10 13:15 Mg-07-10 13:15 Mg-08-10 00:35 Mg-08-10 0		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	~
B		Units/RL:					mg/kg RL	mg/kg I	R
B	Chloride						820 20.5	553	52.8
Analyzed: May-08-10 23:15 May-08-10 23:38 May-09-10 00:00 May-09-10 00:22 Units/RL: mg/kg RL	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	
Odiscrit. mg/kg RL mg/kg		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	· · ·
ND 0.0012 ND 0.0012 ND 0.0011 ND 0.0011 ND 0.0021		Units/RL:					mg/kg RL	mg/kg I	Æ
ND 0.0023 ND 0.0024 ND 0.0021 ND 0.0021 ND 0.0011 ND 0	Benzene						ND 0.0012	ND 0.0	0.0013
ND 0.0012 ND 0.0012 ND 0.0013 ND 0.0011 ND 0.0011 ND 0.0023 ND 0.0012 ND 0.0011 ND 0.0011 ND 0.0011 ND 0.0012 ND 0.0012 ND 0.0011 ND 0.0011 ND 0.0011 ND 0.0012 ND 0.0012 ND 0.0011 ND 0.0011 ND 0.0011 ND 0.0012 ND 0.0012 ND 0.0011 ND 0.0011 ND 0.0011 Analyzed:	Toluene		ND 0.0023		1	1	ND 0.0025	ND 0.0	0.0025
ND 0.0023 ND 0.0012 ND 0.0012 ND 0.0011 ND 0.0011	Ethylbenzene			Į.			ND 0.0012	ND 0.0	0.0013
ND 0.0012 ND 0.0012 ND 0.0011 ND 0.0011 ND 0.0011	m,p-Xylenes			l	l		ND 0.0025	ND 0.0	0.0025
ND 0.0012 ND 0.0012 ND 0.0011 ND 0.0011 ND 0.0011	o-Xylene		ND 0.0012			1	ND 0.0012	ND 0.0	0.0013
Extracted:	Total Xylenes		ND 0.0012				ND 0.0012	ND 0.0	0.0013
Extracted: May-07-10 17:00 T.1Z 1.00	Total BTEX				1		ND 0.0012	ND O.0	0.0013
Iod Extracted: May-07-10 17:00 May-07-10 17:15 May-08-10 00:32 May-08-10 00:39 May-08-10 01:26	Percent Moisture	Extracted:	·				,		
Od Extracted: May-07-10 13:15 May-08-10 00:39		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	_
13.8 1.00 17.0 1.00 7.46 1.00 7.12 1.00 1.00 7.12 1.00 2.10		Units/RL:					% RL	%	Æ
Od Extracted: May-07-10 13:15 May-08-10 00:29 May-08-10 00:29 May-08-10 01:2 s Units/RL: mg/kg RL mg/kg RL mg/kg RL mg/kg s ND 17.3 ND 18.2 ND 16.1 ND 1 ND 17.3 ND 18.2 ND 16.1 ND 1 ND 17.3 ND 18.2 ND 16.1 ND 1	Percent Moisture						18.2 1.00	20.5	1.00
Analyzed: May-08-10 00:05 May-08-10 00:32 May-08-10 00:59 May-08-10 01:2 S UnixyRL: mg/kg RL mg/kg RL mg/kg RL mg/kg s ND 17.3 ND 18.2 ND 16.1 ND 1 n ND 17.3 ND 18.2 ND 16.1 ND 1 n ND 17.3 ND 18.2 ND 16.1 ND 1	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	<u></u>
s Units/RL: mg/kg RL mg/kg R ND 16.1 ND 1 s ND 17.3 ND 18.2 ND 16.1 ND 1 ND 17.3 ND 18.2 ND 16.1 ND 1		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	
8 ND 17.3 ND 18.2 ND 16.1 ND ND ND ND 17.3 ND 18.2 ND 16.1 ND ND ND 17.3 ND 18.2 ND 16.1 ND		Units/RL:					mg/kg RL	mg/kg	RL
ND 17.3 ND 18.2 ND 16.1 ND ND 18.1 ND 16.1 ND ND ND ND 18.2 ND 16.1 ND	C6-C12 Gasoline Range Hydrocarbons						ND 18.3	ON	18.9
ND 17.3 ND 18.2 ND 16.1 ND	C12-C28 Diesel Range Hydrocarbons						ND 18.3	ND	18.9
	C28-C35 Oil Range Hydrocarbons						ND 18.3	QN	18.9
Total TPH ND 17.3 ND 18.2 ND 16.1 ND 16.1	Total TPH						ND 18.3	S	18.9

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Odessa Laboratory Manager

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Project Location: Lea County, NM Contact: Camille Bryant

Project Id:

Basin Environmental Consulting, LLC, Lovington, NM Certificate of Analysis Summary 371873

Project Name: LR Chamberlain Tank Battery

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

Report Date: 14-MAY-10

Project Manager: Brent Barron, II

	9 371873-020 @ 2 T-2 Sample 3 @ SOIL	.3 @ 5'	371873-021 T-3 Sample 1 @ 2'	371873-022 T-3 Sample 1 @ 5'	371873-023 T-3 Sample 1 @ 7	3/18/3-024 T-3 Sample 2 @ 5'
Analysis Requested Field Id: T-2 Sample 3 @ Depth: SOIL Matrix: SOIL Sampled: Apr-29-10 08:0 Extracted: May-12-10 10:3 Units/RL: mg/kg 184 9 BTEX by EPA 8021B Extracted: May-08-10 11:3 Analyzed: May-09-10 01:3		3 @ 5'	T-3 Sample 1 @ 2'	T-3 Sample 1 @ 5'	T-3 Sample 1 @ 7	T-3 Sample 2 @ 5'
Matrix SOIL	IIOS					
Matrix: SOIL	IOS					
Sampled: Apr-29-10 08:0 Anions by E300 Extracted: May-12-10 10:3 Units/RL: mg/kg 184 9 BTEX by EPA 8021B Extracted: May-08-10 11:3 Analyzed: May-09-10 01:5		. 1	SOIL	SOIL	SOIL	SOIL
Anions by E300 Extracted: May-12-10 10:3 Analyzed: May-12-10 10:3 Units/RL: mg/kg BTEX by EPA 8021B Extracted: May-08-10 11:3 Analyzed: May-09-10 01:3	3:00 Apr-29-10 08:30	08:30	Apr-29-10 09:00	Apr-29-10 09:20	Apr-29-10 09:40	Apr-29-10 10:00
Analyzed: May-12-10 10:3 Units/RL: mg/kg						
Units/RL: mg/kg 184 9 18	0:32 May-12-10 10:32	10:32	May-12-10 19:30	May-12-10 19:30	May-12-10 19:30	May-12-10 19:30
BTEX by EPA 8021B	RL mg/kg	R	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Extracted: Analyzed:	9.22 66.3	5.08	497 9.44	135 9.52	117 9.70	784 20.0
	1:30 May-08-10 11:30	11:30	May-10-10 14:30	May-10-10 14:30	May-10-10 14:30	May-10-10 14:30
	1:28 May-09-10 01:51	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 RI	RL mg/kg	Z	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Benzene ND 0.0011	UN 1100.	0.0012	ND 0.0011	ND 0.0011	ND 0.0012	ND 0.0012
Toluene ND 0.0022	.0022 ND	0.0024	ND 0.0022	ND 0.0023	ND 0.0023	ND 0.0024
Ethylbenzene ND 0.0011	.0011 ND	0.0012	ND 0.0011	ND 0.0011	ND 0.0012	ND 0.0012
m,p-Xylenes	0022 ND	0.0024	ND 0.0022	ND 0.0023	ND 0.0023	ND 0.0024
o-Xylene ND 0.0011	.0011 ND	0.0012	ND 0.0011	ND 0.0011	ND 0.0012	ND 0.0012
Total Xylenes ND 0.0011	.0011 ND	0.0012	ND 0.0011	ND 0.0011	ND 0.0012	ND 0.0012
Total BTEX ND 0.0011	.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	7:00 May-07-10 17:00	17:00	May-07-10 17:00	May-07-10 17:00	May-07-10 17:00	May-07-10 17:00
Units/RL: % RI	RL %	R	% RL	% RL	% RL	% RL
Percent Moisture 8.85 1.00	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	3:15 May-07-10 13:15	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	2:48 May-08-10 03:15	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 RI	RL mg/kg	RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
	16.4 ND	18.2	ND 16.9	ND 17.0	ND 17.4	ND 17.8
	16.4 ND	18.2	0.91 ON	ND 17.0	ND 17.4	ND 17.8
C28-C35 Oil Range Hydrocarbons ND 16.4	16.4 ND	18.2	ND 16.9	ND 17.0	ND 17.4	ND 17.8
Total TPH ND 16.4	16.4 ND	18.2	ND 16.9	ND 17.0	ND 17.4	ND 17.8

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Odessa Laboratory Manager

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Contact: Camille Bryant Project Location: Lea County, NM

Project Id:

Certificate of Analysis Summary 371873 Basin Environmental Consulting, LLC, Lovington, NM

Project Name: LR Chamberlain Tank Battery

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

Report Date: 14-MAY-10

Project Manager: Brent Barron, II

Analysis Requested Field Id: Depth: Marix:	T-3 Sample 3 @ 5'	T-3 Sample 4 @ 2'	T-3 Sample 4 @ 5'		13 1 @ C -1 31 #	
			Can the virginian c-1	T-4 Sample 1 @ 1.5'	1-4 Sample 2 (Ø, 1.5)	T-4 Sample 3 @ 2'
Matrix:						
	SOIL	SOIL	SOL	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	19.6 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:					dental property and the second	
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

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Breht Barron, II Odessa Laboratory Manager

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Project Location: Lea County, NM Contact: Camille Bryant

Project Id:

Basin Environmental Consulting, LLC, Lovington, NM Certificate of Analysis Summary 371873

Project Name: LR Chamberlain Tank Battery

Date Received in Lab: Thu May-06-10 05:08 pm 14-MAY-10 Report Date:

Project Manager: Brent Barron, II

Analysis Ronnosted	Lab Id:	100 000		000 000	
		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'
macabar archimit	Depth:				
	Matrix:	SOIL	SOIL	SOIL	SOIL
S	Sampled:	Apr-29-10 14:20	Apr-29-10 14:40	Apr-29-10 15:00	Apr-29-10 15:30
Anions by E300 Ex	Extracted:				
*	Analyzed:	May-12-10 19:30	May-12-10 19:30	May-12-10 19:30	May-12-10 19:30
<i>a</i>	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 Ex	Extracted:	May-10-10 14:30	May-10-10 14:30	May-10-10 14:30	May-10-10 14:30
Y	Analyzed:	May-10-10 19:31	May-10-10 19:52	May-10-10 20:12	May-10-10 20:33
a	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 Ex	Extracted:				
	Analyzed:	May-07-10 17:00	May-07-10 17:00	May-07-10 17:00	May-07-10 17:00
<i>a</i>	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
, A	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

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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.

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5332 Blackberry Drive, San Antonio TX 78238	(210) 509-3334	(210) 509-3335
2505 North Falkenburg Rd, Tampa, FL 33619	(813) 620-2000	(813) 620-2033
5757 NW 158th St, Miami Lakes, FL 33014	(305) 823-8500	(305) 823-8555
12600 West I-20 East, Odessa, TX 79765	(432) 563-1800	(432) 563-1713
842 Cantwell Lane, Corpus Christi, TX 78408	(361) 884-0371	(361) 884-9116



Project Name: LR Chamberlain Tank Battery

Work Orders: 371873,

Project ID:

Lab Batch #: 805828

Sample: 562820-1-BKS / BKS

Batch: Matrix: Solid

Units: mg/kg	Date Analyzed: 05/08/10 16:10	SU	RROGATE R	ECOVERY	STUDY	
ВТЕ	X by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
	Analytes	11	,	[D]		
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	SU	RROGATE R	ECOVERY S	STUDY	
BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
Analytes		ŀ	[D]]	
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:

Matrix: Solid

Units: mg/kg Date Analyzed: 05/08/10 17:39	9 SU	RROGATE R	ECOVERY	STUDY	
BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
Analytes			[D]		
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	SU	RROGATE R	ECOVERY S	STUDY	
BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
Analytes			[D]		
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	SU	RROGATE R	ECOVERY :	STUDY	
ВТЕ	X by EPA 8021B 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

Surrogate Recovery [D] = 100 * A / B

^{**} Surrogates outside limits; data and surrogates confirmed by reanalysis

^{***} Poor recoveries due to dilution



Project Name: LR Chamberlain Tank Battery

Work Orders: 371873,

Project ID:

Lab Batch #: 805828

Sample: 371873-003 / SMP

Matrix: Soil Batch: 1

Units: mg/kg Date Analyzed: 05/08/10 18:46	SU	RROGATE R	ECOVERY	STUDY	
BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
Analytes			[D]		
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

Matrix: Soil Batch:

Units: mg/kg	Date Analyzed: 05/08/10 19:08	SU	RROGATE R	RECOVERY	STUDY	
BTE	X by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
	Analytes			[D]		
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

Matrix: Soil Batch:

Units: mg/kg	Date Analyzed: 05/08/10 19:31	SU	RROGATE R	ECOVERY	STUDY	
втех	K by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	Analytes	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	SU	RROGATE R	ECOVERY :	STUDY	
BTEX by EPA 8021B 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	SURROGATE RECOVERY STUDY					
ВТЕ	X by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags	
	Analytes			D			
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

Surrogate Recovery [D] = 100 * A / B

^{**} Surrogates outside limits; data and surrogates confirmed by reanalysis

^{***} Poor recoveries due to dilution



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	SURROGATE RECOVERY STUDY					
ВТЕ	X by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags	
	Analytes			[D]			
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	SU	RROGATE RI	ECOVERY	STUDY	
BTEX	by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
	Analytes			[D]		
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	SU	RROGATE RI	ECOVERY S	STUDY	
BTEX by EPA 8021B Analytes	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 SURROGATE RECOVERY S					
BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
Analytes			[D]	:	
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	2:53 SURROGATE RECOVERY STUDY				
BTEX by EPA 8021B Analytes	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

Surrogate Recovery [D] = 100 * A / B

^{**} Surrogates outside limits; data and surrogates confirmed by reanalysis

^{***} Poor recoveries due to dilution



Project Name: LR Chamberlain Tank Battery

Work Orders: 371873,

Project ID:

Lab Batch #: 805828

Sample: 371873-013 / SMP

Matrix: Soil Batch:

Units: mg/kg Date Analyzed: 05/08/10 23:15	SURROGATE RECOVERY STUDY					
BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags	
Analytes			[D]			
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: Matrix: Soil

Units: mg/kg Date Analyzed: 05/08/10 23:38	SURROGATE RECOVERY STUDY					
BTEX by EPA 8021B Analytes	Amount Found JAJ	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:

Matrix: Soil

Units: mg/kg Date Analyzed: 05/09/10 00:00	SURROGATE RECOVERY STUDY				
BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
Analytes			[D]		
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:

Matrix: Soil

Units: mg/kg Date Analyzed: 05/09/10 00:22 SURROGATE RECOVERY STUDY					
BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
Analytes			{D}		
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	SURROGATE RECOVERY STUDY					
BTEX by EPA 8021B Analytes	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

Surrogate Recovery [D] = 100 * A / B

^{**} Surrogates outside limits; data and surrogates confirmed by reanalysis

^{***} Poor recoveries due to dilution



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

Units: mg/kg	Date Analyzed: 05/09/10 01:28	SURROGATE RECOVERY STUDY					
втех	K by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags	
	Analytes			[D]			
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	SURROGATE RECOVERY STUDY					
BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags	
Analytes			[D]			
1,4-Difluorobenzene	0.0244	0.0300	81	80-120		
4-Bromofluorobenzene	0.0302	0.0300	101	80-120	_	

Units: mg/kg Date Analyzed: 05/09/10 02:13	SURROGATE RECOVERY STUDY					
BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags	
Analytes			[D]			
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 SURROGATE RECOVERY STUDY					
BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
Analytes	(* -)	121	[D]	/ / /	
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

Surrogate Recovery [D] = 100 * A / B

^{**} Surrogates outside limits; data and surrogates confirmed by reanalysis

^{***} Poor recoveries due to dilution



Project Name: LR Chamberlain Tank Battery

Work Orders: 371873,

Lab Batch #: 805963

Sample: 562918-1-BKS / BKS

Batch: 1 Matrix: Solid

Units: mg/kg Date Analyzed: 05/10/10 09:12 SURROGATE RECOVERY STUDY

Units: mg/kg Date Analyzed: 05/10/10 05.12					
BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
Analytes			[D]		
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	SURROGATE RECOVERY STUDY					
BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags	
Analytes			[D]			
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	g Date Analyzed: 05/10/10 10:35 SURROGATE RECOVERY STUDY				
BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1,4-Difluorobenzene	0.0273	0.0300	91	80-120	
4-Bromofluorobenzene	0.0296	0.0300	99	80-120	

Units: mg/kg Date Analyzed: 05/10/10 15:23 SURROGATE RECOVERY STUDY					
BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
Analytes			[D]		
1,4-Difluorobenzene	0.0277	0.0300	92	80-120	
4-Bromofluorobenzene	0.0278	0.0300	93	80-120	

Units: mg/kg Date Analyzed: 05/10/10 15:44 SURROGATE RECOVERY STUDY					
BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
Analytes			[D]		
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

Surrogate Recovery [D] = 100 * A / B

^{**} Surrogates outside limits; data and surrogates confirmed by reanalysis

^{***} Poor recoveries due to dilution



Project Name: LR Chamberlain Tank Battery

Work Orders: 371873,

931932 002 / CMD

Project ID:

Lab	Batch	#:	805963

Sample: 371873-023 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg Date Analyzed: 05/10/10 16:04 SURROGATE RECOVERY STUDY				STUDY	
BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
Analytes			[D]		
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	SURROGATE RECOVERY STUDY						
ВТЕХ	K by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags	
	Analytes			[D]			
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	SURROGATE RECOVERY STUDY				
вте	X by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
	Analytes			[D]		
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	SURROGATE RECOVERY STUDY					
BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags	
Analytes			[D]			
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 SURI			JRROGATE RECOVERY STUDY			
BTEX by EPA 8021B		Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
A	Analytes			[D]		
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

Surrogate Recovery [D] = 100 * A / B

^{**} Surrogates outside limits; data and surrogates confirmed by reanalysis

^{***} Poor recoveries due to dilution



Project Name: LR Chamberlain Tank Battery

Work Orders: 371873,

Project ID:

 Batch: I Matrix: Soil

Units: mg/kg Date Analyzed: 05/10/10 17:47	SURROGATE RECOVERY STUDY					
BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags	
Analytes	1		[D]	ł		
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	SURROGATE RECOVERY STUDY						
BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags		
Analytes			[D]				
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	SURROGATE RECOVERY STUDY					
ВТЕХ	K by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags	
	Analytes			{D}			
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	SURROGATE RECOVERY STUDY					
BTEX by EPA 8021B	Amount Found [A]	True Amount {B}	Recovery %R	Control Limits %R	Flags	
Analytes			[D]			
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

73-032 / SMP **Batch:** 1

Matrix: Soil

Units: mg/kg Date Analyzed: 05/10/10 19:52	SURROGATE RECOVERY STUDY						
BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags		
Analytes		J	[D]				
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

Surrogate Recovery [D] = 100 * A / B

^{**} Surrogates outside limits; data and surrogates confirmed by reanalysis

^{***} Poor recoveries due to dilution



Project Name: LR Chamberlain Tank Battery

Work Orders: 371873,

Lab Batch #: 805963

Project ID:

Matrix: Soil

Sample: 371873-033 / SMP

Batch: 1

Units: mg/kg	Date Analyzed: 05/10/10 20:12	SURROGATE RECOVERY STUDY

Units. Ing/kg Date Many 2001 0 20.12					
BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
Analytes	[1]	[2]	[D]	/•••	
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	SURROGATE RECOVERY STUDY					
ВТЕ	X by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags	
Analytes				[D]			
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:

Units: mg/kg Date Analyzed	s: mg/kg Date Analyzed: 05/10/10 21:56 SURROGATE RECOVERY STUD					
BTEX by EPA 8021E Analytes	3	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:

Matrix: Soil

Units: mg/kg Date Analyzed: 05/10/10 22:17	SU	RROGATE R	ECOVERY S	STUDY	
BTEX by EPA 8021B	Amount Found [A]	True Amount B	Recovery %R [D]	Control Limits %R	Flags
Analytes			'-'		
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	SU	RROGATE RI	ECOVERY	STUDY	
TPH By SW8015 Mod Analytes	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

Surrogate Recovery [D] = 100 * A / B

^{**} Surrogates outside limits; data and surrogates confirmed by reanalysis

^{***} Poor recoveries due to dilution



Project Name: LR Chamberlain Tank Battery

Work Orders: 371873,

Project ID:

Lab Batch #: 805736 Sample: 562786-1-BSD / BSD

Matrix: Solid Batch: 1

Units: mg/kg	Date Analyzed: 05/07/10 17:20	SURROGATE RECOVERY STUDY					
трн в	By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags	
	Analytes			D			
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	SU	RROGATE RI	ECOVERY	STUDY	
TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
Analytes			[D]		
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	SU	RROGATE RI	ECOVERY	STUDY	
ТРН	By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
	Analytes			[10]		
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	SU	RROGATE R	ECOVERY	STUDY	
ТРН	By SW8015 Mod Analytes	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:

Matrix: Soil

Units: mg/kg	Date Analyzed: 05/07/10 19:08	SU	RROGATE RI	ECOVERY :	STUDY	
TPH 1	By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
	Analytes			[D]		
1-Chlorooctane		98.2	100	98	70-135	
o-Terphenyl		48.8	50.2	97	70-135	-

^{*} Surrogate outside of Laboratory QC limits

Surrogate Recovery [D] = 100 * A / B

^{**} Surrogates outside limits; data and surrogates confirmed by reanalysis

^{***} Poor recoveries due to dilution



Project Name: LR Chamberlain Tank Battery

Work Orders: 371873,

Project ID:

Lab Batch #: 805736

Sample: 371873-004 / SMP

Matrix: Soil Batch: 1

Units: mg/kg Date Analyzed: 05/07/10 19:35 SURROGATE RECO					
TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
Analytes			[D]		
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

Matrix: Soil Batch: 1

Units: mg/kg Date Analyzed: 05/07/10 20:02	SU	RROGATE R	ECOVERY	STUDY	
TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
Analytes			[D]		
1-Chlorooctane	94.7	100	95	70-135	
o-Terphenyl	46.3	50.1	92	70-135	

Lab Batch #: 805736

Sample: 371873-006 / SMP

Matrix: Soil Batch:

Units: mg/kg Date Analyzed: 05/07/10 20:29	SU	RROGATE R	ECOVERY	STUDY	
TPH By SW8015 Mod Analytes	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: Matrix: Soil

Units: mg/kg Date Analyzed: 05/07/10 20:56 SURROGATE RECOVERY STUDY					
TPH By SW8015 Mod	Amount Found [A]	True Amount B	Recovery %R	Control Limits %R	Flags
Analytes			[D]		
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 SURROGATE RECOVERY STUDY					
TPH By SW8015 Mod	Amount Found [A]	True Amount {B}	Recovery %R	Control Limits %R	Flags
Analytes		İ	[D]		
1-Chlorooctane	95.5	99.8	96	70-135	
o-Terphenyl	47.9	49.9	96	70-135	

^{*} Surrogate outside of Laboratory QC limits

Surrogate Recovery [D] = 100 * A / B

^{**} Surrogates outside limits; data and surrogates confirmed by reanalysis

^{***} Poor recoveries due to dilution



Project Name: LR Chamberlain Tank Battery

Work Orders: 371873,
Lab Batch #: 805736
Sample: 371873-009 / SMP
Batch: 1 Matrix: Soil

Units: mg/kg Date Analyzed: 05/07/10 21:50	SURROGATE RECOVERY STUDY					
TPH By SW8015 Mod Analytes	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		

Units: mg/kg Date Analyzed: 05/07/10 22:16		SU	RROGATE R	ECOVERY	STUDY	
ТРН	By SW8015 Mod Analytes	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	SURROGATE RECOVERY STUDY					
TPH By SW8015 Mod Analytes	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	SU	RROGATE R	RECOVERY	STUDY	
TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
Analytes		1	[D]	1	
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

[A] [B] %R %R						
ТРН	By SW8015 Mod	Found	Amount		Limits	Flags
	Analytes			[D]		:
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



Project Name: LR Chamberlain Tank Battery

Work Orders: 371873, Lab Batch #: 805736

Project ID:

Sample: 371873-014 / SMP Matrix: Soil Batch:

Units: mg/kg Date Analyzed: 05/08/10 00:32	SU	RROGATE RI	ECOVERY	STUDY	
TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
Analytes			[D]		
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	SU	RROGATE R	ECOVERY S	STUDY	
TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
Analytes			[D]		
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	SU	RROGATE R	ECOVERY S	STUDY	
TPH By SW8015 Mod Analytes	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 SURROGATE TPH By SW8015 Mod Amount Found Amount IA IB				ECOVERY S	STUDY	
TPH By S	W8015 Mod	Found	Amount	Recovery %R	Control Limits %R	Flags
Ana	lytes			[D]		
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	SU	RROGATE RI	ECOVERY S	STUDY	
	y SW8015 Mod Analytes	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



Project Name: LR Chamberlain Tank Battery

Work Orders: 371873,

Project ID:

Lab Batch #: 805736

Sample: 371873-019 / SMP

Matrix: Soil Batch:

Units: mg/kg	Date Analyzed: 05/08/10 02:48	SURROGATE RECOVERY STUDY					
ТРН	By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags	
	Analytes			[D]			
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

Matrix: Soil Batch: 1

Units: mg/kg	Date Analyzed: 05/08/10 03:15	SU	RROGATE R	ECOVERY	STUDY	
ТРН	By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
	Analytes			[D]		
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	SU	RROGATE R	ECOVERY	STUDY	
TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
I-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	SURROGATE RECOVERY STUDY				
ТРН	By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
	Analytes			[10]		
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	SUI	RROGATE R	ECOVERY	STUDY	
ТРН	By SW8015 Mod Analytes	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

Surrogate Recovery [D] = 100 * A / B

^{**} Surrogates outside limits; data and surrogates confirmed by reanalysis

^{***} Poor recoveries due to dilution



Project Name: LR Chamberlain Tank Battery

Work Orders: 371873,

Lab Batch #: 805752

Sample: 562796-1-BLK / BLK

Project ID:

Batch: 1 Matrix: Solid

Units: mg/kg Date Analyzed: 05/07/10 21:46	SU	SURROGATE RECOVERY STUDY						
TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags			
Analytes			[D]					
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

SURROGATE RECOVERY STUDY

Units: mg/kg Date Analyzed: 05/07/10 22:16 SURROGATE RECOVERT ST					
TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
Analytes			D .		
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	SURROGATE RECOVERY STUDY						
ТРН	By SW8015 Mod Analytes	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	SURROGATE RECOVERY STUDY						
ТРН	By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags	
	Analytes			[D]			
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 S	SURROGATE RECOVERY STUDY						
TPH By SW8015 Mod Analytes	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

Surrogate Recovery [D] = 100 * A / B

^{**} Surrogates outside limits; data and surrogates confirmed by reanalysis

^{***} Poor recoveries due to dilution



Project Name: LR Chamberlain Tank Battery

Work Orders: 371873, Lab Batch #: 805752

Project ID:

Sample: 371873-025 / SMP Matrix: Soil Batch:

Units: mg/kg Date Analyzed: 05/08/10 00:15	SURROGATE RECOVERY STUDY						
TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags		
Analytes 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:

Matrix: Soil

Units: mg/kg Date Analyzed: 05/08/10 00:46	SU	RROGATE R	ECOVERY	STUDY	
TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
Analytes		ł	[D]		
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:

Matrix: Soil

Units: mg/kg Date Analyzed: 05/08/10 01:	18 SU	RROGATE R	ECOVERY	STUDY	
TPH By SW8015 Mod Analytes	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	SURROGATE RECOVERY STUDY						
TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags		
Analytes			[D]				
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	SURROGATE RECOVERY STUDY							
TPH By SW8015 Mod	Amount Found	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

Surrogate Recovery [D] = 100 * A / B

^{**} Surrogates outside limits; data and surrogates confirmed by reanalysis

^{***} Poor recoveries due to dilution



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	St	SURROGATE RECOVERY STUDY						
TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags			
Analytes	1.37	[D]		,,,,,				
1-Chlorooctane	95.9	99.6	96	70-135				
o-Terphenyl	52.0	49.8	104	70-135				

Units: mg/kg Date Analyzed: 05/08/10 03:54	SURROGATE RECOVERY STUDY						
TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags		
Analytes		1	[D]				
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	SURROGATE RECOVERY STUDY					
TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags	
Analytes			[2]			
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	SURROGATE RECOVERY STUDY					
TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags	
Analytes			[D]			
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 SURROGATE RECOVERY ST					STUDY	
ТРН	By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
	Analytes			[D]		
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



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 08:0)9 SU	SURROGATE RECOVERY STUDY					
TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags		
Analytes			[D]				
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	SURROGATE RECOVERY STUDY					
ТРН	By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags	
Analytes		' '	}	[D]		<u> </u>	
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:

Matrix: Solid

Units: mg/kg Date Analyzed: 05/10/10 11:00	SURROGATE RECOVERY STUDY					
TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags	
1-Chloroctane	118	100	118	70-135		
o-Terphenyl	53.6	50.2	107	70-135		

Surrogate Recovery [D] = 100 * A / B

^{*} Surrogate outside of Laboratory QC limits

^{**} Surrogates outside limits; data and surrogates confirmed by reanalysis

^{***} Poor recoveries due to dilution





Project Name: LR Chamberlain Tank Battery

Work Order #: 371873

Analyst: ASA

Lab Batch ID: 805828

Sample: 562820-1-BKS

Project ID:

Date Analyzed: 05/08/2010

Date Prepared: 05/08/2010

Batch #: 1

Matrix: Solid

Flag Limits %RPD 35 35 35 35 35 BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY Control Limits 70-130 71-129 71-133 70-130 70-135 %R RPD 0 0 0 Blk. Spk Dup. [G] 106 106 102 101 6 Duplicate Result [F] 0.1056 0.1013 0.1055 Blank Spike 0.2032 0.0973 Spike Added 0.1 0.2 0.1 Ξ 0.1 0.1 Blank Spike %R [D] 101 105 104 101 6 Blank Spike Result [C] 0.0970 0.1042 0.1006 0.2026 0.1051 0.1000 0.1000 Spike Added 0.1000 0.2000 0.1000 B Sample Result Blank M 8 B £ Ð 8 BTEX by EPA 8021B Units: mg/kg Analytes Ethylbenzene m,p-Xylenes o-Xylene Benzene Toluene

Analyst: ASA

Lab Batch ID: 805963

Date Prepared: 05/10/2010 Batch #: 1

Matrix: Solid

Date Analyzed: 05/10/2010

Flag Control Limits %RPD 35 35 35 35 35 BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY Control Limits 70-130 70-130 70-135 71-129 71-133 %R RPD 0 Blk. Spk Dup. [G] 68 86 87 16 96 Blank Spike Duplicate Result [F] 0.1938 0.0857 0.0891 0.0867 0.0959 Spike Added 0.1 0.2 0.1 囯 0.1 0.1 Blank Spike %R [D] 8 87 8 86 26 Blank Spike Result 0.0872 0.1948 0.0964 0.0861 0.0896 Spike Added 0.1000 0.1000 0.1000 0.2000 0.1000 [B] Sample Result Blank \mathbf{Z} Ð 2 QN. R 9 Sample: 562918-1-BKS BTEX by EPA 8021B Units: mg/kg Analytes Ethylbenzene m,p-Xylenes o-Xylene Toluene Benzene

Blank Spike Duplicate Recovery [G] = 100*(F)/[E] All results are based on MDL and Validated for QC Purposes Relative Percent Difference RPD = 200*[(C-F)/(C+F)] Blank Spike Recovery [D] = 100*(C)/[B]





Project Name: LR Chamberlain Tank Battery

Work Order #: 371873

Analyst: LATCOR

Sample: 806338-1-BKS Lab Batch ID: 806338

Project ID:

Date Analyzed: 05/12/2010

Matrix: Solid Batch #: 1

Date Prepared: 05/12/2010

Flag Limits %RPD 2 BLANK/BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY Control Limits 75-125 %R RPD Blk. Spk Dup. [G] 8 Spike Duplicate Result [F] Blank 9.82 Spike Added 10 Ξ Blank Spike %R [D] 66 Blank Spike Result $\overline{\Omega}$ 9.94 Spike Added 10.0B Sample Result Y 2 Anions by E300 Units: mg/kg Analytes Chloride

Analyst: LATCOR

Date Prepared: 05/12/2010

Batch #: 1

Sample: 806340-1-BKS

Lab Batch ID: 806340

Matrix: Solid

Date Analyzed: 05/12/2010

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY Units: mg/kg

Flag %RPD Control Limits 20 Control Limits %R 75-125 RPD Blk. Spk Dup. (G] 66 Blank Spike Duplicate Result [F] 9.90 Spike Added 10 Ξ Blank Spike %R [D] 104 Blank Spike Result [C] 10.4 Spike Added 10.0 <u>B</u> Blank Sample Result ¥ 2 Anions by E300 Analytes Chloride

Date Prepared: 05/07/2010

Date Analyzed: 05/07/2010

Matrix: Solid

Batch #: 1

Sample: 562786-1-BKS

Lab Batch ID: 805736

Analyst: BEV

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

TPH By SW8015 Mod	Blank Sample Result	Spike Added	Blank Spike	Blank Spike	Spike Added	Blank Spike	Blk. Spk Dup.	RPD	Control Limits	Control Limits	Flag
Analytes	₹	[B]	Kesuit [C]	¥ <u>[</u>	<u> </u>	Duplicate Result [F]	[G %	,	X%	%KFD	
C6-C12 Gasoline Range Hydrocarbons	£	1000	1120	112	1000	1110	111	7	70-135	35	
C12-C28 Diesel Range Hydrocarbons	Ð	1000	724	72	1000	774	LL L	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





Project Name: LR Chamberlain Tank Battery

Work Order #: 371873

Analyst: BEV

Lab Batch ID: 805752

Sample: 562796-1-BKS

Date Prepared: 05/07/2010

Batch #: 1

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

Units: mg/kg		BLAN	K/BLANKS	PIKE/E	LANKS	BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY	ICATE 1	RECOVE	RY STUD	Y	
TPH By SW8015 Mod	Blank Sample Result	Spike Added	Blank Spike	Blank Spike	Spike Added	Blank Spike	BIR. Spk Dup.	RPD	Control Limits	Control Limits	Flag
	[<u>A</u>]		Result	%R		Duplicate	%R	%	%R	%RPD	0
Analytes		[<u>B</u>]	<u>[</u>]	Ē	[E]	Result [F]	[6]		1		
C6-C12 Gasoline Range Hydrocarbons	Ð	1000	1050	105	1000	1220	122	15	70-135	35	
C12-C28 Diesel Range Hydrocarbons	QN	1000	813	81	1000	891	68	6	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	MATI	RIX / MA	TRIX SPIKE	RECO	VERY STU	DY
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	MATI	RIX / MA	TRIX SPIKE	RECO	VERY STU	DY
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)/BRelative Percent Difference [E] = 200*(C-A)/(C+B)All Results are based on MDL and Validated for QC Purposes

BRL - Below Reporting Limit

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Form 3 - MS / MSD Recoveries

Project Name: LR Chamberlain Tank Battery

Work Order #: 371873

Lab Batch ID: 805828

Date Analyzed: 05/09/2010

Project ID:

ASA Analyst: QC-Sample ID: 371873-020 S Date Prepared: 05/08/2010

Matrix: Soil Batch #:

Reporting Units: mg/kg		M	MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY	/ MATI	XIX SPIK	E DUPLICA	TE RECO	OVERY S	TUDY		
BTEX by EPA 8021B Analytes	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	Control Limits %RPD	Flag
Benzene	NO ON	0.1213	0.0905	75	0.1208	0.0778	64	15	70-130	35	×
Toluene	QN	0.1213	0.0875	72	0.1208	0.0763	63	14	70-130	35	×
Ethylbenzene	S S	0.1213	0.0884	73	0.1208	0.0780	99	13	71-129	35	×
m,p-Xylenes	Ð	0.2426	0.1700	70	0.2416	0.1521	63	==	70-135	32	×
o-Xylene	QN	0.1213	0.0830	89	0.1208	0.0734	61	12	71-133	32	X

Lab Batch ID: 805963

Date Analyzed: 05/10/2010

QC- Sample ID: 371873-021 S Date Prepared: 05/10/2010

Analyst: ASA Batch #:

Matrix: Soil

Reporting Units: mg/kg		Σ	MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY	[/MAT]	RIX SPIF	KE DUPLICAT	TE REC	OVERY S	STUDY		
BTEX by EPA 8021B Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Spiked Result Sample [C] %R	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Вепхепе	QN.	0.1130	0.0752	19	0.1135	0.0732	64	3	70-130	35	×
Toluene	QN	0.1130	0.0654	58	0.1135	0.0644	57	2	70-130	35	×
Ethylbenzene	Q.	0.1130	0.0765	89	0.1135	8.00.0	09	12	71-129	35	×
m,p-Xylenes	Q.	0.2261	0.1703	75	0.2270	0.1470	99	15	70-135	35	×
o-Xviene	S	0.1130	0.1278	113	0.1135	0.0832	73	42	71-133	35	Ľ

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



Form 3 - MS / MSD Recoveries



Project Name: LR Chamberlain Tank Battery

Work Order #: 371873

Lab Batch ID: 805736

Date Analyzed: 05/08/2010

QC-Sample ID: 371873-020 S Date Prepared: 05/07/2010

Project ID:

Matrix: Soil

_ BEV Batch #: Analyst:

Reporting Units: mg/kg		W	MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY	// MATF	IIX SPII	KE DUPLICA	TE REC	OVERY S	STUDY		
TPH By SW8015 Mod	Parent Sample Result	Spike Added	Spiked Sample Spiked Result Sample [C] %R	Spiked Sample %R	Spike Added	Spike Spiked Sample Added Result [F]	Spiked Dup. %R	RPD %	Control Limits %R	Control Limits %RPD	Flag
Analytes	[A]	<u>B</u>		<u>a</u>	[E]		[6]				
C6-C12 Gasoline Range Hydrocarbons	ON	1210	1430	118	1200	1390	116	3	70-135	35	
C12-C28 Diesel Range Hydrocarbons	ND	1210	1130	93	1200	606	92	22	70-135	35	

Batch #: QC- Sample ID: 371873-034 S Date Analyzed: 05/08/2010 Lab Batch ID: 805752

Date Prepared: 05/07/2010

Matrix: Soil BEV Analyst:

Reporting Units: mg/kg		W	ATRIX SPIKI	E/MAT	RIX SPII	MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY	TE RECO	OVERY !	STUDY		
TPH By SW8015 Mod	Parent Sample	Spike	Spiked Sample Spiked Result Sample	Spiked Sample		Duplicate Spike Spiked Sample	Spiked Dup.	RPD	Control Limits	Control Limits	Flag
Analytes	Kesult [A]	Added [B]	<u>[]</u>	%R [D]		Result [F]		%	%R	%RPD	
C6-C12 Gasoline Range Hydrocarbons	QN.	1170	1160	66	1180	1260	107	8	70-135	35	
C12-C28 Diesel Range Hydrocarbons	CIN	1170	\$68	92	1180	839	71	9	70-135	35	

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

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

Page 37 of 43



Sample Duplicate Recovery



Project Name: LR Chamberlain Tank Battery

Work Order #: 371873

Lab Batch #: 806338

Date Analyzed: 05/12/2010

Project ID:

Date Prepared: 05/12/2010 Analyst: LATCOR

QC- Sample ID: 371873-001 D

Batch #:

Matrix: Soil

Reporting Units: mg/kg	SAMPLE	/ SAMPLE	DUPLIC	ATE REC	OVERY
Anions by E300	Parent Sample Result [A]	Sample Duplicate Result	RPD	Control Limits %RPD	Flag
Analyte		[B]			
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 #:

Matrix: Soil

Reporting Units: mg/kg	SAMPLE	SAMPLE	DUPLIC	ATE REC	OVERY
Anions by E300 Analyte	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: %	SAMPLE /	SAMPLE	DUPLIC	ATE REC	OVERY
Percent Moisture	Parent Sample Result [A]	Duplicate Result	RPD	Control Limits %RPD	Flag
Analyte		[B]			1
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 #:

Matrix: Soil

Reporting Units: %	SAMPLE /	SAMPLE	DUPLIC	ATE REC	OVERY
Percent Moisture	Parent Sample Result [A]	Sample Duplicate Result	RPD	Control Limits %RPD	Flag
Analyte		[B]			
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

YAG 4 TAT bisbrist2 □ NPDES TAT HRUF Schedule) 24, 48, 72 hrs e 7 Project Name: LR Chamberlain Tank Battery 20E 3 × × × × × × × × × × Fax: 432-563-1713 Phone: 432-563-1800 TRRP м.я.о.и CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST PO #: Please bill Basin Consulting BCI Custody seaks on container(s) Sample Hand Delivered by Sampler/Client Rep. ? CL 0241435 Femperature Upon Receipt: BTEX 80218/5039 or BTEX 8260 × × × × × × × × × × VOCs Free of Headspace? Sample Containers Intact? Custody seals on cooler(s) Analyze For Laboratory Comments abels on container(s) Project Loc: Lea County, NM X Standard vetals: Ye yo ge Cq Ct Lp Ha Se SAR / ESP / CEC Project #: Cations (Ca, Mg, Na, K) Report Format: 2001 XT на 9001 XI 1.08 2 80128 MS108 1,814 × × Нал cibryant@basin-consulting.com Soil Soi Soil Soil Soil Sol Sog Sol 200 56.0 STATE DAY BUTTURE SET STATES Other (Specify) BUON Odessa, Texas 79765 12600 West I-20 East OSSAN Preservation & # of Con HOEN *05*H (506) 396-1429 нсі CONH × × **8**3| × × otal #, of Containers benattira blet T'M Fax No: Hail: 0800 0820 0840 0060 0940 108 5 58 1120 1140 Time Sampled ndra 28-Apr-10 Date Sampled Basin Environmental Consulting, LLC Ending Depth 537 1100 **Environmental Lab of Texas** Ē gedjuujud pebty ここ Lovington, NM 88260 N Camille Bryant (575)605-7210 P. O. Box 381 T-1 Sample 1 @ 15' T-1 Sample 1 @ 17 T-1 Sample 1 @ 2' 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 1 @ 7" 271812 FIELD CODE Company Address: Sampler Signature: Project Manager: Company Name Telephone No: City/State/Zip: Special Instructions liriquished by (lab use only) ORDER #: ģ ž 5 3 20 (Vino seu dai) # 8A 0

YAQ 4 TAT brebrist2 □ NPOES SUBT 181, 38, 48, (eluberta2-ang) TAT HRUR Project Name: LR Chamberlain Tank Battery टठह 3 × × × × × × × × × × Phone: 432-563-1800 Fax: 432-563-1713 TRRP M.A.O.M. CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST PO #: Please bill Basin Consutting 뒴 BCI 4 07 9 955 emperature Upon Receipt Labels on container(s) Custody seals on container(Custody seals on cooler(s) × by Sampler/Client Rep. ? BTEX 80218/5030 or BTEX 8260 × × × × × × Sample Containers Intact? VOCs Free of Headspace? Sample Hand Delivered Analyze Project Loc: Lea County, NM X Standard yetale: **Ya Yû Ba** Cq Ct **L**p Hû 2e SAR / ESP / CEC Puious (Cl. SO4, Alkalluity) Project #: Stions (Ca. Mg, Na, K) Report Format: 3.50 TX 1005 :H41 9001_XI E L 80158 MSLOS × Нац × cibryant@basin-consulting.com Matrix <u>8</u> Sofi Soil Soil Soil Soil So So S Soi 56.5 DW=Drinking Water 8L=Sindge Other (Specify) Odessa, Texas 79765 12600 West I-20 East OZSZEN HOPN OS'H (505) 398-1429 ЮН HMO² × × × 831 × 4 Fotal #. of Containers benettiii blei Fax No: 1130 1200 1230 138 1320 1420 0800 0830 1100 Time Sampled 30-Apr-10 30-Apr-10 28-Apr-10 28-Apr-10 28-Apr-10 28-Apr-10 28-Apr-10 28-Apr-10 29-Apr-10 29-Apr-10 Saiwad by: Date Sampled Basin Environmental Consulting, LLC Ending Depth Environmental Lab of Texas ᄪ diqeG prinnige6 Lovington, NM 88260 K Camille Bryant (575)605-7214 P. O. Box 381 T-2 Sample 1 @ 13' T-2 Sample 1 @ 12 T-2 Sample 2 @ 5' T-1 Sample 5 @ 3' T-2 Sample 1 @ 7 T-2 Sample 2 @ 2' T-2 Sample 3 @ 2" T-2 Sample 3 @ 5' T-1 Sample 5 @ 2' T-2 Sample 1 @ 2 FIELD CODE 371873 Company Address: Sampler Signature: Project Manager: Company Name Telephone No: City/State/Zip: Special Instructions dushed by: (lab use only ORDER #: 3 S 2 7 (Vino seu dal) # 8A

× × YAG & TAT brabness □ NPDES AT HEUR (Pre-Schedule) 24, 48, 12 hrs Project Name: LR Chamberiain Tank Battery × × × × × × × × × Phone: 432-563-1800 Fax: 432-563-1713 TRRP A.O.R.M. CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST PO #: Please bill Basin Consulting ВСІ Labels on confabrer(s)
Custody seals on container(s)
Custody seals on cooler(s) by Courier? UPS 4 02 91 95S Temperature Upon Receipt BTEX & STEIGHED or BTEX 8260 × × × × × × × × Sample Containers Intact? VOCs Free of Headspace? by Courter? ___UPS aboratory Comments Sample Hand Delivered Analyze Project Loc: Lea County, NM X Standard Netals: As Ag 88 Cd Cr Pb Hg Se SAR / ESP / CEC Anions (CI, SO4, Alkalinity) Project #: Report Format: 8001 XT 2001 XT :нал 2,00 86108 M2108 Нал × × × × cibryant@basin-consulting.com Soi Sol Soi Soil Sol So Soi 망 Soi ŝ ō 5.6.10 WEDWAINS WENT SLESHOOD Other (Specify) Preservation & # of Container enoN Odessa, Texas 79765 2600 West I-20 East COSSEN HOSN OS^zH (605) 396-1429 нсі FONH 801 × × × × × Total #. of Containers • benetilia blei tak e/mail: Fax No: 80 0920 0940 1000 1100 1200 1220 1300 1330 1400 Time Sampled ndra 29-Apr-10 Date Sampled Basin Environmental Consulting, LLC Ending Depth **Environmental Lab of Texas** Beginning Depth Lovington, NM 88260 K Camille Bryant (575)805-7210 Company Address: P. 0. Box 381 T-4 Sample 1 @ 1.5' T-4 Sample 2 @ 1.5" 371872 T-3 Sample 3 @ 5' T-4 Sample 3 @ 2' T-3 Sample 1 @ 5' T-3 Sample 2 @ 5' T-3 Sample 4 @ 2' T-3 Sample 4 @ 5' T-3 Sample 1 @ 2 T-3 Sample 1 @ 7 FIELD CODE Project Manager: Sampler Signature Company Name Telephone No: City/State/Zip: Special Instructions: amillo. Relinquished by: (lab use only ORDER #: K 3 3 3 2 7 (Ano seu del) # BA

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		Project Name: LR Chamberlain Tank Battery						1	10	ত	E3 OPOUN.	×	×	×	×	-	+-	-+	+	(SIGN)	সভ>-জন	である		
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CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST	Phone: 432-563-1800 Fax: 432-563-1713	<u>E</u>		;	×	PO #: Please bill Basin Consulting				L	Semivolatiles									Laboratory Comments: Sample Containers Infact? VOCs Free of Headspace?	Labels on container(s) Custody seals on container(s) Custody seals on contesting Custody seals on cooler(s) Sample Hand Delivered by Samplent Rep. ?	by Courier, UPS 4 0.2 9(48.5) Température Upon Receipt:		
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		4	/	/ /				2.1.B				<u> </u>	Date Sampled	29-Apr-10	29-Apr-10	29-Apr-10	29-Apr-10						Received by:	Received by ELOT.
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Xa			sulting				Į	H	>		Beginning Depth				\dashv	1	\top		1		Time Time	2017 1017		
1			5					3					一		\dashv	1		1		1	<u> </u>	g		
Il Lab of		Camille Bryant	Basin Environmental Consulting, LLC	, and	. O. Box 381	Lovington, NM 88260	(575)605-7210	J. J.	27012	10	FIELD CODE	ole 3 @ 3'	ole 1 @ 2'	e 1 @ 3.5°	ole 2 @ 2'						S Paris	5 (64)		
Environmental Lab of Texas		Project Manager: C	Company Name B	6	Company Address: P. O. Box 381	City/State/Zip:	Telephone No:	Sampler Signature:			FIELD	. T-4 Sample 3 @ 3'	T-5 Sample 1 @ 2'	. T-5 Sample 1 @ 3.5'	. T-5 Sample 2 @ 2'					Special instructions:	Mary Branch	S Constitution of the Cons		
Env									(lab use only)	ORDER #:	(Mno eau dal) # 8AJ	7	35	33	75					Special in	Relinquished by:	Relinatorshe		

Environmental Lab of Texas

Variance/ Corrective Action Report- Sample Log-In

Sample Receipt	Checklist		Client Initi
Temperature of container/ cooler?	(Yes)	No	4.0 °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	
77 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)?	Yés	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
Contact: Contacted by:	mentation		Date/ Time:
Regarding:			
Corrective Action Taken:		······	
			•

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

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

Certified and approved by numerous States and Agencies.

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

Houston - Dallas - San Antonio - Austin - Tampa - Miami - Atlanta - Corpus Christi - Latin America



Sample Cross Reference 379583



Basin Environmental Consulting, LLC, Lovington, NM

LR Chamberlain Tank Battery

Sample Id	Matrix	Date Collected Sample I	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



Project Location: Lea County, NM Contact: Camille Bryant

Project Id:

Basin Environmental Consulting, LLC, Lovington, NM Certificate of Analysis Summary 379583

Project Name: LR Chamberlain Tank Battery

Date Received in Lab: Wed Jun-30-10 11:44 am

Report Date: 02-JUL-10

Project Manager: Brent Barron, II

	1				in Samuel and a s		
	Lab Id:	379583-001	379583-002	379583-003	379583-004	379583-005	379583-006
Analysis Posmostad	Field Id:	SB-1 @ 5'	SB-1 @ 10'	SB-1 @ 15'	SB-1 @ 20'	SB-1 @ 25'	SB-1 @ 30'
naisanhara sistinut	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	VD 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

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

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

Odessa Laboratory Manager Brent Barron, II

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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.
- 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.
- 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 OC 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
- **POL** Practical Quantitation Limit
- * Outside XENCO's scope of NELAC Accreditation.

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842 Cantwell Lane, Corpus Christi, TX 78408	(361) 884-0371	(361) 884-9116



Project Name: LR Chamberlain Tank Battery

Work Orders: 379583,

Project ID:

Lab Batch #: 812933

Sample: 567101-1-BKS / BKS

Matrix: Solid Batch:

Units: mg/kg Date Analyzed: 06/30/10 15:08	SURROGATE RECOVERY STUDY						
BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags		
Analytes			[D]				
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:

Matrix: Solid

Units: mg/kg Date Analyzed: 06/30/10 15:31	SURROGATE RECOVERY STUDY						
BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags		
Analytes	[24]	,	[D]				
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:

Matrix: Solid

Units: mg/kg Date Analyzed: 06/30/10 16:39	SURROGATE RECOVERY STUDY						
BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags		
Analytes			[D]				
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:

Matrix: Soil

Units: mg/kg Date Analyzed: 06/30/10 17:02	SURROGATE RECOVERY STUDY						
BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags		
Analytes			[D]				
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	SU	RROGATE RI	ECOVERY S	STUDY	
BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
Analytes			[D]		'
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

Surrogate Recovery [D] = 100 * A / B

^{**} Surrogates outside limits; data and surrogates confirmed by reanalysis

^{***} Poor recoveries due to dilution



Project Name: LR Chamberlain Tank Battery

Work Orders: 379583,

Project ID:

Lab Batch #: 812933

Sample: 379583-001 SD / MSD

Matrix: Soil Batch:

Units: mg/kg Date Analyzed: 06/30/10 17:46	SURROGATE RECOVERY STUDY						
BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags		
Analytes			[D]				
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:

Matrix: Soil

Units: mg/kg Date Analyzed: 06/30/10 18:31	Su	SURROGATE RECOVERY STUDY						
BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags			
Analytes			[D]					
1,4-Diffuorobenzene	0.0260	0.0300	87	80-120				
4-Bromofluorobenzene	0.0318	0.0300	106	80-120				

Lab Batch #: 812933

Sample: 379583-003 / SMP

Matrix: Soil Batch: 1

Units: mg/kg Date Analyzed: 06/30/10 18:53 SURROGATE RECOVERY STUDY					
BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
Analytes			[D]		
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:

Matrix: Soil

Units: mg/kg Date Analyzed: 06/30/10 19:16 SURROGATE RECOVERY STUDY					
BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
Analytes			[D]		
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	SURROGATE RECOVERY STUDY					
ВТЕ	X by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags	
1,4-Difluorobenzene	Analytes	0.0257	0.0300	86	80-120	<u> </u>	
4-Bromofluorobenzene		0.0306	0.0300	102	80-120		

^{*} Surrogate outside of Laboratory QC limits

Surrogate Recovery [D] = 100 * A / B

^{**} Surrogates outside limits; data and surrogates confirmed by reanalysis

^{***} Poor recoveries due to dilution



Project Name: LR Chamberlain Tank Battery

Work Orders: 379583,

Project ID:

Lab Batch #: 812933

Sample: 379583-006 / SMP

Batch:

Matrix: Soil

Units: mg/kg Date Analyzed: 06/30/10 20:01 SURROGATE RECOVERY STU					
BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
Analytes			[D]		
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:

Matrix: Solid

Units: mg/kg Date Analyzed: 06/30/10 17:49 SURROGATE RECOVERY STUDY						
TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags	
Analytes		,,	[D]			
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:

Matrix: Solid

Units: mg/kg	Date Analyzed: 06/30/10 18:19	SURROGATE RECOVERY STUDY					
ТРН	By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags	
	Analytes			[D]			
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	/30/10 18:49 SURROGATE RECOVERY STUDY						
TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags		
Analytes	, .		[D]		i		
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	SURROGATE RECOVERY STUDY					
TPH By SW8015 Mod Analytes	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

Surrogate Recovery [D] = 100 * A / B

^{**} Surrogates outside limits; data and surrogates confirmed by reanalysis

^{***} Poor recoveries due to dilution



Project Name: LR Chamberlain Tank Battery

Project ID:

Work Orders: 379583,

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

Units: mg/kg Date Analyzed: 06/30/10 19:48 SURROGATE RECOVERY STUDY						
ТРН	By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
	Analytes			[D]		
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 SURROGATE RECOVERY STUDY						
TPH By SW8015 Mod Analytes	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	SURROGATE RECOVERY STUDY					
TPH By SW8015 Mod Analytes	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		

Units: mg/kg	Date Analyzed: 06/30/10 21:17	SURROGATE RECOVERY STUDY					
	By SW8015 Mod Analytes	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	SU	RROGATE R	ECOVERY	STUDY	
TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
· · · · · · · · · · · · · · · · · · ·			L '-'		
1-Chlorooctane	93.6	99.5	94	70-135	
o-Terphenyl	53.4	49.8	107	70-135	

^{*} Surrogate outside of Laboratory QC limits

Surrogate Recovery [D] = 100 * A / B

^{**} Surrogates outside limits; data and surrogates confirmed by reanalysis

^{***} Poor recoveries due to dilution



Project Name: LR Chamberlain Tank Battery

Work Orders: 379583,

Lab Batch #: 813037

Sample: 379583-002 S / MS

Project ID:

Matrix: Soil Batch:

Units: mg/kg Date Analyzed: 07/01/10 13:40	SU	RROGATE R	ECOVERY :	STUDY	
TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
Analytes			[D]		
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	SU	RROGATE R	RECOVERY	STUDY	
ТРН	By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
	Analytes			[D]		
1-Chlorooctane		112	100	112	70-135	
o-Terphenyl		53.4	50.2	106	70-135	

Surrogate Recovery [D] = 100 * A / B

^{*} Surrogate outside of Laboratory QC limits

^{**} Surrogates outside limits; data and surrogates confirmed by reanalysis

^{***} Poor recoveries due to dilution





Project Name: LR Chamberlain Tank Battery

Work Order #: 379583

Analyst: ASA

Lab Batch ID: 812933

Date Prepared: 06/30/2010

Date Analyzed: 06/30/2010 Project ID:

Matrix: Solid

Batch #: 1 Sample: 567101-1-BKS

Flag Limits %RPD 35 35 35 35 35 BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY Control Limits %R 70-130 70-130 71-129 71-133 70-135 RPD % Blk. Spk Dup. %R [G] 115 106 113 Ξ 111 Duplicate Result [F] 0.1150 Blank Spike 0.1058 0.1113 0.2253 0.1108 Spike Added Ξ 0.1 -0 0.1 0.2 0.1 Blank Spilke %R [D] 110 105 107 104 0.1054 0.2136 0.1042 0.1096 0.1006 Spike Result [C] 0.1000 0.1000 0.1000 0.2000 Spike Added 0.1000 $\overline{\mathbf{B}}$ Sample Result Blank Ā B Ð ND Ð 9 BTEX by EPA 8021B Units: mg/kg Analytes Ethylbenzene m,p-Xylenes o-Xylene Benzene Toluene

Analyst: LATCOR Lab Batch ID: 812925

Sample: 812925-1-BKS

Date Prepared: 06/30/2010 Batch #: 1

Matrix: Solid

Date Analyzed: 06/30/2010

Flag Control Limits %RPD 2 BLANK/BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY Control Limits %R 75-125 RPD % 0 Blk. Spk Dup. %R [G] 103 Blank Spike Duplicate Result [F] 11.3 Spike Added Ξ Ξ Blank Spike %R [D] 103 Blank Spike Result [C] 11.3 Spike Added 11.0 <u>B</u> Blank Sample Result [A] 8 Anions by E300 Units: mg/kg Analytes Chloride

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

Final 1.000





Project Name: LR Chamberlain Tank Battery

Work Order #: 379583

Analyst: BEV Lab Batch ID: 813037

Sample: 567144-1-BKS

Date Prepared: 06/30/2010

Batch #: 1

Project ID: Date Analyzed: 06/30/2010

ite Analyzed: 06/30/. Matrix: Solid

Units: mg/kg		BLAN	K/BLANKS	PIKE / B	LANKS	BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY	ICATE I	RECOVE	RY STUD	Y	
TPH By SW8015 Mod	Blank Somple Result	Spike	Blank	Blank	Spike	Blank	Blk. Spk	l	Control Limits	Control Limits	Flag
	[A]		Result	%R	nanny	Duplicate	%R	%	%R	%RPD	
Analytes		<u>e</u>	[2]	[0]	<u>a</u>	Result [F]	[5]				
C6-C12 Gasoline Range Hydrocarbons	Ð	666	1200	120	966	666	100	18	70-135	35	
C12-C28 Diesel Range Hydrocarbons	QN	666	828	98	966	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

Final 1.000



Form 3 - MS Recoveries

Project Name: LR Chamberlain Tank Battery



Work Order #: 379583

Lab Batch #: 812925

Date Analyzed: 06/30/2010 **QC- Sample ID:** 379564-001 S

Project ID:

Date Prepared: 06/30/2010

Analyst: LATCOR

Batch #: 1

Matrix: Soil

Reporting Units: mg/kg	MATI	RIX / MA	TRIX SPIKE	RECO	VERY STU	DY
Inorganic Anions by EPA 300 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)/BRelative 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

Lab Batch ID: 812933

Date Analyzed: 06/30/2010

Project ID:

Matrix: Soil ---Batch #:

QC-Sample ID: 379583-001 S

Date Prepared: 06/30/2010

Analyst: ASA

Reporting Units: mg/kg		M	MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY	/MATI	SIX SPIF	Œ DUPLICAT	TE RECO	VERY S	TUDY		
BTEX by EPA 8021B	Parent Sample	Spike	Spiked Sample Result	Spiked Sample	Spike	Duplicate Spiked Sample	Spiked Dup.	RPD	Control Limits	Control Limits	Flag
Analytes	Result [A]	Added [B]	[2]	%R [0]	Added [E]	Result [F]	%R [G]	%	%R	%RPD	
Benzene	Ð.	0.1150	0.0468	41	0.1145	0.0588	51	23	70-130	35	Х
Toluene	ND	0.1150	0.0382	33	0.1145	0.0440	38	14	70-130	35	Х
Ethylbenzene	QN	0.1150	0.0325	28	0.1145	0.0335	29	3	71-129	35	Х
m,p-Xylenes	ON	0.2300	0990'0	59	0.2291	0.0670	29	2	70-135	35	Х
o-Xylene	ND	0.1150	0.0299	26	0.1145	0.0304	27	2	71-133	35	Х

Date Analyzed: 07/01/2010 Lab Batch ID: 813037

QC- Sample ID: 379583-002 S

Matrix: Soil Analyst: BEV Batch #:

Date Prepared: 06/30/2010

Reporting Units: mg/kg		M	MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY	/ MAT	RIX SPII	KE DUPLICAT	re reco	VERY S	TUDY		
TPH By SW8015 Mod	Parent Sample		Spiked Sample Result	Spiked Sample	Spike	Duplicate Spiked Sample	Spiked Dup.	RPD	Control Limits	Control Limits	Flag
Analytes	Result [A]	Added [B]	[C] %R Added Res [D] [E]	%R [D]	Added [E]	Result [F]	%R [G]	%	%R	%RPD	
C6-C12 Gasoline Range Hydrocarbons	QN	1130	1130	100	1130	1120	66	-	70-135	35	
C12-C28 Diesel Range Hydrocarbons	QN	1130	1040	92	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)

 $ND = Not \ Detected, \ J = Present \ Below \ Reporting \ Limit, \ B = Present in Blank, \ NR = Not \ Requested, \ I = Interference, \ NA = Not \ Applicable N = See \ Narrative, \ EQL = Estimated \ Quantitation \ Limit$

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

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Sample Duplicate Recovery



Project Name: LR Chamberlain Tank Battery

Work Order #: 379583

Lab Batch #: 812925

Date Analyzed: 06/30/2010

Date Prepared: 06/30/2010

Project ID:

Analyst: LATCOR

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

Reporting Units: mg/kg

SAMPLE	/ SAMPLE	DUPLIC	ATE REC	OVERY
Parent Sample Result	Sample Duplicate	RPD	Control Limits	Flag

Anions by E300 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

Percent Moisture

Analyte

Batch #:

Matrix: Soil

Reporting	Units:	%
Kepoi uns	e Omits.	/ U

Percent Moisture

SAMPLE	SAMPLE	DUPLIC	ATE REC	OVERY
Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
13.5	13.5	0	20	

Environmental Lab of Texas

Basin Environmental Consulting, LLC

Camille Bryant

Project Manager:

Company Name

Lovington, NM 88260

City/State/Zip:

P. O. Box 381

Company Address:

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

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

Project Name: LR Chamberlain Tank Battery

O NPDES

TRRP

X Standard

Report Format:

PO#: Please bill Basin Consulting

Project Loc: Lea County, NM

YAG 4 TAT basbasi8 ELISH TAT (Pre-Bichedule) 24, 48, 72 hus × × M.S.O.N BTTEX 8021B/5030 & BTEX 8260 × × × × stale: As Ag Ba Cd Cr Pb Hg Se TCLP Salions (Ca, Mg, Na, K) 9001 XT 1X 1002 ひかに (8015M) cjbryant@basin-consulting.com So Soi Soi 80 E ŝ 633.K DW-DHING Water SL-Sludg Other (Specify) COZSZBN HOPN *Q\$[®]H (505) 396-1429 ЮН HMO 901 × × otal # of Containers benetliii bled Fax No: e-mail: 946 **100** 500 0060 0920 1020 belgma2 emiT 29-Jun-10 29-Jun-10 29-Jun-10 29-Jun-10 29-Jun-10 29-Jun-10 Date Sampled 0.30 Ending Depth Beginning Dapth ロイス・ジ Const 000 (515)605-7210 319583 SB-1 @ 15' SB-1 @ 20' SB-1 @ 25 SB-1 @ 30' FIELD CODE SB-1 @ 10' SB-1@5 Sampler Signature Telephone No: pecial Instructions tab use only ORDER #: 2 3 (Vino eau dai) # BA. ō



Basin Env.

XENCO Laboratories

Atlanta, Boca Raton, Corpus Christi, Dallas Houston, Miami, Odessa, Philadelphia Phoenix, San Antonio, Tampa Document Title: Sample Receipt Checklist

Document No.: SYS-SRC

Revision/Date: No. 01, 5/27/2010

Effective Date: 6/1/2010 Page 1 of 1

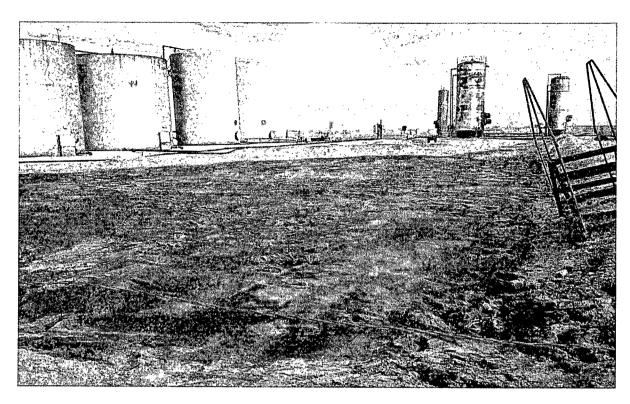
Prelogin / Nonconformance Report - Sample Log-In

Date/Time: 6.3		:44					
Lab ID#:	37 <i>958</i> 3)					
Initials:	M						
		S	Sample Receipt Che	cklist			
Sample Receipt Checklist Samples on ice? Biue Water No							
ab ID #: 379583 initials: Sample Receipt C Samples on ice? Shipping container in good condition? Custody seals intact on shipping container (cooler) and bottles? Chain of Custody present? Sample Instructions complete on chain of custody? Any missing / extra samples? Chain of custody signed when relinquished / received? Chain of custody agrees with sample label(s)? Container labels legible and intact? Sample matrix / properties agree with chain of custody? Samples in proper container / bottle? Samples properly preserved? Samples properly preserved? Sample container intact? Samples received within sufficient hold time? Subcontract of sample(s)? VOC sample have zero head space? Cooler 1 No. Cooler 2 No. Cooler 3 No. Ibs 7 0°C Ibs °C Ibs °C Ibs Contacted by: Corrective Action Taken:				(Yes)	No	None	
3. Custody seals intact o	n shipping contai	ner (c	ooler) and bottles	Yes	No	N/A	
4. Chain of Custody pres	ent?			Yes	No		
5. Sample instructions c	omplete on chain	of cus	tody?	Yes	No		
6. Any missing / extra sa	mples?			Yes	No		
7. Chain of custody sign	ed when retinquis	hed / ı	received?	Yes	No		
8. Chain of custody agre	es with sample la	bel(s)?	?	Yes	No		,
9. Container labels legib	le and intact?			Yes	No		
10. Sample matrix / prop	erties agree with	:hain d	of custody?	Yes	No		
11. Samples in proper co	ntainer / bottle?			Yes	No		
12. Samples properly pre	eserved?			Yes	No	N/A	
13. Sample container int	act?			Yes	No		
14. Sufficient sample am	ount for indicated	test(s	s)?	Yes	No		
15. All samples received	within sufficient	hold ti	me?	Yes	No		
3. Sample container intact? 4. Sufficient sample amount for indicated test(s)? 5. All samples received within sufficient hold time?				Yes	No	N/A)	
3. Sample container intact? 4. Sufficient sample amount for indicated test(s)? 5. All samples received within sufficient hold time? 6. Subcontract of sample(s)?				Yes	No	N/A	
Any missing / extra samples? Chain of custody signed when relinquished / received? Chain of custody agrees with sample label(s)? Container labels legible and intact? Container labels la			Cooler 3 No.	Cooler 4 No).	Cooler 5 No.	_
ibs Z.6°c	ibs	°C	ibs	°C lbs	°C	lbs	°C
		None	conformance Docu	mentation			-
5			•		Doto/Times		
Contact	Conta	cwa p	y:		Date/I file:_		
Regarding:							
-					,		
Corrective Action Taken	:						
Check all that apply:					ut of temper	ature	
	condition a	ccept	able by NELAC 5.5.8.3.1.	a.1.			

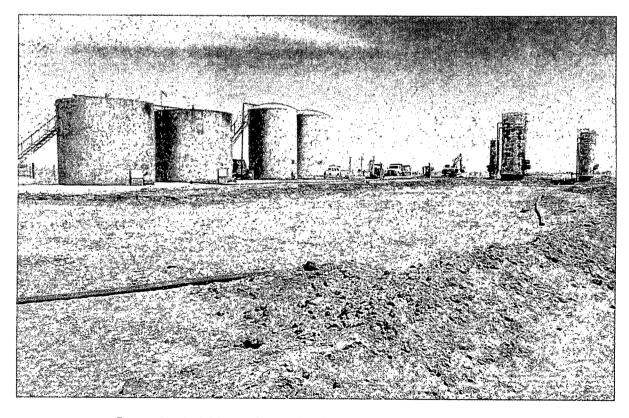
☐ Initial and Backup Temperature confirm out of temperature conditions

☐ Client understands and would like to proceed with analysis

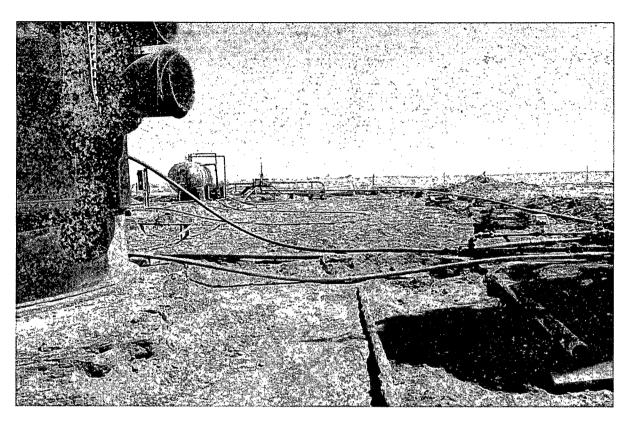
Appendix C Photographs



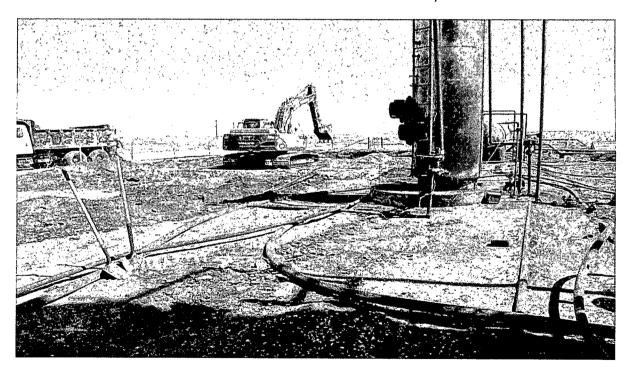
Initial Release at the LR Chamberlain Tank Battery



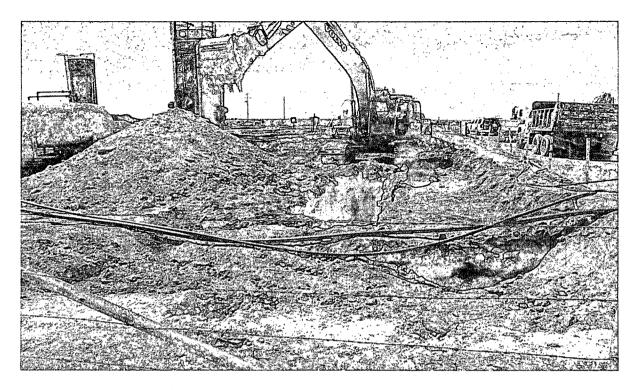
Excavation Activities at the LR Chamberlain Tank Battery Release Site



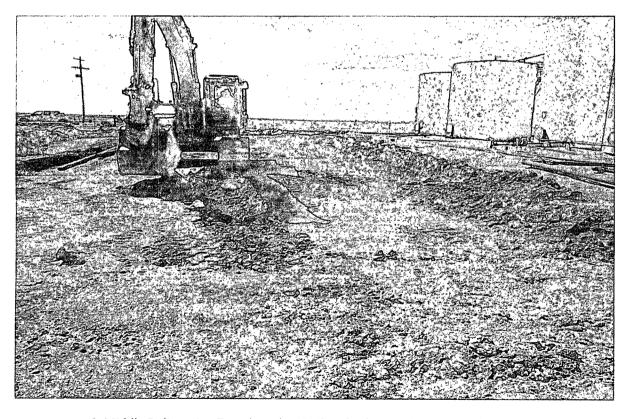
Excavation Activities at the LR Chamberlain Tank Battery Release Site



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



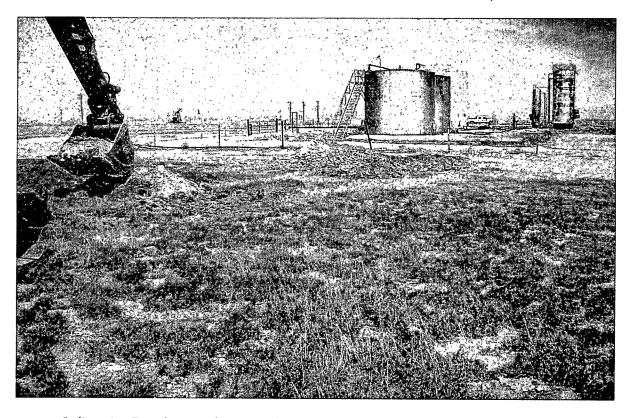
NE Corner Delineation Trench at the LR Chamberlain Tank Battery Release Site



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)

<u>Histrict I</u> 625 N. French Dr., Hobbs, NM 88240 <u>listict II</u> 307 W. Cored Avenue, Arbeits, NM 86210 <u> District II.</u> 000 Rio Brazos Road, Aztec, NM 87410 District IV 220 S. St. Fraucis Dr., Santa Fc, 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

						OPE	RATOR		V I	itial Report	Final Repor		
Name of C	ompany	Legacy Res	7		Contact Kevin Bracky					Approximate Papers . Man Approximate contribution and Principles with princip			
Address I	P. O. Box	0848, Midle	ıs 79702		Telephone No. 432-238-2856								
Facility Na	me LR ('harobertsir	2 Tank E	cattery			er Tank Batters		- Alberta Control				
Surface Owner Darr Angell Mineral Owner						Property of the state of the st			Lease No.				
				LOCA	ATTO	n of re	I.P.AST.						
Unit Louer C	Inicilater Section Township Range Feet from the I			Francisco manual	Verth/South Line Feet from the		East/West Line		County Lea				
and the second second of the second second second		of an agreement of the state of	Leffe	ide 33° 01 <u>20.3°</u>	North	ali - programa de la compansión de la compansión de la falla de la compansión de la falla de la compansión de l Compansión de la compansión de la compansión de la falla de la compansión de la falla de la compansión de la c	Longitude 10	3° 10	16.6" West	-	· · · · · · · · · · · · · · · · · · ·		
				NAT	'UKE	OF REL	EASE						
Type of Release Produced Water and crude oil						Volume of Release 680 bbls			Volume Recovered 600 bils				
Source of Relaise Tank						Date and Hour of Occurrence 1/6/2010 @ 0000			Date and Hour of Discovery 1/6/2010 @ 1000				
Was Immediate Notice Given? X Yes No Not Required					The state of the s	If YES, To Whom? Geoff Leking							
By Whom? Camilie Bryant						Date and Hour 1/7/2010 @ 1344							
Was a Watercourse Reached? ☐ Yes 🖾 No						If YES, Volume Impacing the Watercourse.							
II a Watawoi	met was lin	paoted, Descri	ibe Fully.	The second secon			erentakan perkembahan dan dan sebagai		and and addition of the second	and the control of th	ne på de mere a mela transminge op dyspopelynere med de la dyne men et e		
Describe Car	rse of Probl	on and Rone	dial Actio	n Taken: The trai IOCD guidelines.	isfer lin	e on a 500 ba	inel tank became	obstru	cted resultin	g in a release of	produced water		
Tracribe Are	o Anvoir w	nd Cleanno A	kestent Tal	ia Releasion	actival una	menunicuminin'i	7,000 square feet	ร์ทายโรโด	the test hat	Server	and the state of t		
I hereby cert	ify that the	information s	riven abov	e is true and con	uniere n	n the best of	my knowledge at	st und	erstand first	pursuant to NAG	(MTI miles and		
regulations a	ll operators	are remited	to report	and/or file certain	i releas	e notification	s and perform con	medily	e actions for	releases, which	i may axianyer		
public health	or the cavi	rouneal Th	e acceptar	100 of a C-141 no	port by	the NMOCD	marked as "Fine	i Repo	rt" does not	relieve the oper	rator of liability		
should their a	operations b	ave failed to	adequately	y investigate and .	remedia	ite contamina	tion that mose a th	reat to	ground wal	er, surface water	r, human health		
or the enviro	mment in	additical, NM vs and/or rega	OCD ace	epiance of a C-3-	41 repo	ri does vot n	dieve the operato	r of se	sponsibility	for compliance	with any other		
Acceptant Brain,	, are targined and the	AD RIBEROL IVE	334334335.		1			799	7ATION	DIVISION	And a series of the series of		
Simmoure: Karvin Brace						EV. ENGINEER							
						Approved by Bistrict-Supervisor.							
Frinted Name: Kevin Bracey						Justiff Lear Brest .							
Title: Production Foreman						Approval Dat	<u> </u>)	Expiration I	2ate:03[1/[1]			
E-mail Address: Ebracey@legacyip.com						Conditions of Approval: DELINERS TO CLERGET, SUBMER FINAL BY							
Date: 1/7/2010 Phone: 432-238-2856							- marked LIVIPAC	122		18P-10-0	1.2390		

RECENTED

JMIN 1 1 1 1 1 1 子といいないとと

District I 1625 N. French Dr., Hobbs, NM 88240 Edwick II 1301 W. Grand Avenue, Actasia, NM 88210 District III 1000 Rio Brazos Road, Aztea, NM 87410 District IV 1220 S. St. Francis Da., 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-14 Revised Catober 19, 200

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

Release Notification and Corrective Action

	OPERATO	⊠ ħ	atitial Report	Final Repo								
Name of Company Legacy Reserves, LP	Contact Kevin B	and the second designation of the second										
Address P.O. Box 10848, Midland, Texas 79702	Telephone No. 432-238-2856											
Facility Name LR Chamberlain Tank Battery Sec. 14	Facility Type Tauk Battery											
			and the same of the control of the same of	annangad anda arang di Albanian pengapanan ang di Arang di Arang di Arang di Arang di Arang di Arang di Arang Pengapan Pengapan di Arang di	et maner for distance, a sono different relative company and the trade for distance and the same for each 7 th, bit is a sonot substitute of the same property to the same property of the same proper							
Surface Owner Darr Angell Mineral Owne	Lease No.											
LOCATION OF RELEASE												
	th/South Line Fest i	from the	East/West Line	County								
C 14 15S 37E	And the second s		Lea									
The state of the s		(1	and the second of the second s							
Latitude 33° 61 20.3" North Longitude 103° 10 16.6" West												
NATURE OF RELEASE												
Type of Release Froduced Water	Volume of Release 80 bbis Volume			Recovered All hit	ls							
Source of Rolesse Transfer pump	Date and Hour of	: Date and	Date and Hour of Discovery									
	5/1/10 @ 0800 5/1/10 @ 0830				na marante distancia da mallo de l'escape de la 1999 de agrici V de l'accepti d'els de l'accepti d'els de l'acc							
Was Immediate Notice Given? X Yes No Not Required	H YES, To Whole?											
	Good? Leking											
By Whom? Camille Bryant	Date and Hour 5/6/10 @ 6900											
Was a Watercourse Resched? Yes No	If YES. Volume impacting the Watercourse,											
	r de vijnegge											
If a Watercourse was Impacted, Describe Fully.*		mangaring, manging again, mangarin, 1950°	er falle fil e sallen 2 er film i <u>Er i e</u> r en independent pangenya san estigenar.	hard ay fatang saggleden may de arme en e tre armed to	to the same of the							
Describe Cause of Problem and Remedial Action Taken: Equipment	ailure of a 3:1 swedge	on discha	rge side of transfe	a pump resulted	in a release of							
produced water. The site will be remediated to NACOCO 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 NMCCD 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 h	v the NMOCD marks	á as "Final	Report ^a does not	: relieve the men	der et Babilie							
should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human houlds												
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											
Signature: Whin Draveur	ENV ENOUNGERING;											
supracue. 1 passon I dance	Approved by Bistrict Supervisor											
Printed Name: Kevin Stacey	A CONTRACTOR OF THE PROPERTY O											
The Sea State Washington	A many many of Transport	i i		· · · · · · · · · · · · · · · · · · ·	t A							
Title: Production Foremen	Approval Date: 05	101.0	Lapuschell	7me: -07/19/	And the statement of th							
E-mail Address: kbracey@legacylp.com	Conditions of Appro-	val:										
The second secon	m managements may a shifter or,	- 1003		un, approprie								
Date: 5/7/10 Phone: 432-258-2856		- Long the W. Marchen, agency.		1Kt-10.5.	<u> </u>							

2213

