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### AMENDED REMEDIATION SUMMARY

#### AND

#### RISK-BASED SITE CLOSURE PROPOSAL

GP II Energy, Inc. (8359)
Federal Littlefield "BO" Tank Battery
Eddy County, New Mexico
UNIT "A" (NE/NE), Section 34, Township 26 South, Range 29 East
Latitude 32° 00' 12.10" North, Longitude 103° 57' 59.06" West

Prepared For:

GP II Energy, Inc. P.O. Box 50682 Midland, Texas 79710

Prepared By:
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June 2010

JOGE LOWRY

Joel W. Lowry

Project Manager

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NMOCD ARTESIA

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#### INTRODUCTION AND BACKGROUND INFORMATION

Basin Environmental Consulting, LLC (Basin), on behalf of GP II Energy, Inc. (GP II), has prepared this Amended Remediation Summary and Risk-Based Site Closure Proposal for the release site known as Federal Littlefield "BO" Tank Battery. The legal description of the release site is Unit Letter "A" (NE ¼ NE ¼), Section 34, Township 26 South, Range 29 East, in Eddy County, New Mexico. The property affected by the release is owned by the United States Bureau of Land Management (BLM). The release site GPS coordinates are 32° 00' 12.10" North and 103° 57' 59.06" West. Please reference Figure 1 for a Site Location Map and Figure 2 for a Site and Sample Location Map. Photographs are provided as Appendix A. The Release Notification and Corrective Action (Form C-141) is provided as Appendix E.

Prior to December 11, 2009, the BLM notified GP II of a release at the Federal Littlefield "BO" Tank Battery. The BLM indicated the release was reported by a New Mexico Oil Conservation Division (NMOCD) inspector. The release occurred following the "workover" of the Federal "BO" #6 well, which resulted in a production surge at a storage tank and the subsequent overflow of the storage tank at the Littlefield "BO" Federal #2 Tank Battery. The release affected areas within the bermed secondary containment, ultimately compromising the containment wall and flowing along the north and/or south margins of a caliche road known as State Line Road. The road is located on property owned and administered by the BLM. Flowing generally west, the release continued along a "two-track" road in a pipeline right-of-way. On December 11, 2009, GP II submitted a Form C-141 to the NMOCD – Artesia District Office, indicating approximately ninety-two (92) barrels of produced oil was released, with approximately twenty (20) barrels recovered during the initial response activities, resulting in a net loss of approximately seventy-two (72) barrels of produced oil.

The release site was arbitrarily separated into two (2) areas, the area along and adjacent to State Line Road is designated "Road" with regard to soil sampling protocol and the area along the pipeline right-of-way has been designated "ROW".

An area of disturbed soil is located south of soil sample ROW F-1; this disturbed area is characterized by soils of a different color and texture from the native soils surrounding this area. The area is devoid of vegetation and aerial photographs confirm the absence of vegetation prior to January 26, 1996. This area of disturbed soil may be associated with two (2) large diameter gas pipelines which run parallel in an east to west direction, approximately fifty (50) feet south of the State Line Road. This area of disturbed soil does not appear to be associated with assets owned and operated by GP II Energy. The absence of vegetation in this area may indicate an undocumented release. Aerial Photographs are provided as Appendix B.

Naturally occurring chlorides, exceeding the NMOCD guidelines are documented in the general area of the release.

#### NMOCD SITE CLASSIFICATION

According to data obtained from the New Mexico Office of the State Engineer (NMOSE), no water wells are recorded in Section 34 of the above referenced township. The NMOSE data indicates the nearest water well was recorded approximately one mile to the northeast of the release. The data indicates water in this well was encountered at approximately eighty-five (85) feet below ground surface (bgs). According to a depth to groundwater reference map utilized by the NMOCD, groundwater should

be encountered at less than one hundred (100) feet bgs. This depth to groundwater results in a score of ten (10) 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.

The bank of the Pecos River is located less than one-thousand (1,000) feet from the most western extent of the release. Based on the NMOCD ranking system ten (10) points will be assigned to the site as a result of the criteria.

The Guidelines for Remediation of Leaks, Spills and Releases (NMOCD, 1993) indicates the Federal Littlefield "BO" Tank Battery release site has a 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)

NMOCD chloride cleanup levels are site specific and are generally set at 250 mg/Kg or demonstrated background levels.

#### **SUMMARY OF FIELD ACTIVITIES**

Following the discovery of the release, crude oil saturated soil was removed from the release flow paths, stockpiled on-site and transported off-site.

On January 5, 2010, a backhoe was utilized to begin vertical delineation of the release site. Soil samples were collected at selected intervals and submitted to the laboratory for determination of benzene, toluene, ethylbenzene and xylene (BTEX) using EPA Method 8021b, total petroleum hydrocarbons (TPH) using Method SW846-8015M, and chloride using EPA Method 300.0. Along the western flowpath twelve (12) soil samples (SP-1 through SP-9, SP-5A, SP-6A and SP-8A) were collected from the north and/or south margins of State Line Road. The analytical results indicated benzene concentrations were less than the appropriate laboratory method detection limit (MDL) in all twelve soil samples. BTEX concentrations ranged from less than the appropriate laboratory MDL in soil samples SP-2, SP-4, SP-5A, SP-7, SP-8, SP-8A, and SP-9 to 0.1375 mg/Kg in soil sample SP-5. TPH concentrations ranged from 137 mg/Kg in soil sample SP-2 to 1,249 mg/Kg in soil sample SP-6. Chloride concentrations ranged from 15.5 mg/Kg in soil sample SP-9 to 2,280 mg/Kg in soil sample SP-5. A summary of Concentrations of BTEX, TPH and Chloride in Soil is provided as Table 1. Laboratory analytical reports are provided as Appendix C.

Following the collection of soil samples along State Line Road, nine (9) soil samples (SP-10 through SP-16, SP-10A, and SP-12A) were collected along the "two-track" flowpath. Soil sample SP-16 was collected approximately forty (40) feet west of the most western extent of impact and will be used as a background sample. The analytical results indicated benzene concentrations were less than the appropriate laboratory MDL in all nine soil samples. BTEX concentrations ranged from less than the appropriate laboratory MDL in soil samples SP-11, SP-15 and SP-16 to 0.0619 mg/Kg in soil sample SP-10. TPH concentrations ranged from less than the laboratory MDL of 16.0 mg/Kg in soil sample SP-

16 to 944 mg/Kg in soil sample SP-12. Chloride concentrations ranged from 79 mg/Kg in soil sample SP-13 to 1,300 mg/Kg in soil sample SP-10.

Following the collection of soil samples along the "two-track" road, two (2) soil samples (SP-17 and SP-18) were collected along a southern release flowpath off of State Line Road. The analytical results indicated benzene concentrations were less than the appropriate laboratory MDL in both soil samples. BTEX concentrations were 0.1603 mg/Kg and 0.0044 mg/Kg for soil samples SP-17 and SP-18, respectively. TPH concentrations were 136.5 mg/Kg and 103.1 mg/Kg for soil samples SP-17 and SP-18, respectively. Chloride concentrations were 70.5 mg/Kg and 607 mg/Kg for soil samples SP-17 and SP-18, respectively.

Soil samples SP-19 and SP-19A were collected outside of the secondary containment berm, north of the storage tanks. The analytical results indicated benzene concentrations were less than the laboratory MDL in soil sample SP-19A and 0.2386 mg/Kg in soil sample SP-19. BTEX concentrations were 7.53 mg/Kg and 0.006 mg/Kg for soil samples SP-19 and SP-19A, respectively. TPH concentrations were 1,474 mg/Kg and 18.3 mg/Kg for soil samples SP-19 and SP-19A, respectively. Chloride concentrations were 131 mg/Kg and less than the laboratory MDL of 17.7 mg/Kg for soil samples SP-19 and SP-19A, respectively.

Soil sample SP-20 was collected from the southeast side of the tank battery pad, in an area utilized for stockpiling impacted soil. The analytical results indicated the benzene, BTEX, TPH and chloride concentrations were less than the appropriate laboratory MDL.

Soil sample SP-21 was collected from a depression located northeast of the tank battery pad in an area utilized for stockpiling impacted soil. The analytical results indicated the benzene and BTEX concentrations were 0.0013 mg/Kg, the TPH concentration was 385 mg/Kg and chloride concentration was 650 mg/Kg.

In February 2010, a *Remediation Summary and Site Closure Proposal* was submitted to and approved by the NMOCD Artesia District Office and the BLM Carlsbad District Office.

On March 15 through March 26, 2010, excavation activities were conducted at the Federal Littlefield BO Tank Battery release site. A trench, approximately two (2) to 10 (ten) feet wide was excavated along the margins of State Line Road. The trench varied from approximately one and one half (1.5) feet in depth to sixteen (16) feet in depth. Soil excavated from the trench along State Line Road was stockpiled on a poly liner to mitigate the leaching of contaminants into the unaffected soil beneath, prior to transporting the impacted soil to Lea Land, LLC (NMOCD Permit # WM-01-035) for disposal. Soil excavated from the Right-of-Way (ROW) area measured approximately eight (8) to ten (10) feet in width and one and one half (1.5) feet in depth to eleven (11) feet in depth. Soil excavated from the "ROW" area was segregated and stockpiled in an alternate location pending final disposition. Excavated areas along State Line Road were backfilled following the collection of soil samples as a safety precaution.

On March 17, 2010, six (6) excavation floor soil samples (Road F-1, Road F-2, Road F-3, Road F-4, Road F-5 and Road F-6) were collected from the "Road" area and submitted to the laboratory. The soil samples analyzed for concentrations of TPH, Chloride and BTEX in select soil samples. The analytical results indicated TPH concentrations were less than the laboratory MDL in all soil samples, with the exception of soil sample Road F-2, which exhibited a TPH concentration of 144.2 mg/Kg. BTEX

analysis was completed in three (3) of the six (6) submitted soil samples. Benzene and BTEX concentrations were less than the appropriate laboratory MDL in each of the four (4) submitted soil samples. Chloride concentrations ranged from 191 mg/Kg in soil sample Road F-2 to 1,630 mg/Kg in Soil Sample Road F-5.

On March 17, 2010, six (6) excavation sidewall soil samples (Road SSW-1, Road NSW-2, Road SSW-3, Road NSW-4, Road SSW-5 and Road NSW-6) were collected from the "Road" area and submitted to the laboratory. The soil samples analyzed for concentrations of TPH, Chloride and BTEX in select soil samples. The analytical results indicated TPH concentrations were less than the laboratory MDL in all soil samples. BTEX analysis was completed in two (2) of the six (6) submitted soil samples. Benzene and BTEX concentrations were less than the appropriate laboratory MDL in each of the two (2) submitted soil samples. Chloride concentrations ranged from 202 mg/Kg in soil sample Road NSW-4 to 2,870 mg/Kg in Soil Sample Road NSW-2. Based on the analytical results, additional excavation was warranted in the area represented by soil samples Road F-2 and Road NSW-2.

On March 17, 2010, twelve (12) excavation floor soil samples (ROW F-1 through ROW F-12) were collected from the "ROW" area and submitted to the laboratory. The soil samples analyzed for concentrations of TPH, Chloride and BTEX in select soil samples. The analytical results indicated TPH concentrations were less than the laboratory MDL in all soil samples, with the exception of soil samples ROW F-6, ROW F-9, ROW F-10 and ROW F-12, which exhibited a TPH concentration of 137 mg/Kg, 95.1 mg/Kg, 45.5 mg/Kg and 242 mg/Kg, respectively. BTEX analysis was completed in five (5) of the twelve (12) submitted soil samples. Benzene and BTEX concentrations were less than the appropriate laboratory MDL in each of the five (5) submitted soil samples. Chloride concentrations ranged from 11.7 mg/Kg in soil sample ROW F-9 to 914 mg/Kg in Soil Sample ROW F-3.

On March 17, 2010, fourteen (14) excavation sidewall soil samples (ROW ESW-1, ROW WSW-1, ROW ESW-2, ROW SSW-2, ROW NSW-3, ROW SSW-4, ROW NSW-5, ROW SSW-6, ROW NSW-7, ROW SSW-8, ROW NSW-9, ROW SSW-10, ROW NSW-11 and ROW SSW-12) were collected from the "ROW" area and submitted to the laboratory. The soil samples were analyzed for concentrations of TPH, Chloride and BTEX in select soil samples. The analytical results indicated TPH concentrations were less than the laboratory MDL in all soil samples, with the exception of soil samples ROW SSW-6 and ROW SSW-12, which exhibited TPH concentrations of 207 mg/Kg and 18.4 mg/Kg, respectively. BTEX analysis was completed in eight (8) of the fourteen (14) submitted soil samples. Benzene and BTEX concentrations were less than the appropriate laboratory MDL in each of the eight (8) submitted soil samples. Chloride concentrations ranged from 4.48 mg/Kg in soil sample ROW NSW-11 to 1,870 mg/Kg in Soil Sample ROW SSW-4. Based on the analytical results, additional excavation was warranted in the area represented by soil samples ROW WSW-1, ROW F-2, ROW F-3, ROW F-6 and ROW F-12.

On March 17, 2010, one (1) stockpile soil sample (Stockpile #1) was collected from soil excavated from the ROW area. The analytical results indicated the TPH concentration was 129 mg/Kg and the chloride concentration was 61.2 mg/Kg. Based on the analytical results, the stockpile was blended in place.

On March 18 and March 19, 2010, four (4) excavation floor soil samples (Road F-7 through Road F-10) were collected from the "Road" area and submitted to the laboratory. The soil samples analyzed for concentrations of TPH and Chloride. The analytical results indicated TPH concentrations were less than the laboratory MDL in all soil samples, with the exception of soil sample Road F-9, which exhibited a

TPH concentration of 18.4 mg/Kg. Chloride concentrations ranged from 840 mg/Kg in soil sample Road F-10 to 2,920 mg/Kg in Soil Sample Road F-8.

On March 18 and March 19, 2010, four (4) excavation sidewall soil samples (Road SSW-7, Road NSW-8, Road SSW-9 and Road NSW-10) were collected from the "Road" area and submitted to the laboratory. The soil samples analyzed for concentrations of TPH and Chloride. The analytical results indicated TPH concentrations were less than the laboratory MDL in all soil samples. Chloride concentrations ranged from 1,360 mg/Kg in soil sample Road NSW-10 to 1,940 mg/Kg in soil sample Road NSW-8.

On March 19, 2010, a soil sample was collected from the middle of the State Line Road in the "crown" of the caliche road. The soil sample was analyzed for concentrations of TPH and Chloride. The analytical results indicated the TPH concentration was less than the laboratory MDL and the chloride concentrations was 3,880 mg/Kg.

On March 22, 2010, five (5) excavation floor soil samples (Road F-13, Road F-14 (9'), Road F-14 (14'), Road F-12.5 (10') and Road F-12.5 (16')) were collected from the "Road" area and submitted to the laboratory. The soil samples analyzed for concentrations of TPH (Road F-13, Road F-14 (9') and Road F-14 (14')) and Chloride. The analytical results indicated TPH concentrations for soil samples Road F-13, Road F-14 (9') and Road F-14 (14') were 23.1 mg/Kg, 21.2 mg/Kg and 21.4 mg/Kg, respectively. Chloride concentrations ranged from 356 mg/Kg in soil sample Road F-12.5 (10') to 943 mg/Kg in soil sample Road F-13. Soil sample Road F-12.5 (16') was collected when the excavation encountered a chloride zone at 16 feet below ground surface (bgs).

On March 22, 2010, an additional background sample was collected approximately 150 feet north and upslope of the excavation and approximately eight (8) feet in depth. The analytical results indicated a chloride concentration of 43.5 mg/Kg.

On March 25, 2010, the area utilized for stockpiling impacted soil was excavated. The excavated area measured approximately twenty (20) feet in width by thirty (30) feet in length and approximately ten (10) feet in depth. One (1) excavation floor soil sample (Pit F-1) was collected and submitted to the laboratory. The analytical results indicated the benzene and BTEX concentration were less than the appropriate laboratory MDL, the TPH concentration was 19.21 mg/Kg and the chloride concentration was 210 mg/Kg. Following excavation, four (4) excavation sidewall soil samples (Pit SSW, Pit WSW, Pit NSW and Pit ESW) were collected and submitted to the laboratory. The analytical results indicated benzene and BTEX concentration were less than the appropriate laboratory MDL. The TPH concentrations ranged from less than the laboratory MDL for soil sample Pit ESW to 40.3 mg/Kg for soil sample Pit WSW. The chloride concentrations ranged from 39.1 mg/Kg for soil sample Pit ESW to 623 mg/Kg for soil sample Pit SSW.

On March 25, 2010, areas previously identified during sampling events (ROW WSW-1, ROW F-2, ROW F-3, ROW F-6, ROW SSW-6, ROW F-12, Road F-2 and Road NSW-2) and requiring additional excavation were re-sampled. Soil samples ROW F-6A, ROW SSW-6A, ROW F-12A and Road F-2A were sample for TPH concentrations. The analytical results indicated the TPH concentrations ranged from less than the laboratory MDL for soil samples ROW F-6A, ROW F-12A and Road F-2A and 19.1 mg/Kg for soil sample ROW SSW-6A. Soil samples WSW-1A, ROW F-2A, ROW F-3A and Road NSW-2A were sampled for chloride concentrations. The analytical results indicated the chloride

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concentrations for soil samples WSW-1A, ROW F-2A, ROW F-3A and Road NSW-2A were 115 mg/Kg, 1,390 mg/Kg, 1,030 mg/Kg and 667 mg/Kg, respectively.

On March 25, 2010, five (5) excavation floor soil samples (Road F-11, Road F-12, Road F-15, Road F-16 and Road F-17) were collected from the "Road" area and submitted to the laboratory. The soil samples analyzed for concentrations of TPH and chloride. The analytical results indicated TPH concentrations for soil samples ranged from less than the laboratory MDL for soil samples Road F-11, Road F-16 and Road F-17 to 17.7 mg/Kg for soil sample Road F-12. Chloride concentrations ranged from 98 mg/Kg for soil sample Road F-16 to 2,790 mg/Kg for soil sample Road F-12.

On March 25, 2010, six (6) excavation sidewall soil samples (Road NSW-10.5, Road SSW-11, Road NSW-12, Road NSW-15, Road SSW-16 and Road NSW-17) were collected from the "Road" area and submitted to the laboratory. The soil samples analyzed for concentrations of TPH and chloride, with the exception of soil sample Road NSW-10.5, which was sampled for chloride only. The analytical results indicated TPH concentrations for all five (5) submitted soil samples were less than the appropriate laboratory MDL. Chloride concentrations ranged from 63 mg/Kg for soil sample Road NSW-17 to 1,440 mg/Kg for soil sample Road SSW-11.

On April 7, 2010, one (1) stockpile soil sample (Stockpile #2) was collected from soil excavated from the ROW area. The analytical results indicated the TPH concentration was 168.5 mg/Kg.

On April 7, 2010, GP II, Basin and NMOCD representatives met onsite to discuss a path toward an NMOCD approved site closure. GP II and Basin representatives proposed a risk-based closure, based on the extent of impact, the close proximity of high pressure gas transportation pipelines, the highly traveled State Line Road and the suspected undocumented release. GP II and Basin proposed the advancement of three (3) soil boring to fully vertically delineate the site. The NMOCD was in agreement with the need to fully vertically delineate the site and approved of the events to be conducted.

On April 12, 2010, three (3) soil borings (SB-1 through SB-3) were advanced to vertically investigate the extent of impact at the site. Soil boring logs are provided as Appendix D. Soil samples were collected at five (5) foot drilling intervals and field screened using chloride field screening kit. Selected soil samples were submitted to the laboratory for determination of concentrations of benzene, toluene, ethyl-benzene and total xylene (BTEX), total petroleum hydrocarbons (TPH) and chlorides using EPA Method SW 846-8021B, EPA Method SW 848-8015M and EPA Method 4500 Cl-B, respectively.

On May 28, 2010, one (1) stockpile soil sample (Stockpile #1 A) was collected from soil excavated from the ROW area. The analytical results indicated the TPH concentration was 26.7 mg/Kg.

Soil Boring SB-1, was located between soil sample Road F-8 and Road F-7 and was advanced to approximately thirty (30) feet bgs. Soil samples collected at fifteen (15) feet bgs, twenty (20) feet bgs, twenty five (25) feet bgs and thirty (30) feet bgs were submitted to the laboratory for chloride analysis. The laboratory analytical results indicated chloride concentrations ranged from 179.4 mg/Kg in the soil sample collected at thirty (30) bgs to 456.1 mg/Kg for the soil sample collected at fifteen (15) feet bgs.

Soil Boring SB-2, was located north of soil sample Road F-12 and was advanced to approximately fifty five (55) feet bgs. Soil samples collected at fifteen (15) feet bgs, twenty five (25) feet bgs, thirty five (35) feet bgs, forty five (45), fifty (50) and fifty five (55) feet bgs were submitted to the laboratory for chloride analysis. The laboratory analytical results indicated chloride concentrations ranged from 229.7

mg/Kg in the soil sample collected at fifty five (55) bgs to 2,894 mg/Kg for the soil sample collected at fifteen (15) feet bgs.

Soil Boring SB-3, was located east of soil sample ROW F-2 and was advanced to approximately seventy five (75) feet bgs. Soil samples collected at two (2) feet bgs, five (5) feet bgs, ten (10) feet bgs, twenty (20) feet bgs, thirty (30) feet bgs, forty (40) feet bgs, fifty (50) feet bgs, sixty (60) feet bgs, seventy (70) feet bgs and seventy five (75) feet bgs were submitted to the laboratory for chloride analysis. The laboratory analytical results indicated chloride concentrations ranged from 458.4 mg/Kg in the soil sample collected at seventy five (75) bgs to 3,363 mg/Kg for the soil sample collected at two (2) feet bgs. The soil sample collected at two (2) feet bgs was analyzed for BTEX and TPH concentrations. The analytical results indicated the benzene concentration was less than the laboratory MDL, the BTEX concentration was 0.0316 mg/Kg and the TPH concentration was 445 mg/Kg. The soil sample collected at five (5) feet bgs exhibited a TPH concentration of less than the laboratory MDL.

#### SITE CLOSURE PROPOSAL

Based on the analytical results, GP II proposes the following activities designed to progress the Federal Littlefield "BO" Tank Battery release site toward a risk-based NMOCD and BLM approved closure:

- Impacted soil excavated from the road area and stockpiled south of the release site will be transported to Lea Land Inc.
- The stockpile material represented by soil sample Stockpile #1 A, which was excavated from the ROW area and stockpiled north of the site, will be used as backfill material in the excavation.
- Soil currently being used as berm material around the ROW excavation will be transported to the well pad north of the site and will be analyzed for TPH and chloride concentrations. When a TPH concentration of less than 100 mg/Kg is confirmed by laboratory analytical results, the soil will be used a backfill material in the ROW area. Should the TPH concentration not reach the desired levels, soil additives, in the form of high nitrogen fertilizer will be added to the soil in an effort to reduce the TPH concentration. If the TPH cannot be reduced to less than 100 mg/Kg the soil will be transported to Lea Land, LLC for disposal.
- Excavations not previous backfilled will be backfilled with locally purchased soil and contoured to fit the surrounding topography.

#### REPORTING

On completion of the proposed site closure activities, GP II Energy will submit a Remediation Summary and Site Closure Request for NMOCD and BLM approval.

#### **LIMITATIONS**

Basin Environmental Consulting, LLC has prepared this Amended Remediation Summary and Risk-Based 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 GP II Energy, Inc. 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 GP II Energy, Inc.

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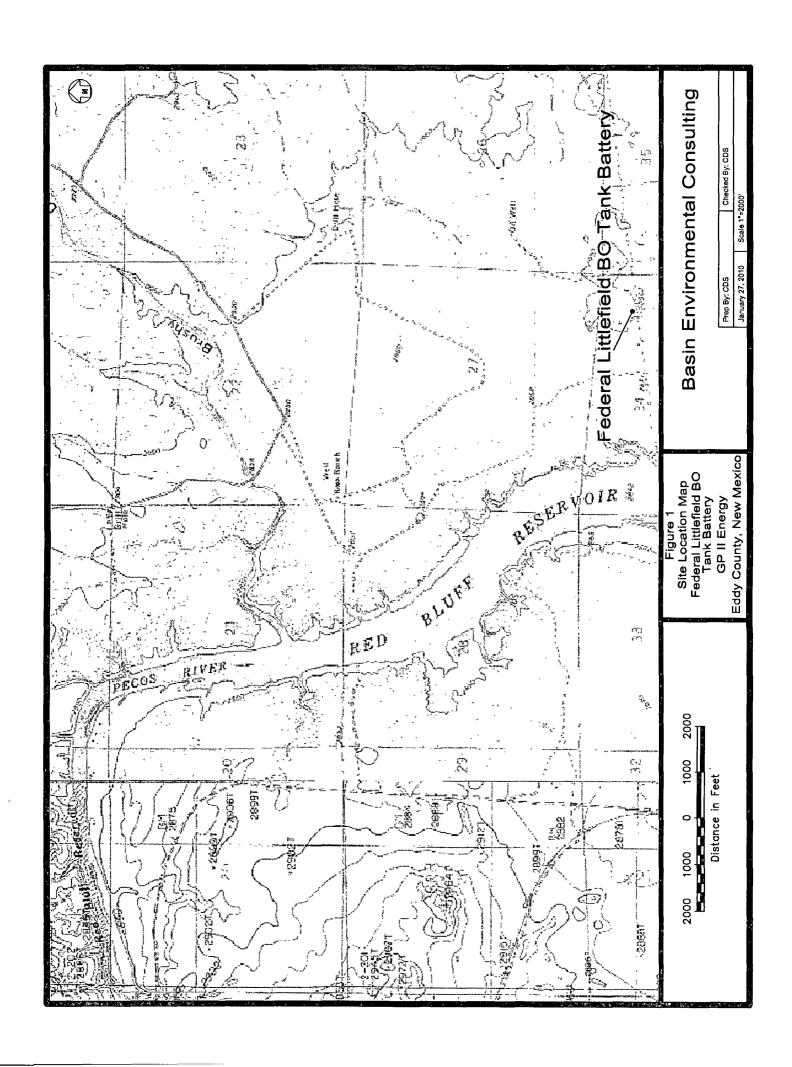
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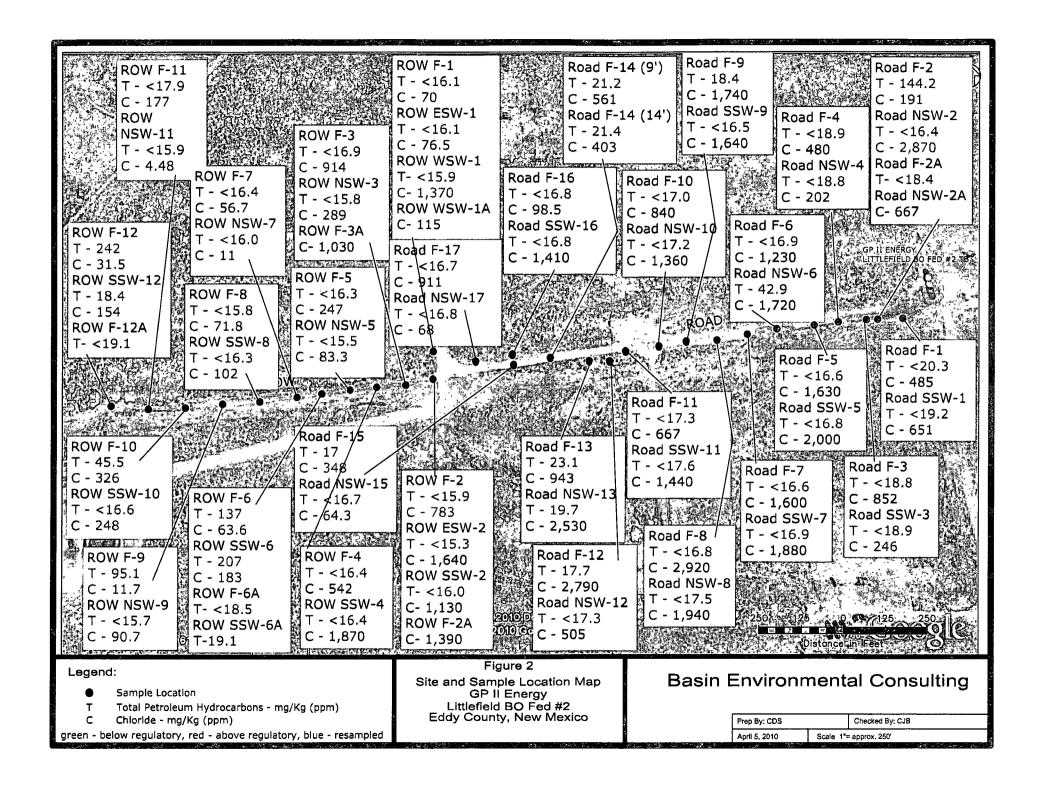
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Figure 1
Site Location Map



# Figure 2 Site and Sample Location Map



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a comment

# Table 1 Concentration of Benzene, BTEX, TPH and Chloride in Soil

# CONCENTRATIONS OF BENZENE, BTEX, TPH AND CHLORIDE IN SOIL GP II ENERGY FEDERAL LITTLEFIELD "BO" TANK BATTERY EDDY COUNTY, NEW MEXICO

<u> </u>					MET	HOD: EPA SW 8	46-8021B, 5030	T	METHOD: E300					
SAMPLE LOCATION	SAMPLE DEPTH (BGS)	SAMPLE DATE	SOIL STATUS	BENZENE (mg/Kg)	TOLUENE (mg/Kg)	ETHYL- BENZENE (mg/Kg)	M.P XYLENES (mg/Kg)	O- XYLENE (mg/Kg)	TOTAL BTEX (mg/Kg)	GRO C <sub>6</sub> -C <sub>12</sub> (mg/Kg)	DRO C <sub>12</sub> -C <sub>28</sub> (mg/Kg)	ORO C <sub>28</sub> -C <sub>35</sub> (mg/Kg)	TOTAL TPH C6-C35 (mg/Kg)	CHLORIDE (mg/Kg)
SP-1	1 Foot	01/05/10	In-Situ	< 0 0012	<0 0025	0 0038	0 0098	0 0055	0 0191	39	278	29	346	548
SP-2	l Foot	01/05/10	In-Situ	<0 0011	< 0 0022	< 0.0011	< 0 0022	< 0 0011	< 0 0022	<167	137	<167	137	568
SP-3	18 Inches	01/05/10	In-Situ	< 0 0012	<0 0024	< 0 0012	0 003	< 0 0012	0 003	26	137	<177	163	2,240
SP-4	18 Inches	01/05/10	In-Situ	< 0 0011	< 0 0023	< 0 0011	<0 0023	<0.0011	< 0 0023	116	414	48	578	229
SP-5	18 Inches	01/05/10	In-Situ	< 0 0011	0 0105	0 0293	0 0885	0 0092	0 1375	185	602	<169	787	2,280
SP-5A	3 Feet	01/05/10	In-Situ	< 0 0011	< 0 0022	<0.0011	< 0 0022	< 0 0011	< 0 0022	81	149	31	261	1,850
SP-6	18 Inches	01/05/10	In-Situ	< 0 0011	0 0071	0 011	0 0244	0 0202	0 0627	218	910	121	1,249	561
SP-6A	3 5 Feet	01/05/10	In-Situ	< 0 0011	<0 0023	0 0037	0 0072	0 006	0 0169	240	470	22	732	829
SP-7	18 Inches	01/05/10	In-Situ	< 0 0011	<0 0022	< 0 0011	< 0 0022	<0.0011	< 0 0022	229	262	29 6	521	1,480
SP-8	3 Feet	01/05/10	In-Situ	< 0 0011	<0 0023	< 0 0011	< 0 0023	< 0 0011	< 0 0023	238	496	24 2	758	1,060
SP-8A	4 Feet	01/05/10	In-Situ	< 0 0013	<0 0026	< 0 0013	< 0 0026	< 0 0013	<0 0026	45 1	303	22 1	370	1,320
SP-9	l Foot	01/05/10	In-Situ	< 0 0013	< 0 0027	< 0 0013	< 0 0027	< 0 0013	<0 0027	44 3	334	<199	378	15.5
SP-10	2 Feet	01/05/10	In-Situ	< 0 0011	0 0023	0 0168	0 0523	0 0096	0 081	279	519	29 3	827	1,300
SP-10A	3 5 Feet	01/05/10	In-Situ	< 0 0011	<0 0022	0 0011	0.0035	<0.0011	0 0046	208	324	20	552	935
SP-11	3 Feet	01/05/10	In-Situ	< 0 0011	<0 0021	< 0 0011	<0 0021	< 0 0011	< 0 0021	139	238	28 3	405	98 5
SP-12	2 Feet	01/05/10	In-Situ	< 0 0011	<0 0022	0 0078	0 0281	0 0108	0 0467	269 0	653	22 1	944	473
SP-12A	3 Feet	01/05/10	In-Situ	<0 0011	< 0 0021	0 0024	0 0083	0 0022	0 0129	40 2	106	<16 1	146	275
SP-13	2 5 Feet	01/05/10	In-Situ	< 0 0011	<0 0022	<0.0011	0 0024	< 0 0011	0 0024	38 9	495	24 9	559	<b>7</b> 9
SP-14	2 Feet	01/05/10	In-Situ	< 0 0011	0 0028	0 0084	0 0281	0 0084	0 0477	134	270	20 6	425	257
SP-15	3 Feet	01/05/10	In-Situ	< 0 0011	< 0 0021	<0.0011	<0 0021	< 0 0011	<0 0021	<15 9	35 4	<159	35 4	732
SP-16	2 5 Feet	01/05/10	In-Situ	< 0 0011	< 0 0021	<0.0011	<0 0021	< 0 0011	< 0 0021	<160	<160	<160	<160	164
SP-17	4 Feet	01/05/10	In-Situ	< 0 0013	0 0189	0 0312	0 0794	0 0308	0 1603	45 8	90 7	<198	136 5	70 2
SP-18	4 Feet	01/05/10	In-Situ	< 0 0011	<0 0021	<0.0011	0 0032	0 0012	0 0044	22 6	80 5	<159	103 1	607
SP-19	3 Feet	01/05/10	In-Situ	0 2386	1 143	1 478	3 484	1 186	7 53	417	969	87 6	1,474	131
SP-19A	4 Feet	01/05/10	In-Situ	<0 0011	<0 0021	0 0015	0 0033	0 0012	0 006	<15 8	18 3	<15.8	183	<17.7
SP-20	2 Feet	01/05/10	In-Situ	<0.0010	< 0 0021	0 0012	<0 0021	<0.0010	0 0012	<15 5	<15.5	<155	<15.5	<4 34
SP-21	3 Feet	01/05/10	In-Situ	0 0013	<0 0022	< 0 0011	<0 0022	<0 0011	0 0013	<168	343	42 4	385	650
10年度1000 · 1000	*, m	Shift for		s symbols	·	4 17 May 10	a spira		*****	3,44	, v." } ** 34	,	A. A. C.	
ROAD F-1	3 Feet	03/17/10	In-Situ	-	-	-		-	-	<20 3	<20 3	<20 3	<20 3	485
ROAD SSW-1	2 Feet	03/17/10	In-Situ		-	-	-	-		<192	<192	<192	<19 2	651
ROAD F-2	3 Feet	03/17/10	Excavated	< 0 0012	<0 0025	< 0 0012	<0 0025	< 0 0012	<0 0025	26 2	118	<184	144 2	191
ROAD NSW-2	2.5 Feet	03/17/10	Excavated	-	-	-			-	<164	<164	<164	<164	2,870
ROAD F-3	2 Feet	03/17/10	In-Situ	-		-	-	-	-	<188	<18 8	<188	<188	852
ROAD SSW-3	1 5 Feet	03/17/10	In-Situ	_		-	-	-	-	<18 9	<189	<18 9	<18 9	246
ROAD F-4	2.5 Feet	03/17/10	In-Situ	<del>-</del>	-	-	-	-		<18 9	<189	<189	<189	480
ROAD NSW-4	2 Feet	03/17/10	In-Situ		-		-	-	-	<188	<188	<18 8	<18.8	202
ROAD F-5	7 Feet	03/17/10	In-Situ	< 0 0011	<0 0022	<0.0011	< 0 0022	<0.0011	<0 0022	<166	<166	<166	<166	1,630
ROAD SSW-5	6 Feet	03/17/10	In-Situ	<0 0011	<0 0022	< 0 0011	<0 0022	<0.0011	<0 0022	<16 8	<168	<168	<16 8	2,000
ROAD F-6	7 Feet	03/17/10	In-Situ	< 0 0011	<0 0022	<0.0011	< 0 0022	<0.0011	< 0 0022	<169	<169	<169	<169	1,230
ROAD NSW-6	6 Feet	03/17/10	In-Situ	< 0 0012	< 0 0023	< 0 0012	<0 0023	<0 0012	<0 0023	<171	43	- <171	42 9	1,720

# CONCENTRATIONS OF BENZENE, BTEX, TPH AND CHLORIDE IN SOIL GP II ENERGY FEDERAL LITTLEFIELD "BO" TANK BATTERY EDDY COUNTY, NEW MEXICO

	Ţ	T			MET	HOD: EPA SW 8	46-8021B, 5030			METHOI	): 8015M		METHOD: E300	
SAMPLE LOCATION	SAMPLE DEPTH (BGS)	SAMPLE DATE	SOIL STATUS	BENZENE (mg/Kg)	TOLUENE (mg/Kg)	ETHYL- BENZENE (mg/Kg)	M.P XYLENES (mg/Kg)	O- XYLENE (mg/Kg)	TOTAL BTEX (mg/Kg)	GRO C <sub>6</sub> -C <sub>12</sub> (mg/Kg)	DRO C <sub>12</sub> -C <sub>28</sub> (mg/Kg)	ORO C <sub>28</sub> -C <sub>35</sub> (mg/Kg)	TOTAL TPH C6-C35 (mg/Kg)	CHLORIDE (mg/Kg)
ROW F-1	3 Feet	03/17/10	In-Situ	<0 0011	<0 0022	< 0 0011	<0 0022	< 0 0011	<0 0022	<16 1	<161	<16 1	<161	70
ROW ESW-1	2 5 Feet	03/17/10	In-Situ	< 0 0011	< 0 0021	< 0 0011	<0 0021	< 0 0011	< 0 0021	<161	<161	<161	<161	76 5
ROW WSW-1	2.5 Feet	03/17/10	Excavated	< 0 0011	< 0 0021	< 0 0011	<0 0021	< 0 0011	< 0 0021	<159	<159	<159	<159	1,370
ROW F-2	7 Feet	03/17/10	Excavated	-	-	-	-	-	-	<15 9	<159	<159	<159	783
ROW ESW-2	6 Feet	03/17/10	In-Situ	<0 0010	<0 0020	< 0 0010	< 0 0020	< 0 0010	<0 0020	<15 3	<153	<153	<15 3	1,640
ROW SSW-2	6 Feet	03/17/10	In-Situ	<0.0011	< 0 0021	< 0 0011	< 0 0021	< 0 0011	<0 0021	<160	<160	<160	<160	1,130
ROW F-3	6 Feet	03/17/10	Excavated	-	-	-	-	-	-	<169	<169	<169	<169	914
ROW NSW-3	5 Feet	03/17/10	In-Situ	-		-	_	-	-	<15 8	<15 8	<158	<15 8	289
ROW F-4	6 Feet	03/17/10	In-Situ	•	-	-	-	-	-	<164	<164	<16.4	<164	542
ROW SSW-4	5 Feet	03/17/10	In-Situ	<0 0011	<0 0022	< 0 0011	< 0 0022	< 0 0011	<0 0022	<164	<164	<164	<16.4	1,870
ROW F-5	3 Feet	03/17/10	In-Situ	_	_	-	-	-	-	<163	<163	<163	<163	247
ROW NSW-5	2 5 Feet	03/17/10	In-Situ	-	-	-	-	-	-	<15 5	<15.5	<15.5	<15.5	83 3
ROW F-6	2 5 Feet	03/17/10	Excavated	< 0 0011	<0 0022	< 0 0011	<0 0022	<0.0011	< 0 0022	<168	137	<168	137	63 6
ROW SSW-6	1 5 Feet	03/17/10	In-Situ	< 0 0011	<0 0022	< 0 0011	<0 0022	<0.0011	< 0 0022	<161	207	<161	207	183
ROW F-7	1 Foot	03/17/10	In-Situ	-	-	-	-	-	-	<164	<164	<164	<16.4	56 7
ROW NSW-7	0.5 Feet	03/17/10	In-Situ	-	-	-	-	-	-	<160	<160	<160	<160	11
ROW F-8	2 5 Feet	03/17/10	In-Situ	-	-	-	-	-	-	<15 6	<156	<156	<15 6	71 8
ROW SSW-8	2 Feet	03/17/10	In-Situ	<0.0011	<0 0022	< 0 0011	<0 0022	< 0 0011	<0 0022	<16 3	<163	<163	<163	102
ROW F-9	3 Feet	03/17/10	In-Situ	< 0 0 0 1 2	< 0 0024	< 0 0 0 1 2	<0 0024	< 0 0012	<0 0024	21 3	73 8	<176	95 1	11.7
ROW NSW-9	2.5 Feet	03/17/10	In-Situ	-	<u>-</u>	-	-	-	-	<15 7	<15 7	<15 7	<15.7	90 7
ROW F-10	2.5 Feet	03/17/10	In-Situ	< 0 0011	0 0022	< 0 0011	<0 0022	< 0 0011	<0 0022	<16 2	45 5	<162	45 5	326
ROW SSW-10	2 Feet	03/17/10	In-Situ	-	-	-	-	-	-	<16 6	<166	<166	<166	248
ROW F-11	2.5 Feet	03/17/10	In-Situ	-	-		-			<179	<179	<179	<179	177
ROW NSW-11	2 Feet	03/17/10	In-Situ	-	-	-	-	-	-	<159	<159	<159	<159	4 48
ROW F-12	1 Foot	03/17/10	In-Situ	< 0 0011	< 0 0021	< 0 0011	<0 0021	< 0 0011	<0 0021	<15 9	242 0	<159	242	31 5
ROW SSW-12	0.5 Feet	03/17/10	In-Sıtu	< 0 0011	< 0 0021	< 0 0011	< 0 0021	< 0 0011	< 0 0021	<16 1	18 4	<161	18 4	154

# CONCENTRATIONS OF BENZENE, BTEX, TPH AND CHLORIDE IN SOIL GP II ENERGY FEDERAL LITTLEFIELD "BO" TANK BATTERY EDDY COUNTY, NEW MEXICO

		T			MET	HOD: EPA SW	846-8021B, 5030			T	METHOI	): 8015M		METHOD: E300
SAMPLE LOCATION	SAMPLE DEPTH (BGS)	SAMPLE DATE	SOIL STATUS	BENZENE (mg/Kg)	TOLUENE (mg/Kg)	ETHYL- BENZENE (mg/Kg)	M.P XYLENES (mg/Kg)	O- XYLENE (mg/Kg)	TOTAL BTEX (mg/Kg)	GRO C <sub>6</sub> -C <sub>12</sub> (mg/Kg)	DRO C <sub>12</sub> -C <sub>28</sub> (mg/Kg)	ORO C <sub>28</sub> -C <sub>35</sub> (mg/Kg)	TOTAL TPH C6-C35 (mg/Kg)	CHLORIDE (mg/Kg)
Charles of the contract of the	STATE OF THE STATE		40246	100	5.65040751	MS TO A SHA	1000000	<b>建</b> 体长期	Marie Marie	S. 28.38	THE ME	WATE COM	10 T 12	154578
Stockpile #1	N/A	03/17/10	-	-	-	-	-	-	-	<163	129	<163	129	61 2
L (A44) (3) (6)	(100 m) 10 m	4355 S	7. 2364	2340 226	24 38 74	3000	234.55	7.7 V. X	CALLED .	14 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	100	3 7 7		No. of Carlos
Road F-7	7 Feet	03/18/10	In-Situ	-	-	-	-	-	-	<166	<166	<166	<166	1,600
Road SSW-7	6 5 Feet	03/18/10	In-Situ	-		-	-	-	-	<169	<169	<169	<169	1,880
Road F-8	4 Feet	03/19/10	In-Situ	-	-	-	-	-	-	<16 8	<168	<168	<16 8	2,920
Road NSW-8	3 5 Feet	03/19/10	In-Situ	-	-	-	-	-	-	<17.5	<17.5	<17.5	<17.5	1,940
Road F-9	7 Feet	03/19/10	In-Situ		-	-	-	-	-	<17.2	18 4	<17.2	184	1,740
Road SSW-9	6 Feet	03/19/10	In-Situ	-	-	-	-	-	-	<16.5	<16.5	<16.5	<16.5	1,640
Road F-10	7 Feet	03/19/10	In-Situ	-	-	-	-	-	-	<170	<170	<17.0	<170	840
Road NSW-10	6 Feet	03/19/10	In-Situ	-	-	-	-	-	-	<172	<17.2	<17 2	<17.2	1,360
Midway CL of Road	1 5 Feet	03/19/10	In-Situ	-	-	-	-	-	-	<16.3	<163	<163	<163	3,880
AND THE PAYER	10 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	KAN TANK	LELAND:		A. N. A. Y.	SAN AND		7.750	TALL OF	EA TRIE	d William	A PARTY OF	Santa:	3 12 3 7 3 <b>4</b>
Road F-13	8 Feet	03/22/10	In-Situ	-	-	-	-	-	-	<18 1	23 1	<18 1	23 1	943
Road NSW-13	7 Feet	03/22/10	In-Situ	-	-	-	-	-	-	<18 2	19 7	<18.2	19 7	2,530
Road F-14 (9')	9 Feet	03/22/10	In-Situ	-	-	-	-	-	-	<17.2	21 2	<17.2	21.2	561
Road F-14 (14')	14 Feet	03/22/10	In-Situ	-	-	-	-	-	-	<17.5	21 4	<17.5	214	403
Background 8'	8 Feet	03/22/10	-	-	-	-	-	-	-	-	-	-	-	43 5
Road F-12 5 (10')	10 Feet	03/22/10	In-Situ	-	-	-	-	-	-	-	-	-	-	356
Road F-12 5 (16')	16 Feet	03/23/10	-	-	-	-	-	-	-	-	-	-	-	419
海域等5万世皇365年	V. W. W.	STATE OF THE STATE	WALL.	A TANK	7.11	M.W. A. A	<b>以为"种种"。</b>	<b>CO-544</b>	SALARAY SA	VALUE OF STREET	<b>第二次</b> 通	\$445. 37.2h	"是什么"	CONTRACTOR
P# F-1	10 Feet	03/25/10	In-Situ	< 0 0011	<0 0023	< 0 0011	<0 0023	< 0 0011	< 0 0023	19 2	<17.2	<172	192	210
Pit SSW	5 5 Feet	03/25/10	In-Situ	< 0 0011	<0 0023	<0 0011	<0 0023	< 0 0011	<0 0023	20 8	<17 1	<171	20 8	623
Pst WSW	5 5 Feet	03/25/10	In-Situ	<0 0012	<0 0023	<0 0012	< 0 0023	< 0 0012	<0 0023	19 3	21 0	<173	40 3	438
Pst NSW	5 5 Feet	03/25/10	In-Situ	< 0 0011	< 0 0022	<0.0011	<0 0022	< 0 0011	<0 0022	20 4	176	<169	38	153
Ptt ESW	5 5 Feet	03/25/10	In-Situ	< 0 0011	<0 0022	< 0 0011	< 0 0022	< 0 0011	<0 0022	<165	<16.5	<16.5	<16.5	39 1
ROW WSW-1A	3 Feet	03/25/10	In-Situ	-	-	-	-	-	-		-	-	_	115
ROW F-2A	11 Feet	03/25/10	In-Situ	-	-	-		-	-	-	•	-	-	1,390
ROW F-3A	9 Feet	03/25/10	In-Situ		-	-	-	-	-	-	-			1,030
ROW F-6A	6 Feet	03/25/10	In-Situ	-		-	-	-	-	<18.5	<18.5	<18.5	<18.5	-
ROW SSW-6A	5 5 Feet	03/25/10	In-Situ		-		-		-	<164	<16.4	19 1	19 1	-
ROW F-12A	4 Feet	03/25/10	In-Situ	-	-	-	-	-	-	<19 1	<19 1	<191	<19 1	-
Road F-2A	6 Feet	03/25/10	In-Situ	-	-	-	-	-	-	<184	<18 4	<18 4	<18 4	-
Road NSW-2A	5 5 Feet	03/25/10	In-Situ		- <u> </u>		-		-	-			-	667
Road NSW-10 5	7 Feet	03/25/10	In-Situ				-	-		-		-	-	851
Road F-11	7 Feet	03/25/10	In-Situ	-	_			-		<173	<173	<173	<173	667
Road SSW-11	6 5 Feet	03/25/10	In-Situ	-				-	-	<176	<176	<176	<176	1,440
Road F-12	6 Feet	03/25/10	In-Situ	-		-		-		177	<169	<169	177	2,790
Road NSW-12	5 5 Feet	03/25/10	In-Situ			-		-		<173	<173	<173	<173	505
Road F-15	6 Feet	03/26/10	In-Situ	-	-	-	-	-	-	<16 2	17	<16 2	17	348

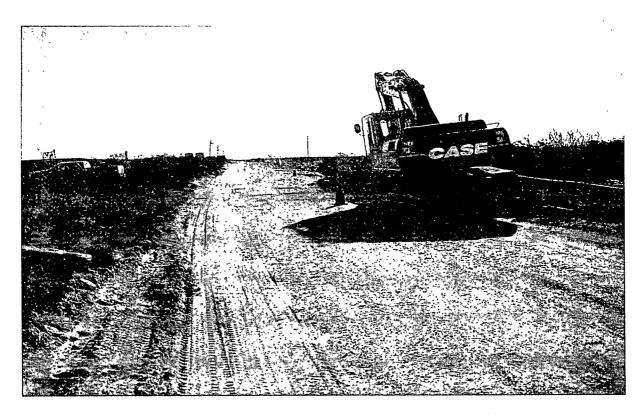
# CONCENTRATIONS OF BENZENE, BTEX, TPH AND CHLORIDE IN SOIL GP II ENERGY FEDERAL LITTLEFIELD "BO" TANK BATTERY

#### DERAL LITTLEFIELD "BO" TANK BATTERY EDDY COUNTY, NEW MEXICO

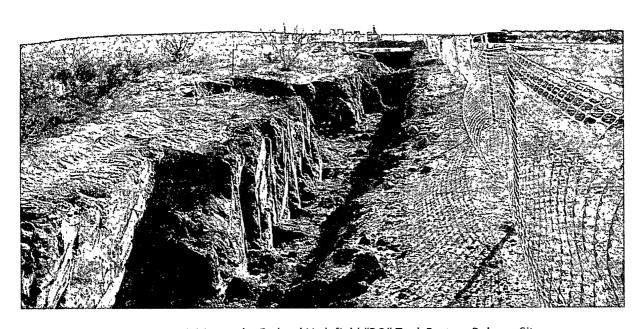
	Ī			<u> </u>	MET	HOD: EPA SW 8	46-8021B, 5030			I	METHOL	D: 8015M		METHOD: E300
SAMPLE LOCATION	SAMPLE DEPTH (BGS)	SAMPLE DATE	SOIL STATUS	BENZENE (mg/Kg)	TOLUENE (mg/Kg)	ETHYL- BENZENE (mg/Kg)	M.P XYLENES (mg/Kg)	O- XYLENE (mg/Kg)	TOTAL BTEX (mg/Kg)	GRO C <sub>6</sub> -C <sub>12</sub> (mg/Kg)	DRO C <sub>12</sub> -C <sub>28</sub> (mg/Kg)	ORO C <sub>28</sub> -C <sub>35</sub> (mg/Kg)	TOTAL TPH C6-C35 (mg/Kg)	CHLORIDE (mg/Kg)
Road NSW-15	5 5 Feet	03/26/10	In-Situ	-	-	- "	-	-	-	<16 7	<167	<16 7	<16 7	64 3
Road F-16	3 5 Feet	03/26/10	In-Situ	-	- "	-	-	-	-	<16 8	<16.8	<16 8	<16 8	98 5
Road SSW-16	3 Feet	03/26/10	In-Situ		-	-		-	-	<168	<16.8	<168	<16 8	1,410
Road F-17	4 Feet	03/26/10	In-Situ	-	-	-	-	-	-	<16 7	<167	<16.7	<167	911
Road NSW-17	3 5 Feet	03/26/10	In-Situ	-	_	-			-	<16 8	<168	<168	<16 8	63
accentrate and	Park You	20.50 PM	3 \$40.00°	2 X 300 000	SCHOOL STREET	OWNER .	Section Section	ALLEY S	SPACE 1	DESCRIPTION OF	30072	San Market	6522.4	The Market
Stockpile #2	-	04/07/10	-	-	-	-	-	-	-	20.5	148	<15.5	168 5	169
	27.00	14 CONTRACTOR	WHO GIV	FOM: THE LA	400	157 A 488	Z/SZZIW	5 0 W 1	想到 海洋	2.74.48	Mark 1	EP-P	300	0.6 <b>7</b> 0.000
SB-2 @ 15'	15 Feet	04/12/10	In-Situ	-	-	-	-	-	-	-	-	-	-	2,894
SB-2 @ 25'	25 Feet	04/12/10	In-Situ	-	-	-	-	-	-	-	-	-	-	647 3
SB-2 @ 35'	35 Feet	04/12/10	In-Situ	-	-	-	-	-		-	-	-	-	274 9
SB-2 @, 45'	45 Feet	04/12/10	In-Situ	-	-	-	-	-	-	-	-	-	-	941 2
SB-2 @ 50'	50 Feet	04/12/10	In-Situ	-	-	-	-	-	-	_		-	-	275 5
SB-2 @ 55'	55 Feet	04/12/10	In-Situ	-	-	-	-	-	_	-	-	-	-	229 7
60 CO <b>Ma</b> h Taj		MATERIAL AND A	KWW.	LANGE S	2000 TATE 1	CINCL AN	1556 L 120	Cresa .		MAN T	ALCON VI	733344	Carlo Maria	
SB-1 @ 15'	15 Feet	04/12/10	In-Situ	-	-	-	-	-	-	-	-	-	-	456 1
SB-1 @ 20'	20 Feet	04/12/10	In-Situ	-	-	-	-	-	-	-	-	-	-	226 4
SB-1 @ 25'	25 Feet	04/12/10	In-Situ	-	-	-	-	-	-	-	-	-	-	224 9
SB-1 @ 30'	30 Feet	04/12/10	In-Situ	-	-	-	-	-	-	-	-	-	-	179 4
<b>第</b> 2000年			基件電影	12 12 11 12	學家。對學的	- 35	4.0			2006		動化などが	200	
SB-3 @ 2'	2 Feet	04/12/10	In-Situ	<0.0011	< 0 0021	0 0085	0 017	0 0061	0 0316	70 8	335	38 9	445	3,363
SB-3 @ 5'	5 Feet	04/12/10	In-Situ	-	-	-	-	-	-	-	-	-	-	1,897
SB-3 @ 10'	10 Feet	04/12/10	In-Situ	-	-	-	-	-	-	<169	<169	<16 9	<169	1,437
SB-3 @ 20'	20 Feet	04/12/10	In-Situ	-	•	-	-		-	-	-	-		1,403
SB-3 @ 30'	30 Feet	04/12/10	In-Situ	-	-		-	-	-	-	-	-	-	467 9
SB-3 @ 40'	40 Feet	04/12/10	In-Situ	-	-	-	-	-	-	-	-	-	-	849 6
SB-3 @ 50'	50 Feet	04/12/10	In-Situ	-	-	-	-	-	-	-	-	-	-	896 6
SB-3 @ 60'	60 Feet	04/12/10	In-Situ	-	-	-			-	-	-	-	-	865
SB-3 @ 70'	70 Feet	04/12/10	In-Situ	-	-	-	-	-	-	-	-	-	-	494 7
SB-3 @ 75'	75'	04/12/10	In-Situ	-	-	-	-		-	-	-	-	-	458 4
(1) 《《 <b>···································</b>	A MODEL S	346# (F1Z)	The Asset			No. of the No.	DOT TO EXCE	CANCLE	<b>20 图 例</b>	医松 经基	3996	機能を発	142794	7. 1. <b>41.68</b>
Stockpile #1 A	-	05/28/10	-	-	-	-	-		-	<160	26 7	<160	26 7	-

Appendices

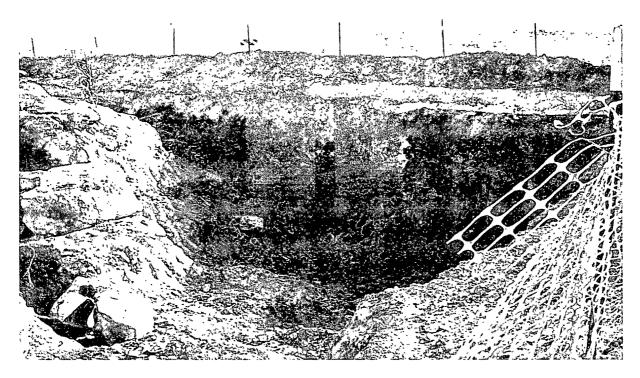
Appendix A Photographs



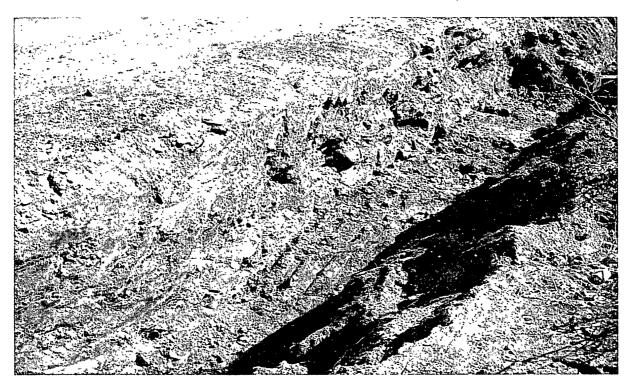
Excavation Activities at the Federal Littlefield "BO" Tank Battery Release Site



Excavation Activities at the Federal Littlefield "BO" Tank Battery Release Site

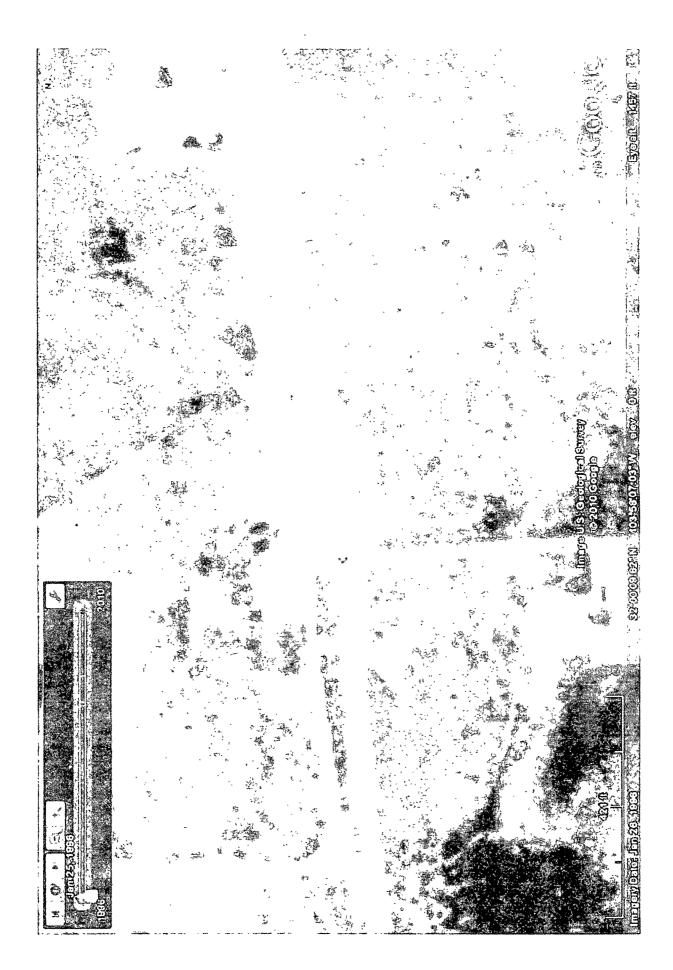


Excavation Activities at the Federal Littlefield "BO" Tank Battery Release Site



Excavation Activities at the Federal Littlefield "BO" Tank Battery

Appendix B Aerial Photographs





# Appendix C Laboratory Analytical Reports

### **Analytical Report 357602**

for

**GP II Energy** 

**Project Manager: Curt Stanley** 

Littlefield "BO" Fed # 2

GP II Energy

12-JAN-10





#### 12600 West I-20 East Odessa, Texas 79765

Xenco-Houston (EPA Lab code: TX00122):

Texas (T104704215-08-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 (LAO00308), 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 (T104704400-08-TX)
Xenco-Dallas (EPA Lab code: TX01468): Texas (T104704295-08-TX)
Xenco-Corpus Christi (EPA Lab code: TX02613): Texas (T104704370-08-TX)
Xenco-Boca Raton (EPA Lab Code: FL00449): Florida(E86240),
South Carolina(96031001), Louisiana(04154), Georgia(917)







Project Manager: Curt Stanley

**GP II Energy** P.O. Box 50682 Midland, TX 79710

Reference: XENCO Report No: 357602

Littlefield "BO" Fed # 2

Project Address: Eddy County, New Mexico

#### **Curt Stanley:**

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 357602. 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. 357602 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 Busine's Administration Award of Excellence in 1994.

Certified and approved by numerous States and Agencies.

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



### **Sample Cross Reference 357602**



### GP II Energy, Midland, TX

Littlefield "BO" Fed # 2

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
SP-1	S	Jan-05-10 10:20		357602-001
SP-2	S	Jan-05-10 10:35		357602-002
SP-3	S	Jan-05-10 10:50		357602-003
SP-4	S	Jan-05-10 11:05		357602-004
SP-5	S	Jan-05-10 11:20		357602-005
SP-5 A	S	Jan-05-10 11:30		357602-006
SP-6	S	Jan-05-10 11:45		357602-007
SP-6 A	S	Jan-05-10 11:55		357602-008
SP-7	S	Jan-05-10 12:05		357602-009
SP-8	S	Jan-05-10 12:20		357602-010
SP-8 A	S	Jan-05-10 12:25		357602-011
SP-9	S	Jan-05-10 12:35		357602-012
SP-10	S	Jan-05-10 12:50		357602-013
SP-10 A	S	Jan-05-10 12:55		357602-014
SP-11	S	Jan-05-10 13:05		357602-015
SP-12	S	Jan-05-10 13:20		357602-016
SP-12 A	S	Jan-05-10 13:30		357602-017
SP-13	S	Jan-05-10 13:45		357602-018
SP-14	S	Jan-05-10 14:00		357602-019
SP-15	S	Jan-05-10 14:15		357602-020
SP-16	S	Jan-05-10 14:30		357602-021
SP-17	S	Jan-05-10 14:45		357602-022
SP-18	S	Jan-05-10 15:00		357602-023
SP-19	S	Jan-05-10 15:15		357602-024
SP-19 A	S	Jan-05-10 15:25		357602-025
SP-20	S	Jan-05-10 15:50		357602-026
SP-21	S	Jan-05-10 16:15		357602-027

#### CASE NARRATIVE



Client Name: GP II Energy

Project Name: Littlefield "BO" Fed # 2

Project ID:

GP II Energy

Work Order Number: 357602

Report Date: 12-JAN-10 Date Received: 01/06/2010

#### Sample receipt non conformances and Comments:

None

#### Sample receipt Non Conformances and Comments per Sample:

None

Analytical Non Conformances and Comments:

Batch: LBA-788416 Percent Moisture

None

Batch: LBA-788419 Percent Moisture

None

Batch: LBA-788427 Anions by E300

None

Batch: LBA-788428 Anions by E300

None

Batch: LBA-788467 BTEX by EPA 8021B

SW8021BM

Batch 788467, 4-Bromofluorobenzene recovered above QC limits . Matrix interferences is

suspected; data not confirmed by re-analysis

Samples affected are: 357602-013,357602-019,357602-017,357602-014.

Batch: LBA-788765 BTEX by EPA 8021B

SW8021BM

Batch 788765, 4-Bromofluorobenzene recovered above QC limits . Matrix interferences is

suspected; data not confirmed by re-analysis

Samples affected are: 357602-022.

Page 4 of 42 Final Ver. 1.000

#### CASE NARRATIVE



Client Name: GP II Energy

Project Name: Littlefield "BO" Fed # 2

Project ID:

GP II Energy

Report Date: 12-JAN-10

Work Order Number: 357602

Date Received: 01/06/2010

Batch: LBA-788785 BTEX by EPA 8021B

SW8021BM

Batch 788785, 1,4-Difluorobenzene recovered below QC limits . Matrix interferences is

suspected; data confirmed by re-analysis

Samples affected are: 357602-007.

4-Bromofluorobenzene recovered above QC limits . Matrix interferences is suspected; data

confirmed by re-analysis

Samples affected are: 357602-005,357602-016,357602-008,357602-007.

#### SW8021BM

Batch 788785, Ethylbenzene recovered below QC limits in the Matrix Spike and Matrix Spike Duplicate. Benzene, Toluene recovered below QC limits in the Matrix Spike Duplicate. Samples affected are: 357602-005, -007, -008, -016.

The Laboratory Control Sample for Toluene, Benzene, Ethylbenzene is within laboratory Control Limits

Batch: LBA-788825 TPH By SW8015 Mod

SW8015MOD NM

Batch 788825, C12-C28 Diesel Range Hydrocarbons recovered below QC limits in the Matrix Spike and Matrix Spike Duplicate.

Samples affected are: 357602-017, -005, -009, -011, -014, -001, -003, -020, -002, -004, -006, -007, -008, -013, -015, -018, -010, -012, -016, -019.

The Laboratory Control Sample for C12-C28 Diesel Range Hydrocarbons is within laboratory Control Limits

> Final Ver. 1 000 Page 5 of 42

#### CASE NARRATIVE



Client Name: GP II Energy

Project Name: Littlefield "BO" Fed # 2

Project ID:

GP II Energy

Report Date: 12-JAN-10

Work Order Number: 357602

Date Received: 01/06/2010

Batch: LBA-788827 BTEX by EPA 8021B

SW8021BM

Batch 788827. 1.4-Difluorobenzene recovered below QC limits. Matrix interferences is

suspected; data confirmed by re-analysis

Samples affected are: 357602-024.

4-Bromofluorobenzene recovered above QC limits . Matrix interferences is suspected; data

confirmed by re-analysis

Samples affected are: 357602-024.

#### SW8021BM

Batch 788827, Benzene, Ethylbenzene, Toluene, m,p-Xylenes, o-Xylene recovered below QC limits in the Matrix Spike and Matrix Spike Duplicate.

Samples affected are: 357602-024.

The Laboratory Control Sample for Toluene, m,p-Xylenes, Benzene, Ethylbenzene, o-Xylene is

within laboratory Control Limits

Batch: LBA-788838 TPH By SW8015 Mod

None

Final Ver. 1.000



# Certificate of Analysis Summary 357602

GP II Energy, Midland, TX

Project Name: Littlefield "BO" Fed # 2



Project Id: GP II Energy Contact: Curt Stanley

Project Location: Eddy County, New Mexico

Date Received in Lab: Wed Jan-06-10 09:53 am

Report Date: 12-JAN-10

Project Manager: Brent Barron, II

											<u> </u>		
	Lab Id:	357602-0	001	357602-002		357602-003		357602-004		357602-005		357602-	-006
Analysis Requested	Field Id:	SP-1		SP-2	SP-2 SP-3			SP-4		SP-5		SP-5	A
Anutysis Requested	Depth:												
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Jan-05-10	Jan-05-10 10:20		0:35	Jan-05-10 I	0.50	Jan-05-10	11:05	Jan-05-10 11.20		Jan-05-10 11.30	
Anions by E300	Extracted:												
·	Analyzed:	Jan-07-10	Jan-07-10 20:25		20.25	Jan-07-10 2	20.25	Jan-07-10	20.25	Jan-07-10	20:25	Jan-07-10 20:25	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		548	26.2	568	23.3	2240	49.7	229	9.47	2280	47.0	1850	
BTEX by EPA 8021B	Extracted:	Jan-06-10	15 00	Jan-06-10	5:00	Jan-06-10 1	Jan-06-10 15:00		15.00	Jan-07-10	15:45	Jan-06-10	15:00
	Analyzed:	Jan-06-10	15:48	Jan-06-10	6.11	Jan-06-10 16.3		Jan-06-10 16 57		Jan-08-10	05:55	Jan-06-10 18:07	
	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	0.0011	ND	0.0012	ND	0.0011	ND	0.0011	ND	0.0011
Toluene		ND	0.0025	ND	0.0022	ND	0.0024	ND	0.0023	0.0105	0.0022	ND	0.0022
Ethylbenzene		0.0038	0.0012	ND	0.0011	ND	0.0012	ND	0.0011	0.0293	0.0011	ND	0,0011
m,p-Xylenes		0 0098	0.0025	ND	0.0022	0.0030	0.0024	ND	0.0023	0.0885	0.0022	ND	0.0022
o-Xylene		0.0055			0.0011		0.0012		0.0011	0 0092		ND	
Total Xylenes		0.0153	0.0012		0.0011	0.0030			0.0011	0 0977		ND	0 0011
Total BTEX		0.0191	0.0012	ND	1100.0	0.0030	0.0012	ND	0.0011	0 1375	0 0011	ND	0.0011
Percent Moisture	Extracted:							,					
	Analyzed:	Jan-06-10	17.00	Jan-06-10 1	7.00	Jan-06-10 1	7.00	Jan-06-10	17 00	Jan-06-10	17:00	Jan-06-10	17.00
	Units/RL:	%	RL	%	RL	%	RL	%	RL	%	RL	%	RL
Percent Moisture		19.8	1.00	9.79	1.00	15.5	1.00	11.3	1 00	10.7	1.00	10.6	1.00
TPH By SW8015 Mod	Extracted:	Jan-07-10	12:30	Jan-07-10 12.30		Jan-07-10 1	2.30	Jan-07-10	12.30	Jan-07-10	12:30	Jan-07-10	12.30
Analyzed:		Jan-08-10	12:11	Jan-08-10	2 38	Jan-08-10 13·04		Jan-08-10	13.30	Jan-08-10 13:56		Jan-08-10	14.23
	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		39.0	18.8	ND	16.7	26 0	17.7	116	16.9	185	16.9	81.0	
C12-C28 Diesel Range Hydrocarbons		278	18 8	137	16.7	137	17.7	414	16.9	602	16 9	149	168
C28-C35 Oil Range Hydrocarbons		29.0	18.8	ND	16.7	ND	17.7	47.9	16.9	ND	169	31.1	168
Total TPH		346	18.8	137	16.7	163	17.7	578	16.9	787	16.9	261	168

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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Brent Barron, II Odessa Laboratory Manager



GP II Energy, Midland, TX

Project Name: Littlefield "BO" Fed # 2



Project Id: GP II Energy Contact: Curt Stanley

Project Location: Eddy County, New Mexico

Date Received in Lab: Wed Jan-06-10 09:53 am

Report Date: 12-JAN-10

Project Manager: Brent Barron, II

								1 Toject Ivia	nager.	Diem Danon	, 11		
	Lab Id:	357602-0	007	357602-0	908	357602-0	09	357602-0	010	357602-	011	357602-0	012
Analysis Requested	Field Id:	SP-6		SP-6 A	.	SP-7		SP-8		SP-8 A	4	SP-9	
Anaiysis Requesieu	Depth:												
	Matrix:	SOIL		SOIL		SOIL		SOIL	,	SOIL		SOIL	,
	Sampled:	Jan-05-10 1	1:45	Jan-05-10	11:55	Jan-05-10 I	2.05	Jan-05-10	12.20	Jan-05-10	12.25	Jan-05-10	12:35
Anions by E300	Extracted:			700			-						
	Analyzed:	Jan-07-10	20:25	Jan-07-10 2	20:25	Jan-07-10 2	0.25	Jan-07-10	20:25	Jan-07-10	20:25	Jan-07-10	20:25
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chlonde		561	9.24	829	9.49	1480	23.6	1060	48.2	1320	55.4	15.5	5.56
BTEX by EPA 8021B	Extracted:	Jan-07-10	15:45	Jan-07-10 1	15.45	Jan-06-10 1	5:00	Jan-06-10	15:00	Jan-06-10	15:00	Jan-06-10	15.00
	Analyzed:	Jan-08-10	06.17	Jan-08-10 (	06:39	Jan-06-10 1	9:16	Jan-06-10	19:39	Jan-06-10	20.47	Jan-06-10	21:10
	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	0.0013	ND	0.0013
Toluene		0.0071	0.0022	ND	0.0023	ND	0.0022	ND	0.0023	ND	0.0026	ND	0.0027
Ethylbenzene		0.0110	0.0011	0.0037	0.0011	ND	0.0011	ND	0.0011	ND	0.0013	ND	0.0013
m,p-Xylenes		0.0244	0.0022	0.0072	0.0023	ND	0 0022	ND	0.0023	ND	0.0026	ND	0.0027
o-Xylene		0.0202		0 0060			0.0011		0.0011	ND	0.0013	ND	0.0013
Total Xylenes		0.0446	0.0011	0.0132	0.0011	ND	0.0011	ND	0.0011	ND	0.0013	ND	0.0013
Total BTEX		0.0627	0.0011	0.0169	0.0011	ND	0.0011	ND	0 0011	ND	0.0013	ND	0 0013
Percent Moisture	Extracted:												
	Analyzed:	Jan-06-10	7:00	Jan-06-10 1	7.00	Jan-06-10 1	7 00	Jan-06-10	17.00	Jan-06-10	17.00	Jan-06-10	17:00
	Units/RL:	%	RL	%	RL	%	RL	%	RL	%	RL	%	RL
Percent Moisture		9.09	1.00	11.5	1.00	11.0	1 00	12.8	1.00	24.2	1.00	24.5	1.00
TPH By SW8015 Mod	Extracted:	Jan-07-10	2:30	Jan-07-10 1	2.30	Jan-07-10 1	2.30	Jan-07-10	12:30	Jan-07-10	12.30	Jan-07-10	12:30
	Analyzed:	Jan-08-10	4.49	Jan-08-10 1	5:15	Jan-08-10 1	5:42	Jan-08-10	16.08	Jan-08-10	17:00	Jan-08-10	17:27
	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		218	16.5	240	16.9	229	16.8	238	17 2	45.1	19.8	44.3	19.9
C12-C28 Diesel Range Hydrocarbons		910	16.5	470	16.9	262	16.8	496	17 2	303	19.8	334	19.9
C28-C35 Oil Range Hydrocarbons		121	16.5	22.1	169	29.6	168	24.2	17.2	22.1	19.8	ND	19.9
Total TPH		1249	16.5	732	16.9	521	168	758	17.2	370	19.8	378	19.9

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 involved for this work order unless otherwise agreed to in writing

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Brent Barron, II Odessa Laboratory Manager



GP II Energy, Midland, TX

Project Name: Littlefield "BO" Fed # 2



Project Id: GP II Energy Contact: Curt Stanley

Project Location: Eddy County, New Mexico

Date Received in Lab: Wed Jan-06-10 09:53 am

Report Date: 12-JAN-10

Project Manager: Brent Barron, II

				-				1 Toject 191a	muger.	Dient Danon,			
	Lab Id:	357602-0	013	357602-0	014	357602-0	15	357602-	016	357602-	017	357602-	018
Analysis Descripted	Field Id:	SP-10	)	SP-10	A	SP-11		SP-12	2	SP-12	А	SP-13	3
Analysis Requested	Depth:												
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Jan-05-10	12:50	Jan-05-10	12:55	Jan-05-10 I	3.05	Jan-05-10	13.20	Jan-05-10	13:30	Jan-05-10	13:45
Anions by E300	Extracted:												
•	Analyzed:	Jan-07-10	20:25	Jan-07-10 2	20:25	Jan-07-10 2	20:25	Jan-07-10	20:25	Jan-07-10	20:25	Jan-07-10	20:25
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chlonde	1	1300	18.3	935	18 3	98.5	8.97	473	9.30	275	9.02	79.0	4.60
BTEX by EPA 8021B	Extracted:	Jan-06-10	15:00	Jan-06-10	15.00	Jan-06-10 1	5:00	Jan-07-10	15:45	Jan-06-10	15:00	Jan-06-10	15:00
	Analyzed:	Jan-06-10	21.33	Jan-06-10 2	21.56	Jan-06-10 2	2:19	Jan-08-10	07:01	Jan-06-10	23.04	Jan-06-10	23:27
	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
Toluenc		0.0023	0.0022	ND	0.0022	ND	0.0021	ND	0.0022	ND	0.0021	ND	0.0022
Ethylbenzene		0.0168	0.0011	0.0011	0.0011	ND	0.0011	0.0078	0.0011	0.0024	0.0011	ND	0 0011
m,p-Xylenes		0.0523		0 0035			0.0021		0.0022		0.0021	0.0024	0.0022
o-Xylene		0 0096			0.0011		0.0011	0.0108			0.0011	ND	0.0011
Total Xylenes		0.0619		0.0035		ND	0.0011	0.0389		0.0105		0.0024	0.0011
Total BTEX		0.0810	0.0011	0.0046	0.0011	ND	0.0011	0.0467	0 0011	0.0129	0.0011	0.0024	0.0011
Percent Moisture	Extracted:												
	Analyzed:	Jan-06-10	17:00	Jan-06-10	17.00	Jan-06-10 1	7.00	Jan-06-10	17.00	Jan-06-10	17.00	Jan-06-10	17.00
	Units/RL:	%	RL	%	RL	%	RL	%	RL	%	RL	%	RL
Percent Moisture		8.44	1.00	7.98	1.00	6.31	1.00	9.65	1.00	6.92	1 00	8.77	1.00
TPH By SW8015 Mod	Extracted:	Jan-07-10	12:30	Jan-07-10	12:30	Jan-07-10 1	2 30	Jan-07-10	12:30	Jan-07-10	2:30	Jan-07-10	12:30
	Analyzed:	Jan-08-10	17:53	Jan-08-10	18:19	Jan-08-10 1	8 45	Jan-08-10	19:11	Jan-08-10	19:37	Jan-08-10	20:03
	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		279	16.4	208	16.3	139	160	269	16 6	40.2	16.1	38.9	16.4
C12-C28 Diesel Range Hydrocarbons		519	164	324	16.3	238	16.0	653	16.6	106	161	495	164
C28-C35 Oil Range Hydrocarbons		29.3	16.4	19 5	16.3	28 3	16.0	22.1	16.6	ND	161	24.9	16 4
Total TPH		827	16.4	552	16.3	405	16.0	944	16.6	146	16.1	559	16.4

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Brent Barron, II

Final Ver. 1.000

Odessa Laboratory Manager



GP II Energy, Midland, TX

Project Name: Littlefield "BO" Fed # 2



Project Id: GP II Energy Contact: Curt Stanley

Project Location: Eddy County, New Mexico

Date Received in Lab: Wed Jan-06-10 09:53 am

Report Date: 12-JAN-10

Project Manager: Brent Barron, II

								1 Toject Ma	mager.	Dient Darron	,		
	Lab Id:	357602-0	019	357602-0	020	357602-0	)21	357602-	022	357602-	023	357602-	024
Analysis Requested	Field Id:	SP-14		SP-15		SP-16		SP-17		SP-18		SP-19	)
Anatysis Kequesiea	Depth:												
	Matrix:	SOIL		SOIL		SOIL		SOIL	_	SOIL		SOIL	
	Sampled:	Jan-05-10 1	14.00	Jan-05-10	14:15	Jan-05-10 I	14.30	Jan-05-10	14.45	Jan-05-10	15.00	Jan-05-10	15.15
Anions by E300	Extracted:												***
	Analyzed:	Jan-07-10	20.25	Jan-07-10 2	20:25	Jan-07-10 (	01:42	Jan-07-10	01:42	Jan-07-10	01.42	Jan-07-10	01:42
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		257	9.07	732	8.90	164	4.47	70.2	5.55	607	8.93	131	10.6
BTEX by EPA 8021B	Extracted:	Jan-06-10	15:00	Jan-06-10	5:00	Jan-06-10 1	15.30	Jan-06-10	15:30	Jan-06-10	15.30	Jan-07-10	09 55
	Analyzed:	Jan-06-10	23:49	Jan-07-10 (	00.12	Jan-07-10 (	08:19	Jan-07-10	08:41	Jan-07-10	09:03	Jan-09-10	04:37
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Benzenc		ND	0.0011	ND	0.0011	ND	0 0011	ND	0.0013	ND	0.0011	0 2386	0.0314
Toluene		0.0028	0.0022	ND	0.0021	ND	0.0021	0.0189	0.0026	ND	0.0021	1 143	0.0628
Ethylbenzene		0.0084	0.0011	ND	0.0011	ND	0.0011	0.0312	0.0013	ND	0 0011	1.478	0 0314
m,p-Xylenes		0.0281	0.0022	ND	0.0021	ND	0.0021	0.0794	0.0026	0.0032	0.0021	3.484	0.0628
o-Xylene		0.0084		ND	0.0011	ND	0.0011	0 0308	0.0013	0.0012	0.0011	1.186	0.0314
Total Xylenes		0.0365	0.0011	ND	0.0011	ND	0.0011	0.1102	0.0013	0.0044	0.0011	4.670	0.0314
Total BTEX		0 0477	0.0011	ND	0.0011	ND	0.0011	0.1603	0.0013	0 0044	0.0011	7.530	0.0314
Percent Moisture	Extracted:												
	Analyzed:	Jan-06-10	17:00	Jan-06-10 1	7.00	Jan-06-10 1	7.00	Jan-06-10	17:00	Jan-06-10	17.00	Jan-06-10	17.00
	Units/RL:	%	RL	%	RL	%	RL	%	RL	%	RL	%	RL
Percent Moisture		7.38	1.00	5.64	1.00	5.99	1.00	24.3	1.00	5.95	1.00	20.7	1.00
TPH By SW8015 Mod	Extracted:	Jan-07-10	12:30	Jan-07-10 J	2.30	Jan-07-10 1	3:00	Jan-07-10	13.00	Jan-07-10	13 00	Jan-07-10	13.00
	Analyzed:	Jan-08-10 2	20.29	Jan-08-10 2	0:55	Jan-09-10 l	5.08	Jan-09-10	15:34	Jan-09-10	16:01	Jan-09-10	16.28
	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		134	16.2	ND	15.9	ND	16.0	45.8	19.8	22.6	15.9	417	18.9
C12-C28 Diesel Range Hydrocarbons		270	16.2	35.4	15.9	ND	16.0	90.7	19.8	80.5	15.9	969	18.9
C28-C35 Oil Range Hydrocarbons		20 6	16.2	ND	15.9	ND	16.0	ND	19.8	ND	15.9	87.6	18 9
Total TPH		425	16.2	35.4	15.9	ND	16.0	136.5	19.8	103.1	15.9	1474	18 9

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Brent Barron, II

Odessa Laboratory Manager

Final Ver. 1.000



GP II Energy, Midland, TX

Project Name: Littlefield "BO" Fed # 2



Project Id: GP II Energy
Contact: Curt Stanley

Project Location: Eddy County, New Mexico

Date Received in Lab: Wed Jan-06-10 09:53 am

Report Date: 12-JAN-10

Project Manager: Brent Barron, II

								Project Manager:	Dient Barron, ii	<del>,</del>
	Lab Id:	357602-0	025	357602-0	026	357602-0	27			
Analysis Requested	Field Id:	SP-19	A	SP-20		SP-21				
Analysis Requested	Depth:								!	
	Matrix:	SOIL		SOIL	SOIL					
	Sampled:	Jan-05-10 1	5.25	Jan-05-10 1	15.50	Jan-05-10 I	6.15			
Anions by E300	Extracted:									
	Analyzed:	Jan-07-10 (	01.42	Jan-07-10 (	11.42	Jan-07-10 (	11.42			
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	71.42 RL			
Chlonde	Chiis/KL.	ND	17.7	ND	4.34	650	23.6			
BTEX by EPA 8021B	Extracted:	Jan-06-10		Jan-06-10 1		Jan-06-10 1				
DIENELY ETH GOZID		Jan-07-10 (		Jan-07-10 1						
	Analyzed:				]	Jan-07-10 1				
Benzene	Units/RL:	mg/kg	RL 0.0011	mg/kg	RL 0.0010	mg/kg 0.0013	RL		<u> </u>	
Toluene			0.0011		0.0010		0 0022			
Ethylbenzene		0 0015		0.0012			0.0011			
m,p-Xylenes			0.0011		0.0010		0.0011			
o-Xylene		0.0033			0.0021		0.0022			
Total Xylenes		0.0045			0.0010		0.0011			
Total BTEX		0 0060		0.0012		0.0013				<u> </u>
Percent Moisture	Extracted:			*****						
	Analyzed:	Jan-06-10 1	17:00	Jan-06-10 1	7:00	Jan-06-10 1	7:00			
	Units/RL:	%	RL	%	RL	%	RL			
Percent Moisture		5.06	1.00	3.13	1.00	10.9	1.00			
TPH By SW8015 Mod	Extracted:	Jan-07-10 1	13.00	Jan-07-10 1	3.00	Jan-07-10 1	3 00			
	Analyzed:	Jan-09-10 1	16 55	Jan-09-10 1	7:21	Jan-09-10 1	7.48			
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL			
C6-C12 Gasoline Range Hydrocarbons		ND	15.8	ND	15.5	ND	16.8			
C12-C28 Dicsel Range Hydrocarbons		18.3	15.8	ND	15.5	343	168			
C28-C35 Oil Range Hydrocarbons		ND	15.8	ND	15.5	42.4	16.8			
Total TPH		18.3	158	ND	15.5	385	16.8			

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Brent Barron, II

Odessa Laboratory Manager



#### Flagging Criteria



- X In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to effect the recovery of the spike concentration. This condition could also effect the relative percent difference in the MS/MSD.
- **B** A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.
- **D** The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.
- E The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.
- F RPD exceeded lab control limits.
- J The target analyte was positively identified below the MQL and above the SQL.
- U Analyte was not detected.
- L The LCS data for this analytical batch was reported below the laboratory control limits for this analyte.

  The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.
- **H** The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.
- **K** Sample analyzed outside of recommended hold time.
- JN A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.
- **BRL** Below Reporting Limit.
- **RL** Reporting Limit
- \* Outside XENCO's scope of NELAC Accreditation.

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2505 North Falkenburg Rd, Tampa, FL 33619	(813) 620-2000	(813) 620-2033
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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: Littlefield "BO" Fed # 2

Work Orders: 357602,

Sample: 547095-1-BKS / BKS

Project ID: GP II Energy

Lab Batch #: 788467

Batch: 1

Matrix: Solid

Units: mg/kg Date Analyzed: 01/06/10 13:49	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	0.0343	0.0300	114	80-120	
4-Bromofluorobenzene	0.0330	0.0300	110	80-120	_

Lab Batch #: 788467

Sample: 547095-1-BSD / BSD

Batch:

Matrix: Solid

Units: mg/kg Date Analyzed: 01/06/10 14:16	SU	RROGATE R	RECOVERY	STUDY	
BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
Analytes		}	[D]		
1,4-Difluorobenzene	0.0335	0.0300	112	80-120	
4-Bromofluorobenzene	0.0326	0.0300	109	80-120	

Lab Batch #: 788467

**Sample:** 547095-1-BLK / BLK

Batch:

Matrix: Solid

Units: mg/kg Date Analyzed: 01/06/10 15:25	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	0.0268	0 0300	89	80-120	
4-Bromofluorobenzene	0 0304	0.0300	101	80-120	

Lab Batch #: 788467

Sample: 357602-001 / SMP

Batch: 1

Matrix: Soil

Units: mg/kg Date Analyzed: 01/06/10 15:48	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-Dıfluorobenzene	0.0253	0.0300	84	80-120	
4-Bromofluorobenzene	0.0350	0.0300	117	80-120	

Lab Batch #: 788467

Sample: 357602-002 / SMP

Batch: 1

Matrix: Soil

Units: mg/kg Date Analyzed: 01/06/10 16:	:11 SU	SURROGATE RECOVERY STUDY								
BTEX by EPA 8021B  Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags					
1,4-Difluorobenzene	0.0260	0.0300	87	80-120						
4-Bromofluorobenzene	0.0331	0 0300	110	80-120						

<sup>\*</sup> Surrogate outside of Laboratory QC limits

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

<sup>\*\*</sup> Surrogates outside limits; data and surrogates confirmed by reanalysis

<sup>\*\*\*</sup> Poor recoveries due to dilution



Project Name: Littlefield "BO" Fed # 2

Work Orders: 357602,

Project ID: GP II Energy

Lab Batch #: 788467

Sample: 357602-003 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg Date Analyzed: 01/06/10 16:33	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	0.0260	0.0300	87	80-120	
4-Bromofluorobenzene	0.0340	0.0300	113	80-120	

Lab Batch #: 788467

Sample: 357602-004 / SMP

Batch:

Matrix: Soil

Units: mg/kg Date Analyzed: 01/06/10 16:57	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-Dıfluorobenzene	0 0263	0.0300	88	80-120	
4-Bromofluorobenzene	0.0338	0.0300	113	80-120	

Lab Batch #: 788467

Sample: 357602-006 / SMP

Batch: 1

Matrix: Soil

Units: mg/kg	Date Analyzed: 01/06/10 18:07	SURROGATE RECOVERY STUDY					
втех	K by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags	
	Analytes			[D]			
1,4-Dıfluorobenzene		0.0258	0 0300	86	80-120		
4-Bromofluorobenzene		0.0319	0 0300	106	80-120		

Lab Batch #: 788467

Sample: 357602-009 / SMP

Batch: 1

Matrix: Soil

Units: mg/kg Date Analyzed: 01/06/10 19:16	SURROGATE RECOVERY STUDY						
BTEX by EPA 8021B  Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags		
1,4-Difluorobenzene	0.0266	0.0300	89	80-120			
4-Bromofluorobenzene	0.0360	0.0300	120	80-120			

Lab Batch #: 788467

**Sample:** 357602-010 / SMP

Batch: 1

Matrix: Soil

<b>Units:</b> mg/kg <b>Date Analyzed:</b> 01/06/10 19:39	SURROGATE RECOVERY STUDY						
BTEX by EPA 8021B  Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags		
1,4-Difluorobenzene	0.0269	0.0300	90	80-120			
4-Bromofluorobenzene	0 0348	0.0300	116	80-120			

<sup>\*</sup> Surrogate outside of Laboratory QC limits

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

<sup>\*\*</sup> Surrogates outside limits; data and surrogates confirmed by reanalysis

<sup>\*\*\*</sup> Poor recoveries due to dilution



Project Name: Littlefield "BO" Fed # 2

Work Orders: 357602,

Project ID: GP II Energy

Lab Batch #: 788467

Sample: 357602-011 / SMP

Matrix: Soil Batch:

Units: mg/kg Date Analyzed: 01/06/10 20:	47 SU	SURROGATE RECOVERY STUDY						
BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags			
Analytes	, ,		[D]					
1,4-Difluorobenzenc	0 0270	0.0300	90	80-120				
4-Bromofluorobenzene	0.0326	0.0300	109	80-120				

Lab Batch #: 788467

**Sample:** 357602-012 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg Date Analyzed: 01/06/10 21:10	SURROGATE RECOVERY STUDY						
BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags		
Analytes			[D]				
1,4-Difluorobenzene	0.0267	0.0300	89	80-120			
4-Bromofluorobenzene	0.0307	0.0300	102	80-120			

Lab Batch #: 788467

**Sample:** 357602-013 / SMP

Batch: 1

Matrix: Soil

Units: mg/kg Date Analyzed: 01/06/10 21:33	SURROGATE RECOVERY STUDY						
BTEX by EPA 8021B  Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags		
1,4-Difluorobenzene	0.0242	0.0300	81	80-120			
4-Bromofluorobenzene	0.0497	0.0300	166	80-120	*		

Lab Batch #: 788467

Sample: 357602-014 / SMP

Batch:

Matrix: Soil

Units: mg/kg Date Analyzed: 01/06/10 21:56	SURROGATE RECOVERY STUDY						
BTEX by EPA 8021B  Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags		
1,4-Difluorobenzene	0.0262	0 0300	87	80-120			
4-Bromofluorobenzene	0.0371	0.0300	124	80-120	*		

Lab Batch #: 788467

Sample: 357602-015 / SMP

Batch:

Matrix: Soil

Units: mg/kg Date Analyzed: 01/06/10 22:19	SURROGATE RECOVERY STUDY						
BTEX by EPA 8021B  Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags		
I,4-Dıfluorobenzene	0.0262	0.0300	87	80-120			
4-Bromofluorobenzene	0.0345	0.0300	115	80-120			

<sup>\*</sup> Surrogate outside of Laboratory QC limits

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

<sup>\*\*</sup> Surrogates outside limits; data and surrogates confirmed by reanalysis

<sup>\*\*\*</sup> Poor recoveries due to dilution



Project Name: Littlefield "BO" Fed # 2

Work Orders: 357602,

Sample: 357602-017 / SMP

Project ID: GP II Energy

Lab Batch #: 788467

Matrix: Soil Batch: 1

Units: mg/kg	Date Analyzed: 01/06/10 23:04	SURROGATE RECOVERY STUDY						
втех	K by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags		
	Analytes			[D]				
1,4-Dıfluorobenzene		0.0252	0 0300	84	80-120			
4-Bromofluorobenzene		0.0374	0.0300	125	80-120	*		

Lab Batch #: 78846.7

Sample: 357602-018 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg	g/kg Date Analyzed: 01/06/10 23:27 SURROGATE RECOVERY STUD						
втех	X by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags	
	Analytes	ł		[D]			
1,4-Difluorobenzene		0.0263	0.0300	88	80-120	-	
4-Bromofluorobenzene		0.0338	0.0300	113	80-120		

Lab Batch #: 788467

Sample: 357602-019 / SMP

Batch: 1

Matrix: Soil

Units: mg/kg Date Analyzed: 01/0	6/10 23:49 <b>SU</b>	SURROGATE RECOVERY STUDY						
BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags			
Analytes			[D]					
1,4-Dıfluorobenzene	0.0255	0 0300	85	80-120				
4-Bromofluorobenzene	0.0424	0.0300	141	80-120	*			

Lab Batch #: 788467

Sample: 357602-020 / SMP

Batch: 1

Matrix: Soil

Units: mg/kg Date Analyzed: 01/07/10 00:12	SU	SURROGATE RECOVERY STUDY						
BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags			
Analytes			[D]					
1,4-Dıfluorobenzene	0.0272	0.0300	91	80-120				
4-Bromofluorobenzene	0.0322	0.0300	107	80-120				

Lab Batch #: 788467

**Sample:** 357602-015 S / MS

Batch: 1

Matrix: Soil

Units: mg/kg Date Analyzed: 01/07/10 00:34	SURROGATE RECOVERY STUDY					
BTEX by EPA 8021B  Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags	
1.4-Dıfluorobenzene	0 0324	0.0300	108	80-120		
4-Bromofluorobenzene	0 0317	0.0300	106	80-120		

<sup>\*</sup> Surrogate outside of Laboratory QC limits

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

<sup>\*\*</sup> Surrogates outside limits; data and surrogates confirmed by reanalysis

<sup>\*\*\*</sup> Poor recoveries due to dilution



Project Name: Littlefield "BO" Fed # 2

Work Orders: 357602,

Project ID: GP II Energy

Lab Batch #: 788467

Sample: 357602-015 SD / MSD

Matrix: Soil Batch: 1

Units: mg/kg Date Analyzed: 01/07/10 00:57	SURROGATE RECOVERY STUDY					
BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags	
Analytes			[D]			
1,4-Difluorobenzene	0.0321	0.0300	107	80-120		
4-Bromofluorobenzene	0.0316	0 0300	105	80-120		

Lab Batch #: 788765

Sample: 547268-1-BKS / BKS

Batch: 1 Matrix: Solid

Units: mg/kg Date Analyzed: 01/07/10 06:29	SURROGATE RECOVERY STUDY					
BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags	
Analytes			[D]	İ		
1,4-Dıfluorobenzene	0 0316	0.0300	105	80-120		
4-Bromofluorobenzene	0.0292	0.0300	97	80-120		

Lab Batch #: 788765

**Sample:** 547268-1-BSD / BSD

Batch:

Matrix: Solid

Units: mg/kg Date Analyzed: 01/07/10 06:51	SURROGATE RECOVERY STUDY					
BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags	
Analytes			[D]			
1,4-Difluorobenzenc	0.0310	0 0300	103	80-120		
4-Bromofluorobenzene	0.0285	0.0300	95	80-120		

Lab Batch #: 788765

Sample: 547268-1-BLK / BLK

Batch: 1

Matrix: Solid

Units: mg/kg Date Analyzed: 01/07	7/10 07:57 SU	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 0270	0 0300	90	80-120			
4-Bromofluorobenzene	0.0293	0.0300	98	80-120			

Lab Batch #: 788765

Sample: 357602-021 / SMP

Batch:

Matrix: Soil

Units: mg/kg Date Analyzed: 01/07/10 08:19	SURROGATE RECOVERY STUDY					
BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags	
Analytes			[D]			
1,4-Dıfluorobenzene	0.0267	0.0300	89	80-120		
4-Bromofluorobenzene	0.0299	0.0300	100	80-120		

<sup>\*</sup> Surrogate outside of Laboratory QC limits

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

<sup>\*\*</sup> Surrogates outside limits; data and surrogates confirmed by reanalysis

<sup>\*\*\*</sup> Poor recoveries due to dilution



Project Name: Littlefield "BO" Fed # 2

Work Orders: 357602,

Project ID: GP II Energy

Lab	Batch	#:	788765
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Sample: 357602-022 / SMP

Matrix: Soil Batch: 1

Units: mg/kg	Date Analyzed: 01/07/10 08:41	SURROGATE RECOVERY STUDY					
втех	X by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags	
	Analytes			[D]			
1,4-Dıfluorobenzene		0.0256	0.0300	85	80-120		
4-Bromofluorobenzene		0.0459	0.0300	153	80-120	*	

Lab Batch #: 788765

**Sample:** 357602-023 / SMP

Batch: 1

Matrix: Soil

Units: mg/kg	Date Analyzed: 01/07/10 09:03	SURROGATE RECOVERY STUDY					
втех	6 by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags	
	Analytes			[D]			
1,4-Dıfluorobenzene		0.0259	0.0300	86	80-120		
4-Bromofluorobenzene		0.0328	0.0300	109	80-120		

Lab Batch #: 788765

Sample: 357602-025 / SMP

Batch: 1

Matrix: Soil

Units: mg/kg Date Analyzed: 01/07/10 09:47	SURROGATE RECOVERY STUDY					
BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags	
Analytes  1.4-Difluorobenzene	0.0252	0.0200		00.120		
4-Bromofluorobenzene	0.0253	0.0300	98	80-120 80-120		

Lab Batch #: 788765

**Sample:** 357602-026 / SMP

Batch: 1

Matrix: Soil

Units: mg/kg Date Analyzed: 01/07/10 10:10	SURROGATE RECOVERY STUDY					
BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags	
Analytes			[D]			
1,4-Difluorobenzene	0.0259	0 0300	86	80-120		
4-Bromofluorobenzene	0 0349	0,0300	116	80-120		

Lab Batch #: 788765

Sample: 357602-027 / SMP

Batch: 1

Matrix: Soil

Units: mg/kg Date Analyzed: 01/07/10 10:32	SURROGATE RECOVERY STUDY					
BTEX by EPA 8021B  Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags	
Analytes			<u> </u>			
1,4-Difluorobenzene	0.0241	0.0300	80	80-120		
4-Bromofluorobenzene	0.0285	0.0300	95	80-120		

<sup>\*</sup> Surrogate outside of Laboratory QC limits

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

<sup>\*\*</sup> Surrogates outside limits; data and surrogates confirmed by reanalysis

<sup>\*\*\*</sup> Poor recoveries due to dilution



Project Name: Littlefield "BO" Fed # 2

Work Orders: 357602, Lab Batch #: 788765

Sample: 357602-021 S / MS

Project ID: GP II Energy

Batch: 1 Matrix: Soil

Units: mg/kg	Units: mg/kg Date Analyzed: 01/07/10 12:03		Analyzed: 01/07/10 12:03 SURROGATE RECOVERY STUDY					
ВТЕХ	X 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		0.0310	0.0300	103	80-120			

Lab Batch #: 788765

Sample: 357602-021 SD / MSD

Batch: 1 Matrix: Soil

SURROGATE RECOVERY STUDY Units: mg/kg Date Analyzed: 01/07/10 12:25 BTEX by EPA 8021B Amount True Control Found Amount Recovery Limits Flags %R %R [A] [B] [D] **Analytes** 1,4-Difluorobenzene 0.0311 0.0300 104 80-120 4-Bromofluorobenzene 0.0300 0.0300 100 80-120

Lab Batch #: 788785

Sample: 547277-1-BKS / BKS

Batch: 1

Matrix: Solid

Units: mg/kg	Date Analyzed: 01/08/10 02:16	SURROGATE RECOVERY STUDY						
ВТЕХ	by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags		
	Analytes			[D]				
1,4-Dıfluorobenzene		0.0308	0.0300	103	80-120			
4-Bromofluorobenzene		0.0296	0.0300	99	80-120			

Lab Batch #: 788785

**Sample:** 547277-1-BLK / BLK

Batch:

Matrix: Solid

Units: mg/kg Date	Analyzed: 01/08/10 03:00	SURROGATE RECOVERY STUDY						
BTEX by EPA		Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags		
Analyte	S			[D]				
1,4-Difluorobenzene		0.0277	0.0300	92	80-120			
4-Bromofluorobenzene		0.0305	0.0300	102	80-120			

Lab Batch #: 788785

Sample: 357602-005 / SMP

Batch: 1

Matrix: Soil

Units: mg/kg Date Analyzed: 01/08/10 05:55	SURROGATE RECOVERY STUDY						
BTEX by EPA 8021B  Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags		
1,4-Difluorobenzene	0.0253	0.0300	84	80-120			
4-Bromofluorobenzene	0 0683	0.0300	228	80-120	**		

<sup>\*</sup> Surrogate outside of Laboratory QC limits

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

<sup>\*\*</sup> Surrogates outside limits; data and surrogates confirmed by reanalysis

<sup>\*\*\*</sup> Poor recoveries due to dilution



Project Name: Littlefield "BO" Fed # 2

Work Orders: 357602,

Project ID: GP II Energy

Lab Batch #: 788785

Sample: 357602-007 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg Date Analyzed: 01/08/10 06:17	SURROGATE RECOVERY STUDY						
BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags		
Analytes			[D]				
1,4-Dıfluorobenzene	0.0232	0.0300	77	80-120	**		
4-Bromofluorobenzene	0.0396	0.0300	132	80-120	**		

Lab Batch #: 788785

Sample: 357602-008 / SMP

Batch: 1

Matrix: Soil

Units: mg/kg Date Analyzed: 01/08/10 06:39	SURROGATE RECOVERY STUDY						
BTEX by EPA 8021B	Amount Found [A]	True Amount  B]	Recovery %R	Control Limits %R	Flags		
Analytes			[D]				
1,4-Difluorobenzene	0.0268	0.0300	89	80-120			
4-Bromofluorobenzene	0.0368	0.0300	123	80-120	**		

Lab Batch #: 788785

Sample: 357602-016 / SMP

Batch:

Matrix: Soil

Units: mg/kg Date Analyzed: 01/08/10 07:01	SU	SURROGATE RECOVERY STUDY						
BTEX by EPA 8021B  Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags			
1,4-Difluorobenzene	0.0270	0.0300	90	80-120				
4-Bromofluorobenzene	0.0441	0.0300	147	80-120	**			

Lab Batch #: 788785

Sample: 357700-001 S / MS

Batch: 1

Matrix: Soil

Units: mg/kg Date Analyzed: 01/08/10 07:23	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 0307	0.0300	102	80-120			
4-Bromofluorobenzene	0 0358	0.0300	119	80-120			

Lab Batch #: 788785

**Sample:** 357700-001 SD / MSD

Batch: 1

Matrix: Soil

Units: mg/kg Date Analyzed: 01/08/10 07:45	SURROGATE RECOVERY STUDY					
BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags	
Analytes			[D]	j l		
1,4-Difluorobenzene	0.0305	0.0300	102	80-120		
4-Bromofluorobenzene	0.0322	0.0300	107	80-120		

<sup>\*</sup> Surrogate outside of Laboratory QC limits

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

<sup>\*\*</sup> Surrogates outside limits; data and surrogates confirmed by reanalysis

<sup>\*\*\*</sup> Poor recoveries due to dilution



Project Name: Littlefield "BO" Fed # 2

Work Orders: 357602,

Project ID: GP II Energy

Lab Batch #: 788827

Sample: 547316-1-BKS / BKS

Matrix: Solid Batch: 1

Units: mg/kg Date Analyzed: 01/08/10 20:33	nalyzed: 01/08/10 20:33 SURROGATE RECOVERY STUDY					
BTEX by EPA 8021B	Amount Found [A]	True Amount {B}	Recovery %R	Control Limits %R	Flags	
Analytes			[D]			
1,4-Difluorobenzene	0.0320	0.0300	107	80-120		
4-Bromofluorobenzene	0.0297	0.0300	99	80-120		

Lab Batch #: 788827

**Sample:** 547316-1-BSD / BSD

Batch:

Matrix: Solid

Units: mg/kg Date Analyzed: 01/08/10 20:56	SURROGATE RECOVERY STUDY						
BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags		
Analytes			[D]				
1,4-Difluorobenzene	0.0316	0.0300	105	80-120			
4-Bromofluorobenzene	0.0303	0.0300	101	80-120			

Lab Batch #: 788827

**Sample:** 547316-1-BLK / BLK

Batch:

Matrix: Solid

Units: mg/kg Date Analyzed: 01/08/10 21:41	SURROGATE RECOVERY STUDY					
BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags	
Analytes			[D]			
1,4-Difluorobenzene	0.0273	0.0300	91	80-120		
4-Bromofluorobenzene	0 0292	0.0300	97	80-120		

Lab Batch #: 788827

Sample: 357602-024 / SMP

Batch: 1

Matrix: Soil

Units: mg/kg Date Analyzed: 01/09/10 04:37	SURROGATE RECOVERY STUDY					
BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags	
Analytes  1.4-Difluorobenzene	0.0205	0.0300	68	80-120	**	
4-Bromofluorobenzene	0.0362	0.0300	121	80-120	**	

Lab Batch #: 788827

Sample: 357767-004 S / MS

Batch:

Matrix: Soil

Units: mg/kg Date Analyzed: 01/09/10 05:43	SURROGATE RECOVERY STUDY					
BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags	
Analytes			[D]			
1,4-Difluorobenzene	0.0283	0.0300	94	80-120		
4-Bromofluorobenzene	0 0297	0 0300	99	80-120		

<sup>\*</sup> Surrogate outside of Laboratory QC limits

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

<sup>\*\*</sup> Surrogates outside limits; data and surrogates confirmed by reanalysis

<sup>\*\*\*</sup> Poor recoveries due to dilution



Project Name: Littlefield "BO" Fed # 2

Work Orders: 357602,

Project ID: GP II Energy

Lab Batch #: 788827

Sample: 357767-004 SD / MSD

Matrix: Soil Batch: 1

Units: mg/kg Date Analyzed: 01/09/10 06:05	SURROGATE RECOVERY STUDY					
BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags	
Analytes			[D]			
1.4-Dıfluorobenzene	0.0288	0.0300	96	80-120		
4-Bromofluorobenzene	0.0293	0.0300	98	80-120		

Lab Batch #: 788825

**Sample:** 547315-1-BKS / BKS

Matrix: Solid Batch:

Units: mg/kg	SURROGATE RECOVERY STUDY						
TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags		
Analytes			[D]				
1-Chlorooctane	105	99 8	105	70-135			
o-Terphenyl	47.8	49.9	96	70-135			

Lab Batch #: 788825

**Sample:** 547315-1-BSD / BSD

Batch:

Matrix: Solid

Units: mg/kg Date Analyzed: 01/08/10 11:19	SURROGATE RECOVERY STUDY					
TPH By SW8015 Mod  Analytes	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags	
1-Chlorooctane	93.7	100	94	70-135	<del></del>	
o-Terphenyl	43.8	50.1	87	70-135		

Lab Batch #: 788825

**Sample:** 547315-1-BLK / BLK

Batch: 1

Matrix: Solid

Units: mg/kg Date Analyzed: 01/08/10 11:45	SU	RROGATE R	<b>ECOVERY</b>	STUDY	
TPH By SW8015 Mod  Analytes	Amount Found [A]	True Amount {B}	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctanc	86.2	99 7	86	70-135	
o-Terphenyl	49.4	49.9	99	70-135	

Lab Batch #: 788825

Sample: 357602-001 / SMP

Batch: 1

Matrix: Soil

Units: mg/kg	Date Analyzed: 01/08/10 12:11	SURROGATE RECOVERY STUDY					
ТРН І	By SW8015 Mod  Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags	
1-Chlorooctane		90.3	101	89	70-135		
o-Terphenyl		51.6	50.3	103	70-135		

<sup>\*</sup> Surrogate outside of Laboratory QC limits

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

<sup>\*\*</sup> Surrogates outside limits; data and surrogates confirmed by reanalysis

<sup>\*\*\*</sup> Poor recoveries due to dilution



Project Name: Littlefield "BO" Fed # 2

Work Orders: 357602,

Project ID: GP II Energy

Matrix: Soil

Lab Batch #: 788825	Sample: 357602-002 / SMP	Batch: 1	
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Units: mg/kg	SURROGATE RECOVERY STUDY					
ТРН В	y SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
	Analytes			[D]		
1-Chlorooctane		88.5	100	89	70-135	
o-Terphenyl		50.5	50.1	101	70-135	

Lab Batch #: 788825 Sample: 357602-003 / SMP Batch: 1 Matrix: Soil

Units: mg/kg Date Analyzed: 01/08/10 13:04	SU	RROGATE R	RECOVERY	STUDY	
TPH By SW8015 Mod  Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	92.8	99 6	93	70-135	
o-Terphenyl	52.4	49.8	105	70-135	

Lab Batch #: 788825 Sample: 357602-004 / SMP Batch: 1 Matrix: Soil

Units: mg/kg	<b>Date Analyzed:</b> 01/08/10 13:30	SU	RROGATE R	ECOVERY	STUDY	
ТРН 1	By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
	Analytes					
1-Chlorooctane		91.9	100	92	70-135	
o-Terphenyl		50 6	50 1	101	70-135	

Lab Batch #: 788825 Sample: 357602-005 / SMP Batch: 1 Matrix: Soil

Units: mg/kg Date Analyzed: 01/08/10 13:	56 SU	SURROGATE RECOVERY STUDY					
TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags		
Analytes			[D]		E		
1-Chlorooctanc	88.2	101	87	70-135			
o-Terphenyl	49.8	50.3	99	70-135			

Lab Batch #: 788825 Sample: 357602-006 / SMP Batch: 1 Matrix: Soil

Units: mg/kg Date Analyzed: 0	1/08/10 14:23	SURROGATE RECOVERY STUDY					
TPH By SW8015 Mod	Amo Fou [A	nd A	True mount [B]	Recovery %R	Control Limits %R	Flags	
Analytes				[D]			
l-Chlorooctane	86.	6	100	87	70-135		
o-Terphenyl	49	8	50.1	99	70-135		

<sup>\*</sup> Surrogate outside of Laboratory QC limits

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

<sup>\*\*</sup> Surrogates outside limits; data and surrogates confirmed by reanalysis

<sup>\*\*\*</sup> Poor recoveries due to dilution



Project Name: Littlefield "BO" Fed # 2

Work Orders: 357602,

Project ID: GP II Energy

Lab Batch #: 788825

**Sample:** 357602-007 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg	Date Analyzed: 01/08/10 14:49	SURROGATE RECOVERY STUDY					
ТРН	By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags	
	Analytes	. ,		[D]			
1-Chlorooctane		91.9	100	92	70-135		
o-Terphenyl		50.0	50.0	100	70-135		

Lab Batch #: 788825

**Sample:** 357602-008 / 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		92.1	100	92	70-135	
o-Terphenyl		52.4	50.0	105	70-135	

Lab Batch #: 788825

Sample: 357602-009 / SMP

Batch:

Matrix: Soil

Units: mg/kg Date Analyzed: 01/08/10 15:42	SURROGATE RECOVERY STUDY					
TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags	
Analytes			[D]			
I-Chlorooctane	86.1	99.6	86	70-135		
o-Terphenyl	49.7	49.8	100	70-135		

Lab Batch #: 788825

Sample: 357602-010 / SMP

Batch: 1

Matrix: Soil

<b>Units:</b> mg/kg <b>Date Analyzed:</b> 01/08/10 16:08	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	85 I	100	85	70-135	
o-Terphenyl	50.4	50.0	101	70-135	

Lab Batch #: 788825

Sample: 357602-011 / SMP

Batch: 1

Matrix: Soil

Units: mg/kg Date Analyzed: 01/08/10 17:00	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	91.3	100	91	70-135	
o-Terphenyl	52.2	50.0	104	70-135	

<sup>\*</sup> Surrogate outside of Laboratory QC limits

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

<sup>\*\*</sup> Surrogates outside limits; data and surrogates confirmed by reanalysis

<sup>\*\*\*</sup> Poor recoveries due to dilution



Project Name: Littlefield "BO" Fed # 2

Work Orders: 357602,

Project ID: GP II Energy

Lab Batch #: 788825

Sample: 357602-012 / SMP

Matrix: Soil Batch:

Units: mg/kg	<b>Date Analyzed:</b> 01/08/10 17:27	SURROGATE RECOVERY STUDY					
ТРН	By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags	
	Analytes			[D]			
1-Chlorooctane		88.2	100	88	70-135		
o-Terphenyl		51.3	50.0	103	70-135		

Lab Batch #: 788825

Sample: 357602-013 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg	Date Analyzed: 01/08/10 17:53	SURROGATE RECOVERY STUDY					
ТРН	By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags	
	Analytes	. ,		[D]			
1-Chlorooctane		96.6	100	97	70-135		
o-Terphenyl		52.7	50.0	105	70-135		

Lab Batch #: 788825

Sample: 357602-014 / SMP

Batch: 1

Matrix: Soil

Units: mg/kg	Date Analyzed: 01/08/10 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		90.9	100	91	70-135			
o-Terphenyl		50 0	50.0	100	70-135			

Lab Batch #: 788825

Sample: 357602-015 / SMP

Batch:

Matrix: Soil

Units: mg/kg	SURROGATE RECOVERY STUDY					
TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags	
Analytes			[D]			
1-Chlorooctane	85.1	99.7	85	70-135		
o-Terphenyl	48.7	49.9	98	70-135		

Lab Batch #: 788825

Sample: 357602-016 / SMP

Batch: 1

Matrix: Soil

Units: mg/kg Date Analyzed: 01/08/10 19:11	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	94.1	100	94	70-135	 
o-Terphenyl	54.7	50.0	109	70-135	

<sup>\*</sup> Surrogate outside of Laboratory QC limits

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

<sup>\*\*</sup> Surrogates outside limits; data and surrogates confirmed by reanalysis

<sup>\*\*\*</sup> Poor recoveries due to dilution



Project Name: Littlefield "BO" Fed # 2

Work Orders: 357602,

Project ID: GP II Energy

Lab Batch #: 788825

Sample: 357602-017 / SMP

Batch: | Matrix: Soil

Units: mg/kg Date Analyzed: 01/08/10 19:37	SURROGATE RECOVERY STUDY					
TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags	
Analytes	, , ,	'-'	[D]			
1-Chlorooctane	92.2	100	92	70-135		
o-Terphenyl	51.8	50.0	104	70-135		

Lab Batch #: 788825

Sample: 357602-018 / SMP

Batch:

Matrix: Soil

Units: mg/kg Date Analyzed: 01/08/10 20:03	SURROGATE RECOVERY STUDY					
TPH By SW8015 Mod  Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags	
1-Chlorooctane	88.0	100	88	70-135		
o-Terphenyl	50.3	50 0	101	70-135		

Lab Batch #: 788825

Sample: 357602-019 / SMP

019 / SMP Bat

Batch: 1

Matrix: Soil

Units: mg/kg Date Analyzed: 01/08/10 20:29	SURROGATE RECOVERY STUDY					
TPH By SW8015 Mod  Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags	
1-Chlorooctane	88.2	100	88	70-135		
o-Terphenyl	50.0	50.0	100	70-135		

Lab Batch #: 788825

**Sample:** 357602-020 / SMP

Batch: 1

Matrix: Soil

Units: mg/kg Date Analyzed: 01/08/10 20:55	SURROGATE RECOVERY STUDY					
TPH By SW8015 Mod  Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags	
1-Chlorooctane	88 7	100	89	70-135	<b> </b>	
o-Terphenyl	50.4	50.0	101	70-135	t	

Lab Batch #: 788825

Sample: 357602-006 S / MS

Batch: 1

Matrix: Soil

Units: mg/kg Date Analyzed: 01/08/10 21:21	SURROGATE RECOVERY STUDY					
TPH By SW8015 Mod  Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags	
1-Chlorooctane	98.9	99 5	99	70-135		
o-Terphenyl	46.1	49.8	93	70-135		

<sup>\*</sup> Surrogate outside of Laboratory QC limits

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

<sup>\*\*</sup> Surrogates outside limits; data and surrogates confirmed by reanalysis

<sup>\*\*\*</sup> Poor recoveries due to dilution



Project Name: Littlefield "BO" Fed # 2

Work Orders: 357602,

Project ID: GP II Energy

Lab Batch #: 788825

**Sample:** 357602-006 SD / MSD

Batch: 1 Matrix: Soil

Units: mg/kg	Date Analyzed: 01/08/10 21:47	SURROGATE RECOVERY STUDY					
ТРН	By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags	
	Analytes	. ,		[D]			
1-Chlorooctanc		98.8	99.7	99	70-135	-	
o-Terphenyl		45.7	49.9	92	70-135		

Lab Batch #: 788838

**Sample:** 547321-1-BKS / BKS

Batch: 1

Matrix: Solid

Units: mg/kg Date Analyzed: 01/09/10 13:47	SURROGATE RECOVERY STUDY					
TPH By SW8015 Mod  Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags	
I-Chlorooctane	102	99.5	103	70-135		
o-Terphenyl	46.8	49.8	94	70-135	1	

Lab Batch #: 788838

Sample: 547321-1-BSD / BSD

Batch:

Matrix: Solid

Units: mg/kg Date Analyzed: 01/09/10 14:14	SURROGATE RECOVERY STUDY					
TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags	
Analytes			[D]			
1-Chlorooctane .	101	99 9	101	70-135		
o-Terphenyl	46.7	50.0	93	70-135		

Lab Batch #: 788838

Sample: 547321-1-BLK / BLK

Batch: 1

Matrix: Solid

Units: mg/kg Date Analyzed: 01/09/10 14:41	SURROGATE RECOVERY STUDY					
TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags	
Analytes			[D]			
I-Chlorooctane	90.4	101	90	70-135		
o-Terphenyl	50.7	50,3	101	70-135		

Lab Batch #: 788838

Sample: 357602-021 / SMP

Batch: 1

Matrix: Soil

Units: mg/kg Date Analyzed: 01/09/10 15:08	SURROGATE RECOVERY STUDY					
TPH 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	53.6	50.0	107	70-135	<b></b>	

<sup>\*</sup> Surrogate outside of Laboratory QC limits

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

<sup>\*\*</sup> Surrogates outside limits; data and surrogates confirmed by reanalysis

<sup>\*\*\*</sup> Poor recoveries due to dilution



Project Name: Littlefield "BO" Fed # 2

Work Orders: 357602,

Project ID: GP II Energy

Lab Batch #: 788838

Sample: 357602-022 / SMP

Matrix: Soil Batch: 1

Units: mg/kg	Date Analyzed: 01/09/10 15:34	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		62.0	50.0	124	70-135		

Lab Batch #: 788838

**Sample:** 357602-023 / SMP

Batch: 1

Matrix: Soil

Units: mg/kg	Date Analyzed: 01/09/10 16:01	SURROGATE RECOVERY STUDY					
ТРН	By 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-Terpheny)		52.6	50.0	105	70-135		

Lab Batch #: 788838

Sample: 357602-024 / SMP

Batch: 1

Matrix: Soil

Units: mg/kg Date Analyzed: 01/09/10 16:28	SURROGATE RECOVERY STUDY					
TPH By SW8015 Mod  Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags	
I-Chlorooctane	106	100	106	70-135		
o-Terphenyl	55.1	50.1	110	70-135		

Lab Batch #: 788838

Sample: 357602-025 / SMP

Batch:

Matrix: Soil

Units: mg/kg Date Analyzed: 01/09/10 16:55	SURROGATE RECOVERY STUDY								
TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags				
Analytes			[D]						
1-Chlorooctane	91.1	100	91	70-135					
o-Terpheny!	51.5	50.0	103	70-135					

Lab Batch #: 788838

Sample: 357602-026 / SMP

Batch:

Matrix: Soil

Units: mg/kg Date Analyzed: 01/09/10 17:21	SURROGATE RECOVERY STUDY								
TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags				
Analytes	( r	,-,	[D]						
1-Chlorooctane	97.0	100	97	70-135					
o-Terphenyl	53.6	50 0	107	70-135					

<sup>\*</sup> Surrogate outside of Laboratory QC limits

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

All results are based on MDL and validated for QC purposes

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<sup>\*\*</sup> Surrogates outside limits, data and surrogates confirmed by reanalysis

<sup>\*\*\*</sup> Poor recoveries due to dilution



Project Name: Littlefield "BO" Fed # 2

Work Orders: 357602,

Project ID: GP II Energy

Lab Batch #: 788838

Sample: 357602-027 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg Date Analyzed: 01/09/10 17:48	SURROGATE RECOVERY STUDY								
TPH 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	62.5	50 0	125	70-135					

Lab Batch #: 788838

Sample: 357602-021 S / MS

Batch: 1 Matrix: Soil

SURROGATE RECOVERY STUDY Units: mg/kg Date Analyzed: 01/10/10 00:18 True Control Amount TPH By SW8015 Mod Recovery Flags Found Amount Limits **[B]** %R %R **[A]** [D] **Analytes** 1-Chlorooctane 98.0 99.9 98 70-135 o-Terphenyl 45.0 50.0 90 70-135

Lab Batch #: 788838

Sample: 357602-021 SD / MSD

Batch: 1 Matrix: Soil

SUPPOCATE DECOVEDY STUDY

Units: mg/kg Date Analyzed: 01/	10/10 00:44	SURROGATE RECOVERY STUDY								
TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags					
Analytes			[D]							
1-Chlorooctane	100	99.9	100	70-135						
o-Terphenyl	46.1	50.0	92	70-135						

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

<sup>\*</sup> Surrogate outside of Laboratory QC limits

<sup>\*\*</sup> Surrogates outside limits; data and surrogates confirmed by reanalysis

<sup>\*\*\*</sup> Poor recoveries due to dilution



#### **Blank Spike Recovery**



Project Name: Littlefield "BO" Fed # 2

**Work Order #:** 357602

Project ID:

GP II Energy

Lab Batch #: 788785

Sample: 547277-1-BKS

Matrix: Solid

Date Analyzed: 01/08/2010

Date Prepared: 01/07/2010

Analyst: ASA

Reporting Units: mg/kg

B . I #

BLANK /BLANK SPIKE RECOVERY STUDY

	DEANK / DEANK STIKE RECOVERT STOD						
Blank Result [A]	Spike Added [B]	Blank Spike Result	Blank Spike %R	Control Limits %R	Flags		
ND	0.1000	0.0892	89	70-130			
ND	0.1000	0.0907	91	70-130			
ND	0 1000	0.0913	91	71-129			
ND	0.2000	0.1875	94	70-135	1		
ND	0.1000	0.0987	99	71-133			
	Result [A]  ND  ND  ND  ND  ND	Result   Added	Result   Added   Spike   Result   [C]	Result   Added   Spike   Result	Result   Added   Spike   Result   %R		

Lab Batch #: 788427

Date Analyzed: 01/07/2010

Sample: 788427-1-BKS

Matrix: Solid
Analyst: LATCOR

Reporting Units: mg/kg

Date Prepared: 01/07/2010

BLANK /BLANK SPIKE RECOVERY STUDY

	Daten #. 1	BEAUX BEAUX STIKE RECOVERT STOD								
Anions by E300	Blank Result	Spike Added	Blank Spike	Blank Spike	Control Limits	Flags				
Analytes	[A]	[B]	Result [C]	%R [D]	%R					
Chloride	ND	10.0	10.6	106	75-125					

**Lab Batch #:** 788428 **Date Analyzed:** 01/07/2010

Sample: 788428-1-BKS

Matrix: Solid

**Date Prepared:** 01/07/2010

Analyst: LATCOR

Reporting Units: mg/kg	Batch #:	BLANK/BLANK SPIKE RECOVERY STU						
Anions by E300	Blank Result	Spike Added	Blank Spike Result	Blank Spike %R	Control Limits %R	Flags		
Analytes	[A]	[B]	[C]	[D]	76K			
Chloride	ND	10.0	10 7	107	75-125			

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



### **BS / BSD Recoveries**



Project Name: Littlefield "BO" Fed # 2

Work Order #: 357602 Analyst: ASA

**Date Prepared:** 01/06/2010 **Batch #:** 1

**Project ID:** GP II Energy **Date Analyzed:** 01/06/2010

Matrix: Solid

Lab Batch ID: 788467

**Sample:** 547095-1-BKS

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

BTEX by EPA 8021B  Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Benzenc	ND	0.1000	0.1029	103	0.1	0.1010	101	2	70-130	35	
Toluene	ND	0.1000	0 1055	106	0.1	0.1037	104	2	70-130	35	
Ethylbenzene	ND	0.1000	0.1053	105	0.1	0 1035	104	2	71-129	35	
m,p-Xylenes	ND	0.2000	0.2167	108	0.2	0.2126	106	2	70-135	35	
o-Xylene	ND	0.1000	0 1127	113	0.1	0.1108	111	2	71-133	35	

Analyst: ASA

**Date Prepared:** 01/06/2010

**Date Analyzed:** 01/07/2010

**Lab Batch ID:** 788765

Sample: 547268-1-BKS

Batch #: 1

Matrix: Solid

Units: mg/kg	BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY										
BTEX by EPA 8021B	Blank Sample Result [A]	Spike Added	Blank Spike Result	Blank Spike %R	Spike Added	Blank Spike Duplicate	Blk. Spk Dup. %R	RPD %	Control Limits %R	Control Limits %RPD	Flag
Analytes		[B]	[C]	[D]	[E]	Result [F]	[G]				
Benzene	ND	0.1000	0.0941	94	0.1	0.0932	93	1	70-130	35	
Toluene	ND	0.1000	0.0893	89	0.1	0.0912	91	2	70-130	35	
Ethylbenzene	ND	0.1000	0.0869	87	0.1	0.0892	89	3	71-129	35	
m,p-Xylenes	ND	0.2000	0.1780	89	0.2	0.1829	91	3	70-135	35	
o-Xylene	ND	0.1000	0 0940	94	0.1	0.0964	96	3	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: Littlefield "BO" Fed # 2

Work Order #: 357602 Analyst: ASA

**Date Prepared:** 01/07/2010 Batch #: 1

Project ID: GP II Energy Date Analyzed: 01/08/2010

Matrix: Solid

Lab Batch ID: 788827

Sample: 547316-1-BKS

0.1913

0 1011

783

0.2

0.1

1000

96

101

95

Units: mg/kg		BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY									
BTEX by EPA 8021B	Blank Sample Result [A]	Spike Added	Blank Spike Result	Blank Spike %R	Spike Added	Blank Spike Duplicate	Blk. Spk Dup. %R	RPD %	Control Limits %R	Control Limits %RPD	Flag
Analytes		[B]	[C]	[D]	[E]	Result [F]	[G]				
Benzene	ND	0.1000	0.0939	94	0.1	0.0928	93	1	70-130	35	
Toluene	ND	0.1000	0.0951	95	0.1	0 0944	94	1	70-130	35	
Ethylbenzene	ND	0 1000	0 0939	94	0.1	0.0938	94	0	71-129	35	

0.1910

0.1006

Analyst: BEV

C12-C28 Diesel Range Hydrocarbons

**Date Prepared:** 01/07/2010

0.2000

0.1000

998

ND

ND

ND

0 **Date Analyzed:** 01/08/2010

19

0

96

101

78

Lab Batch ID: 788825

m,p-Xylenes

o-Xylene

Sample: 547315-1-BKS

Batch #: 1

Matrix: Solid

70-135

71-133

70-135

35

35

35

BLANK/BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY Units: mg/kg TPH By SW8015 Mod Blank Spike Blank Blank Blank Blk. Spk Control Control Spike Sample Result Added Spike Spike Spike Dup. RPD Limits Limits Flag Added [A] Result %R Duplicate %R % %R %RPD [B] [C] [D]Result [F] [**G**] [E] **Analytes** C6-C12 Gasoline Range Hydrocarbons 998 ND 915 92 1000 849 85 7 70-135 35

945

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

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#### **BS / BSD Recoveries**



Project Name: Littlefield "BO" Fed # 2

Work Order #: 357602

Analyst: BEV Date Prepared: 01/07/2010

**Project ID:** GP II Energy **Date Analyzed:** 01/09/2010

Matrix: Solid

Lab Batch ID: 788838 Sam

**Sample:** 547321-1-BKS **Batch #:** 1

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY Units: mg/kg Blank TPH By SW8015 Mod Blank Spike Blank Spike Blank Blk. Spk Control Control Sample Result Added Spike Spike Added Spike Dup. RPD Limits Limits Flag %R Duplicate %Ř Result % %R %RPD [A] [B] [C] [D] [E] Result [F] [**G**] **Analytes** C6-C12 Gasoline Range Hydrocarbons ND 995 890 89 999 877 88 70-135 35 C12-C28 Diesel Range Hydrocarbons ND 995 846 85 999 844 84 0 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: Littlefield "BO" Fed # 2



**Work Order #:** 357602

Lab Batch #: 788427

**Date Analyzed:** 01/07/2010

Project ID: GP II Energy

**Date Prepared:** 01/07/2010

Analyst: LATCOR

QC-Sample ID: 357602-001 S

Batch #: 1 Matrix: Soil

Reporting Units: mg/kg	MATR	MATRIX / MATRIX SPIKE RECOVERY STUDY							
Inorganic Anions by EPA 300	Parent Sample Result	Spike Added	Spiked Sample Result [C]	%R [D]	Control Limits %R	Flag			
Analytes	[A]	[B]	, ,						
Chloride	548	748	1300	101	75-125				

Lab Batch #: 788428

**Date Analyzed:** 01/07/2010

**Date Prepared:** 01/07/2010

Analyst: LATCOR

QC-Sample ID: 357602-021 S

Batch #: 1-

Matrix: Soil

Inorganic Anions by EPA 300  Analytes	MATI	RIX / MA	TRIX SPIKE	RECO	VERY STU	DY
	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	%R [D]	Control Limits %R	Flag
Chloride	164	160	323	99	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: Littlefield "BO" Fed # 2



Work Order #: 357602

Project ID: GP II Energy

Lab Batch ID: 788467

**QC- Sample ID:** 357602-015 S

Batch #:

Matrix: Soil

**Date Analyzed:** 01/07/2010

**Date Prepared:** 01/06/2010

Analyst: ASA

orting United malk

Reporting Units: mg/kg		N	IATRIX SPIK	E / MAT	RIX SPI	KE DUPLICA	TE REC	OVERY	STUDY		
BTEX by EPA 8021B	Parent Sample	Spike	Spiked Sample Result	Sample	Spike	Duplicate Spiked Sample		RPD	Control Limits	Control Limits	Flag
Analytes	Result [A]	Added [B]	[C]	%R [D]	Added [E]	Result [F]	%R [G]	%	%R	%RPD	
Benzene	ND	0.1067	0.0936	88	0.1067	0.0905	85	3	70-130	35	
Toluene	ND	0.1067	0.0942	88	0.1067	0.0914	86	3	70-130	35	
Ethylbenzene	ND	0.1067	0.0907	85	0.1067	0.0883	83	3	71-129	35	
m,p-Xylenes	ND	0.2135	0.1857	87	0.2135	0.1813	85	2	70-135	35	
o-Xylene	ND	0 1067	0.0965	90	0.1067	0.0935	88	3	71-133	35	

Lab Batch ID: 788765

**QC- Sample ID:** 357602-021 S

Batch #:

Matrix: Soil

**Date Analyzed:** 01/07/2010

**Date Prepared:** 01/06/2010

Analyst: ASA

Reporting Units: mg/kg		N	IATRIX SPIK	E / MAT	RIX SPI	KE DUPLICA	TE REC	OVERY :	STUDY	·	
BTEX by EPA 8021B	Parent Sample Result	Spike Added	Spiked Sample Result [C]	Spiked Sample %R	Spike Added	Duplicate Spiked Sample Result [F]	Spiked Dup. %R	RPD %	Control Limits %R	Control Limits %RPD	Flag
Analytes	[A]	[B]	[0]	[D]	[E]	i i i i i i i i i i i i i i i i i i i	[G]	'	/614	/4112	
Benzene	ND	0.1064	0.0928	87	0.1064	0.0889	84	4	70-130	35	
Toluene	ND	0.1064	0.0952	89	0 1064	0 0902	85	5	70-130	35	
Ethylbenzene	ND	0.1064	0.0917	86	0.1064	0.0866	81	6	71-129	35	
m,p-Xylenes	ND	0.2127	0.1889	89	0.2127	0.1781	84	6	70-135	35	
o-Xylene	ND	0.1064	0.0965	91	0.1064	0.0910	86	6	71-133	35	

Matrix Spike Percent Recovery [D] = 100\*(C-A)/BRelative 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: Littlefield "BO" Fed # 2

Work Order #: 357602

Project ID: GP II Energy

Lab Batch ID: 788785

QC- Sample ID: 357700-001 S

Batch #:

Matrix: Soil

**Date Analyzed:** 01/08/2010

**Date Prepared:** 01/07/2010

ASA Analyst:

Reporting Units: mg/kg		N	IATRIX SPIK	E / MAT	RIX SPI	KE DUPLICA	TE REC	OVERY	STUDY		
BTEX by EPA 8021B	Parent Sample Result	Spike Added	Spiked Sample Result [C]	Spiked Sample %R	Spike Added	Duplicate Spiked Sample Result [F]	Spiked Dup. %R	RPD	Control Limits %R	Control Limits %RPD	Flag
Analytes	[A]	[B]		[D]	[E]	Result [F]	[G]	/0	/oK	/6KFD	
Benzene	ND	0.1045	0.0749	72	0.1045	0.0699	67	7	70-130	35	X
Toluene	ND	0.1045	0.0750	72	0.1045	0.0719	69	4	70-130	35	Х
Ethylbenzene	ND	0.1045	0.0731	70	0.1045	0.0727	70	1	71-129	35	Х
m,p-Xylenes	ND	0.2090	0.1497	72	0 2090	0.1499	72	0	70-135	35	
o-Xylene	ND	0.1045	0.0775	74	0.1045	0.0767	73	1	71-133	35	

Lab Batch ID: 788827

BTEX by EPA 8021B

Analytes

QC- Sample ID: 357767-004 S

Parent

Sample

Result

[A]

ND

ND

ND

ND

ND

0.1237

0.2474

0 1237

Batch #:

Matrix: Soil

**Date Analyzed:** 01/09/2010

Reporting Units: mg/kg

Benzene

Toluene

Ethylbenzene

m,p-Xylenes

o-Xylene

**Date Prepared:** 01/07/2010

0.0139

0.0284

0.0162

Analyst: ASA

0.1232

0.2464

0.1232

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY Spiked Sample Spiked Duplicate Spiked Control Control Spike Result Sample Spiked Sample **RPD** Limits Spike Dup. Limits Flag Added Result [F] Added [C] %R %R % %R %RPD [B] [D] [E][G] 0.1237 0.0161 13 0.1232 0.0181 15 12 70-130 35 X 0.1237 0.0104 8 0.1232 11 23 X 0.0131 70-130 35

13

13

15

14

10

12

71-129

70-135

71-133

35

35

35

X

X

Х

0.0160

0.0313

0.0183

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

11

11

13

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

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#### Form 3 - MS / MSD Recoveries

Project Name: Littlefield "BO" Fed # 2

Work Order #: 357602

Project ID: GP II Energy

Lab Batch ID: 788825

**QC- Sample ID:** 357602-006 S

Batch #:

Matrix: Soil

**Date Analyzed:** 01/08/2010

**Date Prepared:** 01/07/2010

BEV Analyst:

Reporting Units: mg/kg		M	IATRIX SPIK	E / MAT	RIX SPI	KE DUPLICA	TE REC	OVERY	STUDY		
TPH By SW8015 Mod	Parent Sample	Spike	Spiked Sample Result	Sample	Spike	Duplicate Spiked Sample		RPD	Control Limits	Control Limits	Flag
Analytes	Result [A]	Added [B]	[C]	%R [D]	Added [E]	Result [F]	%R [G]	%	%R	%RPD	
C6-C12 Gasoline Range Hydrocarbons	81 0	1110	973	80	1120	977	80	0	70-135	35	
C12-C28 Diesel Range Hydrocarbons	149	1110	901	68	1120	919	69	2	70-135	35	Х

Lab Batch ID: 788838 **Date Analyzed:** 01/10/2010

**QC- Sample ID:** 357602-021 S

Batch #:

1 Matrix: Soil

**Date Prepared:** 01/07/2010

Analyst:

BEV

Reporting Units: mg/kg		N	IATRIX SPIK	E / MAT	RIX SPI	KE DUPLICA	TE REC	OVERY	STUDY		
TPH By SW8015 Mod	Parent Sample	Spike	Spiked Sample Result	Sample	Spike	Duplicate Spiked Sample	Spiked Dup.	RPD	Control Limits	Control Limits	Flag
Analytes	Result [A]	Added [B]	[C]	%R [D]	Added [E]	Result [F]	%R [G]	%	%R	%RPD	
C6-C12 Gasoline Range Hydrocarbons	ND	1060	931	88	1060	921	87	Ţ	70-135	35	
C12-C28 Diesel Range Hydrocarbons	ND	1060	872	82	1060	861	81	1	70-135	35	

Final Ver. 1.000



#### **Sample Duplicate Recovery**



Project Name: Littlefield "BO" Fed # 2

Work Order #: 357602

Lab Batch #: 788427

Project ID: GP II Energy

Date Analyzed: 01/07/2010

Date Prepared: 01/07/2010

Analyst: LATCOR

QC- Sample ID: 357602-001 D

Batch #:

Matrix: Soil

Reporting Units: mg/kg

Reporting Units: mg/kg	SAMPLE	SAMPLE	DUPLIC	ALE REC	OVERY
Anions by E30	Parent Sample Result [A]	Sample Duplicate Result	RPD	Control Limits %RPD	Flag
Analyte		[B]			
Chloride	548	547	0	20	

Lab Batch #: 788428

Date Analyzed: 01/07/2010

Date Prepared: 01/07/2010

Analyst: LATCOR

QC- Sample ID: 357602-021 D

Anions by E300

Analyte

Batch #:

Matrix: Soil

Reporting Units: mg/kg

SAMPLE /	SAMPLE	DUPLIC	ATE REC	OVERY
Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
164	160	2	20	

Lab Batch #: 788416

Date Analyzed: 01/06/2010

Date Prepared: 01/06/2010

Analyst: MOV

QC-Sample ID: 357602-001 D

Batch #: 1

Matrix: Soil

Reporting Units: %

Chloride

<b>:</b> %	SAMPLE /	SAMPLE	DUPLIC	ATE REC	OVERY
Percent Moisture	Parent Sample Result [A]	Sample Duplicate Result	RPD	Control Limits %RPD	Flag
Analyte		[B]			
	10.0	20.5	1 2		

Lab Batch #: 788419

Date Analyzed: 01/06/2010

**Date Prepared:** 01/06/2010

Analyst: MOV

QC-Sample ID: 357602-021 D

Batch #:

Matrix: Soil

... . . . . . . . . 0/

Percent Moisture

Reporting Units: %	SAMPLE	SAMPLE	DUPLIC	ATE REC	OVERY
Percent Moisture	Parent Sample Result [A]	Duplicate Result	RPD	Control Limits %RPD	Flag
Analyte		[B]			
Percent Moisture	5.99	5.83	3	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

#### CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

A Xenco Laboratories Company

Page 39 of 42

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

	Project Manager:	Curt Stanley	-	Page	1 of 3	<del>)</del>	——————————————————————————————————————										_	Pro	oject	Name	: Litt	defie	ld "B	10" F	ed	#2					
	Company Name	GP II Energy															_		Pro	ject <b>1</b>	: GF	!IE	nerg	у							
	Company Address:	P.O. Box 50682															_	F	rojec	t Loc	: <u>Edd</u>	iy Co	unty,	New	Mex	deo					
	City/State/Zip:	Midland, Texas	79710																	PO#	:										
	Telephone No:	575-441-2244					Fax No:		575	 5-3£	)6-14;	29					_ F	lepon	For	nat:	-X	Sta	ndaro	1			RP.		П	NPDE	
	Sampler Signature:	11/1	· Ya				e-mail:					_	bas	sin-	con	sult	_	com					.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	-	_	<b></b>				*, 0	•
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#### CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

A Xenco Laboratories Company

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

	Project Manager:	Curt Stanley	_(	Page 2	2 of 3	$\rightarrow$													Pro	oject	Nan	њ: <u>L</u>	ittle	field	l "BC	)" F	ed#	5				<del></del>	
	Company Name	GP II Energy		<u> </u>																Pr	ojeci	#: <u>C</u>	SP I	l En	ergy								
	Company Address:	P.O. Box 50682																-	F	roje	ct L	xc; <u>E</u>	ddy	Cou	nty, !	Vew	Mexi	co					
	City/State/Zip:	Midland, Texas 7971	0				···														PO	<b>*</b> :											
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# **Environmental Lab of Texas**

#### CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

A Xenco Laboratories Company

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

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Received by:								<u> </u>		Date						1	ime	ne Sample Hand Delivered by Sampler/Client Rep. ?					N N							
quished by Date Time Required by ELOT:						1.			Time 9:53 Terr			Ц empe	nperature Upon Receipt: 3,6																	
	Company Name  GP II Energy Company Address: P.O. Box 50 City/State/Zip: Midland, Tex Telephone No: 575-441-224 Sampler Signature: Original Sp-16 SP-17 SP-18 SP-19 SP-19A SP-20 SP-21  structions: BILL TO GI	Company Name GP II Energy  Company Address: P.O. Box 50682  City/State/Zip: Midland, Texas 79710  Telephone No: 575-441-2244  Sampler Signature: Orbital Sam	Company Name GP II Energy  Company Address: P.O. Box 50682  City/State/Zip: Midland, Texes 79710  Telephone No: 575-441-2244  Sampler Signature: miy)  #: 3571002  FIELD CODE SP-16  SP-17  SP-18  SP-19  SP-19A  SP-20  SP-21  Structions: BILL TO GP II ENERGY	Company Name  GP II Energy  Company Address: P.O. Box 50682  City/State/Zip: Midland, Texas 79710  Telephone No: 575-441-2244  Sampler Signature: Inity)  #: 357007  FIELD CODE  SP-16  SP-17  SP-18  SP-19  SP-19  SP-19A  SP-20  SP-21  SILL TO GP II ENERGY  Date  Time  Time	Company Name  Company Address: P.O. Box 50682  City/State/Zip: Midland, Texas 79710  Telephone No: 575-441-2244  Sampler Signature: Piece	Company Name	Company Name GP    Energy  Company Address: P.O. Box 50682  City/State/Zip: Midland, Texas 79710  Telephone No: 575-441-2244 Fax No: 9-mail: nriy)  #: 35 1000  FIELD CODE B	Company Name	Company Name  Company Address:  City/State/Zip:  Midland, Texas 79710  Telephone No:  Sampler Signature:  nty)  FIELD CODE  SP-16  SP-17  SP-18  SP-19  SP-20  SP-20  1/5/201	Company Name  Company Address:  City/State/Zip:  Midland, Texes 79710  Telephone No:  Sampler Signature:  nty)  FIELD CODE  SP-16  SP-17  SP-18  SP-17  SP-18  SP-19  SP-10  SP-19  SP-1	Company Name  GP    Energy  Company Address: P.O. Box 50682  City/State/Zip: Midland, Texas 79710  Telephone No: 575-441-2244  Sampler Signature: e-mail: cdstanley@  FIELD CODE	Company Name  GP II Energy  Company Address:  P. O. Box 50682  Cityl/State/Zip:  Midland, Texes 79710  Telephone No:  575-396-1429  cdstanley@ba  Field Code  Sp-16  Sp-16  Sp-17  1/5/2010  Sp-18  1/5/2010  Sp-18  Sp-19  Sp-19  Sp-19  Sp-19  Sp-19  Sp-19  Sp-19  Sp-20  Sp-21  Sign to specific t	Company Name  Company Address:  P.O. Box 50682  City/State/Zip: Midland, Texas 79710  Telephone No: 575-441-2244  Sampler Signature:  Presorvation & # of O  Pre	Company Name  Company Address: P.O. Box 50682  City/State/Zip: Midland, Texas 79710  Telephone No: 575-441-2244  Sampler Signature: e-mail: Cdstanley@basin-con  Preservation & # of Contain  ### Pres	Company Name  Company Address: P.O. Box 50682  City/State/Zip: Midland, Texas 79710  Telephone No: 575-441-2244  Sampler Signature: e-mail: cdstanley@basin-consult rely)  #: 3551002  FIELD CODE  SP-16  SP-16  1/5/2010  SP-17  1/5/2010  1445  SP-18  1/5/2010  1555  1 X  SP-19  1/5/2010  1555  1 X  SP-19  1/5/2010  1555  1 X  SP-20  1/5/2010  1550  1 X  SP-21  1/5/2010  1615  1 X  SP-21  1/5/2010  1615  1 X  Date  Time Received by:  Date  Date  Time Received by:  Date  Da	Company Name    Company Address: P.O. Box 50682   P.O. Bo	Company Name  GP II Energy  Company Address: P.O. Box 50882  City/State/Zip: Midland, Texas 79710  Telephone No: 575-441-2244  Sampler Signature: e-mail: cdstanley@basin-consulting.com  rity)  #: 357 UOU  FIELD CODE  SP-16  1/5/2010  1/	Company Address:   P.O. Box 50882   Project	Project Load   Proj	Company Name   GP    Energy   Project #: GE	Project   Street   Project   Project   Street   Project   Project   Street   Project   Project   Street   Project   Project   Signature   Project   Pr	Company Name   SP    Energy   Project & GP    Energy	Company Name	Company Name  OP II Energy  Project Loc: Eddy County, New Mode  City/State/Zip:  Middind, Teres 79710  Fetephone No:  S75-441-2244  Fax No:  S75-396-1429  Report Format:  Analyza Formative:  Op II Energy  Project Loc: Eddy County, New Mode  City/State/Zip:  Report Format:  Analyza Formative:  Op II Energy  Project Loc: Eddy County, New Mode  City/State/Zip:  Report Format:  Analyza Formative:  Op II Energy  Project Loc: Eddy County, New Mode  City/State/Zip:  Report Format:  Analyza Formative:  Op II Energy  Project Loc: Eddy County, New Mode  Co	Company Name  GP II Energy  Project & GP II Energy  Project & Eddy County, New Medico  City/State/Zip:  Middard, Teres 79710  Fetphone No:  575-396-1420  Report Format:  STS-441-1244  Fax No:  575-396-1420  Report Format:  Codstanley@basin-consulting.com  Analyze For.  TOUR   Company Name   Company Name   Company Address:   P.O. Box 50882   Project Loc: Eddy County, New Mexico   Project Loc: Eddy County, New Mexico   Project Loc: Eddy County, New Mexico   TRRP	Company Name	Company Name	Project 8: GP    Energy		

Environmental Lab of Texas
Variance/ Corrective Action Report- Sample Log-In

lient	GP 11 Energy				
ate/ Time:	1.6.10 9:53				
ab iD#:	357602				
nitials:	AL	,			
	Sample Receipt	Checklist			
d Tomoron	Crolece Vesicines de cond	(Yes)	No	3.6 °C	nt Initials
	ture of container/ cooler? container in good condition?	Yes	No No	5.0	
	Seals intact on shipping container/ cooler?	Yes	No	Not Present	
	Seals intact on sample bottles/ container?	Yes	No	Not Present	
	Custody present?	Yes	No	NOT Present	
	instructions complete of Chain of Custody?	Yes	No		
	Custody signed when relinquished/ received?	Yes	No		
	Custody agrees with sample label(s)?	(Yes)	No	ID written on Cont./ Lid	
	er label(s) legible and intact?	Yes	No	Not Applicable	
	matrix/ properties agree with Chain of Custody?	Yes	No	Mor Whitespie	
	ers supplied by ELOT?	Yes	No		
	s in proper container/ bottle?	Yes	No	See Below	
	s properly preserved?	788	No	See Below	
	bottles intact?	(Vee)	No	000 BBIOW	
	ations documented on Chain of Custody?	Yes	No		
	ers documented on Chain of Custody?	Yes	No		
	nt sample amount for indicated test(s)?	(Yes)	No	See Below	
	ples received within sufficient hold time?	Yes	No	See Below	
	tract of sample(s)?	Yes	No	Not Applicable	
	emples have zero headspace?	Yes	No	Not Applicable	
	Variance Docu	mentation			
Contact:	Contacted by:		-	Date/ Time:	
Regarding:					
Corrective Ad	ction Taken:				
		· · · · · · · · · · · · · · · · · · ·			
Check all the	st Apply:  See attached e-mail/ fax  Client understands and wou  Cooling process had begun				
		<b>-,</b>		,	

The second of th

# **Analytical Report 365995**

for

**GP II Energy** 

**Project Manager: Joe Compton** 

Littlefield BO Fed # 2
GP II Energy

22-MAR-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)





22-MAR-10

Project Manager: Joe Compton

GP II Energy P.O. Box 50682 Midland, TX 79710

Reference: XENCO Report No: 365995

Littlefield BO Fed # 2

Project Address: Eddy County, New Mexico

#### Joe Compton:

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 365995. 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. 365995 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

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## **Sample Cross Reference 365995**



# GP II Energy, Midland, TX

Littlefield BO Fed # 2

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
Stockpile # 1	S	Mar-17-10 14:05		365995-001

#### **CASE NARRATIVE**



Client Name: GP II Energy
Project Name: Littlefield BO Fed # 2



Project ID:

GP II Energy

Work Order Number: 365995

Report Date: 22-MAR-10 Date Received: 03/18/2010

Sample receipt non conformances and Comments:

None

Sample receipt Non Conformances and Comments per Sample:

None

Analytical Non Conformances and Comments:

Batch: LBA-798946 Percent Moisture

None

Batch: LBA-799186 Inorganic Anions by EPA 300

None

Batch: LBA-799197 TPH By SW8015 Mod

None



# Certificate of Analysis Summary 365995

GP II Energy, Midland, TX

Project Name: Littlefield BO Fed # 2



Project Id: GP II Energy Contact: Joe Compton

Project Location: Eddy County, New Mexico

Date Received in Lab: Thu Mar-18-10 08:37 am

Report Date: 22-MAR-10

. Eddy County, New Wexteo			Project Manager:	Brent Barron, II
	Lab Id:	365995-001		
Aughois Daggested	Field Id:	Stockpile # 1		
Analysis Requested	Depth:			
	Matrix:	SOIL		
	Sampled:	Mar-17-10 14:05		
Anions by E300	Extracted:			
	Analyzed:	Mar-21-10 18.40		
	Units/RL:	mg/kg RL		
Chlonde		61.2 9.15		
Percent Moisture	Extracted:			
	Analyzed:	Mar-18-10 17.00		
	Units/RL:	% RL		
Percent Moisture		8.16 1.00		
TPH By SW8015 Mod	Extracted:	Mar-18-10 14:30		
	Analyzed:	Mar-20-10 12:42		
	Units/RL:	mg/kg RL		
C6-C12 Gasoline Range Hydrocarbons		ND 16.3		
C12-C28 Diesel Range Hydrocarbons		129 16.3		
C28-C35 Oil Range Hydrocarbons		ND 16.3		
Total TPH		129 16.3		

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

Since 1990 Houston - Dallas - San Antonio - Austin - Tampa - Miami - Latin America - Atlanta - Corpus Christi

Brent Barron, II Odessa Laboratory Manager



## Flagging Criteria



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

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	Phone	Fax
4143 Greenbriar Dr, Stafford, Tx 77477	(281) 240-4200	(281) 240-4280
9701 Harry Hines Blvd , Dallas, TX 75220	(214) 902 0300	(214) 351-9139
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: Littlefield BO Fed # 2

Work Orders: 365995,

**Sample:** 558678-1-BKS / BKS

Project ID: GP II Energy

**Lab Batch #:** 799197 **Sample:** 5586

Batch: 1 Matrix: Solid

Units: mg/kg	Date Analyzed: 03/19/10 20:41	SURROGATE RECOVERY STUDY						
_ ТРН	By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags		
	Analytes			[D]				
1-Chlorooctane		114	100	114	70-135			
o-Terphenyl		45.1	50.0	90	70-135			

Lab Batch #: 799197

Sample: 558678-1-BSD / BSD

Batch: 1 Matrix: Solid

Units: mg/kg Date Analyzed: 03/19/10 21:	08 SU	SURROGATE RECOVERY STUDY							
TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags				
Analytes			[D]						
1-Chlorooctane	113	99.8	113	70-135					
o-Terphenyl	44.5	49.9	89	70-135					

Lab Batch #: 799197

Sample: 558678-1-BLK / BLK

Batch: 1 Matrix: Solid

Units: mg/kg Date Analyzed: 03/19/10 2	21:35 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	97.1	100	97	70-135	_
o-Terphenyl	48.9	50.2	97	70-135	

Lab Batch #: 799197

Sample: 365995-001 / SMP

Batch: 1

Matrix: Soil

Units: mg/kg	Date Analyzed: 03/20/10 12:42	SURROGATE RECOVERY STUDY							
ТРН	By SW8015 Mod  Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags			
I-Chlorooctane	Analytes	94 0	99.5	94	70-135				
o-Terphenyl		47.7	49.8	96	70-135				

Lab Batch #: 799197

**Sample:** 365996-038 S / MS

Batch: 1

Matrix: Soil

Units: mg/kg Date Analyzed: 03/20/10 13:36	SURROGATE RECOVERY STUDY							
TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags			
Analytes			(5)					
1-Chlorooctane	113	99.8	113	70-135				
o-Terphenyl	45.0	49.9	90	70-135				

<sup>\*</sup> Surrogate outside of Laboratory QC limits

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

<sup>\*\*</sup> Surrogates outside limits; data and surrogates confirmed by reanalysis

<sup>\*\*\*</sup> Poor recoveries due to dilution



Project Name: Littlefield BO Fed # 2

Work Orders: 365995,

Project ID: GP II Energy

Lab Batch #: 799197

Sample: 365996-038 SD / MSD

Matrix: Soil Batch: 1

Units: mg/kg Date Analyzed: 03/20/10 14:02	SURROGATE RECOVERY 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	45.3	50.0	91	70-135			

Surrogate Recovery [D] = 100 \* A / B
All results are based on MDL and validated for QC purposes.

<sup>\*</sup> Surrogate outside of Laboratory QC limits

<sup>\*\*</sup> Surrogates outside limits; data and surrogates confirmed by reanalysis

<sup>\*\*\*</sup> Poor recoveries due to dilution



# **Blank Spike Recovery**



Project Name: Littlefield BO Fed # 2

Work Order #: 365995

Project ID:

GP II Energy

Lab Batch #: 799186

Sample: 799186-1-BKS

Matrix: Solid

**Date Analyzed:** 03/21/2010

**Date Prepared:** 03/21/2010

Analyst: LATCOR

Reporting Units: mg/kg	Batch #:	BLANK/	BLANK SPI	KE REC	COVERY	STUDY
Anions by E300	Result	Spike Added	Blank Spike	Blank Spike	Control Limits	Flags
Analytes	[A]	[B]	Result [C]	%R [D]	%R	
Chloride	ND	11.0	11.7	106	75-125	

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



## **BS / BSD Recoveries**



Project Name: Littlefield BO Fed # 2

Work Order #: 365995

Analyst: BEV

**Date Prepared:** 03/18/2010

Project ID: GP II Energy

**Date Analyzed:** 03/19/2010

Lab Batch ID: 799197

**Sample:** 558678-1-BKS

Batch #: 1

Matrix: Solid

Units: mg/kg		BLAN	K/BLANK	SPIKE / E	BLANK S	SPIKE DUPI	LICATE	BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY  Blank Spike Blank Spike Blank Blk. Spk Control Control			
TPH By SW8015 Mod Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
C6-C12 Gasoline Range Hydrocarbons	ND	1000	1120	112	998	1130	113	1	70-135	35	
C12-C28 Diesel Range Hydrocarbons	ND	1000	828	83	998	901	90	8	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: Littlefield BO Fed # 2



Work Order #: 365995

Lab Batch #: 799186

Project ID: GP II Energy

Analyst: LATCOR

QC- Sample ID: 365706-001 S Batch #: 1

Matrix: Sludge

Reporting Units: mg/kg MATRIX SPIKE RECOVERY STUD					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	3540	1200	4860	110	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

Page 11 of 15 Final Ver. 1.000



# Form 3 - MS / MSD Recoveries

Project Name: Littlefield BO Fed # 2

Work Order #: 365995

Project ID: GP II Energy

Lab Batch ID: 799197

**QC- Sample ID:** 365996-038 S

Batch #: Matrix: Soil

**Date Analyzed:** 03/20/2010

**Date Prepared:** 03/18/2010

Analyst: BEV

Reporting Units: mg/kg		M	IATRIX SPIK	E / MAT	RIX SPI	KE DUPLICA	TE REC	OVERY	STUDY		
TPH By SW8015 Mod	Parent Sample Result	Spike	Spiked Sample Result	Sample	Spike	Duplicate Spiked Sample	Spiked Dup.	RPD	Control Limits	Control Limits	Flag
Analytes	[A]	Added [B]	[C]	%R [D]	Added [E]	Result [F]	%R [G]	<b>%</b>	%R	%RPD	
C6-C12 Gasoline Range Hydrocarbons	ND	1080	1140	106	1080	1120	104	2	70-135	35	
C12-C28 Dicsel Range Hydrocarbons	18 4	1080	851	77	1080	1090	99	25	70-135	35	



## **Sample Duplicate Recovery**



Project Name: Littlefield BO Fed # 2

Work Order #: 365995

Lab Batch #: 799186 Project ID: GP II Energy

Date Analyzed: 03/21/2010Date Prepared: 03/21/2010Analyst: LATCORQC- Sample ID: 365706-001 DBatch #: 1Matrix: Sludge

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	3540	3530	0	20	

Lab Batch #: 798946

 Date Analyzed: 03/18/2010
 Date Prepared: 03/18/2010
 Analyst: JLG

 QC- Sample ID: 365984-001 D
 Batch #: 1
 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	3.45	3.32	4	20	

#### CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

A Xenco Laboratories Company

12600 West I-20 East Odessa, Texas 79766 Phone: 432-563-1800 Fax: 432-563-1713

	Project Manager:	Curt Stanley		Page	1 of 1	)											_	Pr	ojec	t Na	ne: _l	Little	efiek	d BC	) Fe	d #2						
	Company Name	GPII Energy (A	ttention Jo	e Com	pton)												_		P	rojec	t#:_(	GP	ll Er	ergy								
	Company Address:	PO Box 50882										_					_	1	Proj	ect L	oc: <u>E</u>	ddy	/ Cou	inty, I	New	Mexi	co					
	City/State/Zip:	Midland, TX 79	701														_			PC	) #: _											
	Telephone No:	575-441-2244	$\sim$	_			Fax No:		57	5-39	6-14	29					_	Repor	rt Fo	rmat	:	X)	Stan	dard			TRI	RP		□ v	IPDE	s
	Sampler Signature:	H	برك	4			e-mail:		cs	tar	ıley	@b	asi	nen	v.cc	m			<b></b>													_
(lab use	only)		<del>-{-`</del>	7	\														H			TC	LP:	Analy	/ze F	or.				_	┥.	
ORDEF	21,500	75							ودر	}						,		. 4.4				701		丰	丰	×	1				2 E	
LAB # (tab use only)		D CODE		Beginning Depth	Ending Depth	Date Sampled	Time Sempled	Fleid Filtered	Total # of Containers 402 86					Of Cor	No.	Other (Specify)	SL*Shudge	GW = Groundwater S=Soli/Solid  The Second Solid	I.	TPH: TX 1006 TX 1008	Cations (Ca, Mg, Na, K)	Antons (Cl. SO4, Alkalinity)	BAR / ESP / CEC	Metals: As Ag Ba Cd Cr Pb Hg Se Volatiles	Samivolatiles	BTEX 80218/5030 or BTEX 8280	RCI	N.O.R.M.	Chlorides EPA 300	CION	RUSH TAT (Pre-Schedule) 24, 48, 72 hrs	Standard TAT
01	Stoc	kpile #1				3/17/2010	1405		1				T	$\top$				Soil	x		$\top$	1	$\top$	+	T		П		x	$\top$	1	X
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## **Environmental Lab of Texas**

Variance/ Corrective Action Report- Sample Log-In

Client: GP T Energy				
Date/ Time: 03-18-10 C 0037				
Lab ID#: 365995				
Initials: JAF				
Sample Receipt	Checklist		Client	Initials
#1 Temperature of container/ cooler?	(es)	No	3.6 °C	
#2 Shipping container in good condition?	(es)	No		
#3 Custody Seals intact on shipping container/ cooler?	Yes	No	(Not Present)	
#4 Custody Seals intact on sample bottles/ container? / (aloc	(Yes)	No	Not Present	
#5 Chain of Custody present?	Yes	No		
#6 Sample instructions complete of Chain of Custody?	Yes	No		
#7 Chain of Custody signed when relinquished/ received?	(Yes)	No		
#8 Chain of Custody agrees with sample label(s)?	(Yes)	No	ID written on Cont./ Lid	
#9 Container label(s) legible and intact?	(Yes)	No	Not Applicable	
#10 Sample matrix/ properties agree with Chain of Custody?	(Yes)	No		
#11 Containers supplied by ELOT?	Yes	No		
#12 Samples in proper container/ bottle?	(Yes)	No	See Below	
#13 Samples properly preserved?	(es)	No	See Below	
#14 Sample bottles intact?	<b>ES</b>	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)?	(P)	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:  Regarding:	mentation		Date/ Time:	
Corrective Action Taken:				
Check all that Apply:  See attached e-mail/ fax  Client understands and wor  Cooling process had begun				

# **Analytical Report 365996**

for

**GP II Energy** 

**Project Manager: Joe Compton** 

Littlefield BO Fed # 2
GP II Energy

29-MAR-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)



29-MAR-10

Project Manager: Joe Compton

GP II Energy P.O. Box 50682 Midland, TX 79710

Reference: XENCO Report No: 365996

Littlefield BO Fed # 2

Project Address: Eddy County, New Mexico

#### Joe Compton:

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 365996. 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. 365996 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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Houston - Dallas - San Antonio - Austin - Tampa - Miami - Atlanta - Corpus Christi - Latin America



# **Sample Cross Reference 365996**



# GP II Energy, Midland, TX

Littlefield BO Fed # 2

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
Road F-1	S	Mar-17-10 08:00	3 ft	365996-001
Road SSW-1	S	Mar-17-10 08:20	2 ft	365996-002
Road F-2	S	Mar-17-10 08:40	3 ft	365996-003
Road NSW-2	S	Mar-17-10 09:00	2.5 ft	365996-004
Road F-3	S	Mar-17-10 09:20	2 ft	365996-005
Road SSW-3	S	Mar-17-10 09:40	1.5 ft	365996-006
Road F-4	S	Mar-17-10 10:00	2.5 ft	365996-007
Road NSW-4	S	Mar-17-10 10:20	2 ft	365996-008
Road F-5	S	Mar-17-10 10:40	7 ft	365996-009
Road SSW-5	S	Mar-17-10 11:00	6 ft	365996-010
Road F-6	S	Mar-17-10 11:20	7 ft	365996-011
Road NSW-6	S	Mar-17-10 11:40	6 ft	365996-012
ROW F-1	S	Mar-17-10 14:00	3 ft	365996-013
ROW ESW-1	S	Mar-17-10 14:10	2.5 ft	365996-014
ROW WSW-1	S	Mar-17-10 14:20	2.5 ft	365996-015
ROW F-2	S	Mar-17-10 14:40	7 ft	365996-016
ROW ESW-2	S	Mar-17-10 14:50	6 ft	365996-017
ROW SSW-2	S	Mar-17-10 15:00	6 ft	365996-018
ROW F-3	S	Mar-17-10 15:10	6 ft	365996-019
ROW NSW-3	S	Mar-17-10 15:20	5 ft	365996-020
ROW F-4	S	Mar-17-10 15:30	6 ft	365996-021
ROW SSW-4	S	Mar-17-10 15:40	5 ft	365996-022
ROW F-5	S	Mar-17-10 15:50	3 ft	365996-023
ROW NSW-5	S	Mar-17-10 16:00	2.5 ft	365996-024
ROW F-6	S	Mar-17-10 16:10	2.5 ft	365996-025
ROW SSW-6	S	Mar-17-10 16:20	1.5 ft	365996-026
ROW F-7	S	Mar-17-10 16:30	1 ft	365996-027
ROW NSW-7	S	Mar-17-10 16:40	6 In	365996-028
ROW F-8	S	Mar-17-10 16:50	2.5 ft	365996-029
ROW SSW-8	S	Mar-17-10 17:00	2 ft	365996-030
ROW F-9	S	Mar-17-10 17:10	3 ft	365996-031
ROW NSW-9	S	Mar-17-10 17:20	2.5 ft	365996-032
ROW F-10	S	Mar-17-10 17:30	2.5 ft	365996-033
ROW SSW-10	S	Mar-17-10 17:40	2 ft	365996-034
ROW F-11	S	Mar-17-10 17:50	2.5 ft	365996-035
ROW NSW-11	S	Mar-17-10 18:00	2 ft	365996-036
ROW F-12	S	Mar-17-10 18:10	1 ft	365996-037
ROW SSW-12	S	Mar-17-10 18:20	6 In	365996-038

#### CASE NARRATIVE



Client Name: GP II Energy Project Name: Littlefield BO Fed # 2

Project ID:

GP II Energy

Report Date: 29-MAR-10

Work Order Number: 365996

Date Received: 03/18/2010

#### Sample receipt non conformances and Comments:

None

#### Sample receipt Non Conformances and Comments per Sample:

None

#### Analytical Non Conformances and Comments:

Batch: LBA-798946 Percent Moisture

None

Batch: LBA-798948 Percent Moisture

None

Batch: LBA-798959 Percent Moisture

None

Batch: LBA-799186 Inorganic Anions by EPA 300

None

Batch: LBA-799193 Anions by E300

None

Batch: LBA-799194 TPH By SW8015 Mod

None

Batch: LBA-799197 TPH By SW8015 Mod

None

Batch: LBA-799944 BTEX by EPA 8021B

SW8021BM

Batch 799944, Benzene, Ethylbenzene, Toluene, m,p-Xylenes, o-Xylene recovered below QC limits in the Matrix Spike and Matrix Spike Duplicate.

Samples affected are: 365996-003, -012, -018, -014, -017, -022, -030, -037, -013, -015, -009, -025, -033, -038, -026, -010, -011, -031.

The Laboratory Control Sample for Toluene, m,p-Xylenes, Benzene, Ethylbenzene, o-Xylene is within laboratory Control Limits



## Certificate of Analysis Summary 365996

GP II Energy, Midland, TX
Project Name: Littlefield BO Fed # 2

Project Id: GP II Energy

Contact: Joe Compton

Project Location: Eddy County, New Mexico

Date Received in Lab: Thu Mar-18-10 08:37 am

Report Date: 29-MAR-10

Project Manager: Brent Barron, II

								1 Toject Mai	ager.	Dient Darron,			
	Lab 1d:	365996-0	001	365996-0	02	365996-0	03	365996-0	04	365996-0	05	365996-00	06
Analysis Requested	Field Id:	Road F-	1	Road SSV	V-1	Road F-	2	Road NSV	V-2	Road F-	3	Road SSW	<b>/-3</b>
Anulysis Nequesieu	Depth:	3- ft		2- ft		3- ft		2.5- ft		2- ft		1.5- ft	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Mar-17-10 (	08.00	Mar-17-10	08:20	Mar-17-10	08:40	Mar-17-10 (	09:00	Mar-17-10 (	09:20	Mar-17-10 0	9·40
Anions by E300	Extracted:			_ <del></del>									
	Analyzed:	Mar-21-10	18:40	Mar-21-10	18.40	Mar-21-10	18:40	Mar-21-10	18:40	Mar-21-10	18.40	Mar-21-10 1	18:40
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chlonde		485	22.7	651	26.9	191	51.3	2870	46.1	852	26 4	246	26.6
BTEX by EPA 8021B	Extracted:					Mar-25-10	08:00			-			
	Analyzed:					Mar-25-10	15.52						
	Units/RL:			i		mg/kg	RL			,			
Benzene						ND	0.0012						
Toluene						ND	0.0025						
Ethylbenzene						ND	0.0012						
m,p-Xylenes						ND	0.0025						
o-Xylenc							0.0012						
Total Xylenes							0.0012						
Total BTEX						ND	0.0012						
Percent Moisture	Extracted:												
	Analyzed:	Mar-18-10	17.00	Mar-18-10	17.00	Mar-18-10	17.00	Mar-18-10	17.00	Mar-18-10	17:00	Mar-18-10 1	7.00
	Units/RL:	%	RL	%	RL	%	RL	%	RL	%	RL	%	RL
Percent Moisture		26.1	1.00	21.8	1.00	18.1	1.00	8.98	1 00	20.5	1.00	21.0	1.00
TPH By SW8015 Mod	Extracted:	Mar-18-10	14.30	Mar-18-10	14:30	Mar-18-10	14:30	Mar-18-10	14:30	Mar-18-10	14:30	Mar-18-10 1	4:30
	Analyzed:	Mar-18-10	18.36	Mar-18-10	19:02	Mar-19-10	80:80	Mar-19-10 (	08:36	Mar-19-10	09·03	Mar-19-10 1	10:27
	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	20.3	ND	19.2	26.2	18.4	ND	16.4	ND	18.8	ND	18.9
C12-C28 Diesel Range Hydrocarbons		ND	20.3	ND	19.2	118	18.4	ND	16.4	ND	18.8	ND	18.9
C28-C35 Oil Range Hydrocarbons		ND	20.3	ND	19.2	ND	18.4	ND	16.4	ND	18.8	ND	18.9
Total TPH		ND	20.3	ND	19.2	144	18.4	ND	16.4	ND	18.8	ND	18.9

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 involved for this work order unless otherwise agreed to in writing.

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Brent Barron, II Odessa Laboratory Manager



Project Id: GP II Energy

Contact: Joe Compton

Project Location: Eddy County, New Mexico

### Certificate of Analysis Summary 365996 GP II Energy, Midland, TX

Project Name: Littlefield BO Fed # 2

Date Received in Lab: Thu Mar-18-10 08:37 am

Report Date: 29-MAR-10

								Project Ma	nager:	Brent Barron,	, II		
	Lab Id:	365996-0	007	365996-0	800	365996-0	009	365996-0	010	365996-	011	365996-0	012
Analysis Requested	Field Id:	Road F	-4	Road NSV	W-4	Road F-	-5	Road SS	N-5	Road F	-6	Road NS	W-6
Analysis Requesteu	Depth:	2.5- ft		2- ft		7- ft		6- ft		7- ft		6- ft	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Mar-17-10	10:00	Mar-17-10	10:20	Mar-17-10	10.40	Mar-17-10	11:00	Mar-17-10	11.20	Mar-17-10	11:40
Anions by E300	Extracted:												
	Analyzed:	Mar-21-10	18:40	Mar-21-10	18:40	Mar-21-10	18:40	Mar-21-10	18:40	Mar-21-10	18.40	Mar-21-10	18:40
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chlonde		480	26.5	202	21.0	1630	23.3	2000	47.1	1230	47 2	1720	48.
BTEX by EPA 8021B	Extracted:					Mar-25-10	08:00	Mar-25-10	08:00	Mar-25-10	08.00	Mar-25-10	08:00
	Analyzed:					Mar-25-10	16:13	Mar-25-10	16:34	Mar-25-10	16:55	Mar-25-10	17:16
	Units/RL:					mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Benzene						ND	0.0011	ND	0.0011	ND	0.0011	ND	0.0012
Toluene						ND	0.0022	ND	0.0022	ND	0.0022	ND	0.0023
Ethylbenzene						ND	0.0011	ND	0.0011	ND	0.0011	ND	0.0013
m,p-Xylencs							0.0022		0.0022	ND	0.0022	ND	0 002
o-Xylene							0 0011		0.0011	ND	0.0011	ND	0 001
Total Xylenes							0.0011		0.0011		0.0011	ND	0.001
Total BTEX						ND	0.0011	ND	0 0011	ND	0.0011	ND	0.001
Percent Moisture	Extracted:												
	Analyzed:	Mar-18-10	17:00	Mar-18-10	17 00	Mar-18-10	17:00	Mar-18-10	17:00	Mar-18-10	17:00	Mar-18-10	17 00
	Units/RL:	%	RL	%	RL	%	RL	%	RL	%	RL	%	RL
Percent Moisture		20.8	1.00	19.9	1.00	9.92	1 00	10.9	1.00	11 1	1.00	12.6	1.00
TPH By SW8015 Mod	Extracted:	Mar-18-10	14.30	Mar-18-10	14:30	Mar-18-10	14:30	Mar-18-10	14:30	Mar-18-10	14:30	Mar-18-10	14:30
	Analyzed:	Mar-19-10	09·59	Mar-19-10	10:54	Mar-19-10	11 21	Mar-19-10	11.48	Mar-19-10	12:42	Mar-19-10	13:09
	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	18.9	ND	18.8	ND	16.6	ND	16.8	ND	16.9	ND	17.
C12-C28 Diesel Range Hydrocarbons		ND	18.9	ND	18.8	ND	16.6	ND	16.8	ND	16.9	42.9	17.
C28-C35 Oil Range Hydrocarbons		ND	18.9	ND	18.8	ND	16.6	ND	16.8	ND	16.9	ND	17.
Total TPH		ND	18.9	ND	18.8	ND	16.6	ND	16.8	ND	169	42.9	17.

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 hability is limited to the amount invoiced for this work order unless otherwise agreed to in writing

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Brent Barron, II Odessa Laboratory Manager

Page 6 of 39

Final Ver. 1.000



# Certificate of Analysis Summary 365996

GP II Energy, Midland, TX

Project Id: GP II Energy
Contact: Joe Compton

II Energy Project Name: Littlefield BO Fed # 2

Project Location: Eddy County, New Mexico

Date Received in Lab: Thu Mar-18-10 08:37 am

**Report Date:** 29-MAR-10

Project Manager: Brent Barron, II

										Dient Darron,			
	Lab Id:	365996-	013	365996-0	014	365996-0	15	365996-0	16	365996-0	17	365996-0	018
Analysis Requested	Field Id:	ROW F	-1	ROW ES	W-1	ROW WS	W-I	ROW F	-2	ROW ES	W-2	ROW SS	W-2
Anaiysis Requesiea	Depth:	3- ft		2.5- ft	İ	2.5- ft		7- ft		6- ft		6- ft	
	Matrix:	SOIL	,	SOIL	1	SOIL		SOIL		SOIL		SOIL	
	Sampled:	Mar-17-10	14:00	Mar-17-10	14·10	Mar-17-10	14:20	Mar-17-10	14:40	Mar-17-10	14:50	Mar-17-10	15:00
Anions by E300	Extracted:		-										
	Analyzed:	Mar-21-10	18.40	Mar-21-10	18.40	Mar-21-10	18.40	Mar-21-10	18.40	Mar-21-10	18:40	Mar-21-10	18:40
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chlonde		70.0	4.51	76.5	8.96	1370	17.8	783	17.8	1640	21.5	1130	179
BTEX by EPA 8021B	Extracted:	Mar-25-10	08.00	Mar-25-10	08:00	Mar-25-10 (	08:00			Mar-25-10	08.00	Mar-25-10	08:00
	Analyzed:	Mar-25-10	17.37	Mar-25-10	17:57	Mar-25-10	18.18			Mar-25-10	18:39	Mar-25-10	18:59
	Units/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
Toluene		ND	0.0022	ND	0.0021	ND	0.0021			ND	0.0020	ND	0.0021
Ethylbenzene		ND	0.0011	ND	0.0011	ND	0.0011			ND	0.0010	ND	1100.0
m,p-Xylenes		ND	0.0022	ND	0.0021	ND	0.0021			ND	0.0020	ND	0.0021
o-Xylene		ND	0 0011	ND	0 0011	ND	0 0011			ND	0.0010	ND	0.0011
Total Xylenes		ND	0.0011	ND	0.0011	ND	0.0011			ND	0.0010	ND	0.0011
Total BTEX		ND	0.0011	ND	0.0011	ND	0.0011			ND	0.0010	ND	0.0011
Percent Moisture	Extracted:												
	Analyzed:	Mar-18-10	17:00	Mar-18-10	17:00	Mar-18-10	17.00	Mar-18-10	17.00	Mar-18-10	17:00	Mar-18-10	17:00
	Units/RL:	%	RL	%	RL	%	RL	%	RL	%	RL	%	RL
Percent Moisture		6.96	1.00	6 25	1 00	5 81	1.00	5 86	1 00	2.11	1.00	6 3 7	1.00
TPH By SW8015 Mod	Extracted:	Mar-18-10	14.30	Mar-18-10	14.30	Mar-18-10	14.30	Mar-18-10	14:30	Mar-18-10	14:30	Mar-18-10	14:30
	Analyzed:	Mar-19-10	13.36	Mar-19-10	14:03	Mar-19-10	14.30	Mar-19-10	14.58	Mar-19-10	15:25	Mar-19-10	15.53
	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	16.1	ND	16.1	ND	15.9	ND	15.9	ND	15.3	ND	16.0
C12-C28 Diesel Range Hydrocarbons		ND	16.1	ND	16.1	ND	15 9	ND	15.9	ND	15.3	ND	16.0
C28-C35 Oil Range Hydrocarbons		ND	16.1	ND	16.1	ND	15.9	ND	15 9	ND	15.3	ND	16.0
Total TPH		ND	16.1	ND	16.1	ND	15.9	ND	15.9	ND	15.3	ND	16.0

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Brent Barron, II Odessa Laboratory Manager



## Certificate of Analysis Summary 365996

GP II Energy, Midland, TX

Project Name: Littlefield BO Fed # 2

Project Id: GP II Energy
Contact: Joe Compton

Contact: Joe Compton

Project Location: Eddy County, New Mexico

Date Received in Lab: Thu Mar-18-10 08:37 am

Report Date: 29-MAR-10

Project Manager: Brent Barron, II

								rioject Ma	nager.	Brent Barron,			
	Lab Id:	365996-0	19	365996-0	20	365996-0	21	365996-0	22	365996-0	)23	365996-02	24
Analysis Requested	Field Id:	ROW F	-3	ROW NS	W-3	ROW F-	.4	ROW SSV	<b>₩-4</b>	ROW F	-5	ROW NSW	V-5
Analysis Requesieu	Depth:	6- ft		5- ft		6- ft		5- ft		3- ft		2.5- ft	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Mar-17-10	15:10	Mar-17-10	15:20	Mar-17-10 1	15:30	Mar-17-10	15:40	Mar-17-10	15:50	Mar-17-10 1	6:00
Anions by E300	Extracted:												
	Analyzed:	Mar-21-10	23.59	Mar-21-10	23:59	Mar-21-10 2	23.59	Mar-21-10	23.59	Mar-21-10	23:59	Mar-21-10 2	23:59
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chlonde		914	23.8	289	22.2	542	23.0	1870	46.1	247	9.17	83.3	4.35
BTEX by EPA 8021B	Extracted:	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,						Mar-25-10	08.00				
	Analyzed:							Mar-25-10	20:01				
	Units/RL:							mg/kg	RL				
Benzene								ND	0.0011				
Toluenc								ND	0.0022				
Ethylbenzene								ND	0.0011				
m,p-Xylencs					-			ND	0.0022				
o-Xylene									0.0011				
Total Xylenes								ND	0.0011				
Total BTEX								ND	0.0011				
Percent Moisture	Extracted:											,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	
	Analyzed:	Mar-18-10	17:00	Mar-18-10	17.00	Mar-18-10 1	7:00	Mar-18-10	17:00	Mar-18-10	17:00	Mar-18-10 1	7.00
	Units/RL:	%	RL	%	RL	%	RL	%	RL	%	RL	%	RL
Percent Moisture		11.9	1.00	5.30	1.00	8.52	1.00	8.90	1.00	8.39	1,00	3.39	1.00
TPH By SW8015 Mod	Extracted:	Mar-18-10	14.30	Mar-18-10	14:30	Mar-18-10 1	4:30	Mar-18-10	14:30	Mar-18-10	14:30	Mar-18-10 1	4.30
	Analyzed:	Mar-19-10	16:21	Mar-19-10	16:48	Mar-19-10 2	22.02	Mar-19-10	22:29	Mar-19-10	22:56	Mar-19-10 2	23:22
	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	15.8	ND	16.4	ND	16.4	ND	16.3	ND	15.5
C12-C28 Diesel Range Hydrocarbons		ND	16.9	ND	15.8	ND	16.4	ND	16.4	ND	16.3	ND	15.5
C28-C35 Oil Range Hydrocarbons		ND	16.9	ND	15.8	ND	16.4	ND	16.4	ND	16.3	ND	15.5
Total TPH		ND	16.9	ND	15.8	ND	16.4	ND	16.4	ND	16.3	ND	15.5

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Brent Barron, II Odessa Laboratory Manager

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### Certificate of Analysis Summary 365996 GP II Energy, Midland, TX

Project Name: Littlefield BO Fed # 2

Project Id: GP II Energy

Contact: Joe Compton Project Location: Eddy County, New Mexico Date Received in Lab: Thu Mar-18-10 08:37 am

Report Date: 29-MAR-10

Project Manager: Brent Barron, II

								Project Mai	nager:_	Brent Barron,	11		
	Lab Id:	365996-	025	365996-(	026	365996-0	27	365996-0	28	365996-0	29	365996-	030
Analysis Requested	Field Id:	ROW F	-6	ROW SS	W-6	ROW F-	.7	ROW NSV	<b>W</b> -7	ROW F	-8	ROW SS	W-8
Anuiysis Nequesieu	Depth:	2.5- fi	t	1 5- ft		1- ft		6- In		2.5- ft	j	2- ft	
	Matrix:	SOIL	,	SOIL		SOIL		SOIL		SOIL		SOIL	_
	Sampled:	Mar-17-10	16:10	Mar-17-10	16:20	Mar-17-10	6:30	Mar-17-10	16:40	Mar-17-10	16:50	Mar-17-10	17:00
Anions by E300	Extracted:			, , , , , , , , , , , , , , , , , , , ,									
	Analyzed:	Mar-21-10	23:59	Mar-21-10	23 59	Mar-21-10	23.59	Mar-21-10	23:59	Mar-21-10	23:59	Mar-21-10	23:59
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chlonde		63.6	23.5	183	9.01	56.7	4 58	11.0	4.49	71.8	4 40	102	4.56
BTEX by EPA 8021B	Extracted:	Mar-25-10	08:00	Mar-25-10	08.00						Ĩ	Mar-25-10	08:00
	Analyzed:	Mar-25-10	20:21	Mar-25-10	20:42							Mar-25-10	21:03
	Units/RL:	mg/kg	RL	mg/kg	RL							mg/kg	RL
Benzenc		ND	0 0011	ND	0 0011							ND	0.0011
Toluene		ND	0.0022	ND	0.0022							ND	0.0022
Ethylbenzene			0.0011		0.0011							ND	0.0011
m,p-Xylenes			0.0022		0.0022							ND	0.0022
o-Xylene			0.0011		0.0011							ND	0.0011
Total Xylenes			0 0011		0.0011							ND	0.0011
Total BTEX		ND	0 0011	ND	0.0011							ND	0.0011
Percent Moisture	Extracted:												
	Analyzed:	Mar-18-10	17.00	Mar-18-10	17.00	Mar-18-10	7:00	Mar-18-10	17 00	Mar-18-10	17.00	Mar-18-10	17:00
	Units/RL:	%	RL	%	RL	%	RL	%	RL	%	RL	%	RL
Percent Moisture		10.5	1.00	6.79	1.00	8 34	1.00	6.46	1 00	4 53	1.00	7.92	1.00
TPH By SW8015 Mod	Extracted:	Mar-18-10	14:30	Mar-18-10	14:30	Mar-18-10 1	4.30	Mar-18-10	14.30	Mar-18-10	14:30	Mar-18-10	14:30
	Analyzed:	Mar-19-10	23:49	Mar-20-10	00:16	Mar-20-10 (	00:43	Mar-20-10 (	01:10	Mar-20-10	01:36	Mar-20-10	02 03
	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	16.8	ND	16.1	ND	16.4	ND	16.0	ND	15.6	ND	16.3
C12-C28 Diesel Range Hydrocarbons		137	168	207	16.1	ND	16.4	ND	16.0	ND	15.6	ND	16.3
C28-C35 Oil Range Hydrocarbons		ND	16.8	ND	16.1	ND	16.4	ND	16.0	ND	15.6	ND	16.3
Total TPH		137	16.8	207	16.1	ND	16.4	ND	16.0	ND	15.6	ND	16.3

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Brent Barron, II Odessa Laboratory Manager



### Certificate of Analysis Summary 365996

GP II Energy, Midland, TX

Project Name: Littlefield BO Fed # 2

Project Id: GP II Energy
Contact: Joe Compton

Project Location: Eddy County, New Mexico

Date Received in Lab: Thu Mar-18-10 08:37 am

Report Date: 29-MAR-10

Project Manager: Brent Barron, II

									5	Breite Burren,			
	Lab Id:	365996-0	031	365996-0	32	365996-0	33	365996-0	34	365996-0	35	365996-03	36
Analysis Requested	Field Id:	ROW F	-9	ROW NS	N-9	ROW F-	10	ROW SSV	V-10	ROW F-	11	ROW NSW	-11
Anaiysis Kequesieu	Depth:	3- ft	ĺ	2 5- ft		2 5- ft		2- ft		2 5- ft		2- ft	
	Matrix:	SOIL		SOIL		SOIL	ŀ	SOIL		SOIL		SOIL	
	Sampled:	Mar-17-10	17:10	Mar-17-10	17:20	Mar-17-10 1	17:30	Mar-17-10	17:40	Mar-17-10	17·50	Mar-17-10 1	8:00
Anions by E300	Extracted:				- ,								
	Analyzed:	Mar-21-10	23:59	Mar-21-10 2	23:59	Mar-21-10 2	23:59	Mar-21-10	23 59	Mar-21-10	23.59	Mar-21-10 2	23:59
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chlonde		11 7	4.94	90.7	4.42	326	9.09	248	9.28	177	100	4.48	4.47
BTEX by EPA 8021B	Extracted:	Mar-25-10	08.00			Mar-25-10 (	08:00						•
	Analyzed:	Mar-25-10	21:23			Mar-25-10 2	21:43		ĺ				
	Units/RL:	mg/kg	RL			mg/kg	RL						
Benzene		ND	0.0012			ND	0.0011	:					
Toluene		ND	0.0024			ND	0.0022						
Ethylbenzene		ND	0.0012			ND	0.0011						
m,p-Xylenes		ND	0 0024			ND	0.0022						
o-Xylene			0.0012				0 0011						
Total Xylenes		ND	0.0012			ND	0.0011						
Total BTEX		NDND	0.0012			ND	0.0011						
Percent Moisture	Extracted:												
	Analyzed:	Mar-18-10	17.00	Mar-18-10	7:00	Mar-18-10 1	17.00	Mar-18-10	17:00	Mar-18-10	17:00	Mar-18-10 1	7 00
	Units/RL:	%	RL	%	RL	%	RL	%%	RL	%	RL	%	RL
Percent Moisture		14.9	1.00	4.92	1.00	7.63	1.00	9.47	1.00	16.4	1.00	6.10	1.00
TPH By SW8015 Mod	Extracted:	Mar-18-10	14.30	Mar-18-10	4.30	Mar-18-10	14.30	Mar-18-10	14:30	Mar-18-10	14:30	Mar-18-10 1	4:30
	Analyzed:	Mar-20-10	08:59	Mar-20-10 (	9:25	Mar-20-10 (	09.52	Mar-20-10	10:18	Mar-20-10	10 54	Mar-20-10 1	1:21
	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		21.3	17 6	ND	15.7	ND	16.2	ND	16.6	ND	17.9	ND	15.9
C12-C28 Diesel Range Hydrocarbons		73.8	17.6	ND	15.7	45 5	162	ND	16.6	ND	17.9	ND	15 9
C28-C35 Oil Range Hydrocarbons		ND	17.6	ND	15.7	ND	16.2	ND	16.6	ND	17.9	ND	15.9
Total TPH		95.1	17.6	ND	15 7	45 5	16.2	ND	16.6	ND	17.9	ND	15.9

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Brent Barron, II Odessa Laboratory Manager



## Certificate of Analysis Summary 365996

GP II Energy, Midland, TX

Project Name: Littlefield BO Fed # 2

Project Id: GP II Energy Contact: Joe Compton

Project Location: Eddy County, New Mexico

Date Received in Lab: Thu Mar-18-10 08:37 am

Report Date: 29-MAR-10

Project Manager: Brent Barron, II

1				
	Lab Id:	365996-037	365996-038	
Analysis Requested	Field Id:	ROW F-12	ROW SSW-12	
Anuiysis Nequesieu	Depth:	1- ft	6- In	
	Matrix:	SOIL	SOIL	
	Sampled:	Mar-17-10 18:10	Mar-17-10 18:20	
Anions by E300	Extracted:			
	Analyzed:	Mar-21-10 23:59	Mar-21-10 23.59	
	Units/RL:	mg/kg RL	mg/kg RL	
Chloride		31.5 4.46	154 9.05	
BTEX by EPA 8021B	Extracted:	Mar-25-10 08:00	Mar-25-10 08.00	
	Analyzed:	Mar-25-10 22:04	Mar-25-10 22:25	
	Units/RL:	mg/kg RL	mg/kg RL	
Benzene		ND 0.0011	ND 0.0011	
Toluene		ND 0 0021	ND 0.0021	
Ethylbenzene		ND 0.0011	ND 0.0011	
m,p-Xylenes		ND 0.0021	ND 0.0021	
o-Xylene		ND 0.0011	ND 0.0011	
Total Xylenes		ND 0 0011	ND 0 0011	
Total BTEX		ND 0.0011	ND 0.0011	
Percent Moisture	Extracted:			
·	Analyzed:	Mar-18-10 17:00	Mar-18-10 17.00	
	Units/RL:	% RL	% RL	
Percent Moisture		5.88 1.00	7.21 1.00	
TPH By SW8015 Mod	Extracted:	Mar-18-10 14.30	Mar-18-10 14:30	
	Analyzed:	Mar-20-10 11:48	Mar-20-10 12:15	
	Units/RL:	mg/kg RL	mg/kg RL	
C6-C12 Gasoline Range Hydrocarbons		ND 15.9	ND 16.1	
C12-C28 Diesel Range Hydrocarbons		242 15.9	18.4 16.1	
C28-C35 Oil Range Hydrocarbons		ND 15.9	ND 16.1	
Total TPH		242 15.9	18 4 16.1	

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Brent Barron, II Odessa Laboratory Manager



### **Flagging Criteria**

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

BRL Below Reporting Limit.

**RL** Reporting Limit

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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, M1ami 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

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<sup>\*</sup> Outside XENCO's scope of NELAC Accreditation.



Project Name: Littlefield BO Fed # 2

Work Orders: 365996,

Project ID: GP II Energy

Lab Batch #: 799944

Sample: 559142-1-BKS / BKS

Batch: 1 Matrix: Solid

Units: mg/kg Date Analyzed: 03/25/10 09:35 SURROGATE RECOVERY STUT					SIUDY	
ВТЕ	X by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
	Analytes			[D]	ļ	
1,4-Diffuorobenzene		0.0278	0.0300	93	80-120	
4-Bromofluorobenzene		0.0251	0.0300	84	80-120	

Lab Batch #: 799944

**Sample:** 559142-1-BSD / BSD

Batch: 1

Matrix: Solid

Units: mg/kg	Date Analyzed: 03/25/10 09:56	SURROGATE RECOVERY STUDY					
ВТЕ	X by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags	
	Analytes			[D]	1		
1,4-Difluorobenzene		0.0283	0 0300	94	80-120		
4-Bromofluorobenzene		0.0255	0.0300	85	80-120		

Lab Batch #: 799944

Sample: 559142-1-BLK / BLK

Batch: 1

Matrix: Solid

Units: mg/kg Date Analyzed: 03/25/10 10:58	SURROGATE RECOVERY STUDY						
BTEX by EPA 8021B  Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags		
1,4-Difluorobenzene	0.0278	0.0300	93	80-120			
4-Bromofluorobenzene	0 0260	0.0300	87	80-120	·		

Lab Batch #: 799944

**Sample:** 365996-003 / SMP

Batch: 1

Matrix: Soil

Units: mg/kg	Date Analyzed: 03/25/10 15:52	SURROGATE RECOVERY STUDY						
ВТЕ	X by EPA 8021B  Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags		
1,4-Dıfluorobenzene		0.0279	0.0300	93	80-120			
4-Bromofluorobenzene		0.0266	0 0300	89	80-120			

Lab Batch #: 799944

Sample: 365996-009 / SMP

Batch: 1

Matrix: Soil

Units: mg/kg Date Analyzed: 03/25/10 16:13	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	0.0272	0 0300	91	80-120			
4-Bromofluorobenzene	0.0255	0.0300	85	80-120			

<sup>\*</sup> Surrogate outside of Laboratory QC limits

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

<sup>\*\*</sup> Surrogates outside limits; data and surrogates confirmed by reanalysis

<sup>\*\*\*</sup> Poor recoveries due to dilution



Project Name: Littlefield BO Fed # 2

Work Orders: 365996,

Project ID: GP II Energy

Lab Batch #: 799944

Sample: 365996-010 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg Date Analyzed: 03/25/10 16:34	SURROGATE RECOVERY STUDY					
BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags	
Analytes			[D]			
1,4-Difluorobenzene	0.0281	0.0300	94	80-120		
4-Bromofluorobenzene	0 0271	0.0300	90	80-120		

Lab Batch #: 799944

Sample: 365996-011 / SMP

Batch: 1

Matrix: Soil

Units: mg/kg Date Analyzed: 03/25/10 16:55	SURROGATE RECOVERY STUDY					
BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags	
Analytes			[D]			
1,4-Difluorobenzenc	0.0266	0.0300	89	80-120		
4-Bromofluorobenzene	0 0258	0.0300	86	80-120		

Lab Batch #: 799944

Sample: 365996-012 / SMP

Batch: 1

1 Matrix: Soil

Units: mg/kg Date Analyzed: 03/25/10 17:16	SURROGATE RECOVERY STUDY					
BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags	
Analytes			[D]			
1,4-Dıfluorobenzene	0.0270	0.0300	90	80-120		
4-Bromofluorobenzene	0.0254	0.0300	85	80-120		

Lab Batch #: 799944

Sample: 365996-013 / SMP

Batch:

Matrix: Soil

Units: mg/kg Date Analyzed: 03/25/10 17:37	SURROGATE RECOVERY STUDY					
BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags	
Analytes		ļ	[D]	<u> </u>		
1,4-Difluorobenzene	0.0274	0.0300	91	80-120		
4-Bromofluorobenzene	0.0266	0.0300	89	80-120		

Lab Batch #: 799944

Sample: 365996-014 / SMP

Batch: 1

Matrix: Soil

Units: mg/kg Date Analyzed: 03/25/10 17:57	SURROGATE RECOVERY STUDY						
BTEX by EPA 8021B  Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags		
1,4-Dıfluorobenzene	0 0273	0.0300	91	80-120			
4-Bromofluorobenzene	0.0256	0.0300	85	80-120			

<sup>\*</sup> Surrogate outside of Laboratory QC limits

Surrogate Recovery  $\{D\} = 100 * A / B$ 

<sup>\*\*</sup> Surrogates outside limits; data and surrogates confirmed by reanalysis

<sup>\*\*\*</sup> Poor recoveries due to dilution



Project Name: Littlefield BO Fed # 2

Work Orders: 365996,

Project ID: GP II Energy

Lab Batch #: 799944

Sample: 365996-015 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg Date Analyzed: 03/25/10 18:18	Akg Date Analyzed: 03/25/10 18:18 SURROGATE RECOVERY STUDY				
BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
Analytes			[D]		
1,4-Difluorobenzene	0.0278	0.0300	93	80-120	
4-Bromofluorobenzene	0.0268	0.0300	89	80-120	

Lab Batch #: 799944

Sample: 365996-017 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg Date Analyzed: 03/25/10 18:39	SURROGATE RECOVERY STUDY				
BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
Analytes		ĺ	[D]		
1,4-Difluorobenzene	0.0269	0 0300	90	80-120	
4-Bromofluorobenzene	0 0263	0.0300	88	80-120	

Lab Batch #: 799944

**Sample:** 365996-018 / SMP

Batch: 1

Matrix: Soil

Units: mg/kg Date Analyzed: 03/25/10 18:59	St	SURROGATE RECOVERY STUDY					
BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags		
Analytes			<u> </u>				
1,4-Dıfluorobenzene	0.0275	0 0300	92	80-120			
4-Bromofluorobenzene	0 0247	, 0.0300	82	80-120			

Lab Batch #: 799944

Sample: 365996-022 / SMP

Batch: 1

Matrix: Soil

Units: mg/kg Date Analyzed: 03/25/10 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-Dıfluorobenzene	0 0282	0 0300	94	80-120	
4-Bromofluorobenzene	0.0257	0 0300	86	80-120	

Lab Batch #: 799944

Sample: 365996-025 / SMP

Batch: 1

Matrix: Soil

Units: mg/kg Date Analyzed: 03/25/10 20:21	SURROGATE RECOVERY STUDY					
BTEX by EPA 8021B  Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags	
1,4-Dıfluorobenzene	0.0274	0.0300	91	80-120		
4-Bromofluorobenzene	0.0242	0.0300	81	80-120		

<sup>\*</sup> Surrogate outside of Laboratory QC limits

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

<sup>\*\*</sup> Surrogates outside limits; data and surrogates confirmed by reanalysis

<sup>\*\*\*</sup> Poor recoveries due to dilution



Project Name: Littlefield BO Fed # 2

Work Orders: 365996,

Project ID: GP II Energy

Lab Batch #: 799944

Sample: 365996-026 / SMP

Matrix: Soil Batch: 1

Units: mg/kg Date Analyzed: 03/25/10 20:42	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	0.0247	0.0300	82	80-120		

Lab Batch #: 799944

Sample: 365996-030 / SMP

Batch: 1

Matrix: Soil

Units: mg/kg Date Analyzed: 03/25/10 21:03	SURROGATE RECOVERY STUDY					
BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags	
Analytes		1	[D]			
1,4-Dıfluorobenzene	0.0282	0.0300	94	80-120		
4-Bromofluorobenzene	0.0301	0,0300	100	80-120		

Lab Batch #: 799944

Sample: 365996-031 / SMP

Batch:

Matrix: Soil

Units: mg/kg Date Analyzed: 03/25/10 21:23	SURROGATE RECOVERY STUDY				
BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
Analytes			[D]		
1,4-Dıfluorobenzene	0.0276	0.0300	92	80-120	
4-Bromofluorobenzene	0.0301	0.0300	100	80-120	

Lab Batch #: 799944

Sample: 365996-033 / SMP

Batch:

Matrix: Soil

Units: mg/kg Date Analyzed: 03/25/10 21:43	SURROGATE RECOVERY STUDY				
BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
Analytes			[D]		
1,4-Dıfluorobenzene	0.0277	0.0300	92	80-120	
4-Bromofluorobenzene	0.0262	0.0300	87	80-120	

Lab Batch #: 799944

Sample: 365996-037 / SMP

Batch: 1

Matrix: Soil

Units: mg/kg Date Analyzed: 03/25/10 22:04	SURROGATE RECOVERY STUDY					
BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags	
Analytes			IDI			
1,4-Dıfluorobenzene	0.0277	0.0300	92	80-120		
4-Bromofluorobenzene	0.0252	0.0300	84	80-120		

<sup>\*</sup> Surrogate outside of Laboratory QC limits

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

<sup>\*\*</sup> Surrogates outside limits; data and surrogates confirmed by reanalysis

<sup>\*\*\*</sup> Poor recoveries due to dilution



Project Name: Littlefield BO Fed # 2

Work Orders: 365996,

Sample: 365996-038 / SMP

Project ID: GP II Energy

Lab Batch #: 799944

Batch: 1 Matrix: Soil

Units: mg/kg Date Analyzed: 03/25/10 22:25	Inits: mg/kg Date Analyzed: 03/25/10 22:25 SURROGATE RECOVERY STUDY				
BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
Analytes			[D]		
1,4-Difluorobenzenc	0.0270	0.0300	90	80-120	
4-Bromofluorobenzene	0.0293	0 0300	98	80-120	

Lab Batch #: 799944

Sample: 365996-038 S / MS

Batch: 1

Matrix: Soil

Units: mg/kg Date Analyzed: 03/25/10 23:27	SURROGATE RECOVERY STUDY					
BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags	
Analytes			[D]			
1,4-Difluorobenzene	0.0282	0 0300	94	80-120		
4-Bromofluorobenzene	0.0280	0.0300	93	80-120		

Lab Batch #: 799944

**Sample:** 365996-038 SD / MSD

Batch: 1

Matrix: Soil

Units: mg/kg	Date Analyzed: 03/25/10 23:48	SU	RROGATE R	RECOVERY	STUDY	
ВТЕ	X by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
	Analytes			[D]		
1,4-Difluorobenzene		0.0274	0.0300	91	80-120	
4-Bromofluorobenzene		0.0245	0.0300	82	80-120	

Lab Batch #: 799194

Sample: 558676-1-BKS / BKS

Batch:

Matrix: Solid

Units: mg/kg Date Analyzed: 03/18/10 17:16	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	107	100	107	70-135	
o-Terphenyl	42 5	50.0	85	70-135	

Lab Batch #: 799194

**Sample:** 558676-1-BSD / BSD

Batch: 1

Matrix: Solid

Units: mg/kg Date Analyzed: 03/18/10 17:43	SU	RROGATE R	ECOVERY	STUDY	
TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
Analytes			[D]		i
1-Chlorooctane	110	99.8	110	70-135	
o-Terphenyl	42.7	49.9	86	70-135	

<sup>\*</sup> Surrogate outside of Laboratory QC limits

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

<sup>\*\*</sup> Surrogates outside limits; data and surrogates confirmed by reanalysis

<sup>\*\*\*</sup> Poor recoveries due to dilution



Project Name: Littlefield BO Fed # 2

Work Orders: 365996,

Project ID: GP II Energy

Lab Batch #: 799194

**Sample:** 558676-1-BLK / BLK

Batch: 1 Matrix: Solid

Units: mg/kg Date Analyzed: 03/18/10 18:09 SURROGATE RECOVERY STUDY					
TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
Analytes			[D]		
1-Chlorooctanc	99.0	100	99	70-135	
o-Terphenyl	49.1	50.2	98	70-135	

Lab Batch #: 799194

Sample: 365996-001 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg Date Analyzed: 03/18/10 18:36	SURROGATE RECOVERY STUDY				
TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
Analytes			[D]		
1-Chlorooctane	95.9	100	96	70-135	
o-Terphenyl	46.8	50.1	93	70-135	

Lab Batch #: 799194

Sample: 365996-002 / SMP

Batch: 1

Matrix: Soil

Units: mg/kg	Date Analyzed: 03/18/10 19:02	SURROGATE RECOVERY STUDY					
ТРН	By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags	
	Analytes			[D]			
1-Chlorooctane		86.8	100	87	70-135		
o-Terphenyl		42.5	50.0	85	70-135		

Lab Batch #: 799194

**Sample:** 365996-003 / SMP

Batch: 1

Matrix: Soil

Units: mg/kg Date Analyzed: 03/19/10 08:08	SURROGATE RECOVERY STUDY				
TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
Analytes			[D]		
1-Chlorooctane	96.6	100	97	70-135	
o-Terphenyl	45.5	50.2	91	70-135	

Lab Batch #: 799194

Sample: 365996-004 / SMP

Batch: 1

Matrix: Soil

Units: mg/kg	<b>Date Analyzed:</b> 03/19/10 08:36	SURROGATE RECOVERY STUDY					
	y SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags	
1-Chlorooctane		88 8	99.5	89	70-135		
o-Terphenyl		44.4	49.8	89	70-135		

<sup>\*</sup> Surrogate outside of Laboratory QC limits

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

<sup>\*\*</sup> Surrogates outside limits; data and surrogates confirmed by reanalysis

<sup>\*\*\*</sup> Poor recoveries due to dilution



Project Name: Littlefield BO Fed # 2

Work Orders: 365996,

Project ID: GP II Energy

Lab Batch #: 799194

Sample: 365996-005 / SMP

Matrix: Soil Batch: 1

Units: mg/kg Date Analyzed: 03/19/10 09:03 SURROGATE RECOVERY STUDY						
ТРН В	y SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
	Analytes			[D]		
I-Chlorooctanc		78.0	99.6	78	70-135	
o-Terphenyl		39.0	49 8	78	70-135	

Lab Batch #: 799194

Sample: 365996-007 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg Date Analyzed: 03/19/10 09:59	SU	RROGATE R	RECOVERY	STUDY	
TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
Analytes			[D]		
1-Chlorooctane	90.4	99.7	91	70-135	
o-Terphenyl	44 3	49.9	89	70-135	

Lab Batch #: 799194

Sample: 365996-006 / SMP

Batch: 1

Matrix: Soil

Units: mg/kg Date Analyzed: 03/19/10 10:27 SURROGATE RECOVERY STUDY					
TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
Analytes			{ <b>D</b> }	,	
1-Chlorooctane	88.1	99 8	88	70-135	
o-Terphenyl	43.3	49.9	87	70-135	

Lab Batch #: 799194

**Sample:** 365996-008 / SMP

Batch: 1

Matrix: Soil

Units: mg/kg	<b>Date Analyzed:</b> 03/19/10 10:54	SURROGATE RECOVERY STUDY			RECOVERY STUDY    Control   Limits   %R   %R				
	By SW8015 Mod  Analytes	Amount Found [A]	True Amount [B]	1 -	Limits	Flags			
1-Chlorooctane	Analytes	90.0	100	90	70-135				
o-Terphenyl		44 0	50.1	88	70-135				

Lab Batch #: 799194

Sample: 365996-009 / SMP

Batch: 1

Matrix: Soil

Units: mg/kg	Date Analyzed: 03/19/10 11:21	SURROGATE RECOVERY STUDY				
трн і	By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
	Analytes		]	[D]		
1-Chlorooctane		94.3	99.9	94	70-135	
o-Terphenyl		47.1	50.0	94	70-135	

<sup>\*</sup> Surrogate outside of Laboratory QC limits

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

<sup>\*\*</sup> Surrogates outside limits; data and surrogates confirmed by reanalysis

<sup>\*\*\*</sup> Poor recoveries due to dilution



Project Name: Littlefield BO Fed # 2

Work Orders: 365996,

Lab Batch #: 799194

Sample: 365996-010 / SMP

Project ID: GP II Energy

Batch: 1 Matrix: Soil

Units: mg/kg Date Analyzed: 03/19/10 11:48	SURROGATE RECOVERY STUDY					
TPH By SW8015 Mod  Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags	
1-Chlorooctane	90.9	99.9	91	70-135		
o-Terphenyl	45.5	50.0	91	70-135		

Lab Batch #: 799194

Sample: 365996-011 / SMP

Batch: 1

Matrix: Soil

Units: mg/kg	SU	RROGATE R	RECOVERY	STUDY	
TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
Analytes		ļ	[D]		
1-Chlorooctane	97.8	99.9	98	70-135	
o-Terphenyl	48.7	50 0	97	70-135	"

Lab Batch #: 799194

**Sample:** 365996-012 / SMP

Batch: 1

Matrix: Soil

Units: mg/kg Date Analyzed: 03/19/10 13:0	09 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	94 0	99.8	94	70-135	
o-Terphenyl	47.1	49.9	94	70-135	

Lab Batch #: 799194

**Sample:** 365996-013 / SMP

Batch: 1

Matrix: Soil

Units: mg/kg Date Analyzed: 03/19/10 13	3:36 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	99.9	96	70-135	
o-Terphenyl	47.2	50.0	94	70-135	

Lab Batch #: 799194

Sample: 365996-014 / SMP

Batch: 1

Matrix: Soil

Units: mg/kg	Date Analyzed: 03/19/10 14:03	SURROGATE RECOVERY STUDY				
ТРН	By SW8015 Mod  Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
I-Chlorooctane	111111111111111111111111111111111111111	100	101	99	70-135	
o-Terphenyl		49.4	50 3	98	70-135	

<sup>\*</sup> Surrogate outside of Laboratory QC limits

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

<sup>\*\*</sup> Surrogates outside limits; data and surrogates confirmed by reanalysis

<sup>\*\*\*</sup> Poor recoveries due to dilution



Project Name: Littlefield BO Fed # 2

Work Orders: 365996,

Project ID: GP II Energy

Lab Batch #: 799194

Sample: 365996-015 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg	<b>Date Analyzed:</b> 03/19/10 14:30	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		85.0	99.8	85	70-135	
o-Terphenyl		42.7	49 9	86	70-135	

Lab Batch #: 799194

**Sample:** 365996-016 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg Date Analyzed: 03/19/10 14:58	SU	RROGATE R	ECOVERY	STUDY	
TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
Analytes			[D]	}	
I-Chlorooctane	92 6	99.5	93	70-135	
o-Terphenyl	45.9	49.8	92	70-135	

Lab Batch #: 799194

Sample: 365996-017 / SMP

Batch: 1

Matrix: Soil

Units: mg/kg	Date Analyzed: 03/19/10 15:25	SURROGATE RECOVERY STUDY				
ТРН	By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
li.	Analytes			{D}	1	
1-Chlorooctanc		90.4	99.9	90	70-135	
o-Terphenyl		44.7	50.0	89	70-135	

Lab Batch #: 799194

Sample: 365996-018 / SMP

Batch: 1

Matrix: Soil

Units: mg/kg Date Analyzed: 03/19/10 15:53	SU	RROGATE R	<b>ECOVERY</b>	STUDY	
TPH By SW8015 Mod  Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	89 2	99.9	89	70-135	
o-Terphenyl	44.9	50.0	90	70-135	

Lab Batch #: 799194

Sample: 365996-019 / SMP

Batch: 1

Matrix: Soil

Units: mg/kg	Date Analyzed: 03/19/10 16:21	SURROGATE RECOVERY STUDY				
ТРН	By SW8015 Mod  Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	Analytes	90.0	99.5	90	70-135	
o-Terphenyl		44.8	49.8	90	70-135	

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

<sup>\*</sup> Surrogate outside of Laboratory QC limits

<sup>\*\*</sup> Surrogates outside limits; data and surrogates confirmed by reanalysis

<sup>\*\*\*</sup> Poor recoveries due to dilution



Project Name: Littlefield BO Fed # 2

Work Orders: 365996,

Lab Batch #: 799194

Sample: 365996-020 / SMP

Project ID: GP II Energy

Matrix: Soil Batch: 1

Units: mg/kg	<b>Date Analyzed:</b> 03/19/10 16:48	SU	RROGATE RI	ECOVERY	STUDY	
TPH 1	By SW8015 Mod  Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane		84.7	99.5	85	70-135	
o-Terphenyl		42.2	49.8	85	70-135	

Lab Batch #: 799194

Sample: 365996-020 S / MS

Batch: 1

Matrix: Soil

Units: mg/kg	Date Analyzed: 03/19/10 17:32	SURROGATE RECOVERY STUDY				
TPH By SW8015 Mod		Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	Analytes	111	100	111	70-135	
o-Terphenyl		43 2	50.2	86	70-135	

Lab Batch #: 799194

Sample: 365996-020 SD / MSD

Batch: 1

Matrix: Soil

<b>Units:</b> mg/kg <b>Date Analyzed:</b> 03/19/10 17:59	SURROGATE RECOVERY STUDY					
TPH By SW8015 Mod  Analytes	Amount Found [A]	True Amount [B]	Recovery %R  D	Control Limits %R	Flags	
1-Chlorooctane	110	100	110	70-135		
o-Terphenyl	43.2	50.0	86	70-135		

Lab Batch #: 799197

Sample: 558678-1-BKS / BKS

Batch: 1

Matrix: Solid

Units: mg/kg	<b>Date Analyzed:</b> 03/19/10 20:41	SURROGATE RECOVERY STUDY					
TPH By SW8015 Mod  Analytes		Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags	
		}		{D}	i I		
1-Chlorooctane		114	100	114	70-135		
o-Terphenyl		45.1	50.0	90	70-135		

Lab Batch #: 799197

Sample: 558678-1-BSD / BSD

Batch: 1

Matrix: Solid

Units: mg/kg Date Analyzed: 03/19/10 21:08	SURROGATE RECOVERY STUDY				
TPH By SW8015 Mod  Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane			<del> </del>		
	113	99,8	113	70-135	
o-Terphenyl	44.5	49.9	89	70-135	

<sup>\*</sup> Surrogate outside of Laboratory QC limits

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

<sup>\*\*</sup> Surrogates outside limits; data and surrogates confirmed by reanalysis

<sup>\*\*\*</sup> Poor recoveries due to dilution



Project Name: Littlefield BO Fed # 2

Work Orders: 365996,

Project ID: GP II Energy

Lab Batch #: 799197

**Sample:** 558678-1-BLK / BLK

Batch: 1 Matrix: Solid

Units: mg/kg Date Analyzed: 03/19/10 21:35	SURROGATE RECOVERY STUDY						
TPH By SW8015 Mod  Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags		
I-Chlorooctanc	97.1	100	97	70-135			
o-Terphenyl	48.9	50.2	97	70-135			

Lab Batch #: 799197

**Sample:** 365996-021 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg Date Analyzed: 03/19/10 22:02	SURROGATE RECOVERY STUDY						
TPH By SW8015 Mod  Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags		
1-Chlorooctane	89.3	99.8	89	70-135			
o-Terphenyl	45 1	49.9	90	70-135	-		

Lab Batch #: 799197

Sample: 365996-022 / SMP

Batch: 1

Matrix: Soil

Units: mg/kg Date Analyzed: 03/19/10 22:29	SURROGATE RECOVERY STUDY						
TPH By SW8015 Mod  Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags		
1-Chlorooctane	92.3	99.8	92	70-135			
o-Terphenyl	46.4	49.9	93	70-135			

Lab Batch #: 799197

**Sample:** 365996-023 / SMP

SMP Batch: 1

Matrix: Soil

Units: mg/kg Date Analyzed: 03/19/10 22:56	6 SU	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	99.6	95	70-135			
o-Terphenyl	47.1	49.8	95	70-135			

Lab Batch #: 799197

Sample: 365996-024 / SMP

Batch: 1

Matrix: Soil

Units: mg/kg Date Analyzed: 03/19/10 23:22		SURROGATE RECOVERY STUDY						
ТРН	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		47.2	49.9	95	70-135			

<sup>\*</sup> Surrogate outside of Laboratory QC limits

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

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

<sup>\*\*</sup> Surrogates outside limits; data and surrogates confirmed by reanalysis

<sup>\*\*\*</sup> Poor recoveries due to dilution



Project Name: Littlefield BO Fed # 2

Work Orders: 365996,

Project ID: GP II Energy

Lab Batch #: 799197

**Sample:** 365996-025 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg Date Analyzed: 03/19/10 23:49	SURROGATE RECOVERY STUDY						
TPH By SW8015 Mod  Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags		
1-Chlorooctane	92.1	100	92	70-135			
o-Terpheny!	45.9	50.0	92	70-135			

Lab Batch #: 799197

Sample: 365996-026 / SMP

Batch:

Matrix: Soil

Units: mg/kg Date Analyzed: 03/20/10 00:16	SURROGATE RECOVERY STUDY						
TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags		
Analytes			[D]				
1-Chlorooctane	95.1	100	95	70-135			
o-Terphenyl	47.4	50.0	95	70-135			

Lab Batch #: 799197

Sample: 365996-027 / SMP

Batch: 1

Matrix: Soil

Units: mg/kg Date Analyzed: 03/20/10 00:43	SU	RROGATE R	ECOVERY	STUDY	
TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes			[D]		
1-Chlorooctanc	94.7	100	95	70-135	
o-Terphenyl	47.1	50 0	94	70-135	

Lab Batch #: 799197

**Sample:** 365996-028 / SMP

Batch: 1

Matrix: Soil

Units: mg/kg Date Analyzed: 03/20/10 01:10	SURROGATE RECOVERY STUDY						
TPH By SW8015 Mod  Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags		
1-Chlorooctane	91.7	99.7	92	70-135			
o-Terphenyl	45.7	49 9	92	70-135			

Lab Batch #: 799197

**Sample:** 365996-029 / SMP

Batch: 1

Matrix: Soil

Units: mg/kg Date Analyzed: 03/20/10 01:36	SURROGATE RECOVERY STUDY						
TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags		
Analytes  1-Chlorooctane	95.1	99.5	96	70-135			
o-Terphenyl	47.4	49.8	95	70-135			

<sup>\*</sup> Surrogate outside of Laboratory QC limits

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

All results are based on MDL and validated for QC purposes

<sup>\*\*</sup> Surrogates outside limits; data and surrogates confirmed by reanalysis

<sup>\*\*\*</sup> Poor recoveries due to dilution



Project Name: Littlefield BO Fed # 2

Work Orders: 365996,

Sample: 365996-030 / SMP

Project ID: GP II Energy

Lab Batch #: 799197

Matrix: Soil Batch: 1

Units: mg/kg Date Analyzed: 03/20/10	02:03 SU	SURROGATE RECOVERY STUDY						
TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags			
Analytes			{D}	}				
1-Chlorooctane	104	100	104	70-135				
o-Terphenyl	51.7	50.0	103	70-135				

Lab Batch #: 799197

**Sample:** 365996-031 / SMP

Batch: 1

Matrix: Soil

Units: mg/kg Date Analyzed: 03/20/10 08:59	SU	SURROGATE RECOVERY STUDY						
TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags			
Analytes		_	[D]					
1-Chlorooctane	89.2	99.8	89	70-135				
o-Terphenyl	44.4	49 9	89	70-135				

Lab Batch #: 799197

Sample: 365996-032 / SMP

Batch: 1

Matrix: Soil

Units: mg/kg Date Analyzed: 03/20/10 09:25	SURROGATE RECOVERY STUDY							
TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags			
Analytes			[D]					
1-Chlorooctane	90.4	99.7	91	70-135				
o-Terphenyl	45.8	49.9	92	70-135				

Lab Batch #: 799197

Sample: 365996-033 / SMP

Batch: 1

Matrix: Soil

Units: mg/kg Date Analyzed: 03/20/10 09:52	SURROGATE RECOVERY STUDY							
TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags			
Analytes			{D}					
1-Chlorooctane	98.3	99.7	99	70-135				
o-Terphenyl	49.3	49.9	99	70-135				

Lab Batch #: 799197

Sample: 365996-034 / SMP

Batch: 1

Matrix: Soil

Units: mg/kg Date Analyzed: 03/20/10 10:18	SURROGATE RECOVERY STUDY							
TPH By SW8015 Mod  Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags			
1-Chlorooctane	95.0	100	95	70-135				
o-Terphenyl	48.0	50 1	96	70-135				

<sup>\*</sup> Surrogate outside of Laboratory QC limits

Surrogate Recovery  $\{D\} = 100 * A / B$ 

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

<sup>\*\*</sup> Surrogates outside limits; data and surrogates confirmed by reanalysis

<sup>\*\*\*</sup> Poor recoveries due to dilution



Project Name: Littlefield BO Fed # 2

Work Orders: 365996,

**Sample:** 365996-035 / SMP

Project ID: GP II Energy

Lab Batch #: 799197

Sample

Batch: | Matrix: Soil

Units: mg/kg	Date Analyzed: 03/20/10 10:54	SURROGATE RECOVERY STUDY						
TPH By SW8015 Mod		Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags		
	Analytes			[D]				
1-Chlorooctane		96 0	99.5	96	70-135			
o-Terphenyl		46.9	49.8	94	70-135			

Lab Batch #: 799197

**Sample:** 365996-036 / SMP

Batch: 1

Matrix: Soil

Units: mg/kg Date Analyzed: 03/20/10 11:21	SURROGATE RECOVERY STUDY							
TPH By SW8015 Mod  Analytes	Amount Found [A]	True Amount {B}	Recovery %R [D]	Control Limits %R	Flags			
I-Chlorooctane	92.0	99.7	92	70-135	! 			
o-Terphenyl	45 3	49.9	91	70-135				

Lab Batch #: 799197

Sample: 365996-037 / SMP

Batch: 1

Matrix: Soil

Units: mg/kg Date Analyzed: 03/20/10 11:48		SURROGATE RECOVERY STUDY							
TPH By SW8015 Mod  Analytes		Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags			
				[D]					
1-Chlorooctane		93.9	99.6	94	70-135				
o-Terphenyl		47.8	49.8	96	70-135				

Lab Batch #: 799197

Sample: 365996-038 / SMP

Batch: 1

Matrix: Soil

Units: mg/kg Date Analyzed: 03/20/10 12:15	SURROGATE RECOVERY STUDY							
TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags			
Analytes			[D]					
1-Chlorooctane	92.5	99.5	93	70-135				
o-Terphenyl	46.1	49.8	93	70-135				

Lab Batch #: 799197

Sample: 365996-038 S / MS

Batch: |

Matrix: Soil

Units: mg/kg	Date Analyzed: 03/20/10 13:36	SURROGATE RECOVERY STUDY								
TPH By SW8015 Mod  Analytes		Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags				
1-Chlorooctane		113	99.8	.113	70-135					
o-Terphenyl		45.0	49.9	90	70-135					

<sup>\*</sup> Surrogate outside of Laboratory QC limits

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

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

<sup>\*\*</sup> Surrogates outside limits; data and surrogates confirmed by reanalysis

<sup>\*\*\*</sup> Poor recoveries due to dilution



Project Name: Littlefield BO Fed # 2

Work Orders: 365996,

Project ID: GP II Energy

Lab Batch #: 799197

Sample: 365996-038 SD / MSD

Matrix: Soil Batch: 1

Units: mg/kg Date Analyzed: 03/20/10 14:02	SURROGATE RECOVERY STUDY.							
TPH By SW8015 Mod  Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags			
1-Chlorooctanc	113	100	113	70-135				
o-Terphenyl	45.3	50.0	91	70-135	<u>.</u>			

Surrogate Recovery [D] = 100 \* A / B
All results are based on MDL and validated for QC purposes.

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<sup>\*</sup> Surrogate outside of Laboratory QC limits

<sup>\*\*</sup> Surrogates outside limits; data and surrogates confirmed by reanalysis

<sup>\*\*\*</sup> Poor recoveries due to dilution



### **Blank Spike Recovery**



Project Name: Littlefield BO Fed # 2

Work Order #: 365996

Project ID:

GP II Energy

Lab Batch #: 799186

Sample: 799186-1-BKS

Matrix: Solid

Date Analyzed: 03/21/2010

**Date Prepared:** 03/21/2010

Analyst: LATCOR

Reporting Units: mg/kg	Batch #:	BLANK/BLANK SPIKE RECOVERY STUDY					
Anions by E300	Blank Result	Spike Added	Blank Spike	Blank Spike	Control Limits	Flags	
Analytes	[A]	{ <b>B</b> }	Result [C]	%R [D]	%R		
Chlande	ND	11.0	11.7	106	75-125	<del></del>	

Lab Batch #: 799193

Sample: 799193-1-BKS

Matrix: Solid

Date Analyzed: 03/21/2010

**Date Prepared:** 03/21/2010

Analyst: LATCOR

Reporting Units: mg/kg

Batch #: 1	Batch #: 1 BLANK /BLANK SPIKE RECOVERY S				
Blank Result	Spike Added	Blank Spike	Blank Spike	Control Limits	Flags
[A]	[B]	Result [C]	%R [D]	%R	
ND	11.0	11.1	101	75-125	
	Blank Result [A]	Blank Spike Result Added [A] [B]	Blank Spike Blank Result Added Spike [A] [B] Result [C]	Blank Spike Blank Spike Spike Spike [A] [B] Result %R [C] [D]	Blank Spike Blank Spike Spike Limits [A] [B] Result %R %R [C] [D]



### **BS / BSD Recoveries**



Project Name: Littlefield BO Fed # 2

Work Order #: 365996

Analyst: ASA **Date Prepared:** 03/25/2010

Project ID: GP II Energy Date Analyzed: 03/25/2010

Lab Batch ID: 799944

Sample: 559142-1-BKS

Batch #: 1

Matrix: Solid

Units: mg/kg		BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY									
BTEX by EPA 8021B	Blank Sample Result [A]	Spike Added	Blank Spike Result	Blank Spike %R	Spike Added	Blank Spike Duplicate	Blk. Spk Dup. %R	RPD %	Control Limits %R	Control Limits %RPD	Flag
Analytes		[B]	[C]	[D]	[E]	Result [F]	[G]				
Benzene	ND	0 1000	0.0861	86	0.1	0.0873	87	i	70-130	35	
Toluene	ND	0.1000	0.0841	84	0.1	0.0860	86	2	70-130	35	
Ethylbenzene	ND	0.1000	0.0859	86	0.1	0.0883	88	3	71-129	35	
m,p-Xylenes	ND	0.2000	0.1717	86	0.2	0.1767	88	3	70-135	35	
o-Xylene	ND	0.1000	0.0827	83	0.1	0.0852	85	3	71-133	35	

Analyst: BEV

**Date Prepared:** 03/18/2010

Date Analyzed: 03/18/2010

Lab Batch ID: 799194

Sample: 558676-1-BKS

Batch #: 1

Matrix: Solid

Units: mg/kg		BLAN	K/BLANK S	SPIKE / I	BLANK S	PIKE DUPI	LICATE 1	RECOVI	ERY STUD	Y	
TPH By SW8015 Mod	Blank Sample Result [A]	Spike Added	Blank Spike Result	Blank Spike %R	Spike Added	Blank Spike Duplicate	Blk. Spk Dup. %R	RPD %	Control Limits %R	Control Limits %RPD	Flag
Analytes		<b>[B]</b>	[C]	[D]	[E]	Result [F]	[G]		!		
C6-C12 Gasoline Range Hydrocarbons	ND	1000	1070	107	998	1110	111	4	70-135	35	
C12-C28 Diesel Range Hydrocarbons	ND	1000	849	85	998	879	88	3	70-135	35	

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



#### **BS / BSD Recoveries**

112

83

998

998



35

35

Flag

Project Name: Littlefield BO Fed # 2

Work Order #: 365996

Analytes

Analyst: BEV

**Date Prepared:** 03/18/2010

Project ID: GP II Energy

70-135

70-135

Date Analyzed: 03/19/2010

Matrix: Solid

8

1130

901

113

90

Lab Batch ID: 799197

C6-C12 Gasoline Range Hydrocarbons

C12-C28 Diesel Range Hydrocarbons

Sample: 558678-1-BKS

ND

ND

Batch #: 1

1000

1000

BLANK/BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY Units: mg/kg Blank Control TPH By SW8015 Mod Spike Blank Blank Spike Blank Blk. Spk Control Sample Result Spike RPD Limits Limits Added Spike . Added Spike Dup. % %R %RPD [A] Result Duplicate %R %R B [C] [D] Result [F] [**G**] [E]

1120

828

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

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#### Form 3 - MS Recoveries

Project Name: Littlefield BO Fed #2



Work Order #: 365996

Lab Batch #: 799186

Project ID: GP II Energy

Date Analyzed: 03/21/2010

**Date Prepared:** 03/21/2010

Analyst: LATCOR

**QC-Sample ID:** 365706-001 S

Batch #:

Matrix: Sludge

Reporting Units: mg/kg

Jnits: 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
Analytes	3540	1200	4860	110	75-125	

Lab Batch #: 799193

Chloride

Date Analyzed: 03/21/2010

**Date Prepared:** 03/21/2010

Analyst: LATCOR

QC- Sample ID: 365996-019 S

Batch #: 1

Matrix: Soil

Reporting Units: mg/kg	MATI	RIX / MA	TRIX SPIKE	RECO	VERY STU	DY
Inorganic Anions by EPA 30	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	%R [D]	Control Limits %R	Flag
Analytes	1	'2'				
Chloride	914	454	1370	100	75-125	

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

BRL - Below Reporting Limit



#### Form 3 - MS / MSD Recoveries

ittlefield BO Fed # 2

Project Name: Littlefield BO Fed # 2

Work Order #: 365996 Project ID: GP II Energy

 Lab Batch ID: 799944
 QC- Sample ID: 365996-038 S
 Batch #: 1 Matrix: Soil

Date Analyzed: 03/25/2010 Date Prepared: 03/25/2010 Analyst: ASA

Reporting Units: mg/kg		N	IATRIX SPIK	E / MAT	RIX SPI	KE DUPLICA	TE REC	OVERY	STUDY		
BTEX by EPA 8021B	Parent Sample Result	Spike Added	Spiked Sample Result	Spiked Sample %R	Spike Added	Duplicate Spiked Sample Result [F]	Spiked Dup. %R	RPD %	Control Limits %R	Control Limits %RPD	Flag
Analytes	[A]	[B]	[C]	70 K [D]	[E]	Result	[G]	70	761	/0KFD	
Benzene	ND	0.1069	0.0718	67	0.1067	0.0671	63	7	70-130	35	х
Toluene	ND	0.1069	0.0676	63	0.1067	0.0616	58	9	70-130	35	X
Ethylbenzene	ND	0.1069	0 0644	60	0.1067	0.0587	55	9	71-129	35	X
m,p-Xylenes	ND	0.2138	0.1205	56	0.2134	0.1062	50	13	70-135	35	X
o-Xylene	ND	0.1069	0.0623	58	0.1067	0.0543	51	14	71-133	35	X

Lab Batch ID: 799194 QC- Sample ID: 365996-020 S Batch #: 1 Matrix: Soil

Date Analyzed: 03/19/2010 Date Prepared: 03/18/2010 Analyst: BEV

Reporting Units: mg/kg MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY Parent Spiked Sample Spiked Duplicate Spiked Control Control TPH By SW8015 Mod Sample Spike Spiked Sample RPD Limits Limits Flag Spike Result Sample Dup. Result Added [C] %R Added Result [F] %R % %R %RPD **Analytes** [A][G] [B] [D] [E] C6-C12 Gasoline Range Hydrocarbons ND 1060 1110 105 1110 105 0 70-135 35 1060 C12-C28 Dicsel Range Hydrocarbons ND 1060 919 87 1060 91 70-135 35

 Lab Batch ID:
 799197
 QC- Sample ID:
 365996-038 S
 Batch #:
 1
 Matrix:
 Soil

Date Analyzed: 03/20/2010 Date Prepared: 03/18/2010 Analyst: BEV

Reporting Units: mg/kg		M	IATRIX SPIK	E / MAT	RIX SPI	KE DUPLICA	TE REC	OVERY	STUDY		
TPH By SW8015 Mod	Parent Sample	Spike	Spiked Sample Result	Sample	Spike	Duplicate Spiked Sample	Spiked Dup.	RPD	Control Limits	Control Limits	Flag
Analytes	Result [A]	Added [B]	[C]	%R [D]	Added [E]	Result [F]	%R [G]	%	%R	%RPD	
C6-C12 Gasoline Range Hydrocarbons	ND	1080	1140	106	1080	1120	104	2	70-135	35	
C12-C28 Diesel Range Hydrocarbons	18.4	1080	851	77	1080	1090	99	25	70-135	35	

Matrix Spike Percent Recovery [D] = 100\*(C-A)/BRelative Percent Difference RPD = 200\*(C-F)/(C+F) Matrix Spike Duplicate Percent Recovery [G] = 100\*(F-A)/E

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

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### **Sample Duplicate Recovery**

Project Name: Littlefield BO Fed # 2

Work Order #: 365996

Lab Batch #: 799186 Project ID: GP II Energy

 Date Analyzed:
 03/21/2010
 Date Prepared:
 03/21/2010
 Analyst:
 LATCOR

 OC- Sample ID:
 365706-001 D
 Batch #:
 1
 Matrix:
 Sludge

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	3540	3530	0	20	

Lab Batch #: 799193

 Date Analyzed:
 03/21/2010
 Date Prepared:
 03/21/2010
 Analyst:
 LATCOR

 QC- Sample ID:
 365996-019 D
 Batch #:
 1
 Matrix:
 Soil

Reporting Units: mg/kg SAMPLE / SAMPLE DUPLICATE RECOVERY

reporting Onits. mg/kg	SAMI DE	SAMI LE	DUILIC	AIL REC	OVERI
Anions by E300	Parent Sample Result [A]	Sample Duplicate Result	RPD	Control Limits %RPD	Flag
Analyte	11	[B]			
Chloride	914	902	1	20	

Lab Batch #: 798946

 Date Analyzed: 03/18/2010
 Date Prepared: 03/18/2010
 Analyst: JLG

 QC- Sample ID: 365984-001 D
 Batch #: 1
 Matrix: Soil

Reporting Units: % SAMPLE / SAMPLE DUPLICATE RECOVERY

Percent Moisture  Analyte	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Percent Moisture	3.45	3.32	4	20	

Lab Batch #: 798948

 Date Analyzed: 03/18/2010
 Date Prepared: 03/18/2010
 Analyst: JLG

 QC- Sample ID: 365996-013 D
 Batch #: 1
 Matrix: Soil

Reporting Units: % SAMPLE / SAMPLE DUPLICATE RECOVERY **Percent Moisture** Parent Sample Sample Control RPD Result Duplicate Limits Flag Result %RPD [A] [B] Analyte Percent Moisture 6 96 6.84

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

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## **Sample Duplicate Recovery**

Project Name: Littlefield BO Fed # 2

Work Order #: 365996

Lab Batch #: 798959

Project ID: GP II Energy

**Date Analyzed:** 03/18/2010

**Date Prepared:** 03/18/2010

Analyst: JLG

**QC- Sample ID:** 365996-033 D

Batch #: 1 Matrix: Soil

Reporting Units: %	SAMPLE	SAMPLE	DUPLIC	ATE REC	OVERY
Percent Moisture	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte	ļ i	[15]			
Percent Moisture	7.63	7.28	5	20	

# **Environmental Lab of Texas**

#### CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

A Xenco Laboratories Company

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

	Project Manager:	Curt Stanley	У	Page	1 of 4	Ł													Pro	jeci	Ner	ne:	Little	efiel	d B(	O Fe	:d#	2						
	Company Name	GPII Energy	(Attention Jo	e Com	pton)															Pr	ojec	#:_	GP	II Er	nerg	у								
	Company Address:	PO Box 506	382		<del></del>														F	, LOĴE	ct L	oc:	Eddy	<sub>ζ</sub> Co	unty,	New	v Me	ncico	<u>,                                    </u>					
	City/State/Zip:	Midland, TX	79701																		PC	#;_												
	Telephone No:	575-441-224	14				Fax No:		57	5-3	396-1	429						R	eport	Fo	mat	ŀ	X	Star	ndare	ď	[	<b>0</b> 1	rrr!	P	Ε	] NP	'DES	3
	Sampler Signature:	HI	-X		-		e-mail:		CS	sta	anle <sup>.</sup>	y@	bas	sine	nv.	cor	n		_						<u> </u>		F						<del></del>	
lab use o	nolv)		-																	┝			To	CLP:	Ť	ilyze	T	T	丁	$\overline{}$	au	$\overline{}$	┫. │	
	215	996							5	_														TAL:	二	ユ	コ	×	-	1			2	l
ORDER	* 700	) 1 10		т	,	<del></del>	<del></del>	_	25 25 25 25 26 26 27	L	Pre	erve	tion &	# of	Conta	iners		Ma	trix	<b>8015B</b>					ŝ	ļ	-	8	-	1		1	4	<u> </u>
AB # (lab use only)	FIEL	.D CODE		Beginning Depth	Ending Depth	Date Sampled	Time Sampled	leld Fithersd	Total #. of Containers 4029		HING	¥	H,504	NaOH	Na <sub>2</sub> 9 <sub>2</sub> O <sub>3</sub>	None		DW≈Drmking Water SL=Sludge		418.1 (8015M)	TPH: TX 1006 TX 1008	Cations (Ca. Mg. Na. K)	Anlons (Cl. SO4, Alkalinity)	SAR / ESP / CEC	A Ag Baccd Cr Pb Hg	Volatiles	Semiyolatiles	BTEX 8021B/5030 or BTEX 8260	AC!	Chlorida EPA 300		ногр	RUSH TAT (Pre-Schedults) 24,	Standard TAT
01	Ro	ad F-1		3'		3/17/2010	0800		1	Т	ĸ	Τ	1	П		7	7		oil	X		1			7	$\top$	1	T	十	X	_	$\sqcap$	П	X
07		SSW-1		2'		3/17/2010	0820		1	1	_	T	$\top$	П	$\dashv$	寸	f		oil	х		7			7	1	+	†	+	X	_	$\Box$	П	X
03		ad F-2	<del></del>	3'		3/17/2010	0840		1	•		1				$\exists$	1		oil	x	$\Box$	$\exists$	$\neg$		十	T	$\top$	1	T	×	_	П		X
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05	Ro	ad F-3		2.		3/17/2010	0920		1	b	K							S	oil	X						$\perp$	$\prod$	floor		х	$\perp$			X
04	Road	SSW-3		1.5'		3/17/2010	0940		1	Ŀ	< _							S	oil	X					$\perp$			$oxed{oxed}$		X				X
01	Ros	ad F-4		2.5		3/17/2010	1000	L	1	Ŀ	4	L		Ц	$ \bot $	$\downarrow$	_	S	lio	X	$\downarrow$	$\perp$			4	$\perp$	$\perp$	$\perp$	$\perp$	X	$\perp$	Ш	Ц	X
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09	Roi	ad F-5	·	7'		3/17/2010	1040	_	1	Þ	<u>(                                    </u>	L	<u> </u>		$\dashv$	4	_]	S	oil	Х	_	4		_	4	$\bot$	4	1	$\downarrow$	X	1_	$\sqcup$	Ц	X
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#### CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

A Xenco Laboratories Company

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

	Project Manager:	Curt Stanle	у	Page	2 of	4	·	_										ı	Proje	et N	ame	: Litt	lefie	ld B	O F	ed:	#2						
	Company Name	GPII Energy	y (Attention Jo	e Com	pton)														1	Proje	ect #	: GF	II E	ner	<b>ду</b>								
	Company Address:	PO Box 506	582																Pro	ject	Loc	: Edo	ly Co	unty	<u>, Ne</u>	w M	lexico	,					
	City/State/Zip:	Midland, TX	( 79701																	1	°O#	t:	_										
	Telephone No:	575 441-22	44				Fax No.	:	57	5-39	6-14	29	·					Rep	ort F	orm	at:	X.	] Sta	nda	rd		□ T	RRI	<u>ہ</u>		NPC	)ES	
	Sampler Signature:	4	1-17				e-mail	:	CS	star	nley	<u>@</u> l	bas	ine	nv.c	noc	1_		_					Δ.	olver	e Fo					7	_	ı
(lab use	only)	······································	$ \varphi$		_														t				CLP:	Aii	alyz		$\Box$	T	T	Τ	П	£	l
ORDER	# 36	<u>599U</u>							SS		Pres	ervat	ion &	# of 0	Contair	ners	I	Matri	× ,	e T	Τ	T 10	TAL:		Н	$\dashv$	<u>x</u>					48, 72 hrs	_
AB # (lab use only)	FÆL	D CODE		Beginning Depth	Ending Depth	Date Sampled	Time Sampled	Peid Filtered	2		HNO <sub>3</sub>	HC.	H <sub>2</sub> SO <sub>4</sub>	NaOH	Na,S,O,	None	Other ( Specify)	GW = Groundwater S=Soil/Solid	n-Potable Specify Other	SCION MENO 1.818. TOUR TOUR	s (Ca. Mo. Na. K)	Anions (Cl. SO4, Alkalinlty)	SAR / ESP / CEC	Metals: As Ag Ba Cd Cr Pb Hg Se	Voletijes	Semivolatiles	BTEX 8021B/5030 or BTEX 8260	7C	Chlorides (EPA 300 )		1 1	Wie) 2A,	Standard TAT
11	Ro	ad F-6		7		## Park   Park										T	Soil	-	K	T					$\exists$	十	$\top$	х		П		X	
12	Road	NSW-6		6,		3/17/2010	### Park   Park											Soil		ĸ								I	х				X
13	RO	W F-1		3'		3/17/2010	1400		1	x								Soil		ĸ						$\prod$		I	x			$\Box$	X
14	ROW	ESW-1		2.5'		3/17/2010	1410		1	x								Soil		(							$\perp$		X				X
15	ROW	WSW-1		2.5		3/17/2010	1420		1	x								Soil		<									х		$\Box$	$\bot$	X
10	RO	W F-2		7'		3/17/2010	1440	L	1	x							┸	Soil		<u>(</u>		L	Ш					$\perp$	X				X
11	ROW	ESW-2		6'		3/17/2010	1450	L	1	X								Soil		<u>(                                    </u>		<u> </u>	Ц			_	$\perp$	$\perp$	X			$\bot$	X
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Special	n <b>ștructions</b> :	BILL TO G	P II Energy																			bora						機点		9			
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Relinquish	, <u> </u>		Date		me	Received by:	Received by:										Dete			me	Sa	mple by(s	Han	¢.De •πΩii	liver ent F	red Rep. 1 UPS	?	HL	•	Υ <sub>γ</sub>	Lone	N	
Relinquish	ed by:		Date	Th	me	1	scotved by ELOT:  103-16  103-16										Date 1 <del>0</del> /	- 1	11 280	me 37	Те	mpen	ature	Upo	n R	eceij	pt:		Ξ	3.4	,	°C	

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#### CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

A Xenco Laboratories Company

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

	Project Manager: Curt Stan	ley	Page	3 of (	<del> </del>													Pro	ject	Nar	ne: _l	ittle	field	B	O Fe	ed #	2				••		
	Company Name GPII Ene	rgy (Attention Jo	e Com	pton)															Pr	ojec	t #: _(	3P (	l En	erg	У								
	Company Address: PO Box 5	0682																F	roje	ct L	oc: <u>£</u>	ddy	Cou	nty,	New	v Me	ncicc	)					
	City/State/Zip: Midland,	TX 79701																		PC	#:_												
	Telephone No: 575-141-2	2244	<b>-</b>	***		Fax No:		57	5-39	96-14	29						R	eport	l For	mat	:	X	Stan	dar	d	i	<u> </u>	TRR	P	Ε	] NF	PE8	3
	Sampler Signature:	43	1			e-mail:		<u>cs</u>	ta	nley	<u>(@</u>	bas	ine	nν.	cor	m_		_								_							9
(lab use o	nlv)	ب																	┝			TC	LP:	Ana	lyze	For	: T	$\overline{}$	一	т-	_	┨┈	1
,	21 6091	,						3										منسم				101	_				×	1				2	
ORDER	#: 500116		1	1	1		Т	ा धेंग	┞	Pres	erva	tion &	# of 0	Conta	hora	$\dashv$	Ma	trix	158					8			8					ર્શ	-
AB # (lab use only)	FIELD CODE		Beginning Depth	Beginning Depth Ending Depth  Date Sampled Time Sampled Total #. of Containers 4/02 g toa HNO, HCI HNO, HCI HySO, NaOH Nore Nore Other ( Specify) Other ( Specify)									OWEDINKING Water StaStudge		TPH: 418.1 6015M )80	TPH: TX 1005 TX 1008	Cations (Ca, Mg, Na, K)	Anions (Cl. SO4, Alkalinity)	SAR / ESP / CEC	Metals: As Ag Ba Cd Cr Pb Hg	Voietilles	Serrivolatiles	8TEX 8021B/5030 or BTEX 8280	RCI	N.O.R.M.		HOLD	RUSH TAT (Pre-Schedule) 24,	Standard TAT				
71	ROW F-4		6'		3/17/2010	1530	-		1	+	<u> </u>	M			7	7	S		X		7			7			+	1	$\neg$	x	1	Г	x
n	ROW SSW-4		5'		3/17/2010 1530 1 X										oil	х		十	7	1	十	1	1	1	十	7	_	1	Г	х			
13	ROW F-5		3'		3/17/2010	1550		1	Г	$\neg$		П			ヿ	ヿ	So	oil	x			1	T	7			T	T	7	~	T	Г	х
24	ROW NSW-5		2.5'		3/17/2010	1600		1	x								Sc	oii	х				T				T	T	7	$\sqrt{}$	T		x
25	ROW F-6		2.5'		3/17/2010	1610		1	x								S	oil	Х					T			T	floor	7				X
W	ROW SSW-6		1.5		3/17/2010	1620		1	x								S	iic	x									$oldsymbol{\mathbb{I}}$	$\supset$	Œ			X
17	ROW F-7		1'		3/17/2010	1630		1	x								Sc	lkc	X								floor	m I	J	<u>.                                    </u>			X
10	ROW NSW-7		6"		3/17/2010	1640		1	X								So	oil	X								$oxed{oxed}$	$\perp$	J,	<u> </u>			x
29	ROW F-8		2.5'		3/17/2010	1650		1	X						$\perp$		Sc	lic	X				$\perp$				$\perp$	$\perp$		<u></u>			X
20	ROW SSW-8	<u> </u>	2'		3/17/2010	1700		1	x						$\perp$		Sc	lic	x		$\perp$	$\perp$			$\perp$		$\perp$	$\perp$		<u>.</u>			X
Special in	estructions: BILL TO	GP II Energy		] 3/17/2010 [ 1700 ]   1   X										ì	Labo VOC	Fre	e of	Hes	dsp	ace'	7	4,		G	)	N							
Polity Light	July July	3/18/10	083		Received by: Date Received by: Date											Time		Custo	dy s	eels	on On	cont	aine	编》 #(8) 解		كامر	<b>E</b>		N	1			
Relinquish	od by	Date	Tir	ne	Received by:											Dat	e		Time	<b>,</b>	Semj b	yle t (Sar	<u>land</u>	Del Clie	ivere mt Re	ю	•	ЖL		ed Ex	)	N N Ne Sta	ar I
Relinquishe	kd by:	Date	Tir	ne													1	Time	- 1	Temp							_		3.0		•c		

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by Sampler/Client Rep. ?

Temperature Upon Receipt:

DHL

FedEx Lone Star

3.ढ़ °

by Course?

03-18-10

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Relinquished by:

3/12/10

Date

0837

Received by:

Received by ELOT:

## **Environmental Lab of Texas**

Variance/ Corrective Action Report- Sample Log-In

Clier	nt: <u>GP TL Energy</u>				
Date	e/Time: 63-18-10 C0837				
Lab	ID#: 365994				
Initia	als: JMF				
i i	Sample Receipt (	Checklist			
					lient initials
#1	Temperature of container/ cooler?	(Yes')	No	3.6 °C	
#2	Shipping container in good condition?	(Yes)	No		
#3	Custody Seals intact on shipping container/ cooler?	Yes	No	Not Present	
#4	Custody Seals intact on sample bottles/ container?/(c)	Yes>	No	Not Present	
#5	Chain of Custody present?	(Yes)	No		
#6	Sample instructions complete of Chain of Custody?	(Yes)	No		
#7	Chain of Custody signed when relinquished/ received?	(Yes)	No		
#8	Chain of Custody agrees with sample label(s)?	(Yes)	No	ID written on Cont./ Lid	
#9	Container label(s) legible and intact?	(YES)	No	Not Applicable	
#10	Sample matrix/ properties agree with Chain of Custody?	res	No		
#11	Containers supplied by ELOT?	(YES)	No		
#12	Samples in proper container/ bottle?	Ves	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		
	Containers documented on Chain of Custody?	(es)	No		
#17		(Yes)	No	See Below	
-	All samples received within sufficient hold time?	(Yes)	No	See Below	
	Subcontract of sample(s)?	Yes	No	(Not Applicable)	
	VOC samples have zero headspace?	(Yes)	No	Not Applicable	
		(100)		11007 (ppilodbio	
	Variance Docum	nentation			
Car	ntact: Contacted by:			Date/ Time:	
			•		
Reg	garding:				
			<del></del>		
Cor	rrective Action Taken:				
+			· <del>* · · · · · · · · · · · · · · · · · ·</del>		
			<u> </u>		
+					
Che	eck all that Apply: See attached e-mail/ fax				
	☐ Client understands and would	-		<u> </u>	
,	Cooling process had begun s	hortly after	sampling	event	

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# **Analytical Report 366698**

for

**GP II Energy** 

**Project Manager: Curt Stanley** 

Littlefield BO Fed #2
GP II Energy

29-MAR-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)



29-MAR-10

Project Manager: Curt Stanley GP II Energy

P.O. Box 50682 Midland, TX 79710

Reference: XENCO Report No: 366698

Littlefield BO Fed #2

Project Address: Eddy County, New Mexico

#### **Curt Stanley:**

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 366698. 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. 366698 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 366698**



## GP II Energy, Midland, TX

Littlefield BO Fed #2

Sample Id	Matrix	<b>Date Collected</b>	Sample Depth	Lab Sample Id
Road F-13	S	Mar-22-10 11:00	8 ft	366698-001
Road NSW-13	S	Mar-22-10 11:10	7 ft	366698-002
Road F-14 (9')	S	Mar-22-10 15:00	9 ft	366698-003
Road F-14 (14')	S	Mar-22-10 15:10	14 ft	366698-004
Background @ 8'	S	Mar-22-10 17:00	8 ft	366698-005
Road F -12.5 (10')	S	Mar-23-10 10:45	10 ft	366698-006
Road F-12.5 (16')	S	Mar-23-10 10:50	16 ft	366698-007

<sup>\*</sup> TRRP Tier I Comm/Indus Soils PCL's

#### CASE NARRATIVE



Client Name: GP II Energy Project Name: Littlefield BO Fed #2

Project ID:

GP II Energy

Work Order Number: 366698

Report Date: 29-MAR-10 Date Received: 03/24/2010

Sample receipt non conformances and Comments:

None

Sample receipt Non Conformances and Comments per Sample:

None

Analytical Non Conformances and Comments:

Batch: LBA-799826 Percent Moisture

None

Batch: LBA-799880 TPH By SW8015 Mod

None

Batch: LBA-800153 Inorganic Anions by EPA 300

None



## Certificate of Analysis Summary 366698

GP II Energy, Midland, TX

Project Id: GP II Energy

Contact: Curt Stanley

Project Location: Eddy County, New Mexico

Project Name: Littlefield BO Fed #2

Date Received in Lab: Wed Mar-24-10 08:30 am

Report Date: 29-MAR-10

Project Manager: Brent Barron, II

								5	270			
Lab Id:	366698-0	100	366698-0	02	366698-0	003	366698-0	04	366698-0	05	366698-00	06
Field Id:	Road F-	13	Road NSW	/-13	Road F-14	(9')	Road F-14	(14')	Background	@ 8'	Road F -12 5	(10')
Depth:	8- ft		7- ft		9- ft		14- ft		8- ft		10- ft	
Matrix:	SOIL		SOIL		SOIL	l	SOIL		SOIL		SOIL	
Sampled:	Mar-22-10	11:00	Mar-22-10	11:10	Mar-22-10	15:00	Mar-22-10	15:10	Mar-22-10 1	7:00	Mar-23-10 1	0:45
Extracted:								-				
Analyzed:	Mar-26-10	12:00	Mar-26-10	12.00	Mar-26-10	12.00	Mar-26-10	12:00	Mar-26-10 1	2 00	Mar-26-10 1	2:00
Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
	943	25 4	2530	102	561	24.1	403	49.1	43.5	21.9	356	53 9
Extracted:				-								
Analyzed:	Mar-25-10	12.00	Mar-25-10	12 00	Mar-25-10	12:00	Mar-25-10	12:00	Mar-25-10 1	2.00	Mar-25-10 1	2:00
Units/RL:	%	RL	%	RL	%	RL	%	RL	%	RL	%	RL
	17.3	1.00	17.5	1.00	12.8	1 00	14.4	1.00	4.01	1.00	22,1	1.00
Extracted:	Mar-25-10	10:00	Mar-25-10	10:00	Mar-25-10	10.00	Mar-25-10	10:00				
Analyzed:	Mar-25-10	20:50	Mar-25-10	21.17	Mar-25-10	21:44	Mar-25-10	22:11				
Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL		ì		1
	ND	18.1	ND	18.2	ND	17.2	ND	17.5				
	23.1	18 1	19.7	18.2	21.2	17 2	21.4	17.5				
	ND	18.1	ND	18.2	ND	17.2	ND	17.5				
	23.1	18.1	19.7	18.2	21.2	17.2	21.4	17.5	`			
	Field Id: Depth: Matrix: Sampled: Extracted: Analyzed: Units/RL: Extracted: Analyzed: Units/RL: Extracted: Analyzed: Analyzed:	Field Id:	Field Id: Road F-13  Depth: 8- ft  Matrix: SOIL  Sampled: Mar-22-10 11:00  Extracted: Analyzed: Mar-26-10 12:00  Units/RL: mg/kg RL  943 25 4  Extracted: Analyzed: Mar-25-10 12:00  Units/RL: % RL  17.3 1.00  Extracted: Mar-25-10 10:00  Analyzed: Mar-25-10 20:50  Units/RL: mg/kg RL  ND 18.1  23.1 18 1  ND 18.1	Field Id:         Road F-13         Road NSW           Depth:         8- ft         7- ft           Matrix:         SOIL         SOIL           Sampled:         Mar-22-10 11:00         Mar-22-10           Extracted:         Analyzed:         Mar-26-10 12:00         Mar-26-10           Units/RL:         mg/kg         RL         mg/kg           943         25 4         2530           Extracted:         Analyzed:         Mar-25-10 12:00         Mar-25-10           Units/RL:         %         RL         %           Extracted:         Mar-25-10 10:00         Mar-25-10         Analyzed:           Mar-25-10 20:50         Mar-25-10         Mar-25-10           Units/RL:         mg/kg         RL         mg/kg           ND         18.1         ND           23.1         18.1         19.7           ND         18.1         ND	Field Id:         Road F-13         Road NSW-13           Depth:         8- ft         7- ft           Matrix:         SOIL         SOIL           Sampled:         Mar-22-10 11:00         Mar-22-10 11:10           Extracted:         Analyzed:         Mar-26-10 12:00         Mar-26-10 12:00           Units/RL:         mg/kg         RL         mg/kg         RL           Extracted:         Analyzed:         Mar-25-10 12:00         Mar-25-10 12:00         Mar-25-10 12:00           Units/RL:         %         RL         %         RL           17.3         1.00         17.5         1.00           Extracted:         Mar-25-10 10:00         Mar-25-10 10:00         Mar-25-10 20:17           Units/RL:         mg/kg         RL         mg/kg         RL           ND         18.1         ND         18.2           ND         18.1         ND         18.2           ND         18.1         ND         18.2	Field Id:         Road F-13         Road NSW-13         Road F-14           Depth:         8- ft         7- ft         9- ft           Matrix:         SOIL         SOIL         SOIL           Sampled:         Mar-22-10 11:00         Mar-22-10 11:10         Mar-22-10           Extracted:         Analyzed:         Mar-26-10 12:00         Mar-26-10 12:00         Mar-26-10 12:00         Mar-26-10 mg/kg           Extracted:         Analyzed:         Mar-25-10 12:00         Mar-25-10 10:00         Mar-25-10 10:00 <th>Field Id:         Road F-13         Road NSW-13         Road F-14 (9')           Depth:         8- ft         7- ft         9- ft           Matrix:         SOIL         SOIL         SOIL           Sampled:         Mar-22-10 11:00         Mar-22-10 11:10         Mar-22-10 15:00           Extracted:         Analyzed:         Mar-26-10 12:00         Mar-26-10 12:00         Mar-26-10 12:00           Units/RL:         mg/kg         RL         mg/kg         RL           Extracted:         Analyzed:         Mar-25-10 12:00         Mar-25-10 12:00         Mar-25-10 12:00           Units/RL:         %         RL         %         RL           17.3         1.00         17.5         1.00         12.8         1.00           Extracted:         Mar-25-10 10:00         Mar-25-10 10:00         Mar-25-10 10:00         Mar-25-10 21:44           Units/RL:         mg/kg         RL         mg/kg         RL         mg/kg         RL           ND         18.1         ND         18.2         ND         17.2           23.1         18.1         ND         18.2         ND         17.2</th> <th>  Lab Id:   366698-001   366698-002   366698-003   366698-005   36698-005   366698-005   366698-005   366698-005   366698-005   36698-005   366698-005   366698-005   366698-005   366698-005   36698-005   366698-005   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     Mar-26-10 12:00       Mar-26-10 12:00       Mar-26-10 12:00       Mar-26-10 12:00         Units/RL:       mg/kg       RL       mg/kg       RL       mg/kg       RL         Extracted:       Analyzed:       Mar-25-10 12:00       Mar-25-10 12:00       Mar-25-10 12:00       Mar-25-10 12:00         Units/RL:       %       RL       %       RL       %       RL         Value:       %       RL       %       RL       %       RL         War-25-10 10:00       Mar-25-10 10:00       Mar-25-10 10:00       Mar-25-10 10:00       Mar-25-10 20:11         War-25-10 20:50       Mar-25-10 21:17       Mar-25-10 21:44       Mar-25-10 22:11         Units/RL:       mg/kg       RL       mg/kg       RL       mg/kg       RL</th> <th>  Lab Id:   366698-001   366698-002   366698-003   366698-004   366698-004   Field Id:   Road F-13   Road NSW-13   Road F-14 (14')   Road F-14 (14')   Background    </th> <th>Field Id:         Road F-13         Road NSW-13         Road F-14 (9')         Road F-14 (14')         Background @ 8'           Depth:         8- ft         7- ft         9- ft         14- ft         8- ft           Matrix:         SOIL         SOIL         SOIL         SOIL         SOIL           Sampled:         Mar-22-10 11:00         Mar-22-10 15:00         Mar-22-10 15:10         Mar-22-10 17:00           Extracted:         Analyzed:         Mar-26-10 12:00         Mar-25-10 10:00         Mar-25-10 10:00         Mar-25-10 10:00         Mar-25-10 10:00         Mar-25-10 10:00         Mar-25-10 21:14</th> <th>Lab Id:         366698-001         366698-002         366698-003         366698-004         366698-005         366698-005           Field Id:         Road F-13         Road NSW-13         Road F-14 (9')         Road F-14 (14')         Background @ 8'         Road F-12 5           Depth:         8 - ft         7 - ft         9 - ft         14 - ft         8 - ft         10 - ft           Matrix:         SOIL         Mar-22-10 17:00         Mar-23-10 12:00         Mar-22-10 15:00         Mar-22-10 15:10         Mar-22-10 17:00         Mar-23-10 12:00         Mar-22-10 12:00         Mar-26-10 12:00         Mar-25-10 12:0</th>	Field Id:         Road F-13         Road NSW-13         Road F-14 (9')           Depth:         8- ft         7- ft         9- ft           Matrix:         SOIL         SOIL         SOIL           Sampled:         Mar-22-10 11:00         Mar-22-10 11:10         Mar-22-10 15:00           Extracted:         Analyzed:         Mar-26-10 12:00         Mar-26-10 12:00         Mar-26-10 12:00           Units/RL:         mg/kg         RL         mg/kg         RL           Extracted:         Analyzed:         Mar-25-10 12:00         Mar-25-10 12:00         Mar-25-10 12:00           Units/RL:         %         RL         %         RL           17.3         1.00         17.5         1.00         12.8         1.00           Extracted:         Mar-25-10 10:00         Mar-25-10 10:00         Mar-25-10 10:00         Mar-25-10 21:44           Units/RL:         mg/kg         RL         mg/kg         RL         mg/kg         RL           ND         18.1         ND         18.2         ND         17.2           23.1         18.1         ND         18.2         ND         17.2	Lab Id:   366698-001   366698-002   366698-003   366698-005   36698-005   366698-005   366698-005   366698-005   366698-005   36698-005   366698-005   366698-005   366698-005   366698-005   36698-005   366698-005   366698-005   366698-005   366698-005   36698-005   366698-005   366698-005   366698-005   366698-005   36698-005   366698-005   366698-005   366698-005   366698-005   36698-005   366698-005   366698-005   366698-005   366698-005   36698-005   366698-005   366698-005   366698-005   366698-005   36698-005   366698-005   366698-005   366698-005   366698-005   36698-005   366698-005   366698-005   366698-005   366698-005   36698-005   366698-005   366698-005   366698-005   366698-005   36698-005   366698-005   366698-005   366698-005   366698-005   3669	Lab Id:       366698-001       366698-002       366698-003       366698-004         Field Id:       Road F-13       Road NSW-13       Road F-14 (9')       Road F-14 (14')         Depth:       8- ft       7- ft       9- ft       14- ft         Matrix:       SOIL       SOIL       SOIL       SOIL         Sampled:       Mar-22-10 11:00       Mar-22-10 11:10       Mar-22-10 15:00       Mar-22-10 15:00         Extracted:       Analyzed:       Mar-26-10 12:00       Mar-26-10 12:00       Mar-26-10 12:00       Mar-26-10 12:00         Units/RL:       mg/kg       RL       mg/kg       RL       mg/kg       RL         Extracted:       Analyzed:       Mar-25-10 12:00       Mar-25-10 12:00       Mar-25-10 12:00       Mar-25-10 12:00         Units/RL:       %       RL       %       RL       %       RL         Value:       %       RL       %       RL       %       RL         War-25-10 10:00       Mar-25-10 10:00       Mar-25-10 10:00       Mar-25-10 10:00       Mar-25-10 20:11         War-25-10 20:50       Mar-25-10 21:17       Mar-25-10 21:44       Mar-25-10 22:11         Units/RL:       mg/kg       RL       mg/kg       RL       mg/kg       RL	Lab Id:   366698-001   366698-002   366698-003   366698-004   366698-004   Field Id:   Road F-13   Road NSW-13   Road F-14 (14')   Road F-14 (14')   Background	Field Id:         Road F-13         Road NSW-13         Road F-14 (9')         Road F-14 (14')         Background @ 8'           Depth:         8- ft         7- ft         9- ft         14- ft         8- ft           Matrix:         SOIL         SOIL         SOIL         SOIL         SOIL           Sampled:         Mar-22-10 11:00         Mar-22-10 15:00         Mar-22-10 15:10         Mar-22-10 17:00           Extracted:         Analyzed:         Mar-26-10 12:00         Mar-25-10 10:00         Mar-25-10 10:00         Mar-25-10 10:00         Mar-25-10 10:00         Mar-25-10 10:00         Mar-25-10 21:14	Lab Id:         366698-001         366698-002         366698-003         366698-004         366698-005         366698-005           Field Id:         Road F-13         Road NSW-13         Road F-14 (9')         Road F-14 (14')         Background @ 8'         Road F-12 5           Depth:         8 - ft         7 - ft         9 - ft         14 - ft         8 - ft         10 - ft           Matrix:         SOIL         Mar-22-10 17:00         Mar-23-10 12:00         Mar-22-10 15:00         Mar-22-10 15:10         Mar-22-10 17:00         Mar-23-10 12:00         Mar-22-10 12:00         Mar-26-10 12:00         Mar-25-10 12:0

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

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## Certificate of Analysis Summary 366698

GP II Energy, Midland, TX

Project Id: GP II Energy

Project Name: Littlefield BO Fed #2

Project Location: Eddy County, New Mexico

Contact: Curt Stanley

Date Received in Lab: Wed Mar-24-10 08:30 am

Report Date: 29-MAR-10
Project Manager: Brent Barron, II

			Froject Wallager. Brent Barron, 11
	Lab Id:	366698-007	
Analysis Requested	Field Id:	Road F-12.5 (16')	
Anatysis Requestea	Depth:	16- ft	
	Matrix:	SOIL	
	Sampled:	Mar-23-10 10:50	
Anions by E300	Extracted:		
	Analyzed:	Mar-26-10 12.00	
	Units/RL:	mg/kg RL	
Chloride		419 43.2	
Percent Moisture	Extracted:		
	Analyzed:	Mar-25-10 12:00	
	Units/RL:	% RL	
Percent Moisture		2.89 1.00	

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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# 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 1-20 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: Littlefield BO Fed #2

Work Orders: 366698,

Project ID: GP II Energy

Lab Batch #: 799880

Sample: 559106-1-BKS / BKS

Matrix: Solid Batch: 1

SURROGATE RECOVERY STUDY						
Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags		
111	00.5	112	70-135			
43.0	49.8	86	70-135			
	Amount Found [A]	Amount True Found Amount [A] [B]	Amount   True   Recovery   %R   [D]	Amount   Found   Amount   Recovery   Control   Limits   %R   [D]		

Lab Batch #: 799880

**Sample:** 559106-1-BSD / BSD

Batch: 1

Matrix: Solid

Units: mg/kg Date Analyzed: 03/25/10 13:41	SURROGATE RECOVERY STUDY						
TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags		
Analytes			[D]				
1-Chlorooctane	114	. 99.6	114	70-135			
o-Terphenyl	43.2	49.8	87	70-135			

Lab Batch #: 799880

Sample: 559106-1-BLK / BLK

Batch: 1

Matrix: Solid

Units: mg/kg	Date Analyzed: 03/25/10 14:07	SURROGATE RECOVERY STUDY							
ТРН	By SW8015 Mod  Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags			
1-Chlorooctane	Analytes	97 7	100	98	70-135				
o-Terphenyl		46.8	50.2	93	70-135	<u></u>			

Lab Batch #: 799880

Sample: 366698-001 / SMP

Batch:

Matrix: Soil

Units: mg/kg Date Analyzed: 03/25/10 20:50	SURROGATE RECOVERY STUDY						
TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags		
Analytes			[D]				
1-Chlorooctane	86 8	100	87	70-135			
o-Terphenyl	43.2	50.0	86	70-135			

Lab Batch #: 799880

Sample: 366698-002 / SMP

Batch: 1

Matrix: Soil

Units: mg/kg Date Analyzed: 03/25/10 21:17	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	95.2	100	95	70-135	
o-Terphenyl	47.5	50,0	95	70-135	

<sup>\*</sup> Surrogate outside of Laboratory QC limits

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

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

<sup>\*\*</sup> Surrogates outside limits; data and surrogates confirmed by reanalysis

<sup>\*\*\*</sup> Poor recoveries due to dilution



Project Name: Littlefield BO Fed #2

Work Orders: 366698,

Lab Batch #: 799880

Sample: 366698-003 / SMP

Project ID: GP II Energy

Matrix: Soil Batch:

SURROGATE RECOVERY STUDY Date Analyzed: 03/25/10 21:44 Units: mg/kg

TPH By SW8015 Mod  Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	94.2	100	94	70-135	
o-Terphenyl	46 2	50.0	92	70-135	

Lab Batch #: 799880

Sample: 366698-004 / SMP

Matrix: Soil Batch: 1

SURROGATE RECOVERY STUDY Date Analyzed: 03/25/10 22:11 Units: mg/kg Control TPH By SW8015 Mod Recovery Limits Flags Found Amount %R [A] [B] %R [D]**Analytes** 1-Chlorooctane 94.6 95 70-135 100 o-Terphenyl 47.2 94 70-135 50.0

Lab Batch #: 799880

Sample: 366752-001 S / MS

Batch:

Matrix: Soil

Units: mg/kg Date Analyzed: 03/26/10 00:02	SURROGATE RECOVERY STUDY						
TPH By SW8015 Mod  Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags		
1-Chlorooctane	114	100	114	70-135			
o-Terphenyl	45.3	50 2	90	70-135			

Lab Batch #: 799880

Sample: 366752-001 SD / MSD

Batch: 1

Matrix: Soil

Units: mg/kg Date Analyzed: 03/26/10 00:29	SURROGATE RECOVERY STUDY												
TPH By SW8015 Mod  Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags								
1-Chlorooctane	116	100	116	70-135									
o-Terphenyl	43.4	50 1	87	70-135									

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

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

<sup>\*</sup> Surrogate outside of Laboratory QC limits

<sup>\*\*</sup> Surrogates outside limits; data and surrogates confirmed by reanalysis

<sup>\*\*\*</sup> Poor recoveries due to dilution



## **Blank Spike Recovery**



Project Name: Littlefield BO Fed #2

Work Order #: 366698 Project ID: GP II Energy

Lab Batch #: 800153 Sample: 800153-1-BKS Matrix: Solid **Date Analyzed:** 03/26/2010 **Date Prepared:** 03/26/2010 Analyst: LATCOR

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

Treporting Chits. Hig/kg	Daten #.	DEANN DEANN STINE RECOVERT STUDY												
Anions by E300	Blank Result	Spike Added	Blank Spike	Blank Spike	Control Limits	Flags								
Analytes	[A]	[B]	Result [C]	%R [D]	%R									
Chloride	ND	100	10.9	109	75-125									

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## **BS / BSD Recoveries**



Project Name: Littlefield BO Fed #2

Work Order #: 366698

Analyst: BEV

**Date Prepared:** 03/25/2010

**Project ID:** GP II Energy **Date Analyzed:** 03/25/2010

Lab Batch ID: 799880

Sample: 559106-1-BKS

Batch #: 1

Matrix: Solid

Units: mg/kg		BLAN	K/BLANK	SPIKE / F	BLANK S	SPIKE DUPI	LICATE	RECOVI	ERY STUD	Y	
TPH By SW8015 Mod Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Bik. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
C6-C12 Gasoline Range Hydrocarbons	ND	995	1040	105	996	1080	108	4	70-135	35	ļ
C12-C28 Diesel Range Hydrocarbons	ND	995	871	88	996	897	90	3	70-135	35	

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



## Form 3 - MS Recoveries

Project Name: Littlefield BO Fed #2



Work Order #: 366698

Lab Batch #: 800153 **Date Analyzed:** 03/26/2010

Project ID: GP II Energy

**Date Prepared:** 03/26/2010

Analyst: LATCOR

QC- Sample ID: 366697-021 S

Batch #: Matrix: Soil

Reporting Units: mg/kg	MATI	ATRIX / MATRIX SPIKE RECOVERY STUDY											
Inorganic Anions by EPA 300  Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	%R [D]	Control Limits %R	Flag							
Chloride	ND	125	133	106	75-125								

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

BRL - Below Reporting Limit



### Form 3 - MS / MSD Recoveries

**Project Name: Littlefield BO Fed #2** 



Work Order #: 366698

Project ID: GP II Energy

Lab Batch ID: 799880

**QC- Sample ID:** 366752-001 S

Batch #:

Matrix: Soil

**Date Analyzed:** 03/26/2010

**Date Prepared:** 03/25/2010

BEV Analyst:

Reporting Units: mg/kg		MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY														
TPH By SW8015 Mod	Parent Sample Result	Spike	Spiked Sample Result	Sample	Spike	Duplicate Spiked Sample		RPD	Control Limits	Control Limits	Flag					
Analytes	[A]	Added [B]	[C]	%R [D]	Added [E]	Result [F]	%R [G]	%	%R	%RPD						
C6-C12 Gasoline Range Hydrocarbons	ND	1050	1090	104	1050	1110	106	2	70-135	35						
C12-C28 Diesel Range Hydrocarbons	ND	1050	887	84	1050	979	93	10	70-135	35						

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## Sample Duplicate Recovery

Project Name: Littlefield BO Fed #2

Work Order #: 366698

Lab Batch #: 800153

Project ID: GP II Energy

**Date Analyzed:** 03/26/2010

Date Prepared: 03/26/2010

Analyst: LATCOR

QC- Sample ID: 366697-021 D

Batch #: 1

Matrix: Soil

Reporting Units: mg/kg

mg/kg	SAMPLE /	SAMPLE / SAMPLE DUPLICATE RECOVERY											
Anions by E300	Parent Sample Result [A]	Sample Duplicate Result	RPD	Control Limits %RPD	Flag								
Analyte		[B]											

Lab Batch #: 799826

**Date Analyzed:** 03/25/2010

Chloride

Date Prepared: 03/25/2010

Analyst: WRU

QC- Sample ID: 366697-028 D

Batch #: 1

Matrix: Soil

Reporting Units: %

SAMPLE	SAMPLE	DUPLICATI	E RECOVERY
Parent Sample	Sample		ontrol

Percent Moisture  Analyte	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Percent Moisture	20.3	20 0	1	20	

# **Environmental Lab of Texas**

A Xenco Laboratories Company

#### CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

12600 West 1-20 East Odessa, Texas 79765 Phone: 432-563-1800 Fax: 432-563-1713

	Project Manager:	Curt Stanley		Page	1 of 1												_	Pro	oject	Nar	ne; _	Little	fiel	d B	O Fe	d #2	<u>:</u>						
	Company Name	GPII Energy (At	tention Jo	e Com	pton)												-		Pro	ojec	t#:_	GP I	I Er	erg	У								
	Company Address:	PO Box 50682															-	F	roje	ct L	oc; <u> </u>	Eddy	Cat	inty	New	Mex	ico						
	City/State/Zip:	Midland, TX 7970	01														_			PC	#:_												
	Telephone No:	575-441-2244					Fax No:		575	-39	6-14	29					_	tepori	For	mat	:	X	Star	ndar	d	Γ	] 11	RRP			NPD	ES	
	Sampler Signature:	CH	$\mathcal{K}$	1			e-mail:		<u>cs</u>	tar	iley	<b>@</b> b	asi	nen	v.c	<u>om</u>									1	<del></del>						_	
(lab use o	2///	:98				~			!		Prese	rvatio	n & #	of Cor	ntaine	rs	Ιм	atrix	158		 	TO	IP:		lyze	,	-				П	48, 72 hrs	
AB # (leb use only)		D CODE		Beginning Depth	Ending Depth	Date Sampled	Time Sampled	Held Filtered	fotal #. of Containers		Æ			Ne.S.O.			SL=Studge	GW ≈ Groundwater S+Solt/Solid NP=Non-Potable Specify Other	6015W 80'	ľωl	Cations (Ca, Mg, Na, K)	Anions (Cl, 8O4, Alkalinity)	SAR / ESP / CEC	Metals: As Ag Ba Cd Cr Pb Hg Se	Volatifies	Serravolatives BTEX 8021B/5030 or BTEX 8280	SC.	N.O.R.M.	Chlorides EPA 300	γ	1 .	dule) 24.	Standard TAT
100		ad F-13		8'		3/22/2010	1100		1	X			T	T	T	T	¥	Soil	x		7			$\neg$		1	T	T	x				X
007		NSW-13		7"		3/22/2010	1110			х		T	1	1	T	1	T-	Soil	x			$\neg$				$\top$	T	T	x			T	X
003	<del></del>	F-14 (9')		9'		3/22/2010	1500		1	х	П		1	十			1	Soil	х		$\exists$				1	T	T	T	x			$\prod$	X
204		F-14 (14')		14'		3/22/2010	1510		1	Х	П	$\neg$	Ť				T	Soil	х		1			$\neg$			Τ		x		П		X
005		round @ 8'		8.		3/22/2010	1700		1				1		T		1	سانەن	×	,,	abla					T	T	T	x		$\prod$		X
200		-12.5 (10')		10'		3/23/2010	1045		1			T			T		T	Soil			$\sqcap$						T		x				X
007		-12.5 (16')		16'	·	3/23/2010	1050	-	1	X		$\dashv$	1	Ŧ		L	S	oil '			4	-	-	-	-	4	$\perp$	1	X	<del> </del>		+	X
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														I												$oxed{oxed}$	$\prod$	$oxed{\Box}$					
Special In	nstructions:	BILL TO GP II 8	≣nergy																		VOC	s Fr	ee a	He	adspa	ace?				0		N N	
Relinquishe	HALA	3/	Pate Zerio Date	62	0	Received by:											ete ete		Time		Cust	ody	seal	s on	cont	ainer ainer 解鍵	(S)	副制 野岛				N N	融級
Relinquishe	0			Tir		Received by:			2		<del> </del>										Ŀ		mple	r/Cli	ivere ent Re U		Dŧ	HL		#Ex		N	r
Relinquehe	d by		Dete	Tir	ne	Received FLO	2	_							3	29	ite (1/2	2 8	Time . 3ct		Tem	pera	ture	Upo	n Re	ceipt	:			2.	z ·	c	

## Environmental Lab of Texas

Variance/ Corrective Action Report- Sample Log-In

Valiation Collective / Charling			
Client: GP 11 Evergy			
ate/ Time: 3.24.10 8:30			
3610#: 366698			
nitials: BB/AL			
	AL1.15. 1		
Sample Receipt	Checklist		Client Initia
1 Temperature of container/ cooler?	(Yes)	No	Z.Z °C
2 Shipping container in good condition?	(Yes)	No	
3 Custody Seals intact on shipping container/ cooler?	(Yes)	No	Not Present
4 Custody Seals intact on sample bottles/ container?	Yes	No	Not Present
5 Chain of Custody present?	(Yes)	No	
6 Sample instructions complete of Chain of Custody?	Yes	No	
7 Chain of Custody signed when relinquished/ received?	(Yes)	No	
8 Chain of Custody agrees with sample label(s)?	Yes	No	iD written on Cont./ Lid
9 Container label(s) legible and intact?	Yes	No	Not Applicable
10 Sample matrix/ properties agree with Chain of Custody?	Yes	No	
11 Containers supplied by ELOT?	Yes	No	
12 Samples in proper container/ bottle?	Yes	No	See Below
13 Samples properly preserved?	Yes	No	See Below
14 Sample bottles intact?	(Yes)	No	
Preservations documented on Chain of Custody?	Yes	No	
16 Containers documented on Chain of Custody?	Yes	No	
\$17 Sufficient sample amount for indicated test(s)?	Yes	No	See Below
f18 All samples received within sufficient hold time?	(Yes)	No	See Below
f19 Subcontract of sample(s)?	Yes	No	(Not Applicable)
20 VOC samples have zero headspace?	(es)	No	Not Applicable
Contact: Contacted by:	mentation		Date/ Time:
Regarding:  Corrective Action Taken:			
Check all that Apply:    See attached e-mail/ fax   Client understands and wou			

# **Analytical Report 367141**

for

**GP II Energy** 

**Project Manager: Joe Compton** 

Littlefield BO Fed #2

GP II Energy

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)

Final Ver. 1 000





07-APR-10

Project Manager: Joe Compton

**GP II Energy** 

P.O. Box 50682(GP II Energy's Clients Address)

Midland, TX 79710

Reference: XENCO Report No: 367141

Littlefield BO Fed #2

Project Address: Eddy County, New Mexico

#### Joe Compton:

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 367141. 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. 367141 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 367141**



### GP II Energy, Midland, TX

Littlefield BO Fed #2

Sample Id	Matrix	<b>Date Collected</b>	Sample Depth	Lab Sample Id
Pit F-1	S	Mar-25-10 08:30	10 ft	367141-001
Pit SSW	S	Mar-25-10 08:40	5.5 ft	367141-002
Pit WSW	S	Mar-25-10 08:50	5.5 ft	367141-003
Pit NSW	S	Mar-25-10 09:00	5.5 ft	367141-004
Pit ESW	S	Mar-25-10 09:10	5.5 ft	367141-005
ROW WSW-1A	S	Mar-25-10 11:00	3 ft	367141-006
ROW F-2A	S	Mar-25-10 11:10	11 ft	367141-007
ROW F-3A	S	Mar-25-10 11:15	9 ft	367141-008
ROW F-6A	S	Mar-25-10 11:20	6 ft	367141-009
ROW SSW-6A	S	Mar-25-10 11:30	5.5 ft	367141-010
ROW F-12A	S	Mar-25-10 11:40	4 ft	367141-011
ROAD F-2A	S	Mar-25-10 11:46	6 ft	367141-012
ROAD NSW-2A	S	Mar-25-10 11:50	5.5 ft	367141-013
ROAD NSW-10.5	S	Mar-25-10 12:00	7 ft	367141-014
ROAD F-11	S	Mar-25-10 12:05	7 ft	367141-015
ROAD SSW-11	S	Mar-25-10 12:15	6.5 ft	367141-016
ROAD F-12	S	Mar-25-10 12:30	6 ft	367141-017
ROAD NSW-12	S	Mar-25-10 12:35	5.5 ft	367141-018
ROAD F-15	S	Mar-26-10 10:00	6 ft	367141-019
ROAD NSW-15	S	Mar-26-10 10:05	5.5 ft	367141-020
ROAD WSW-15	S	Mar-26-10 10:10	6.5 ft	367141-021
ROAD F-16	S	Mar-26-10 11:05	3.5 ft	367141-022
ROAD SSW-16	S	Mar-26-10 11:10	3 ft	367141-023
ROAD F-17	S	Mar-26-10 12:05	4 ft	367141-024
ROAD NSW-17	S	Mar-26-10 12:10	3.5 ft	367141-025

<sup>\*</sup> TRRP Tier I Comm/Indus Soils PCL's

### CASE NARRATIVE



Client Name: GP II Energy Project Name: Littlefield BO Fed #2



Project ID:

GP II Energy

Work Order Number: 367141

Report Date: 07-APR-10 Date Received: 03/29/2010

#### Sample receipt non conformances and Comments:

None

#### Sample receipt Non Conformances and Comments per Sample:

None

Analytical Non Conformances and Comments:

Batch: LBA-800382 TPH By SW8015 Mod

None

Batch: LBA-800385 TPH By SW8015 Mod

None

Batch: LBA-800406 Percent Moisture

None

Batch: LBA-800411 Percent Moisture

None

Batch: LBA-800464 Inorganic Anions by EPA 300

None

Batch: LBA-800467 Anions by E300

E300MI

Batch 800467, Chloride RPD is outside the QC limit. This is most likely due to sample non-

homogeneity.

Samples affected are: 367141-023, -020, -022, -025, -024, -019, -021.

Batch: LBA-800469 TPH By SW8015 Mod

None

Batch: LBA-800506 BTEX by EPA 8021B

SW8021BM

Batch 800506, Benzene, Ethylbenzene, Toluene, m,p-Xylenes, o-Xylene recovered below QC limits in the Matrix Spike and Matrix Spike Duplicate.

Samples affected are: 367141-001, -003, -004, -005, -002.

The Laboratory Control Sample for Toluene, m,p-Xylenes, Benzene, Ethylbenzene, o-Xylene is within laboratory Control Limits

Page 4 of 29



GP II Energy, Midland, TX

Project Name: Littlefield BO Fed #2



Project Id: GP II Energy
Contact: Joe Compton

Project Location: Eddy County, New Mexico

Date Received in Lab: Mon Mar-29-10 08:50 am

Report Date: 07-APR-10

Project Manager: Brent Barron, II

								,		Brent Burren,			
	Lab Id:	367141-0	01	367141-0	002	367141-0	03	367141-0	004	367141-0	005	367141-0	06
Analysis Requested	Field Id:	Pit F-1		Pit SSV	N	Pit WSV	V	Pit NS	V	Pit ES	v	ROW WSW	V-1A
Anaiysis Kequesieu	Depth:	10- ft		5.5- ft	;	5.5- ft		5 5- ft		5.5- ft	:	3- ft	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Mar-25-10	08.30	Mar-25-10	08·40	Mar-25-10 (	08:50	Mar-25-10	09:00	Mar-25-10	09:10	Mar-25-10 1	11:00
Anions by E300	Extracted:												
·	Analyzed:	Mar-31-10	00.09	Mar-31-10	00.09	Mar-31-10 (	00.09	Mar-31-10	00.09	Mar-31-10	00:09	Mar-31-10 (	00:09
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride	-	210	9.61	623	23.9	438	24.2	153	18.9	39.1	18.4	115	21.1
BTEX by EPA 8021B	Extracted:	Mar-30-10	15:30	Mar-30-10	15:30	Mar-30-10 1	15 30	Mar-30-10	15:30	Mar-30-10	15:30		
	Analyzed:	Mar-31-10	02.59	Mar-31-10	03.22	Mar-31-10 (	03:45	Mar-31-10	04:07	Mar-31-10	04.30		
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL		
Benzene		ND	0 0011	ND	0.0011	ND	0.0012	ND	0.0011	ND	0.0011		
Tolucne		ND	0 0023	ND	0.0023	ND	0.0023	ND	0 0022	ND	0.0022		
Ethylbenzene		ND	0 0011	ND	0.0011	ND	0.0012	ND	0.0011	ND	0.0011		
m,p-Xylenes		ND	0.0023	ND	0.0023	ND	0.0023		0.0022		0.0022		
o-Xylene			0.0011		0.0011		0.0012	<u> </u>	0.0011		0.0011		
Total Xylenes			0.0011		0.0011		0 0012		0.0011	<u> </u>	0 0011		
Total BTEX		ND	0 0011	ND	0.0011	ND	0 0012	ND	0.0011	ND	0.0011		
Percent Moisture	Extracted:												
	Analyzed:	Mar-30-10	17:00	Mar-30-10	17 00	Mar-30-10 1	17:00	Mar-30-10	17:00	Mar-30-10	17.00	Mar-30-10 1	17.00
	Units/RL:	%	RL	%	RL	%	RL	%	RL	%	RL	%	RL
Percent Moisture		12.6	1 00	12.2	1.00	13.4	1.00	11.1	1 00	8.86	1.00	ND	1.00
TPH By SW8015 Mod	Extracted:	Mar-30-10	12:30	Mar-30-10	12:30	Mar-30-10 1	12:30	Mar-30-10	12.30	Mar-30-10	12:30		
	Analyzed:	Mar-31-10	00:24	Mar-31-10	00.50	Mar-31-10 (	01:17	Mar-31-10	01:44	Mar-31-10	00.15		
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL		
C6-C12 Gasoline Range Hydrocarbons		19.2	17.2	20.8	17.1	19.3	17.3	20.4	16.9	ND	16.5		
C12-C28 Diesel Range Hydrocarbons		ND	17.2	ND	17.1	21.0	17.3	17 6	16.9	ND	16 5		
C28-C35 Oil Range Hydrocarbons		ND	17.2	ND	17.1	ND	17.3	ND	16.9	ND	16.5		
Total TPH		19.2	17.2	20.8	17.1	40.3	17.3	38.0	16.9	ND	16.5		

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 involved for this work order unless otherwise agreed to in writing.

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Brent Barron, II Odessa Laboratory Manager



### GP II Energy, Midland, TX

Project Name: Littlefield BO Fed #2



Project Id: GP II Energy Contact: Joe Compton

Project Location: Eddy County, New Mexico

Date Received in Lab: Mon Mar-29-10 08:50 am

**Report Date:** 07-APR-10

Project Manager: Brent Barron, II

								Troject Mai	14501.	Dicili Danon,	11		
	Lab Id:	367141-0	07	367141-0	800	367141-0	009	367141-0	10	367141-0	)11	367141-0	12
Analysis Paguastad	Field Id:	ROW F-	2A	ROW F-	3A	ROW F-	6A	ROW SSW	7-6A	ROW F-I	2A	ROAD F-	2A
Analysis Requested	Depth:	11- ft		9- ft		6- ft		5.5- ft		4- ft		6- ft	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Mar-25-10	11:10	Mar-25-10	11 15	Mar-25-10	11.20	Mar-25-10	11:30	Mar-25-10	11:40	Mar-25-10 1	1:46
Anions by E300	Extracted:												
	Analyzed:	Mar-31-10	00.09	Mar-31-10	00.09								
	Units/RL:	mg/kg	RL	mg/kg	RL								
Chloride		1390	23.0	1030	22.8								
Percent Moisture	Extracted:									-			
	Analyzed:	Mar-30-10	17:00	Mar-30-10	17 00	Mar-30-10	17.00	Mar-30-10	17.00	Mar-30-10	17.00	Mar-30-10 1	7:00
	Units/RL:	%	RL	%	RL	%	RL	%	RL	%	RL	%	RL
Percent Moisture		8.60	1.00	7.78	1 00	19.5	1.00	8 50	1.00	23.7	1.00	18.9	1 00
TPH By SW8015 Mod	Extracted:		_			Mar-30-10	12:30	Mar-30-10	12:30	Mar-30-10	12:30	Mar-30-10 1	2.30
	Analyzed:					Mar-31-10	00:45	Mar-31-10 (	1:15	Mar-31-10	01.45	Mar-31-10 0	2.16
	Units/RL:					mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
C6-C12 Gasoline Range Hydrocarbons						ND	18.5	ND	16.4	ND	19.6	ND	18.4
C12-C28 Diesel Range Hydrocarbons						ND	18.5	ND	16.4	ND	19,6	ND	18.4
C28-C35 Oil Range Hydrocarbons						ND	18.5	19.1	16.4	ND	19.6	ND	18.4
Total TPH						ND	18.5	19.1	16.4	ND	19.6	ND	18.4

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Odessa Laboratory Manager

Final Ver. 1.000

Brent Barron, II



GP II Energy, Midland, TX

Project Name: Littlefield BO Fed #2



Project Id: GP II Energy Contact: Joe Compton

Project Location: Eddy County, New Mexico

Date Received in Lab: Mon Mar-29-10 08:50 am

Report Date: 07-APR-10

Project Manager: Brent Barron, II

				,						Brent Barron,			
	Lab Id:	367141-0	13	367141-0	14	367141-0	115	367141-0	016	367141-0	17	367141-0	18
Analysis Pagnastad	Field Id:	ROAD NSV	V-2A	ROAD NSW	7-10.5	ROAD F	-11	ROAD SSV	W-11	ROAD F	-12	ROAD NSV	W-12
Analysis Requested	Depth:	5.5- ft		7- ft		7- ft		6.5- ft		6- ft		5.5- ft	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Mar-25-10	11.50	Mar-25-10	12:00	Mar-25-10	12:05	Mar-25-10	12:15	Mar-25-10	12:30	Mar-25-10 1	12.35
Anions by E300	Extracted:												
	Analyzed:	Mar-31-10	00:09	Mar-31-10 (	00:09	Mar-31-10	00.09	Mar-31-10	00 09	Mar-31-10	00:09	Mar-31-10 0	00.09
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chlonde		429	46.2	851	24.7	667	48.4	1440	49.5	2790	47 4	505	19.3
Percent Moisture	Extracted:												
	Analyzed:	Mar-30-10	17:00	Mar-30-10	17:00	Mar-30-10	17:00	Mar-30-10	17:00	Mar-30-10	17:00	Mar-30-10 1	17:00
	Units/RL:	%	RL	%	RL	%	RL	%	RL	%	RL	%	RL
Percent Moisture		9 02	1.00	14.9	1.00	13.3	1.00	15.2	1.00	11.4	1.00	13.1	1.00
TPH By SW8015 Mod	Extracted:		_			Mar-30-10	12.30	Mar-30-10	12.30	Mar-30-10	12·30	Mar-30-10 1	12.30
	Analyzed:					Mar-31-10	02.49	Mar-31-10	03 22	Mar-31-10 (	06:43	Mar-31-10 0	07.10
	Units/RL:		1			mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
C6-C12 Gasoline Range Hydrocarbons						ND	17.3	ND	17.6	17.7	16.9	ND	17.3
C12-C28 Diesel Range Hydrocarbons						ND	17.3	ND	17.6	ND	16.9	ND	17.3
C28-C35 Oil Range Hydrocarbons						ND	17.3	ND	17.6	ND	169	ND	17.3
Total TPH						ND	17.3	ND	17 6	17.7	16.9	ND	17.3

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

Brent Barron, II

Final Ver. 1.000



### GP II Energy, Midland, TX

Project Name: Littlefield BO Fed #2



Project Id: GP II Energy

Contact: Joe Compton

Project Location: Eddy County, New Mexico

Date Received in Lab: Mon Mar-29-10 08:50 am

Report Date: 07-APR-10

Project Manager: Brent Barron, II

									5	Dient Danion,			
	Lab Id:	367141-0	19	367141-0	20	367141-0	21	367141-0	22	367141-0	23	367141-0	24
Analysis Pagnastad	Field Id:	ROAD F	-15	ROAD NS	W-15	ROAD WS	W-15	ROAD F-16		ROAD SSV	N-16	ROAD F-	-17
Analysis Requested	Depth:	6- ft		5.5- ft		6.5- ft		3 5- ft		3- ft		4- ft	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Mar-26-10	10.00	Mar-26-10	10:05	Mar-26-10	10:10	Mar-26-10	11:05	Mar-26-10	11·10	Mar-26-10 1	12:05
Anions by E300	Extracted:												
	Analyzed:	Mar-31-10	05:27	Mar-31-10	05 27	Mar-31-10 (	05:27	Mar-31-10	05.27	Mar-31-10	05:27	Mar-31-10 (	05 27
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		348	18.2	64.3	18 7	110	23.6	98.5	47.2	1410	47.2	911	46 9
Percent Moisture	Extracted:												
	Analyzed:	Mar-30-10	17.00	Mar-30-10	17:00	Mar-30-10	17:00	Mar-30-10	17.00	Mar-30-10	17:00	Mar-30-10 1	17:00
	Units/RL:	%	RL	%	RL	%	RL	%	RL	%	RL	%	RL
Percent Moisture		7 47	1.00	10.3	1 00	11.0	1,00	110	1.00	11 0	1.00	10.4	1.00
TPH By SW8015 Mod	Extracted:	Mar-30-10	12:30	Mar-30-10	12:30	Mar-30-10	12:30	Mar-30-10	12:30	Mar-30-10	12.30	Mar-30-10 1	12.30
	Analyzed:	Mar-31-10	07:37	Mar-31-10 (	08:04	Mar-31-10 (	08:31	Mar-31-10 (	08:58	Mar-31-10	09.25	Mar-31-10 0	)9 52
	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	16.2	ND	16 7	ND	16.8	ND	16.8	ND	16.8	ND	16.7
C12-C28 Diesel Range Hydrocarbons		17.0	16.2	ND	16.7	ND	16.8	ND	16.8	ND	16.8	ND	16 7
C28-C35 Oil Range Hydrocarbons		ND	16.2	ND	16.7	ND	16.8	ND	16.8	ND	16.8	ND	16 7
Total TPH		17.0	16.2	ND	16.7	ND	16.8	ND	16.8	ND	16.8	ND	16 7

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 hability 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

Brent Barron, II Odessa Laboratory Manager



GP II Energy, Midland, TX

Project Name: Littlefield BO Fed #2



Project Id: GP II Energy Contact: Joe Compton

Project Location: Eddy County, New Mexico

Date Received in Lab: Mon Mar-29-10 08:50 am

Report Date: 07-APR-10

Project Manager: Brent Barron, II

<b></b>				1 Toject Wallager: Brent Barron, in	
	Lab Id:	367141-02	25		
Analysis Requested	Field Id:	ROAD NSW	/-17		
Analysis Requesieu	Depth:	3 5- ft			
	Matrix:	SOIL			
	Sampled:	Mar-26-10 1	2.10		
Anions by E300	Extracted:				
	Analyzed:	Mar-31-10 0	5.27		
	Units/RL:	mg/kg	RL		
Chlonde		63.0	9.45		
Percent Moisture	Extracted:				
	Analyzed:	Mar-30-10 1	7 00		
	Units/RL:	%	RL		
Percent Moisture		11 1	1.00		
TPH By SW8015 Mod	Extracted:	Mar-30-10 1	2:30		
	Analyzed:	Mar-31-10 1	0.19		
	Units/RL:	mg/kg	RL		
C6-C12 Gasoline Range Hydrocarbons		ND	16.8		
C12-C28 Diesel Range Hydrocarbons		ND	16.8		
C28-C35 Oil Range Hydrocarbons		ND	16.8		
Total TPH		ND	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 hability is limited to the amount invoiced for this work order unless otherwise agreed to in writing

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Brent Barron, II Odessa Laboratory Manager

Final Ver 1.000



### **Flagging Criteria**



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

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Project Name: Littlefield BO Fed #2

**Work Orders** : 367141,

Project ID: GP II Energy

Lab Batch #: 800506 Sample: 559503-1-BKS / BKS Batch: I Matrix: Solid

Units: mg/kg Date Analyzed: 03/31/10 01:08	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-Dıfluorobenzene	0.0287	0.0300	96	80-120	
4-Bromofluorobenzene	0.0306	0.0300	102	80-120	

Lab Batch #: 800506 Sample: 559503-1-BSD / BSD Batch: 1 Matrix: Solid

Units: mg/kg Date Analyzed: 03/31/10 01:30	SURROGATE RECOVERY STUDY								
BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags				
Analytes			[D]						
1,4-Difluorobenzene	0.0286	0.0300	95	80-120					
4-Bromofluorobenzene	0.0311	0.0300	104	80-120					

Lab Batch #: 800506 Sample: 559503-1-BLK / BLK Batch: 1 Matrix: Solid

Units: mg/kg Date Analyzed: 03/31/10 02:37	SU	RROGATE R	<b>ECOVERY</b>	STUDY	
BTEX 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 0302	0.0300	101	80-120	

Lab Batch #: 800506 Sample: 367141-001 / SMP Batch: 1 Matrix: Soil

Units: mg/kg Date Analyzed: 03/31/10 02:59	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	0.0246	0.0300	82	80-120	
4-Bromofluorobenzene	0.0320	0.0300	107	80-120	

Lab Batch #: 800506 Sample: 367141-002 / SMP Batch: 1 Matrix: Soil

Units: mg/kg Date Analyzed: 03/31/10 03:22	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-Dıfluorobenzene	0.0244	0.0300	81	80-120	
4-Bromofluorobenzene	0.0313	0 0300	104	80-120	

<sup>\*</sup> Surrogate outside of Laboratory QC limits

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

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

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<sup>\*\*</sup> Surrogates outside limits; data and surrogates confirmed by reanalysis

<sup>\*\*\*</sup> Poor recoveries due to dilution



Project Name: Littlefield BO Fed #2

**Work Orders** : 367141,

Project ID: GP II Energy

Lab Batch #: 800506

Sample: 367141-003 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg Date Analyzed: 03/31/10 03:45	SURROGATE RECOVERY STUDY								
BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags				
Analytes		1	[D]						
1,4-Dıfluorobenzene	0.0242	0.0300	81	80-120					
4-Bromofluorobenzene	0 0311	0.0300	104	80-120					

Lab Batch #: 800506

**Sample:** 367141-004 / SMP

Batch: | M:

Matrix: Soil

Units: mg/kg Date Analyzed: 03/31/10 04:07	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	0.0244	0.0300	81	80-120		
4-Bromofluorobenzene	0.0310	0 0300	103	80-120		

Lab Batch #: 800506

Sample: 367141-005 / SMP

Batch: 1

Matrix: Soil

Units: mg/kg Date Analyzed: 03/31/10 04:30	SURROGATE RECOVERY STUDY					
BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags	
Analytes			[D]			
1,4-Difluorobenzene	0.0246	0.0300	82	80-120		
4-Bromofluorobenzene	0.0320	0.0300	107	80-120		

Lab Batch #: 800506

Sample: 367141-005 S / MS

Batch: 1

Matrix: Soil

Units: mg/kg Date Analyzed: 03/31/10 11:37	SURROGATE RECOVERY STUDY					
BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags	
Analytes			[D]			
1,4-Difluorobenzene	0.0281	0.0300	94	80-120		
4-Bromofluorobenzene	0.0302	0.0300	101	80-120		

Lab Batch #: 800506

Sample: 367141-005 SD / MSD

Batch:

Matrix: Soil

Units: mg/kg Date Analyzed: 03/31/10 11:59	SURROGATE RECOVERY STUDY					
BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags	
Analytes			[D]			
1,4-Dıfluorobenzene	0 0280	0.0300	93	80-120		
4-Bromofluorobenzene	0 0316	0.0300	105	80-120		

<sup>\*</sup> Surrogate outside of Laboratory QC limits

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

<sup>\*\*</sup> Surrogates outside limits; data and surrogates confirmed by reanalysis

<sup>\*\*\*</sup> Poor recoveries due to dilution



Project Name: Littlefield BO Fed #2

**Work Orders**: 367141,

Project ID: GP II Energy

Lab Batch #: 800382

**Sample:** 559420-1-BKS / BKS

Batch: 1 Matrix: Solid

Units: mg/kg Date Analyzed: 03/30/10 15:2	SU SU	SURROGATE RECOVERY STUDY					
TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags		
Analytes			[D]				
1-Chlorooctane	115	99.7	115	70-135			
o-Terphenyl	54.6	49.9	109	70-135			

Lab Batch #: 800382

**Sample:** 559420-1-BSD / BSD

Batch: 1 Matrix: Solid

Units: mg/kg Date Analyzed: 03/30/10 15:47	SU.	SURROGATE RECOVERY STUDY				
TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags	
Analytes			[D]			
1-Chlorooctane	117	99.9	117	70-135	•	
o-Terphenyl	55.6	50.0	111	70-135		

Lab Batch #: 800382

Sample: 559420-1-BLK / BLK

Batch:

Matrix: Solid

Units: mg/kg Date Analyzed: 03/30/10 16:14	SU	SURROGATE RECOVERY STUDY				
TPH By SW8015 Mod  Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags	
1-Chlorooctane	121	100	121	70-135		
o-Terphenyl	60,6	50.1	121	70-135		

Lab Batch #: 800382

Sample: 367141-001 / SMP

Batch: 1

Matrix: Soil

Units: mg/kg Date Analyzed: 03/31/10 00:24	SU	SURROGATE RECOVERY STUDY				
TPH By SW8015 Mod  Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags	
1-Chlorooctane	116	100	116	70-135		
o-Terphenyl	59.1	50.1	118	70-135		

Lab Batch #: 800382

Sample: 367141-002 / SMP

Batch: 1

Matrix: Soil

Units: mg/kg Date Analyzed: 03/31/10 00	0:50 SU	SURROGATE RECOVERY STUDY					
TPH By SW8015 Mod  Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags		
1-Chlorooctane	122	100	122	70-135			
o-Terphenyl	62.0	50.1	124	70-135			

<sup>\*</sup> Surrogate outside of Laboratory QC limits

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

<sup>\*\*</sup> Surrogates outside limits; data and surrogates confirmed by reanalysis

<sup>\*\*\*</sup> Poor recoveries due to dilution



Project Name: Littlefield BO Fed #2

Work Orders: 367141,

Project ID: GP II Energy

Lab Batch #: 800382

Sample: 367141-003 / SMP

Batch: | Matrix: Soil

Units: mg/kg Date Analyzed: 03	3/31/10 01:17	SURROGATE RECOVERY STUDY					
TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags		
Analytes			[D]				
1-Chlorooctane	115	100	115	70-135	_		
o-Terphenyl	58 1	50.0	116	70-135			

Lab Batch #: 800382

Sample: 367141-004 / SMP

Batch: | Matrix: Soil

Units: mg/kg Date Analyzed: 03/31/10 01:44	SURROGATE RECOVERY STUDY					
TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags	
Analytes			[D]			
1-Chlorooctane	115	100	115	70-135		
o-Terphenył	57.6	50.0	115	70-135		

Lab Batch #: 800382

Sample: 367068-003 S / MS

Batch: 1 Matrix: Soil

Units: mg/kg Date Analyzed: 03/31/10 02:12	SURROGATE RECOVERY STUDY					
TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags	
Analytes			[D]			
1-Chlorooctane	116	100	116	70-135		
o-Terphenyl	54.9	50 0	110	70-135		

Lab Batch #: 800382

Sample: 367068-003 SD / MSD

Batch: 1

Matrix: Soil

Units: mg/kg	Date Analyzed: 03/31/10 02:39	SURROGATE RECOVERY STUDY					
•	W8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags	
1-Chlorooctane		120	99.5	121	70-135		
o-Terphenyl		57.1	49.8	115	70-135		

Lab Batch #: 800385

**Sample:** 559427-1-BKS / BKS

Batch: 1

Matrix: Solid

Units: mg/kg	Date Analyzed: 03/30/10 15:34	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		110	99.7	110	70-135	
o-Terphenyl		50 8	49 9	102	70-135	

<sup>\*</sup> Surrogate outside of Laboratory QC limits

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

<sup>\*\*</sup> Surrogates outside limits, data and surrogates confirmed by reanalysis

<sup>\*\*\*</sup> Poor recoveries due to dilution



Project Name: Littlefield BO Fed #2

**Work Orders:** 367141,

Project ID: GP II Energy

Lab Batch #: 800385

**Sample:** 559427-1-BSD / BSD

Batch: 1 Matrix: Solid

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		108	99.9	108	70-135	-
o-Terphenyl		49.6	50.0	99	70-135	

Lab Batch #: 800385

**Sample:** 559427-1-BLK / BLK

Batch: 1 Matrix: Solid

Units: mg/kg	Date Analyzed: 03/30/10 16:35	SURROGATE RECOVERY STUDY					
ТРН	By SW8015 Mod  Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags	
1-Chlorooctane		102	100	102	70-135		
o-Terphenyl		54.1	50.1	108	70-135	· · · · · · · · · · · · · · · · · · ·	

Lab Batch #: 800385

Sample: 367141-005 / SMP

Batch: 1 M

Matrix: Soil

Units: mg/kg	Date Analyzed: 03/31/10 00:15	SU	RROGATE R	ECOVERY :	STUDY	
ТРН	By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
	Analytes			101		
1-Chlorooctane		105	100	105	70-135	
o-Terphenyl		56.4	50.1	113	70-135	

Lab Batch #: 800385

Sample: 367141-009 / SMP

Batch: 1

Matrix: Soil

Units: mg/kg Date Analyzed: 03/31/10 00:45	SURROGATE RECOVERY STUDY					
TPH By SW8015 Mod  Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags	
1-Chlorooctanc	95.5	99 5	96	70-135		
o-Terphenyl	51 0	49.8	102	70-135		

Lab Batch #: 800385

Sample: 367141-010 / SMP

Batch: 1

Matrix: Soil

Units: mg/kg Date Analyzed: 03/31/10 01:15	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	94.8	99.9	95	70-135	
o-Terphenyl	50.5	50.0	101	70-135	

<sup>\*</sup> Surrogate outside of Laboratory QC limits

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

<sup>\*\*</sup> Surrogates outside limits; data and surrogates confirmed by reanalysis

<sup>\*\*\*</sup> Poor recoveries due to dilution



Project Name: Littlefield BO Fed #2

Work Orders: 367141,

Sample: 367141-011 / SMP

Project ID: GP II Energy

Lab Batch #: 800385

Matrix: Soil Batch:

Units: mg/kg Date Analyzed: 03/31/10 01:45	SURROGATE RECOVERY STUDY					
TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags	
Analytes	, ,		[D]			
1-Chlorooctane	93.3	99.7	94	70-135		
o-Terphenyl	50.0	49.9	100	70-135		

Lab Batch #: 800385

Sample: 367141-012 / SMP

Batch:

Matrix: Soil

Units: mg/kg

Date Analyzed: 03/31/10 02:16

TPH By SW8015 Mod

**Analytes** 

SURROGATE RECOVERY STUDY					
Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags	
75.5	99.7	76	70-135		

79

70-135

Lab Batch #: 800385

1-Chlorooctane o-Terphenyl

Sample: 367141-015 / SMP

Batch:

39.5

Matrix: Soil

49 9

Units: mg/kg Date Analyzed: 03/31/10 02:49	SURROGATE RECOVERY STUDY					
TPH By SW8015 Mod  Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags	
1-Chlorooctane	77.7	99.8	78	70-135		
o-Terphenyl	40 9	49.9	82	70-135		

Lab Batch #: 800385

**Sample:** 367141-016 / SMP

Batch: 1

Matrix: Soil

Units: mg/kg Date Analyzed: 03/31/10 03:22	SURROGATE RECOVERY STUDY					
TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags	
Analytes			[D]			
1-Chlorooctane	79.4	99.6	80	70-135		
o-Terphenyl	41.4	49 8	83	70-135		

Lab Batch #: 800469

Sample: 559487-1-BKS / BKS

Batch:

Matrix: Solid

Units: mg/kg Date Analyzed: 03/31/10 05:23	SURROGATE RECOVERY STUDY					
TPH By SW8015 Mod  Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags	
1-Chlorooctane	119	99.5	120	70-135		
o-Terphenyl	57.0	49.8	114	70-135		

<sup>\*</sup> Surrogate outside of Laboratory QC limits

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

<sup>\*\*</sup> Surrogates outside limits, data and surrogates confirmed by reanalysis

<sup>\*\*\*</sup> Poor recoveries due to dilution



Project Name: Littlefield BO Fed #2

Work Orders: 367141, Project ID: GP II Energy

Lab Batch #: 800469 Sample: 559487-1-BSD / BSD Batch: 1 Matrix: Solid

Units: mg/kg	Date Analyzed: 03/31/10 05:49	SURROGATE RECOVERY STUDY					
ТРН	By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags	
	Analytes	17	,-,	[D]			
1-Chlorooctane		118	99.5	119	70-135		
o-Terphenyl		56.8	49 8	114	70-135		

Lab Batch #: 800469 Sample: 559487-1-BLK / BLK Batch: 1 Matrix: Solid

Units: mg/kg Date Analyzed: 03/31/10 06:16	SU	RROGATE R	<b>ECOVERY</b>	STUDY	
TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes			101		
1-Chlorooctane	119	99 6	119	70-135	
o-Terphenyl	60.0	49.8	120	70-135	

Lab Batch #: 800469 Sample: 367141-017 / SMP Batch: 1 Matrix: Soil

Units: mg/kg Date Analyzed: 03/31/10 06:43	SURROGATE RECOVERY STUDY						
TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags		
Analytes			[D]				
1-Chlorooctane	116	99.7	116	70-135			
o-Terphenyl	58 2	49.9	117	70-135			

Lab Batch #: 800469 Sample: 367141-018 / SMP Batch: 1 Matrix: Soil

Units: mg/kg	Date Analyzed: 03/31/10 07:10	SURROGATE RECOVERY STUDY					
ТРН	By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags	
	Analytes						
1-Chlorooctane		126	100	126	70-135		
o-Terphenyl		63 0	50.0	126	70-135		

Lab Batch #: 800469 Sample: 367141-019 / SMP Batch: 1 Matrix: Soil

Units: mg/kg Date Analyzed: 03/31/10 07:37	SURROGATE RECOVERY STUDY					
TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags	
Analytes	11		[D]			
1-Chlorooctane	131	100	131	70-135		
o-Terphenyl	65.0	50.1	130	70-135		

<sup>\*</sup> Surrogate outside of Laboratory QC limits

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

<sup>\*\*</sup> Surrogates outside limits; data and surrogates confirmed by reanalysis

<sup>\*\*\*</sup> Poor recoveries due to dilution



Project Name: Littlefield BO Fed #2

Work Orders: 367141,

Project ID: GP II Energy

Lab Batch #: 800469

Sample: 367141-020 / SMP

Batch: 1 Matrix: Soil

Units: mg/k	g Date Analyzed: 03/31/10 08:04	SURROGATE RECOVERY STUDY					
	TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags	
	Analytes			{D}			
1-Chlorooctane		117	100	117	70-135		
o-Terphenyl		58.4	50.1	117	- 70-135		

Lab Batch #: 800469

**Sample:** 367141-021 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg Date Analyzed: 03/31/10 08:31	SURROGATE RECOVERY STUDY						
TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags		
Analytes		<u> </u>	[D]				
1-Chlorooctane	117	99.8	117	70-135			
o-Terphenyl	58.5	49.9	117	70-135			

Lab Batch #: 800469

Sample: 367141-022 / SMP

Batch: 1

atch: 1 Matrix:Soil

Units: mg/kg Date Analyzed: 03/31/10 08:58	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	115	99.8	115	70-135	
o-Terphenyl	57.6	49.9	115	70-135	

Lab Batch #: 800469

Sample: 367141-023 / SMP

Batch: 1

Matrix: Soil

Units: mg/kg Date Analyzed: 03/31/10 09:25	SURROGATE RECOVERY STUDY						
TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags		
Analytes			[D]				
1-Chlorooctane	118	99.8	118	70-135			
o-Terphenyl	59.5	49.9	119	70-135			

Lab Batch #: 800469

Sample: 367141-024 / SMP

Batch: 1

Matrix: Soil

Units: mg/kg Date Analyzed: 03/31/10 09:52	SURROGATE RECOVERY STUDY					
TPH By SW8015 Mod  Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags	
1-Chlorooctane	117	100	117	70-135		
o-Terphenyl	58.4	50.0	117	70-135		

<sup>\*</sup> Surrogate outside of Laboratory QC limits

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

<sup>\*\*</sup> Surrogates outside limits; data and surrogates confirmed by reanalysis

<sup>\*\*\*</sup> Poor recoveries due to dilution



Project Name: Littlefield BO Fed #2

Work Orders: 367141,

Project ID: GP II Energy

Lab Batch #: 800469

Sample: 367141-025 / SMP

Matrix: Soil Batch: 1

Units: mg/kg Date Analyzed: 03/31/10 10:19	SURROGATE RECOVERY STUDY					
TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags	
Analytes			[D]			
I-Chlorooctane	119	99.6	119	70-135		
o-Terphenyl	60.1	49.8	121	70-135		

Lab Batch #: 800469

**Sample:** 367141-017 S / MS

Batch: 1 Matrix: Soil

SURROGATE RECOVERY STUDY Units: mg/kg Date Analyzed: 03/31/10 12:08 True Control Amount TPH By SW8015 Mod Flags Found Amount Recovery Limits %R %R [A] [B] [D] **Analytes** 1-Chlorooctane 118 70-135 118 100 o-Terphenyl 55.3 50.0 111 70-135

Lab Batch #: 800469

Sample: 367141-017 SD / MSD

Batch: 1

Matrix: Soil

Units: mg/kg Date Analyzed: 03/31/10 12:35	SURROGATE RECOVERY STUDY						
TPH By SW8015 Mod  Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags		
1-Chlorooctane	121	100	121	70-135			
o-Terphenyl	56.7	50.1	113	70-135			

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

<sup>\*</sup> Surrogate outside of Laboratory QC limits

<sup>\*\*</sup> Surrogates outside limits; data and surrogates confirmed by reanalysis

<sup>\*\*\*</sup> Poor recoveries due to dilution



# **Blank Spike Recovery**



Project Name: Littlefield BO Fed #2

Work Order #: 367141

Project ID:

GP II Energy

Lab Batch #: 800464

464 **Sample:** 800464-1-BKS

Matrix: Solid

**Date Analyzed:** 03/31/2010

**Date Prepared:** 03/31/2010

Analyst: LATCOR

Reporting Units: mg/kg

Batch #:

BLANK/BLANK SPIKE RECOVERY STUDY

reporting outst mg/kg	Daten #.	Dateil#: DEANK /DEANK STIKE						
Anions by E300	Result	Spike Added	Blank Spike	Blank Spike	Control Limits	Flags		
Analytes	[ [A]	[B]	Result [C]	%R [D]	} %R			
Chloride	ND	100	9 54	95	75-125			

Lab Batch #: 800467

Sample: 800467-1-BKS

Matrix: Solid

**Date Analyzed:** 03/31/2010

Date Prepared: 03/31/2010

Analyst: LATCOR

Reporting Units: mg/kg	Batch #: 1	BLANK/BLANK SPIKE RECOVERY STUDY							
Anions by E300	Blank Result	Spike Added	Blank Spike Result	Blank Spike %R	Control Limits %R	Flags			
Analytes	[A]	[B]	[C]	[D]	70K				
Chloride	ND	10.0	10.7	107	75-125				



### **BS / BSD Recoveries**



Project Name: Littlefield BO Fed #2

Work Order #: 367141 Analyst: ASA

**Date Prepared:** 03/30/2010

Project ID: GP II Energy Date Analyzed: 03/31/2010

Lab Batch ID: 800506

Sample: 559503-1-BKS

Batch #: 1

Matrix: Solid

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

BTEX by EPA 8021B  Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Benzene	ND	0.1000	0.0989	99	0.1	0,1006	101	2	70-130	35	
Toluene	ND	0.1000	0.0976	98	0 1	0.0998	100	2	70-130	35	
Ethylbenzene	ND	0 1000	0.1010	101	0.1	0 1029	103	2	71-129	35	
m,p-Xylenes	ND	0.2000	0.1999	100	0.2	0.2037	102	2	70-135	35	
o-Xylene	ND	0.1000	0.1002	100	0.1	0.1028	103	3	71-133	35	

Analyst: BEV

**Date Prepared:** 03/30/2010

Date Analyzed: 03/30/2010

Lab Batch ID: 800382

Sample: 559420-1-BKS

Batch #: 1

Matrix: Solid

Units: mg/kg BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY											
TPH By SW8015 Mod  Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
C6-C12 Gasoline Range Hydrocarbons	ND	997	1140	114	999	1160	116	2	70-135	35	
C12-C28 Diesel Range Hydrocarbons	ND	997	955	96	999	981	98	3	70-135	35	

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

Final Ver. 1 000



### **BS / BSD Recoveries**



Project Name: Littlefield BO Fed #2

Work Order #: 367141 Analyst: BEV

**Date Prepared:** 03/30/2010

Batch #: 1

**Project ID:** GP II Energy **Date Analyzed:** 03/30/2010

Lab Batch ID: 800385

Sample: 559427-1-BKS

Matrix: Solid

Units: mg/kg

	BLAN	K/BLANK	SPIKE / E	BLANK S	PIKE DUPI	ICATE	RECOVE	ERY STUD	Y
-									
	~		I						_

TPH By SW8015 Mod Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Bik. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
C6-C12 Gasoline Range Hydrocarbons	ND	997	1010	101	999	979	98	3	70-135	35	
C12-C28 Diesel Range Hydrocarbons	ND	997	698	70	999	826	83	17	70-135	35	

Analyst: BEV Date Prepared: 03/30/2010 Date Analyzed: 03/31/2010

Lab Batch ID: 800469 Sample: 559487-1-BKS Batch #: 1 Matrix: Solid

Units: mg/kg		BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY										
TPH By SW8015 Mod Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag	
C6-C12 Gasoline Range Hydrocarbons	ND	995	1170	118	995	1170	118	0	70-135	35		
C12-C28 Diesel Range Hydrocarbons	ND	995	1090	110	995	992	100	9	70-135	35		

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



### Form 3 - MS Recoveries

Project Name: Littlefield BO Fed #2



Work Order #: 367141

Lab Batch #: 800464

Project ID: GP II Energy

**Date Analyzed:** 03/31/2010

Date Prepared: 03/31/2010

Analyst: LATCOR

**QC- Sample ID:** 367224-001 S

Batch #:

Matrix: Soil

Reporting Units: mg/kg	MATRIX / MATRIX SPIKE RECOVERY STUDY								
Inorganic Anions by EPA 300  Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	%R [D]	Control Limits %R	Flag			
Chloride	4440	1190	5440	84	75-125	<del></del>			

Lab Batch #: 800467

**Date Analyzed:** 03/31/2010

**Date Prepared:** 03/31/2010

Analyst: LATCOR

QC-Sample ID: 367141-019 S

Batch #: 1

Matrix: Soil

Reporting Units: mg/kg	MATRIX / MATRIX SPIKE RECOVERY STUDY									
Inorganic Anions by EPA 300  Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	%R [D]	Control Limits %R	Flag				
Chloride	348	432	836	113	75-125					

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

BRL - Below Reporting Limit



### Form 3 - MS / MSD Recoveries



Project Name: Littlefield BO Fed #2

Project ID: GP II Energy Work Order #: 367141

Lab Batch ID: 800506 Matrix: Soil **QC- Sample ID:** 367141-005 S Batch #:

**Date Prepared:** 03/30/2010 Analyst: ASA **Date Analyzed:** 03/31/2010

Reporting Units: mg/kg	MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY											
BTEX by EPA 8021B	Parent Sample Result	Spike Added	Spiked Sample Result [C]	Spiked Sample %R	Spike Added	Duplicate Spiked Sample Result [F]	Spiked Dup. %R	RPD	Control Limits %R	Control Limits %RPD	Flag	
Analytes	[A]	[B]	I ICI	[D]	[E]	Result [F]	[G]	/0	/6K	/0KFD		
Benzene	ND	0.1097	0.0672	61	0.1097	0 0659	60	2	70-130	35	Х	
Toluene	ND	0.1097	0.0700	64	0.1097	0.0680	62	3	70-130	35	Х	
Ethylbenzene	ND	0.1097	0.0736	67	0.1097	0.0722	66	2	71-129	35	Х	
m,p-Xylenes	ND	0.2194	0.1465	67	0.2194	0.1433	65	2	70-135	35	X	
o-Xylene	ND	0.1097	0.0737	67	0.1097	0.0723	66	2	71-133	35	Х	

Lab Batch ID: 800382 Batch #: Matrix: Soil **QC- Sample ID:** 367068-003 S

**Date Prepared:** 03/30/2010 Analyst: BEV **Date Analyzed:** 03/31/2010

Reporting Units: mg/kg MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY Parent Duplicate Spiked Sample Spiked Spiked Control Control TPH By SW8015 Mod Sample Sample Spiked Sample Dup. RPD Limits Limits Result Spike Spike Flag Result Added [C] %R Added Result [F] %R % %R %RPD Analytes [A] [D] [E] [G] [B]

1150

1150

1380

1270

120

110

1150

1150

1390

976

121

85

1

26

70-135

70-135

35

35

ND Lab Batch ID: 800469 **OC- Sample ID:** 367141-017 S Batch #: 1 Matrix: Soil

ND

Analyst: BEV **Date Prepared:** 03/30/2010 **Date Analyzed:** 03/31/2010

Reporting Units: mg/kg MATRIX SPIKE DUPLICATE RECOVERY STUDY											
TPH By SW8015 Mod	Parent Sample Result	Spike	Spiked Sample Result	Sample	Spike	Duplicate Spiked Sample	Spiked Dup.	RPD %	Control Limits %R	Control Limits	Flag
Analytes	[A]	Added [B]	[C]	%R [D]	Added [E]	Result [F]	%R [G]	70	70 K	%RPD	
C6-C12 Gasoline Range Hydrocarbons	17.7	1130	1320	115	1130	1350	118	2	70-135	35	
C12-C28 Dicsel Range Hydrocarbons	ND	1130	1070	95	1130	1220	108	13	70-135	35	

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

C6-C12 Gasoline Range Hydrocarbons

C12-C28 Diesel Range Hydrocarbons

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

ND = Not Detected, I = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not ApplicableN = See Narrative, EQL = Estimated Quantitation Limit

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### **Sample Duplicate Recovery**



Project Name: Littlefield BO Fed #2

Work Order #: 367141

Lab Batch #: 800464 Project ID: GP II Energy

 Date Analyzed:
 03/31/2010
 Date Prepared:
 03/31/2010
 Analyst:
 LATCOR

 QC- Sample ID:
 367224-001 D
 Batch #:
 1
 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
Chlonde	4440	4240	5	20	

Lab Batch #: 800467

Date Analyzed: 03/31/2010 Date Prepared: 03/31/2010 Analyst: LATCOR

QC- Sample ID: 367141-019 D Batch #: 1 Matrix: Soil

Reporting Units: mg/kg	SAMPLE	SAMPLE	DUPLIC	ATE REC	OVERY
Anions by E300	Parent Sample Result [A]	Duplicate Result	RPD	Control Limits %RPD	Flag
Analyte		[B]			
Chloride	348	549	45	20	F

Lab Batch #: 800406

 Date Analyzed:
 03/30/2010
 Date Prepared:
 03/30/2010
 Analyst:
 WRU

 QC- Sample ID:
 367141-021 D
 Batch #:
 1
 Matrix:
 Soil

SAMPLE / SAMPLE DUPLICATE RECOVERY Reporting Units: % Control **Percent Moisture** Sample Parent Sample Duplicate RPD Limits Result Flag Result %RPD  $\{A\}$ [B] Analyte Percent Moisture 10.9 11.5 5 20

Lab Batch #: 800411

 Date Analyzed:
 03/30/2010
 Date Prepared:
 03/30/2010
 Analyst:
 WRU

 QC- Sample ID:
 367141-001 D
 Batch #:
 1
 Matrix:
 Soil

Reporting Units: % SAMPLE / SAMPLE DUPLICATE RECOVERY **Percent Moisture** Parent Sample Sample Control RPD Result **Duplicate** Limits Flag Result %RPD [A] [B] Analyte Percent Moisture 12.6 13.3 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

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

UEST 563-1800

A Xenco Laboratories Company

12600 West I-20 East Odessa, Texas 79765

Phone: 432-663-1800 Fax: 432-663-1713

	Project Manager:	Curt Stanley	y	Page	1 of 3		<del></del>											Pr	ojec	Naı	ne:	Little	efiei	<u>d BC</u>	) Fe	<u>d#</u>	2					
	Company Name	GPII Energy	(Attention J	oe Com	pton}														Pr	ojec	t #: _	GP	II Er	erg	у							
	Company Address:	PO Box 506	182				····										_	1	Proje	ect L	oc: _	Eddy	/ Col	ınty,	New	/ Me	rico					
	City/State/Zip:	Midland, TX	79701	·		·														PC	) #: _											
	Telephone No:	575-441-22	44				Fax No:		575	5-39	96- <u>14</u>	129						Repor	rt Fo	rmal	:	X	Star	ndaro	oj.	[	] TR	≀RP			NPDI	ES
	Sampler Signature:	( )	- / .)	fa	l	<del>}</del>	e-mail:		cs	taı	nley	@t	asi	nen	V.C	<u>om</u>			<b>,</b>					<del></del>	l	<del></del>			<del></del> ,	استين	<del></del>	
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(Kiuo esn qui) # 8V Page 26 of 29	FIEL	D CODE		Beginning Depth	Ending Depth	Date Sampled	Time Sampled	fletd Filtered	Total #. of Containers 402.0		HINOS	нсі	H <sub>2</sub> SO <sub>4</sub>	Nach	Nore Nore	Other (Specify)	DW=Drinlong Water SL=Sludge		08 (M2108)	TPH: TX 1005 TX 1008	Cations (Ce, Mg, Na, K)	Anlons (CI, SO4, Alkalinity)	BAR / ESP / CEC	Metals: As Ag Ba Cd Cr Pb Hg Se	Volatiles	Sentivolatiles	BIET GAZIBONIO BIEN OZOU	N.O.R.M.	Chlorides PA 300	)	- 1	RUSH 141 (Pre-Schedule) 24, Standard TAT
-001	Р	it F-1		10'		3/25/2010	0830	-	1	_				T				Soil	X					T		<b>\</b>	x	Γ	X		$\Box$	х
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ত্ত	Pit	wsw		5.5'		3/25/2010	0850		1	x					T		T	Soil	X							$\Box_{i}$	K		X		1	X
-004	Pit	NSW		5.5'		3/25/2010	0900		1	x					T	Γ		Soil	X							;	x	L	X		$\perp$	X
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Special I	nstructions:	BILL TO G	P II Energy											•						ı	VOC	s Fr	99 0	Hea	adspa	ace?	•	i.	(	ヤン		
A QUAR			3/29/K	0	350	Received by											erte		Tim		Cust	ody	868	on On	CODE	aine Wisi	r(8) /	74	ر اعم	$\mathbf{\hat{Y}}$		2000年
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A Xenco Laboratories Company

#### CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

12600 West I-20 East Odessa. Texas 79765 Phone: 432-563-1800 Fax: 432-563-1713 2/3

Project Manager: **Curt Stanley** Page 2 of 3 Project Name: Littlefield BO Fed #2 Project #: GP II Energy Company Name GPII Energy (Attention Joe Compton) Company Address: PO Box 50682 Project Loc: Eddy County, New Mexico City/State/Zip: Midland, TX 79701 ☐ NPDES TRRP X Standard Telephone No: Fax No: 575-396-1429 Report Format: 575-441-2244 Sampler Signature: cstanley@basinenv.com e-mail: Analyze For: (lab use only) TCLP: TOTAL ORDER #: Preservation & # of Containers Matrix Metals: As Ag Ba Cd Cr Pb Hg Se BTEX 8260 Anions (Cl. SO4, Alkalinhy) only) Beginning Depth Containers Sampled SAR / ESP / CEC Sampled 981 Ending Depth Cations (Ca. Mg. (lab N.O.R.M. Chlorides Ne<sub>2</sub>S<sub>2</sub>O<sub>3</sub> RUSH Time 1,30 ±,30 . HNO<sub>3</sub> AB FIELD CODE 011 4' 3/25/2010 X **ROW F-12A** 1140 Soil -012 **ROAD F-2A** 6' 3/25/2010 1146 Soil 1013 5.5' 3/25/2010 X Soil **ROAD NSW-2A** 1150 -014 7' **ROAD NSW-10.5** 3/25/2010 1200 Soil X 210 ROAD F-11 7' 3/25/2010 1205 Soil -016 X 1 3/25/2010 1215 Soil ROAD SSW-11 6.5 710 1 X X ROAD F-12 6' 3/25/2010 1230 Soil -018 **ROAD NSW-12** 5.5 3/25/2010 Soil 1235 210 X ROAD F-15 6' 3/26/2010 1000 Soil ~020 5.5 1005 Soil **ROAD NSW-15** 3/26/2010 **Laboratory Comments:** Special Instructions: Summer Continues Proces BILL TO GP II Energy VOCs Free of Headspace? Custody seals on container(s) // aled Cardody seals on container(s) FT ME Date Refinquished Received by: Blag Received by. Time Sample Hand Delivered by Sampler/Olient Rep. ? by Courier? UPS OHL FedEx Lone Star Time Relinquished by: Date Received by ELOT: Jeans Fitch Temperature Upon Receipt: 1,6 OPSD 03-29-10

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### CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

3/3

A Xenco Laboratories Company

12600 West I-20 East Odessa, Texas 79765

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

	Project Manager:	Curt Stanley	(_	Page	3 of 3												_	Pr	oject	t Niai	ne: _	Little	field	BC	) Fe	d #2							_
	Company Name	GPII Energy (Atte	ntion Jo	e Com	pton)														Pr	ojec	t#: _	GP.	II En	erg	y								
	Company Address:	PO Box 50682															_	į	Proje	ect L	oc:	Eddy	Cou	inty,	New	/ Mex	ico						
	City/State/Zip:	Midland, TX 79701					<del></del>										-		•	PC	- )#:												
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	Telephone No:	575-441-2244			<u> </u>		Fax No	:	578	5-39	6-14	29					_ '	Repor	t Fo	rmat	:	X	Stan	dard	i		] TF	≀RP			NPDE	ES	
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only)			<b></b>	ے					16204									Specify Other	BO15M BO15B	TX 1006	r, 73	ka(inity)		80 H & 10 0		or BTEX 6290			H		2	Ŕ.	
AB # (lab use or	FIEL	.D CODE		Beginning Depth	Ending Depth	Date Sampled	Time Sampled	Field Filtered	Total #. of Containers	tce	HNOs	Ä	H <sub>2</sub> SO <sub>4</sub>	NaOH Na G.O.	None	Other (Specify)		GW =: Groundwetter St NP=Non-Potable Spe		TPH: TX 1006	Cations (Ca. Mg. Na, K)	Anions (Cl. 804, Alkatinity)	SAR / ESP / CEC	Metals: As Ag Ba Cd Cr Pb Hg Se	Volatilies	Semivolatives BTEX 80218/5030 or BTEX 8280	2	N.O.R.M.	Chlorides EPA 300		HOLD DIIGH TAT (Be- b-b-dille)	KUOH IAI ITTO	Standard TAT
-021		WSW-15		6.5		3/26/2010	1010	<u>  "</u>	1	х	П	寸	寸	+	1		1 -	Soil	x	Ħ	Ť		7		+	1	T	$\top$	x	$\sqcap$		_	X
-022		AD F-18		3.5'		3/26/2010	1105		1				$\top$		$\top$		1-	Soil	x				十	7	T	1	T		x				X
-023		SSW-16		3,		3/26/2010	1110		1	x	П		$\neg$		Τ		[ 5	Soil	х				T	T	T		$\prod$	$\prod$	x				X
-024	RO/	AD F-17		4'		3/26/2010	1205		1	X				T				Soil	X				$\Box$		$\mathbb{I}$				x		$\perp$		X
-025	ROAL	NSW-17		3.5'		3/26/2010	1210		1	X							5	Soil	x				$\Box$		$\prod$		$oxed{L}$		x		$\bot$		X
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Relinquish	ed by	D	ate	Tar	ne	Received by ELO	7:4	- 1	,		- ···		•	<del></del> -	0	De	te }-//	0	Time 852			-				ceipt:				ا، اد		c	
						- Car	<u> </u>		<del></del>																								_

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Variance/ Corrective Action Report- Sample Log-In

Client:	GP I Energy				
Date/ Ti	me: 03-29-10 @ 0850				
_ab ID i	2/7/1//				
Initials:	JMF				
	Samula Dansint (	فمزارا محطد			
	Sample Receipt 0	Pileckiist			Client Initials
#1 Te	emperature of container/ cooler?	(es)	No	) ° طیل	5
#2 St	nipping container in good condition?	(Yes)	No		
	ustody Seals intact on shipping container/ cooler?/label	Yes	No	Not Present	
	ustody Seals intact on sample bottles/ container?	Yes	No	Not Present	
	hain of Custody present?	(Yes)	No		
	ample instructions complete of Chain of Custody?	(Yes)	No		
	hain of Custody signed when relinquished/ received?	(Yes)	No		
	hain of Custody agrees with sample label(s)?	(Yes)	No	ID written on Cont./ Lic	d
<del></del>	ontainer label(s) legible and intact?	(Yes)	No	Not Applicable	
	Sample matrix/ properties agree with Chain of Custody?	Yes	No		
	Containers supplied by ELOT?	(Yes )	No	<del></del>	
The residence of the last of t	Samples in proper container/ bottle?	(Yes)	No	See Below	
	Samples properly preserved?	Yes	No	See Below	+
	Sample bottles intact?	(Yes)	No	0000000	<del>                                     </del>
	Preservations documented on Chain of Custody?	(Yes)	No		<del></del>
	Containers documented on Chain of Custody?	(Yes )	No	<del></del>	-
	Sufficient sample amount for indicated test(s)?	(Yes)	No	See Below	
	All samples received within sufficient hold time?	Yes	No_	See Below	
	Subcontract of sample(s)?	Yes	No	Not Applicable	
	/OC samples have zero headspace?	Yes	No	Not Applicable	
<u> </u>					<u></u>
	Variance Docum	nentation			
Contac	ct: Contacted by:			Date/ Time:	·
			•		
Regard	ding:				
Correc	tive Action Taken:				
				<del></del>	
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OL -1	and the sk A and the skilling of the skilling				
Спеск	all that Apply. See attached e-mail/ fax	A 221 1		. t	
	Client understands and would				
	Cooling process had begun s	shortly after	sampling	event	

# **Analytical Report 368398**

for

**GP II Energy** 

**Project Manager: Curt Stanley** 

Littlefield BO Fed #2
GP II Energy

08-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 (AALII), 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)

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08-APR-10

Project Manager: Curt Stanley

**GP II Energy** 

P.O. Box 50682(GP II Energy's Clients Address)

Midland, TX 79710

Reference: XENCO Report No: 368398

Littlefield BO Fed #2

Project Address: Eddy Co. NM

#### **Curt Stanley:**

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 368398. 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. 368398 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 368398**



## GP II Energy, Midland, TX

Littlefield BO Fed #2

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
Stockpile #2	S	Apr-07-10 12:05		368398-001

\* TRRP Tier I Comm/Indus Soils PCL's

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### CASE NARRATIVE



Client Name: GP II Energy Project Name: Littlefield BO Fed #2



Project ID:

GP II Energy

Work Order Number: 368398

Report Date: 08-APR-10 Date Received: 04/07/2010

Sample receipt non conformances and Comments:

None

Sample receipt Non Conformances and Comments per Sample:

None

Analytical Non Conformances and Comments:

Batch: LBA-801607 Percent Moisture

None

Batch: LBA-801626 TPH By SW8015 Mod

None

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### GP II Energy, Midland, TX





Project Id: GP II Energy Contact: Curt Stanley

Project Location: Eddy Co. NM

 $\textbf{Date Received in Lab:} \quad Wed \ Apr-07-10 \ 05:37 \ pm$ 

Report Date: 08-APR-10

			 Proje	ct Manager: Brent Barron, II	
	Lab Id:	368398-001			
Analysis Danuastad	Field Id:	Stockpile #2			
Analysis Requested	Depth:				
•	Matrix:	SOIL			
	Sampled:	Apr-07-10 12:05			
Percent Moisture	Extracted:				
	Analyzed:	Apr-08-10 08 55			
	Units/RL:	% RL			
Percent Moisture		2.69 1.00			
TPH By SW8015 Mod	Extracted:	Apr-08-10 08 35			
	Analyzed:	Apr-08-10 11:54			
	Units/RL:	mg/kg RL			
C6-C12 Gasoline Range Hydrocarbons		20.5 15.5			
C12-C28 Diesel Range Hydrocarbons		148 15.5			
C28-C35 Oil Range Hydrocarbons		ND 15.5			
Total TPH		169 15.5			

Odessa Laboratory Manager



### Flagging Criteria



- X In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to effect the recovery of the spike concentration. This condition could also effect the relative percent difference in the MS/MSD.
- **B** A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.
- **D** The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.
- E The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.
- F RPD exceeded lab control limits.
- J The target analyte was positively identified below the MOL and above the SOL.
- 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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Project Name: Littlefield BO Fed #2

Work Orders: 368398, Project ID: GP II Energy

Lab Batch #: 801626 Sample: 560195-1-BKS / BKS Batch: 1 Matrix: Solid

Units: mg/kg Date Analyzed: 04/08/10 10:34	, SU	RROGATE R	ECOVERY	STUDY	
TPH By SW8015 Mod  Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctanc	109	100	109	70-135	
o-Terphenyl	41.1	50.1	82	70-135	

Lab Batch #: 801626 Sample: 560195-1-BSD / BSD Batch: 1 Matrix: Solid

Units: mg/kg Date Analyzed: 04/08/10 11:01	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	111	100	111	70-135	
o-Terphenyl	41.4	50.2	82	70-135	

Lab Batch #: 801626 Sample: 560195-1-BLK / BLK Batch: 1 Matrix: Solid

Units: mg/kg Date Analyze	ed: 04/08/10 11:28	SU	RROGATE R	ECOVERY :	STUDY	
TPH By SW8015 Me	bod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane		93.9	100	94	70-135	
o-Terphenyl		45 2	50.0	90	70-135	

Lab Batch #: 801626 Sample: 368398-001 / SMP Batch: 1 Matrix: Soil

Units: mg/kg Date Analyzed: 04/08/10 11:54	l su	RROGATE R	RECOVERY	STUDY	
TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
Analytes			[D]		
1-Chlorooctane	98.8	100	99	70-135	
o-Terphenyl	45.6	50.2	91	70-135	

Lab Batch #: 801626 Sample: 368400-001 S / MS Batch: 1 Matrix: Soil

Units: mg/kg Date Analyzed: 04/08/10 15:00	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	113	100	113	70-135	
o-Terphenyl	42.7	50.2	85	70-135	

<sup>\*</sup> Surrogate outside of Laboratory QC limits

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

<sup>\*\*</sup> Surrogates outside limits, data and surrogates confirmed by reanalysis

<sup>\*\*\*</sup> Poor recoveries due to dilution



Project Name: Littlefield BO Fed #2

Work Orders: 368398,

Project ID: GP II Energy

Lab Batch #: 801626

**Sample:** 368400-001 SD / MSD

Batch: 1 Matrix: Soil

Units: mg/kg Date Analyzed: 04/08/10 15:27	SURROGATE RECOVERY STUDY							
TPH By SW8015 Mod  Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags			
1-Chlorooctane	108	101	107	70-135				
o-Terphenyl	40.5	50.3	81	70-135				

Surrogate Recovery [D] ≈ 100 \* A / B

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

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<sup>\*</sup> Surrogate outside of Laboratory QC limits

<sup>\*\*</sup> Surrogates outside limits; data and surrogates confirmed by reanalysis

<sup>\*\*\*</sup> Poor recoveries due to dilution



## **BS / BSD Recoveries**



Matrix: Solid

Project Name: Littlefield BO Fed #2

Work Order #: 368398 Analyst: BEV

Project ID: GP II Energy
Date Prepared: 04/08/2010
Date Analyzed: 04/08/2010

Lab Batch ID: 801626

**Sample:** 560195-1-BKS **Batch #:** 1

Units: mg/kg		BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY									
TPH By SW8015 Mod	Blank Sample Result [A]	Spike Added	Blank Spike Result	Blank Spike %R	Spike Added	Blank Spike Duplicate	Blk. Spk Dup. %R	RPD %	Control Limits %R	Control Limits %RPD	Flag
Analytes		[B]	[C]	[D]	[E]	Result [F]	[G]			i	
C6-C12 Gasoline Range Hydrocarbons	ND	1000	1130	113	1000	1150	115	2	70-135	35	
C12-C28 Diesel Range Hydrocarbons	ND	1000	731	73	1000	802	80	9	70-135	35	

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



## Form 3 - MS / MSD Recoveries

Project Name: Littlefield BO Fed #2



Work Order #: 368398

Project ID: GP II Energy

Matrix: Soil

**Lab Batch ID: 801626 Date Analyzed:** 04/08/2010 **QC-Sample ID:** 368400-001 S

Batch #:

**Date Prepared:** 04/08/2010

Reporting Units: mg/kg

Analyst: BEV

Reporting Units: mg/kg	MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY										
TPH By SW8015 Mod	Parent Sample	Spike	Spiked Sample Result	Sample		Duplicate Spiked Sample		RPD	Control Limits	Control Limits	Flag
Analytes	Result [A]	Added [B]	[C]	%R [D]	Added [E]	Result [F]	%R [G]	%	%R	%RPD	
C6-C12 Gasoline Range Hydrocarbons	ND	1100	1200	109	1100	1170	106	3	70-135	35	
C12-C28 Diesel Range Hydrocarbons	ND	1100	909	83	1100	879	80	3	70-135	35	

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# **Sample Duplicate Recovery**



Project Name: Littlefield BO Fed #2

Work Order #: 368398

Lab Batch #: 801607 Project ID: GP II Energy

 Date Analyzed: 04/08/2010
 Date Prepared: 04/08/2010
 Analyst: ASA

 QC- Sample ID: 368398-001 D
 Batch #: 1
 Matrix: Soil

Reporting Units: %	SAMPLE / SAMPLE DUPLICATE RECOVERY											
Percent Moisture  Analyte	Parent Sample Result [A]	Sample Duplicate Result  B	RPD	Control Limits %RPD	Flag							
Percent Moisture	2.69	2.55	5	20								

Xenco Laboratori	es
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#### CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

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The Envi	ironmental Lab of Texas												0 Eas 7976												32-50 32-50						
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AB # (lab use only)			Beginning Depth	Ending Depth	Date Sampled	Time Sampled	Fleid Filterad	Total #. of Containers		اي		3 3	.   ç		Other (Spec	Minking W	VP=Non-Potab		XT 1005	Cations (Ca. Mg. Na, K)	Anions (Ct, SO4, Alkalinity)	SAR / ESP / CEC	Metals: As Ag Ba Cd Cr Pb Hg Se	Sernivolatiles	( 8021B	RCI	™			RUSH TAT (Pra-School	Standard TAT
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## **Environmental Lab of Texas**

Variance/ Corrective Action Report- Sample Log-In

The said to the configuration of the said

Client: GP 11 Energy				
Date/ Time: 4.7.10 17.37				
Lab 1D#: 369398				
Initials: BB / NL				
Sample Receip	t Checklist		Client in	itials
#1 Temperature of container/ cooler?	(Yes)	No	5.1 °C	
#2 Shipping container in good condition?	(Yes)	No		
#3 Custody Seals intact on shipping container/ cooler?	Yes	No	(Not Present)	
#4 Custody Seals intact on sample bottles/ container?	(Yes)	No	Not Present	
#5 Chain of Custody present?	(Yes)	No		
#6 Sample instructions complete of Chain of Custody?	(Yes)	No		
#7 Chain of Custody signed when relinquished/ received?	Tes	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?	∆(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?	(Yes)	No		
#15 Preservations documented on Chain of Custody?	Yes	No		
#16 Containers documented on Chain of Custody?	Yes	No		
#17 Sufficient sample amount for indicated test(s)?	(Yes)	No	See Below	
#18 All samples received within sufficient hold time?	Yes	No	See Belaw	
#19 Subcontract of sample(s)?	Yes	No	Not Applicable	
#20 VOC samples have zero headspace?	Yes	No	Not Applicable	
Contact: Contacted by:  Regarding:	umentation		Date/ Time:	
Corrective Action Taken:				
Check all that Apply:  See attached e-mail/ fax Client understands and wo Cooling process had begur				

# **Analytical Report 368919**

for

**GP II Energy** 

**Project Manager: Joe Compton** 

Littlefield BO Fed # 2

GP II Energy

16-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)





16-APR-10

Project Manager: Joe Compton

**GP II Energy** 

P.O. Box 50682(GP II Energy's Clients Address)

Midland, TX 79710

Reference: XENCO Report No: 368919

Littlefield BO Fed # 2

Project Address: Eddy County, New Mexico

#### Joe Compton:

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 368919. 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. 368919 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 368919**



## GP II Energy, Midland, TX

Littlefield BO Fed # 2

SB-2 @ 15'       S       Apr-12-10 09:30       368919-001         SB-2 @ 25'       S       Apr-12-10 09:40       368919-002         SB-2 @ 35'       S       Apr-12-10 10:00       368919-003         SB-2 @ 45'       S       Apr-12-10 10:35       368919-004         SB-2 @ 50'       S       Apr-12-10 10:55       368919-005         SB-2 @ 55'       S       Apr-12-10 11:20       368919-006         SB-1 @ 15'       S       Apr-12-10 12:45       368919-007         SB-1 @ 20'       S       Apr-12-10 12:55       368919-008         SB-1 @ 30'       S       Apr-12-10 13:20       368919-009         SB-3 @ 2'       S       Apr-12-10 14:30       368919-010         SB-3 @ 5'       S       Apr-12-10 14:35       368919-011         SB-3 @ 5'       S       Apr-12-10 14:40       368919-012         SB-3 @ 30'       S       Apr-12-10 15:10       368919-015         SB-3 @ 30'       S       Apr-12-10 15:20       368919-016         SB-3 @ 50'       S       Apr-12-10 15:35       368919-017         SB-3 @ 60'       S       Apr-12-10 15:50       368919-018         SB-3 @ 70'       S       Apr-12-10 16:15       368919-019	Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
SB-2 @ 35'       S       Apr-12-10 10:00       368919-003         SB-2 @ 45'       S       Apr-12-10 10:35       368919-004         SB-2 @ 50'       S       Apr-12-10 10:55       368919-005         SB-2 @ 55'       S       Apr-12-10 11:20       368919-006         SB-1 @ 15'       S       Apr-12-10 12:45       368919-007         SB-1 @ 20'       S       Apr-12-10 12:55       368919-008         SB-1 @ 25'       S       Apr-12-10 13:20       368919-009         SB-1 @ 30'       S       Apr-12-10 13:45       368919-010         SB-3 @ 2'       S       Apr-12-10 14:30       368919-011         SB-3 @ 5'       S       Apr-12-10 14:35       368919-012         SB-3 @ 10'       S       Apr-12-10 14:40       368919-013         SB-3 @ 30'       S       Apr-12-10 15:10       368919-015         SB-3 @ 40'       S       Apr-12-10 15:20       368919-016         SB-3 @ 60'       S       Apr-12-10 15:50       368919-018         SB-3 @ 70'       S       Apr-12-10 16:15       368919-019	SB-2 @ 15'	S	Apr-12-10 09:30		368919-001
SB-2 @ 45'       S       Apr-12-10 10:35       368919-004         SB-2 @ 50'       S       Apr-12-10 10:55       368919-005         SB-2 @ 55'       S       Apr-12-10 11:20       368919-006         SB-1 @ 15'       S       Apr-12-10 12:45       368919-007         SB-1 @ 20'       S       Apr-12-10 12:55       368919-008         SB-1 @ 25'       S       Apr-12-10 13:20       368919-009         SB-1 @ 30'       S       Apr-12-10 13:45       368919-010         SB-3 @ 2'       S       Apr-12-10 14:30       368919-011         SB-3 @ 5'       S       Apr-12-10 14:35       368919-012         SB-3 @ 10'       S       Apr-12-10 14:40       368919-013         SB-3 @ 30'       S       Apr-12-10 15:10       368919-014         SB-3 @ 30'       S       Apr-12-10 15:20       368919-016         SB-3 @ 50'       S       Apr-12-10 15:35       368919-017         SB-3 @ 60'       S       Apr-12-10 15:50       368919-018         SB-3 @ 70'       S       Apr-12-10 16:15       368919-019	SB-2 @ 25'	S	Apr-12-10 09:40		368919-002
SB-2 @ 50'       S       Apr-12-10 10:55       368919-005         SB-2 @ 55'       S       Apr-12-10 11:20       368919-006         SB-1 @ 15'       S       Apr-12-10 12:45       368919-007         SB-1 @ 20'       S       Apr-12-10 12:55       368919-008         SB-1 @ 25'       S       Apr-12-10 13:20       368919-009         SB-1 @ 30'       S       Apr-12-10 13:45       368919-010         SB-3 @ 2'       S       Apr-12-10 14:30       368919-011         SB-3 @ 5'       S       Apr-12-10 14:35       368919-012         SB-3 @ 10'       S       Apr-12-10 14:40       368919-013         SB-3 @ 20'       S       Apr-12-10 15:10       368919-014         SB-3 @ 30'       S       Apr-12-10 15:10       368919-015         SB-3 @ 50'       S       Apr-12-10 15:35       368919-016         SB-3 @ 50'       S       Apr-12-10 15:50       368919-017         SB-3 @ 60'       S       Apr-12-10 15:50       368919-018         SB-3 @ 70'       S       Apr-12-10 16:15       368919-019	SB-2 @ 35'	S	Apr-12-10 10:00		368919-003
SB-2 @ 55'       S       Apr-12-10 11:20       368919-006         SB-1 @ 15'       S       Apr-12-10 12:45       368919-007         SB-1 @ 20'       S       Apr-12-10 12:55       368919-008         SB-1 @ 25'       S       Apr-12-10 13:20       368919-009         SB-1 @ 30'       S       Apr-12-10 13:45       368919-010         SB-3 @ 2'       S       Apr-12-10 14:30       368919-011         SB-3 @ 5'       S       Apr-12-10 14:35       368919-012         SB-3 @ 10'       S       Apr-12-10 14:40       368919-013         SB-3 @ 20'       S       Apr-12-10 14:55       368919-014         SB-3 @ 30'       S       Apr-12-10 15:10       368919-015         SB-3 @ 40'       S       Apr-12-10 15:20       368919-016         SB-3 @ 50'       S       Apr-12-10 15:55       368919-017         SB-3 @ 60'       S       Apr-12-10 15:50       368919-018         SB-3 @ 70'       S       Apr-12-10 16:15       368919-019	SB-2 @ 45'	S	Apr-12-10 10:35		368919-004
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SB-1 @ 25'       S       Apr-12-10 13:20       368919-009         SB-1 @ 30'       S       Apr-12-10 13:45       368919-010         SB-3 @ 2'       S       Apr-12-10 14:30       368919-011         SB-3 @ 5'       S       Apr-12-10 14:35       368919-012         SB-3 @ 10'       S       Apr-12-10 14:40       368919-013         SB-3 @ 20'       S       Apr-12-10 14:55       368919-014         SB-3 @ 30'       S       Apr-12-10 15:10       368919-015         SB-3 @ 40'       S       Apr-12-10 15:20       368919-016         SB-3 @ 50'       S       Apr-12-10 15:35       368919-017         SB-3 @ 60'       S       Apr-12-10 15:50       368919-018         SB-3 @ 70'       S       Apr-12-10 16:15       368919-019	SB-1 @ 15'	S	Apr-12-10 12:45		368919-007
SB-1 @ 30'       S       Apr-12-10 13:45       368919-010         SB-3 @ 2'       S       Apr-12-10 14:30       368919-011         SB-3 @ 5'       S       Apr-12-10 14:35       368919-012         SB-3 @ 10'       S       Apr-12-10 14:40       368919-013         SB-3 @ 20'       S       Apr-12-10 14:55       368919-014         SB-3 @ 30'       S       Apr-12-10 15:10       368919-015         SB-3 @ 40'       S       Apr-12-10 15:20       368919-016         SB-3 @ 50'       S       Apr-12-10 15:35       368919-017         SB-3 @ 60'       S       Apr-12-10 15:50       368919-018         SB-3 @ 70'       S       Apr-12-10 16:15       368919-019	SB-1 @ 20'	S	Apr-12-10 12:55		368919-008
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SB-3 @ 40'       S       Apr-12-10 15:20       368919-016         SB-3 @ 50'       S       Apr-12-10 15:35       368919-017         SB-3 @ 60'       S       Apr-12-10 15:50       368919-018         SB-3 @ 70'       S       Apr-12-10 16:15       368919-019	SB-3 @ 20'	S	Apr-12-10 14:55		368919-014
SB-3 @ 50'       S       Apr-12-10 15:35       368919-017         SB-3 @ 60'       S       Apr-12-10 15:50       368919-018         SB-3 @ 70'       S       Apr-12-10 16:15       368919-019	SB-3 @ 30'	S	Apr-12-10 15:10		368919-015
SB-3 @ 60' S Apr-12-10 15:50 368919-018 SB-3 @ 70' S Apr-12-10 16:15 368919-019	SB-3 @ 40'	S	Apr-12-10 15:20		368919-016
SB-3 @ 70' S Apr-12-10 16:15 368919-019	SB-3 @ 50'	S	Apr-12-10 15:35		368919-017
1	SB-3 @ 60'	S	Apr-12-10 15:50		368919-018
SB-3 @ 75' S Apr-12-10 16:30 368919-020	SB-3 @ 70'	S	Apr-12-10 16:15		368919-019
	SB-3 @ 75'	S	Apr-12-10 16:30		368919-020

#### CASE NARRATIVE



Client Name: GP II Energy
Project Name: Littlefield BO Fed # 2



Project ID: GP II Energy Report Date: 16-APR-10 Work Order Number: 368919 Date Received: 04/13/2010

#### Sample receipt non conformances and Comments:

None

#### Sample receipt Non Conformances and Comments per Sample:

None

#### Analytical Non Conformances and Comments:

Batch: LBA-802286 TPH By SW8015 Mod

SW8015MOD\_NM

Batch 802286, C12-C28 Diesel Range Hydrocarbons recovered below QC limits in the Matrix

Spike Duplicate.

Samples affected are: 368919-011, -012, -013.

The Laboratory Control Sample for C12-C28 Diesel Range Hydrocarbons is within laboratory

Control Limits

Batch: LBA-802301 Percent Moisture

None

Batch: LBA-802327 Anions by E300

None

Batch: LBA-802629 BTEX by EPA 8021B

SW8021BM

Batch 802629, 1,4-Difluorobenzene recovered below QC limits . Matrix interferences is

suspected; data confirmed by re-analysis Samples affected are: 369182-003 D.

4-Bromofluorobenzene recovered above QC limits . Matrix interferences is suspected; data

confirmed by re-analysis

Samples affected are: 368919-011.

Page 4 of 20 Final Ver. 1.000



GP II Energy, Midland, TX

Project Name: Littlefield BO Fed # 2



Project Id: GP II Energy

Contact: Joe Compton

Project Location: Eddy County, New Mexico

Date Received in Lab: Tue Apr-13-10 09:35 am

Report Date: 16-APR-10
Project Manager: Brent Barron, II

								I Toject Min		Diene Burron,			
	Lab Id:	368919-0	001	368919-0	02	368919-0	03	368919-0	04	368919-0	05	368919-0	06
Analusia Dannastad	Field Id:	SB-2 @	15'	SB-2 @ 2	25'	SB-2 @ 3	35'	SB-2 @ 4	<b>15</b> '	SB-2 @ :	50'	SB-2 @ 5	55'
Analysis Requested	Depth:												
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Apr-12-10 (	9:30	Apr-12-10 (	99·40	Apr-12-10 1	0:00	Apr-12-10	0.35	Apr-12-10 1	0.55	Apr-12-10 1	1.20
Anions by E300	Extracted:												
	Analyzed:	Apr-13-10	Apr-13-10 17.16		Apr-13-10 17.16		17:16	Apr-13-10	17.16	Apr-13-10 17:		Apr-13-10 1	7 16
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chlonde		4920	95.1	2240	45.6	1200	22.6	4200	45.3	1030	22.6	1830	22 7
Percent Moisture	Extracted:												
Analyzed: Apr-1		Apr-13-10	17.00	Apr-13-10 1	7.00	Apr-13-10	7:00	Apr-13-10	7:00	Apr-13-10 1	7:00	Apr-13-10 1	7:00
	Units/RL:	%	RL	%	RL	%	RL	%	RL	%	RL	%	RL
Percent Moisture		118	1.00	7.99	1.00	7.14	1.00	7.34	1.00	7.11	1.00	7.38	1.00

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 hability is limited to the amount invoiced for this work order unless otherwise agreed to in writing

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

Final Ver. 1.000



GP II Energy, Midland, TX

Project Name: Littlefield BO Fed # 2

Project Id: GP II Energy Contact: Joe Compton

Project Location: Eddy County, New Mexico

Date Received in Lab: Tue Apr-13-10 09:35 am

Report Date: 16-APR-10

Project Manager: Brent Barron, II

										r			
	Lab Id:	368919-0	007	368919-0	08	368919-0	009	368919-0	10	368919-0	011	368919-0	12
Analysis Requested	Field Id:	SB-1 @	15'	SB-1 @ 2	:0'	SB-1 @ 2	25'	SB-1 @ .	30'	SB-3 @	2'	SB-3 @	5'
Anulysis Requested	Depth:												
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Apr-12-10	12.45	Apr-12-10 1	2:55	Apr-12-10 1	13:20	Apr-12-10	13:45	Apr-12-10	14:30	Apr-12-10 1	4:35
Anions by E300	Extracted:							1410000					
	Analyzed:	Apr-13-10	17:16	Apr-13-10 1	7 16	Apr-13-10	17:16	Apr-13-10	17:16	Apr-13-10	17:16	Apr-13-10 1	7:16
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chlonde		2200	22.5	1850	22.3	1920	22.2	1920	22.1	11400	89.8	2560	46.8
BTEX by EPA 8021B	Extracted:									Apr-15-10	08:00		
	Analyzed:									Apr-15-10	15.46		
	Units/RL:									mg/kg	RL		
Benzene										ND	0.0011		
Toluene										ND.	0.0021		
Ethylbenzene										0.0085	0.0011		
m,p-Xylenes										0.0170	0 0021		
o-Xylene										0.0061			
Total Xylenes										0.0231			
Total BTEX										0.0316	0.0011		
Percent Moisture	Extracted:												
	Analyzed:	Apr-13-10	17:00	Apr-13-10 1	7:00	Apr-13-10 1	17.00	Apr-13-10	17:00	Apr-13-10	17.00	Apr-13-10 1	7 00
	Units/RL:	%	RL	%	RL	%	RL	%	RL	%	RL	%	RL
Percent Moisture		6.73	1.00	6.04	1.00	5.42	1.00	5.14	1.00	6 5 1	1.00	10.3	1.00
TPH By SW8015 Mod	Extracted:									Apr-13-10	14:00	Apr-13-10 1	4:00
	Analyzed:									Apr-13-10	17.35	Apr-13-10 1	8.04
	Units/RL:									mg/kg	RL	mg/kg	RL
C6-C12 Gasoline Range Hydrocarbons										70.8	16.0	24 2	16,7
C12-C28 Diesel Range Hydrocarbons										335	16.0	105	16.7
C28-C35 Oil Range Hydrocarbons										38.9	16.0	18.1	16,7
Total TPH										445	160	147	16.7

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 hability is limited to the amount invoiced for this work order unless otherwise agreed to in writing

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GP II Energy, Midland, TX Project Name: Littlefield BO Fed # 2

Project Id: GP II Energy

Contact: Joe Compton

Project Location: Eddy County, New Mexico

Date Received in Lab: Tue Apr-13-10 09:35 am

Report Date: 16-APR-10 Project Manager: Brent Barron, II

								110,000 1.110.		Dient Ballon,			
	Lab Id:	368919-0	13	368919-0	14	368919-0	15	368919-0	116	368919-0	17	368919-0	18
Analysis Danusstad	Field Id:	SB-3 @	10'	SB-3 @ 2	20'	SB-3 @ 3	30'	SB-3 @	40'	SB-3 @ :	50'	SB-3 @ 6	50'
Analysis Requested	Depth:												
	Matrix:	SOIL		SOIL	1	SOIL		SOIL		SOIL		SOIL	
	Sampled:	Apr-12-10	14·40	Apr-12-10 I	4:55	Apr-12-10 I	5:10	Apr-12-10	15:20	Apr-12-10 1	5:35	Apr-12-10 I	5:50
Anions by E300	Extracted:												
	Analyzed:	Apr-13-10	17 16	Apr-13-10 1	716	Apr-13-10 1	17.16	Apr-13-10	17 16	Apr-13-10	7:16	Apr-13-10 1	7.16
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		3220	47 3	3520	46.2	1420	17.7	1060	177	1090	18.0	466	8.88
Percent Moisture	Extracted:												
	Analyzed:	Apr-13-10	17:00	Apr-13-10 1	7:00	Apr-13-10 1	7:00	Apr-13-10	17:00	Apr-13-10 1	7:00	Apr-13-10 1	7.00
	Units/RL:	%	RL	%	RL	%	RL	%	RL	%	RL	%	RL
Percent Moisture		11.2	1.00	9.02	1 00	4.87	1.00	5.11	1 00	6.56	1.00	5.40	1 00
TPH By SW8015 Mod	Extracted:	Apr-13-10	14:00										
	Analyzed:	Apr-13-10	18:34										
	Units/RL:	mg/kg	RL		1						1		
C6-C12 Gasoline Range Hydrocarbons	1	ND	16.9										
C12-C28 Diesel Range Hydrocarbons		ND	16.9		Ť								
C28-C35 Oil Range Hydrocarbons		ND	16.9										
Total TPH		ND	16.9										



GP II Energy, Midland, TX



Project Id: GP II Energy Contact: Joe Compton

Project Name: Littlefield BO Fed # 2

Project Location: Eddy County, New Mexico

Date Received in Lab: Tue Apr-13-10 09:35 am

Report Date: 16-APR-10 Project Manager: Brent Barron, II

				i roject manager.	
	Lab Id:	368919-019	368919-020		
Analysis Requested	Field Id:	SB-3 @ 70'	SB-3 @ 75'		
Anaiysis Kequesieu	Depth:				
	Matrix:	SOIL	SOIL		
	Sampled:	Apr-12-10 16:15	Apr-12-10 16.30		
Anions by E300	Extracted:				
	Analyzed:	Apr-13-10 17:16	Apr-13-10 17:16		
	Units/RL:	mg/kg RL	mg/kg RL		
Chloride		655 9.05	525 9.05		
Percent Moisture	Extracted:				
	Analyzed:	Apr-13-10 17:00	Apr-13-10 17.00		
	Units/RL:	% RL	% RL		
Percent Moisture		7.19 1.00	7.15 1.00		

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 hability is limited to the amount invoiced for this work order unless otherwise agreed to in writing

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



Project Name: Littlefield BO Fed # 2

Work Orders: 368919,

Project ID: GP II Energy

Lab Batch #: 802629

**Sample:** 560820-1-BKS / BKS

Batch: 1 Matrix: Solid

Units: mg/kg Date Analyzed: 04/15/10 09:15	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 0291	0.0300	97	80-120							
4-Bromofluorobenzene	0 0328	0.0300	109	80-120							

Lab Batch #: 802629

**Sample:** 560820-1-BSD / BSD

Batch: 1 Matrix: Solid

Units: mg/kg Date Analyzed: 04/15/10 09:37	SURROGATE RECOVERY STUDY										
BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags						
Analytes		}	[D]								
1,4-Dıfluorobenzene	0.0288	0.0300	96	80-120							
4-Bromofluorobenzene	0.0304	0 0300	101	80-120							

Lab Batch #: 802629

Sample: 560820-1-BLK / BLK

Batch:

Matrix: Solid

Units: mg/kg Date Analyzed: 04/15/10 10:45	SURROGATE RECOVERY STUDY					
BTEX by EPA 8021B  Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags	
1,4-Dıfluorobenzene	0.0244	0.0300	81	80-120		
4-Bromofluorobenzene	0.0307	0.0300	102	80-120		

Lab Batch #: 802629

Sample: 369182-003 D / MD

Batch: 1

Matrix: Soil

Units: mg/kg Date Analyzed: 04/15/10 14:16	SURROGATE RECOVERY STUDY						
BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags		
Analytes			[D]				
1,4-Difluorobenzene	0.0178	0 0300	59	80-120	**		
4-Bromofluorobenzene	0.0283	0.0300	94	80-120			

Lab Batch #: 802629

Sample: 368919-011 / SMP

Batch: 1

Matrix: Soil

Units: mg/kg Date Analyzed: 04/15/10 15:46	SURROGATE RECOVERY STUDY						
BTEX by EPA 8021B  Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags		
1,4-Dıfluorobenzene	0.0247	0.0300	82	80-120			
4-Bromofluorobenzene	0.0634	0 0300	211	80-120	**		

<sup>\*</sup> Surrogate outside of Laboratory QC limits

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

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

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<sup>\*\*</sup> Surrogates outside limits; data and surrogates confirmed by reanalysis

<sup>\*\*\*</sup> Poor recoveries due to dilution



Project Name: Littlefield BO Fed # 2

**Work Orders** : 368919,

Project ID: GP II Energy

Lab Batch #: 802286

Sample: 560606-1-BKS / BKS

Batch: 1 Matrix: Solid

Units: mg/kg Date Analyzed: 04/13/10 16:09	SURROGATE RECOVERY STUDY						
TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags		
Analytes			[D]				
1-Chlorooctane	102	99.8	102	70-135			
o-Terphenyl	46.4	49.9	93	70-135			

Lab Batch #: 802286

Sample: 560606-1-BSD / BSD

Batch:

Matrix: Solid

SURROGATE RECOVERY STUDY						
Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags		
05.9	100	ļ	70 125	1		
43.8	50.1	87	70-135			
	Amount Found [A]	Amount True Amount [A] [B]	Amount   True   Recovery   %R   [D]     95.8   100   96	Amount   True   Recovery   Limits   %R   [D]		

Lab Batch #: 802286

Sample: 560606-1-BLK / BLK

Batch: 1

Matrix: Solid

Units: mg/kg Date Analyzed: 04/13/10 17:06	SURROGATE RECOVERY STUDY						
TPH By SW8015 Mod  Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags		
1-Chlorooctane	92.9	99.8	93	70-135			
o-Terphenyl	51.1	49.9	102	70-135			

Lab Batch #: 802286

Sample: 368919-011 / SMP

Batch:

Matrix: Soil

Units: mg/kg Date Analyzed: 04/13/10 17:35	SURROGATE RECOVERY STUDY					
TPH By SW8015 Mod  Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags	
1-Chlorocetane	91.4	99.8	92	70-135		
o-Terphenyl	50.2	49.9	101	70-135		

Lab Batch #: 802286

Sample: 368919-012 / SMP

Batch:

1

Matrix: Soil

Units: mg/kg Date Analyzed: 04/13/10 18:04	SURROGATE RECOVERY STUDY					
TPH By SW8015 Mod  Analytes	Amount Found [A]	True Amount {B}	Recovery %R [D]	Control Limits %R	Flags	
1-Chlorooctanc	85.9	99.9	86	70-135		
o-Terphenyl	47.0	50.0	94	70-135		

<sup>\*</sup> Surrogate outside of Laboratory QC limits

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

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

<sup>\*\*</sup> Surrogates outside limits; data and surrogates confirmed by reanalysis

<sup>\*\*\*</sup> Poor recoveries due to dilution



Project Name: Littlefield BO Fed # 2

Work Orders: 368919,

Project ID: GP II Energy

Lab Batch #: 802286

Sample: 368919-013 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg Date Analyzed: 04/13/10 18:34	SURROGATE RECOVERY STUDY					
TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags	
Analytes			[D]			
1-Chlorooctane	73 5	99 8	74	70-135		
o-Terphenyl	40.1	49.9	80	70-135		

Lab Batch #: 802286

**Sample:** 368919-012 S / MS

Batch: 1 Matrix: Soil

Units: mg/kg Date Analyzed: 04/13/10 20:42	SURROGATE RECOVERY STUDY						
TPH By SW8015 Mod  Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags		
1-Chlorooctane	104	99.9	104	70-135			
o-Terphenyl	46.7	50.0	93	70-135			

Lab Batch #: 802286

**Sample:** 368919-012 SD / MSD

Batch: 1

Matrix: Soil

Units: mg/kg Date Analyzed: 04/13/	/10 21:13 <b>SU</b>	SURROGATE RECOVERY STUDY						
TPH By SW8015 Mod  Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags			
1-Chlorooctane	84 6	99.7	85	70-135				
o-Terphenyl	38.3	49.9	77	70-135				

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

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

<sup>\*</sup> Surrogate outside of Laboratory QC limits

<sup>\*\*</sup> Surrogates outside limits; data and surrogates confirmed by reanalysis

<sup>\*\*\*</sup> Poor recoveries due to dilution



## **Blank Spike Recovery**



Project Name: Littlefield BO Fed # 2

Work Order #: 368919

Project ID:

GP II Energy

Lab Batch #: 802327

Sample: 802327-1-BKS

Matrix: Solid

Date Analyzed: 04/13/2010

**Date Prepared:** 04/13/2010

Analyst: LATCOR

Reporting Units: mg/kg

Batch #: | BLANK /RLANK SPIKE RECOVERY STUDY |

Batch #: 1 BLANK/BLANK SPIKE RECOVERS					OVERT	51001
Anions by E300	Blank Result	Spike Added	Blank Spike	Blank Spike	Control Limits	Flags
Analytes	[A]	[B]	Result [C]	%R [D]	%R	
Chloride	ND	10.0	9.25	93	75-125	



#### **BS / BSD Recoveries**



Project Name: Littlefield BO Fed # 2

Work Order #: 368919

**Date Prepared:** 04/15/2010

Project ID: GP II Energy Date Analyzed: 04/15/2010

Analyst: ASA

Matrix: Solid

Lab Batch ID: 802629

Sample: 560820-1-BKS

Batch #: 1

Units: mg/kg

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

BTEX by EPA 8021B	Blank Sample Result	Spike Added	Blank Spike	Blank Spike	Spike Added	Blank Spike	Blk. Spk Dup.	RPD	Control Limits	Control Limits	Flag
Analytes	[A]	[B]	Result [C]	%R [D]	{E]	Duplicate Result [F]	%R [G]	%	%R	%RPD	
Benzene	ND	0.1000	0.1036	104	0.1	0.0994	99	4	70-130	35	
Toluene	ND	0.1000	0.1027	103	0.1	0.0982	98	4	70-130	35	
Ethylbenzene	ND	0.1000	0.1061	106	0.1	0.1006	101	5	71-129	35	
m,p-Xylenes	ND	0.2000	0.2102	105	0.2	0.1991	100	5	70-135	35	
o-Xylene	ND	0.1000	0.1054	105	01	0.0997	100	6	71-133	35	

Analyst: BEV

**Date Prepared:** 04/13/2010

Date Analyzed: 04/13/2010

Lab Batch ID: 802286

Sample: 560606-1-BKS

Batch #: 1

Matrix: Solid

Units: mg/kg		BLAN	K/BLANK	SPIKE / E	BLANK S	SPIKE DUPI	ICATE 1	RECOVI	ERY STUD	Y	
TPH By SW8015 Mod	Blank Sample Result [A]	Spike Added	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Analytes		[ <b>D</b> ]	[C]	[10]	[E]	Result [F]	[6]				ĺ
C6-C12 Gasoline Range Hydrocarbons	ND	998	1070	107	1000	1010	101	6	70-135	35	
C12-C28 Diesel Range Hydrocarbons	ND	998	749	75	1000	709	71	5	70-135	35	

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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: Littlefield BO Fed # 2



Work Order #: 368919

Lab Batch #: 802327 Date Analyzed: 04/13/2010

Project ID: GP II Energy

Date Prepared: 04/13/2010

Analyst: LATCOR

QC- Sample ID: 368919-001 S

Batch #: 1

Matrix: Soil

Reporting Units: mg/kg	MATI	RIX / MA	TRIX SPIKE	RECOV	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	4920	2270	6860	85	75-125	

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

BRL - Below Reporting Limit



### Form 3 - MS / MSD Recoveries

Project Name: Littlefield BO Fed #2



Work Order #: 368919

Project ID: GP II Energy

Lab Batch ID: 802286

**QC-Sample ID:** 368919-012 S

Batch #:

Matrix: Soil

Date Analyzed: 04/13/2010

**Date Prepared:** 04/13/2010

Analyst: BEV

Reporting Units: mg/kg		M	IATRIX SPIK	E / MAT	RIX SPI	KE DUPLICA	TE REC	OVERY	STUDY		_
TPH By SW8015 Mod	Parent Sample Result	Spike	Spiked Sample Result	Sample	Spike	Duplicate Spiked Sample	Spiked Dup.	RPD	Control Limits	Control Limits	Flag
Analytes	[A]	Added [B]	[C]	%R [D]	Added [E]	Result [F]	%R [G]	%	%R	%RPD	
C6-C12 Gasoline Range Hydrocarbons	24.2	1110	1150	101	1110	969	85	17	70-135	35	
C12-C28 Diesel Range Hydrocarbons	105	1110	879	70	1110	788	62	11	70-135	35	X



### **Sample Duplicate Recovery**



Project Name: Littlefield BO Fed # 2

Work Order #: 368919

Lab Batch #: 802327 Project ID: GP II Energy

 Date Analyzed:
 04/13/2010
 Date Prepared:
 04/13/2010
 Analyst:
 LATCOR

 QC- Sample ID:
 368919-001 D
 Batch #:
 1
 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	4920	4560	8	20	

 Lab Batch #: 802629

 Date Analyzed: 04/15/2010
 Date Prepared: 04/15/2010
 Analyst: ASA

 OC- Sample ID: 369182-003 D
 Batch #: 1
 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	0.6981	0.5314	27	35	
Toluene	8.572	7.457	14	35	
Ethylbenzene	5.574	5 199	7	35	
m,p-Xylenes	15.99	15.00	6	35	
o-Xylene	4.660	4.337	7	35	
a,a,a-Trifluorotoluche	7.81	7.81	0	35	

Lab Batch #: 802301

 Date Analyzed: 04/13/2010
 Date Prepared: 04/13/2010
 Analyst: WRU

 QC- Sample ID: 368919-001 D
 Batch #: 1
 Matrix: Soil

Reporting Unit	s: %	SAMPLE /	SAMPLE	DUPLIC	ATE REC	OVERY
	Percent Moisture	Parent Sample Result [A]	Duplicate Result	RPD	Control Limits %RPD	Flag
	Analyte		[B]			
Percent Moisture		11 7	11.9	2	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

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	Company Address: _F	O Box 50682			· · · · · · · · · · · · · · · · · · ·													Pi	oje	ct L	.oc;	Edo	ly Co	unty	, Nev	v Me	DOCC	)					
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ORDE	R#: JUUT			T -	T	T	_	1	F	Pre	serva	tion &	# of t	Contai	ners		Mati	ix	15B					8	T		7					24. 48, 72 hrs	
AB # (leb use only)			Beginning Depth	Ending Depth	Date Sampled	Time Sampled	Flekt Filtered	bil #. of Containers	5	HNO,	7	H <sub>2</sub> 80 <sub>4</sub>	NaOH	Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub>	one	Other ( Specify)	DW=Drinking Water SL=Studge GW = Groundwater S=Soll/Solid	n-Potable	ទ្ឋ	TPH: TX 1006 TX 1008	Cations (Ce, Mg, Na, K)	Anions (Cl. SO4, Alkelintly)	SAR / ESP / CEC	Metals: As Ag Ba Cd Cr Pb Hg	Volatiles	Sernivolatilles BTEX 80218/5030 or 87FX 8260	EA WEIDING UP DIEA W	N.O.R.W	Chlorides EPA 300		НОСБ	JSH TAT (Pre-Schedule) 24.	Standard TAT
01	FIELD		<u> </u>	<u> </u>	4/13/2010	0930	15	1			<del> </del> =	Ŧ	Ž	-	<del>2</del>	읙		_	티	튀	8	₹	3	ž	\$   8	\$   <del>5</del>		+ž	1	+	皇	쮼	
02	SB-2 SB-2		+	<del>                                     </del>	4/1/2010	0940	t	1	Т	_	十	+	H	$\dashv$	$\dashv$	1	Soi Soi	_	+	+	十		H	+	十	+	十	十	X	_	H	-	X
03	SB-2		1		4/12/2010	1000	T	1	x	_		Н		十	十	7	Soi		+	1	+		Н	十	十	$\dagger$	十	十	x	1	H	H	x
अ	SB-2				4/12/2010	1035		1	x	_	Γ	П		1	十	7	Soi	一十	7	十	す			T	$\top$	1	†	十	x		H	П	X
05	SB-2				4/2010	1055		1	1		Г			7	T	1	Soi			1	1			$\top$	T	1	T	1	X				X
a	SB-2	<b>@</b> 55'			4/13/2010	1120		1	X								Soil				T				T		T		x	П	П		X
01	SB-1	@ 15'			4/1/2010	1245		1	X	L							Soi								$\mathbb{I}$	m I	I	Ι	x				X
98	SB-1	@ 20'		_	4/12/2010	1255		1	X								Soil							$\perp$	$\perp$		L	$\prod$	х				X
29	SB-1	@ 25'			4/3/2010	1320	L	1	X			Ш			$\perp$		Soil		$\perp$		$\perp$				$\perp$	L			x				X
10	SB- 1	@ 30'	<u> </u>	<u> </u>	4/12/2010	1345	<u>_</u>	1	X	1_	L			$\perp$	$\perp$		Soil			$\perp$			$\perp$	$\perp$	$\perp$	上		$oldsymbol{\perp}$	x				х
Special		ILL TO GP II Energy		ime	Received by:				······································			· · · · · · · · · · · · · · · · · · ·	- ·•· ·	Т		Date	<b>9</b> ]	Ti	me		/OC	Fr	se of	Head	dspa	ce?			(	Y		N	1
Relinquis		7/1/3/10 Date	Ti	3 <u>\$</u>	Received by:									+		Date		Ti	me	5	iemį	ia i Sa Co	land mpler	Deliv /Clien	teRep 약당	p. ?	DH.		Hess )	めか		N N	
Relinquis	hed by:	Date	Ti	me	Received by ELO	ti Dan	N									Dete	!	ना १:३	me	7	emp	eres	79	459 Joon	Rec	elpt:				صا		.c	

Environmental Lab of Texas	CHAIN OF CUSTOD
Xenco Laboratories Company	12600 West I-20 East
	Odessa, Texas 79765
Project Manager: Curt Stanley Page 2 of	2_)

Company Address: PO Box 50682

Midland, TX 79701

575-441-2244

City/State/Zip:

Telephone No:

Sampler Signature:

DY RECORD

DDY RECORD A	ND ANALYSIS	REQUEST	
		432-563-1800 432-563-1713	
Project Name:	Littlefield BO F	ed #2	
Project #:	GP II Energy		
Project Loc:	Eddy County, Ne	w Mexico	· · · · · · · · · · · · · · · · · · ·
PO #:			
Report Format:	X Stendard	TRRP	NPDES

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b use only)			~																	TOT	LP:	4	$\mathbf{T}$	Ŧ	$\blacksquare$			Т	7	ž
RDER#:	368919						-	<u> </u>	Prese	rvetic	n & #	of Cor	taine		M	atrix	_		Т	Ï		╅	╁	╁×	٦		1		1	2
AB# (tab use only)	FIELD CODE	Beginning Depth	Ending Depth	Date Sampled	Time Sampled	Field Filtered	Total #. of Containers	loe	HNO,	¥C.	H <sub>2</sub> SO <sub>4</sub>	Na.G.O.	None	Other (Specify)	M St.=Studge	GW # Groundwater 8#Soil/Soild NP#Non-Potable Specify Other	418.1 (801	TPH. TX 1005 TX 1009		Anions (Cl. SO4, Alkatinity)	SAR / ESP / CEC	Metals: As Ag Be Cd Cr Pb Hg Se	Voortkes Serrivolatiles	BTEX 80218/5030 or BTEX 8280	RCI	N.O.R.M.	Chlorides EPA 300	C C	Dilou TAT man de Latais, or a	KUSH TAT (Pre-Schedule) 24, 48, 72 hrs
11	SB-3 @ 2'			4/38/2010	1430		1	х				T			•	Soil	x	1	1		7		T	V		П	x	1	1	
12	SB-3 @ 5'			4/12/2010	1435		1	X								Soil	х					T	Τ	Т			x		T	
13	SB-3 @ 10'			4/12/2010	1440		1	X				$T_{-}$			,	Soil	x			$\Box$		T		T			X	T	T	
14	SB-3 @ 20'			4/ 12010	1455		1	X								Soil											X		Τ	
15	SB-3 @ 30'			4/12/2010	1510	L	1	X							٤	Soil											х	$\perp$	m I	
N	SB-3 @ 40'			4/18/2010	1520		1	X							٤	Soil											x	I	Τ	
n	SB-3 @ 50'			4/12/2010	1535		1	X			$oxed{oxed}$	$\prod_{\cdot}$			Ş	Soil											x		Ι	
10	SB-3 @ 60'			4/12/2010	1550		1	X			$oxed{\mathbb{I}}$	$\mathbb{L}$			S	Soil											x		$\mathbf{I}$	
19	SB-3 @ 70'			4/10/2010	1615		1	x	$ \_                                   $						9	Soil			$\perp$				$\prod$				x	$oxed{oxed}$	I	
10	SB-3 @ 75'			4/ 12010	1630		1	х				T			S	ioil		Т	T	T		T	Τ				x	T	Г	٦

Fax No:

e-mail:

575-396-1429

cstanley@basinenv.com

#### **Environmental Lab of Texas**

Variance/ Corrective Action Report- Sample Log-In

Client: GP 11 Evergy				
Date/Time: 4.13.10 9:35			•	
ab ID#: 368919				
nitials: AL				
Sample Receipt	Checklist			
	, 01100111101		Client Ir	nitials
1 Temperature of container/ cooler?	(Yes)	No	4.6 °C	$\neg$
2 Shipping container in good condition?	(Yes)	No		
G 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		$\neg$
6 Sample instructions complete of Chain of Custody?	(Yes)	No		
7 Chain of Custody signed when relinquished/ received?	Yes	No		
8 Chain of Custody agrees with sample label(s)?	Yes	No	ID written on Cont./ Lid	
9 Container label(s) legible and intact?	Yes	No	Not Applicable	
10 Sample matrix/ properties agree with Chain of Custody?	(Yes)	No		
#11 Containers supplied by ELOT?	(Yés)	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		$\neg$
F15 Preservations documented on Chain of Custody?	(Yes)	No		
#16 Containers documented on Chain of Custody?	(Yes	No		
#17 Sufficient sample amount for indicated test(s)?	(Yes)	No	See Below	
#18 All samples received within sufficient hold time?	Yes	No	See Below	
#19 Subcontract of sample(s)?	Yes	No	(Not Applicable)	
#20 VOC samples have zero headspace?	(Yes)	No	Not Applicable	
Contact: Contacted by:  Regarding:	mentation		Date/ Time:	
Corrective Action Taken:	ı			
Check all that Apply:  See attached e-mail/ fax  Client understands and wou  Cooling process had begun				

# **Analytical Report 374886**

for

### **Basin Environmental Consulting, LLC**

**Project Manager: Curt Stanley** 

BO Littlefield Fed # 2
GP II Energy

02-JUN-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)

Page 1 of 13 Final Ver. 1.000





02-JUN-10

Project Manager: Curt Stanley

Basin Environmental Consulting, LLC

P.O. Box 381

Lovington, NM 88260

Reference: XENCO Report No: 374886

**BO** Littlefield Fed # 2

Project Address: Eddy Co., NM

#### **Curt Stanley:**

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 374886. 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. 374886 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

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## **Sample Cross Reference 374886**



#### Basin Environmental Consulting, LLC, Lovington, NM

BO Littlefield Fed # 2

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
Stockpile # 1 A	S	May-28-10 08:45		374886-001

Page 3 of 13 Final Ver. 1.000





Client Name: Basin Environmental Consulting, LLC

Project Name: BO Littlefield Fed # 2



Project ID:

GP II Energy

Work Order Number: 374886

Report Date: 02-JUN-10 Date Received: 05/28/2010

Sample receipt non conformances and Comments:

None

Sample receipt Non Conformances and Comments per Sample:

None

Analytical Non Conformances and Comments:

Batch: LBA-808866 Percent Moisture

None

Batch: LBA-808976 TPH by SW8015 Mod

None

Final Ver. 1.000

Page 4 of 13



Basin Environmental Consulting, LLC, Lovington, NM

Project Name: BO Littlefield Fed # 2



Project Id: GP II Energy Contact: Curt Stanley

Project Location: Eddy Co, NM

Date Received in Lab: Fri May-28-10 03:20 pm

Report Date: 02-JUN-10
Project Manager: Brent Barron, II

					Troject Manager.	Dient Burron, II	
Lab Id:	374886-001						
Field Id:	Stockpile # 1	A		:			
Depth:							
Matrix:	SOIL						
Sampled:	May-28-10 08:	45					
Extracted:							
Analyzed:	Jun-02-10 08:	20					
Units/RL:	%	RL					
	6.35	1.00					, , , , , , , , , , , , , , , , , , ,
Extracted:	Jun-01-10 13.	45					
Analyzed:	Jun-01-10 17:	43					
Units/RL:	mg/kg	RL					
	ND	16.0					
	26.7	16 0					
C28-C35 Oil Range Hydrocarbons		16 0					
	26.7	16.0					
	Field Id: Depth: Matrix: Sampled: Extracted: Analyzed: Units/RL: Extracted: Analyzed:	Field Id: Stockpile # 1  Depth: Matrix: SOIL  Sampled: May-28-10 08:  Extracted: Jun-02-10 08:  Units/RL: %  6.35  Extracted: Jun-01-10 13.  Analyzed: Jun-01-10 17:  Units/RL: mg/kg  ND  26.7  ND	Field Id:         Stockpile # 1 A           Depth:         Matrix:         SOIL           Sampled:         May-28-10 08:45           Extracted:         Analyzed:         Jun-02-10 08:20           Units/RL:         %         RL           6.35         1.00           Extracted:         Jun-01-10 13:45           Analyzed:         Jun-01-10 17:43           Units/RL:         mg/kg         RL           ND         16:0           26:7         16:0           ND         16:0	Field Id: Stockpile # 1 A  Depth:  Matrix: SOIL  Sampled: May-28-10 08:45  Extracted: Analyzed: Jun-02-10 08:20  Units/RL: % RL  6.35 1.00  Extracted: Jun-01-10 13.45  Analyzed: Jun-01-10 17:43  Units/RL: mg/kg RL  ND 16.0  26.7 16 0  ND 16 0	Field Id: Stockpile # 1 A  Depth:  Matrix: SOIL  Sampled: May-28-10 08:45  Extracted:  Analyzed: Jun-02-10 08:20  Units/RL: % RL  6.35 1.00  Extracted: Jun-01-10 13.45  Analyzed: Jun-01-10 17:43  Units/RL: mg/kg RL  ND 16.0  26.7 16 0  ND 16 0	Lab Id:       374886-001         Field Id:       Stockpile # 1 A         Depth:       Matrix:         SOIL       Sampled:         May-28-10 08:45         Extracted:       Analyzed:         Jun-02-10 08:20       Units/RL:         Units/RL:       % RL         6.35 1.00       Extracted:         Analyzed:       Jun-01-10 17:43         Units/RL:       mg/kg RL         ND 16.0       26.7 16 0         ND 16 0       ND 16 0	Lab Id:   374886-001     Field Id:   Stockpile # 1 A   Depth:   Matrix:   SOIL   Sampled:   May-28-10 08:45     Extracted:   Analyzed:   Jun-02-10 08:20   Units/RL:   %   RL     6.35   1.00     Extracted:   Jun-01-10 13.45   Analyzed:   Jun-01-10 17:43   Units/RL:   mg/kg   RL     ND   16.0     26.7   16 0   ND   16 0     ND   16 0     ND   16 0     ND   16 0     ND   16 0       ND   16 0     ND   ND   16 0     ND   ND   16 0     ND   ND   ND   ND   ND   ND   ND

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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### **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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9701 Harry Hines Blvd, Dallas, TX 75220	(214) 902 0300	(214) 351-9139
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: BO Littlefield Fed # 2

Work Orders: 374886,

Project ID: GP II Energy

Lab Batch #: 808976

**Sample:** 564699-1-BKS / BKS

Batch: 1 Matrix: Solid

Units: mg/kg Date Analyzed: 06/01/10 15:53	SURROGATE RECOVERY STUDY						
TPH by SW8015 Mod  Analytes	Amount Found [A]	True Amount  B	Recovery %R [D]	Control Limits %R	Flags		
I-Chlorooctane	116	100	116	70-135			
o-Terphenyl	46.6	50.0	93	70-135			

Lab Batch #: 808976

Sample: 564699-1-BSD / BSD

Batch: 1

Matrix: Solid

Units: mg/kg	<b>Date Analyzed:</b> 06/01/10 16:20	SU	RROGATE RI	ECOVERY S	STUDY	
TPH by SW8015 Mod  Analytes		Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
A	Mary tes			] ' '		
1-Chlorooctane		119	100	119	70-135	
o-Terphenyl		47.5	50.0	95	70-135	

Lab Batch #: 808976

Sample: 564699-1-BLK / BLK

Batch:

Matrix: Solid

Units: mg/kg	<b>Date Analyzed:</b> 06/01/10 16:48	SUI	RROGATE RI	ECOVERY	STUDY	
ТРН	by SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
	Analytes			[D]		
1-Chlorooctane		106	100	106	70-135	
o-Terphenyl		52.5	50.0	105	70-135	

Lab Batch #: 808976

Sample: 374886-001 / SMP

Batch: 1

Matrix: Soil

Units: mg/kg Date Analyzed: 06/01/10	17:43 <b>SU</b>	RROGATE RI	ECOVERY S	STUDY	
TPH by SW8015 Mod  Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes			,,,,		
1-Chlorooctane	93.3	100	93	70-135	
o-Terphenyl	47.7	50 0	95	70-135	

Lab Batch #: 808976

**Sample:** 374886-001 S / MS

Batch: 1

Matrix: Soil

Units: mg/kg Date Analyzed: 06/02/10 11:44	SU	RROGATE RI	ECOVERY S	STUDY	
TPH by SW8015 Mod  Analytes	Amount Found [A]	True Amount [B]	Recovery %R  D	Control Limits %R	Flags
I-Chlorooctane	113	100	113	70-135	
o-Terphenyl	51.1	50.0	102	70-135	

<sup>\*</sup> Surrogate outside of Laboratory QC limits

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

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

<sup>\*\*</sup> Surrogates outside limits; data and surrogates confirmed by reanalysis

<sup>\*\*\*</sup> Poor recoveries due to dilution



Project Name: BO Littlefield Fed # 2

Work Orders: 374886,

Project ID: GP II Energy

Lab Batch #: 808976

**Sample:** 374886-001 SD / MSD

Matrix: Soil

Batch: 1

Units: mg/kg Date Analyzed: 06/02/10 12:	II SU	RROGATE R	ECOVERY :	STUDY	
TPH by SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes			1~1		
1-Chlorooctane	111	100	111	70-135	
o-Terphenyl	50.3	50 0	101	70-135	

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

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

<sup>\*</sup> Surrogate outside of Laboratory QC limits

<sup>\*\*</sup> Surrogates outside limits, data and surrogates confirmed by reanalysis

<sup>\*\*\*</sup> Poor recoveries due to dilution



### **BS / BSD Recoveries**



**Project Name: BO Littlefield Fed #2** 

Work Order #: 374886 Analyst: BEV

**Date Prepared:** 06/01/2010

Project ID: GP II Energy Date Analyzed: 06/01/2010

Lab Batch ID: 808976

Matrix: Solid

Sample: 564699-1-BKS Batch #: 1

Units: mg/kg		BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY									
TPH by SW8015 Mod Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
C6-C12 Gasoline Range Hydrocarbons	ND	1000	1070	107	1000	1130	113	5	70-135	35	
C12-C28 Diesel Range Hydrocarbons	ND	1000	863	86	1000	829	83	4	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 / MSD Recoveries

**Project Name: BO Littlefield Fed #2** 

Work Order #: 374886

Project ID: GP II Energy

120

72

0

70-135

70-135

35

35

Lab Batch ID: 808976

**QC- Sample ID:** 374886-001 S

ND

26.7

Batch #:

Matrix: Soil

**Date Analyzed:** 06/02/2010

C6-C12 Gasoline Range Hydrocarbons

C12-C28 Diesel Range Hydrocarbons

**Date Prepared:** 06/01/2010

Analyst: BEV

1070

1070

1280

797

118

72

Reporting Units: mg/kg	MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY										
TPH by SW8015 Mod	Parent Sample	Spike	Spiked Sample Result	Spiked Sample		Duplicate Spiked Sample		RPD	Control Limits	Control Limits	Flag
Analytes	Result [A]	Added [B]	[C]	%R [D]	Added [E]	Result [F]	%R [G]	%	%R	%RPD	

1260

794

1070

1070

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



### **Sample Duplicate Recovery**



Project Name: BO Littlefield Fed # 2

Work Order #: 374886

Lab Batch #: 808866

Project ID: GP II Energy

**Date Analyzed:** 06/02/2010

Date Prepared: 06/02/2010

Analyst: JLG

QC- Sample ID: 374884-001 D

**Percent Moisture** 

Analyte

Batch #:

Matrix: Soil

Reporting Units: %

Percent Moisture

SAMPLE / SAMPLE DUPLICATE RECOVERY									
Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag					
6 75	6.34	6	20						

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

# **Environmental Lab of Texas**

#### CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

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

	Project Manager: Curt Stanley												Pro	ject	Nan	ne: <u>l</u>	BO Littlefield Fed #2														
	Company Name	Basin Environmental Co	nsultir	9							<del></del>					•	Project #: GP II Energy														
	Company Address:	y Address: P.O.Box 381 Project Le											.oc: Eddy Co, NM																		
	City/State/Zip:	Lovington, NM 88260																	PO	#: <u>F</u>	AA.	. J. I	lenr	<b>y</b>							
	Telephone No:	(575)605-7210	6)605-7210					Fax No: (505) 396-1429							<del>-</del> 2				. [2	X Standard			TRRP		☐ NPDE		s				
	Sampler Signature:	ZX loury				e-mail:		cib	rya	nt@	Dbε	sir	1-co	กรน	ltin	g.co	<u>m</u>														_
(lab use																					TCL		Analy	/ze F	or.			$\overline{}$	$\overline{}$	$\frac{1}{2}$	]
ORDER		986						á.	Pre	serva	tion	2 3 (	of Cor	ntaine	rs I	Mai	rix	<u>a</u>	7		TOTA	Ŀ	,	丰	X	1 /				48, 72 hm	
LAB # (tab use only)		D CODE	Beginning Depth	Ending Depth	Date Sampled	Time Sampled	Field Filtered	402			H-50		3			DW - Drinking Water St Studg GW - Groundwater S - SoltSol	on-Potable Specify Oth	8	TPH. TX 1005 TX 1006	Cations (Ca, Mg. Na, K)	SAR / FSP / CEC	Metak: As An Ba Color Ph. Ho So	Voletiles	Sernivolatiles	BTEX 8021B/5030 or BTEX 8260	AC!	N.O R.M.			RUSH TAT (Pre-Schedule) 24, 4	Г
Ð١	Stock	pile #1 A			5/28/2010	845	-		x			Ī				s		X						Γ			Ħ	十	$\top$	Ť	x
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Page 12 of 13



#### **XENCO** Laboratories

Atlanta, Corpus Christi, Dallas, Houston, Miami, Midland, Philadelphia, San Antonio, Tampa Document Title: Sample Receipt Checklist

Document No.: SYS - SRC
Revision/Date: No.00, 05/18/10
Effective Date: 05/20/10

Page No.:

1 of 1

#### Prelogin / Nonconformance Report - Sample Log-In

	Preiogin / No	ncomo	mance Report	– Samj	pie Log-ir	1						
Client: Basin	Enion	nento	<u>ي</u> .									
Date/Time: 05-26	3-10 @152	<u></u>										
Lab ID #:												
Initials: JMF	<u> </u>											
		Sample	Receipt Check	list								
1. Sample on ice?					Blue	Water	No					
2. Shipping container	in good condition	(Yes)	No	None								
3. Custody seals inta	ct on shipping co	ntainer	(cooler) and bot	les3	Yes	No	N/A	aslab				
4. Chain of Custody p	oresent?				Yes	No						
5. Sample instruction	s complete on cl	nain of c	ustody?		Yes	No	<del></del>					
6. Any missing / extra	samples?				Yes	(No >						
7. Chain of custody s	igned when relin	quished	/ received?		(Yes	No						
8. Chain of custody a	grees with samp	ie labie	s)?		Yes	No						
9. Container labels le	gible legible and		Yes	No								
10. Sample matrix / p	properties agree		Yes	No	,,,,,							
11. Samples in prope	er container / bot		(Yes)	No								
12. Samples properly	preserved?		Yes	No	N/A							
13. Sample containe	r intact?				Yes	No	<del>,</del>					
14. Sufficient sample	amount for indic	cated tes	t(s)?	,	(Yes)	No						
15. All samples recei	ved within suffici	ent hold	time?		Yes	No						
16. Subcontract of sa	ample(s)?				Yes	(No)	N/A					
17. Voc sample have	zero head spac	e?			(Yes	No	N/A					
18. Cooler 1 No.	Cooler 2 No.		Cooler 3 No.	***	Cooler 4	No.	Cooler 5	No.				
lps 3.℃ c	Ibs	°C	lbs	°C	ibs	°C	lbs	°C				
			mance Docume	ntatio			<u> </u>					
Contact:		tacted b	y		_Date/Tin	ne		_				
Regarding:												
Corrective ActionTa	ken:			<del></del>		<del></del>						
				···								
								<del></del>				
Check all that apply	: Cooling proce	ss has be	gun shortly after s	ampling	event and o	out of tempe	rature					
			NELAC 5.5.8.3.1. perature confirm ou		perature co	nditions						
	<ul> <li>Initial and Backup Temperature confirm out of temperature conditions</li> <li>Client understands and would like to proceed with analysis</li> </ul>											

Appendix D Soil Boring Logs

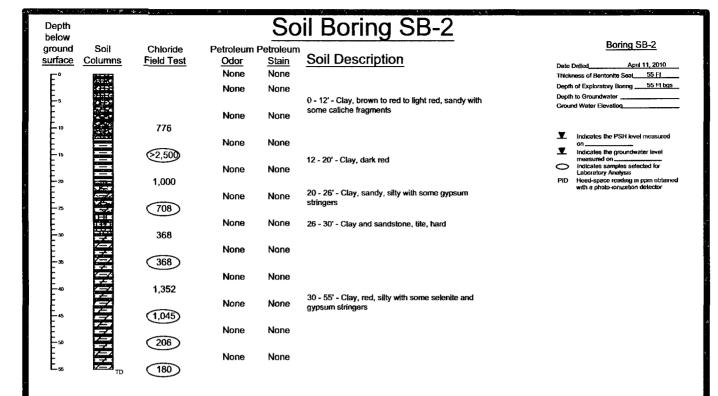
Depth below				So	il Boring SB-1	
ground	Soil	Chloride	Petroleum I	Petroleum		Boring SB-1
<u>s</u> urface	Columns	Field Test	<u>Odor</u>	<u>Stain</u>	Soil Description	Date Drilled April 11, 2010
F°	A-6		None	None		Thickness of Bentonite Seat 30 Ft
Ė.	<b>=</b>		None	None	0 - 10' - Clay, brown, sandy, moist, more clay with	Depth of Exploratory Boring 30 Ft bgs Depth to Groundwater
F			None	None	depth	Ground Water Elevation
- 15	TOTAL TOTAL SET-AN POLY POLY		None	None		Indicates the PSH level measured on Indicates the groundwater level
E Em			None	None	10 - 26' - Clay, brown, sandy with gypsum stringers	measured on
	7	190	None	None		with a photo-ionization detector
		(180)	None	None	26 - 30' - Clay, red, sandy, moist	

#### 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.

**GP II Energy** Littlefield "BO" Federal #2 **Eddy County, New Mexico**  **Basin Environmental Consulting** 

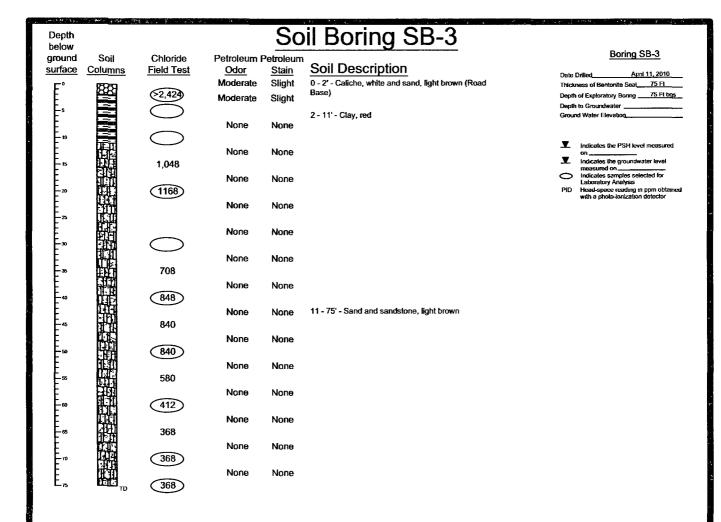
Prep By: CDS	Checked By: CJB
May 26, 2010	



#### **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.

GP II Energy Littlefield "BO" Federal #2 Eddy County, New Mexico **Basin Environmental Consulting** 



#### **Completion Notes**

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

**GP II Energy** Littlefield "BO" Federal #2 **Eddy County, New Mexico**  **Basin Environmental Consulting** 

Prep By; CDS Checked By: CJB May 26, 2010

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

District I 1625 N. French Dr., Hobbs, NM 88240 District II +301 W. Grand Avenue, Artesia, NW 88210 District III
1000 Rio Brazos Road, Aztec, NM 87410 District IV

State of New Mexico Energy Minerals and Natural Resources Revised October 10, 2003

Oil Conservation Division 1220 South St. Francis Dr.

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

1220 S. St. Fta	ncis Dr., Santa	re, N	11 6 7 3 0 3		S	anta F	e, NM 875	505				Side of form			
A Second Control of Co				Rele	ease Notifi	catio	n and Co	orrective A	ction		130000000000000000000000000000000000000				
							OPERA'	ГOR	Init	ial Report	П	Final Report			
Name of C	ompany		GF	II Ener	gy, Inc. <b>8359</b>		Contact			Joe Compton					
Address			PO B	bx 5068	32		Telephone 1	Vo.	432-6	84-4748					
Facility Na	me I	F <u>eder</u>	al Littlef	ield "BO	" Tank Battery		Facility Typ	e Tank	Battery - Oil and	Produced V	Vater S	torage			
Surface Ov	vner		ederal		Mineral (	Owner		Federal	Lease	No. L	.C-0659	928A			
UTTLEFIEL		KRA	.002		T O C	A TEXA	והורת הוא זא.								
30-015-2 Unit Letter	Section	Town	chin	Panga	Feet from the	,	N OF RE	Feet from the	East/West Line	I Country					
A A	34	26	1	Range 29E	~710	North	N	~750	E E	County	<b>د</b> ٦٦				
	34			KUL.	724	<u> </u>	IV	660	<u> </u>		Edd	У			
				Lat	itude N 32 0' 1	2.10"	Longitud	e_W -103 57' 5	9.06"						
					TV A TI	ים כוו זי	ו זייום מוחי	EASE night of	Dec. 7, 2009	~11:00an	n Dec.8	. 2009			
Type of Rele	ase		Pı	roduced		URE	Volume of		Rhis Volume	Recovered 2	0 Bhls				
Source of Re				Storage				lour of Occurrence		Hour of Disc					
Was Immedi	ate Notice G	iven?	, m		N- D N-A				u of Land Manad						
				es 🗟	No Not Re	equirea	Federal Lit	nad been repon tlefield "BO" tan	ted by New Mex k battery	CO OCD 11e1	a insper	ctor at the			
By Whom? Was a Water	course Peacl	hed?					Date and H	our Check with lume Impacting t	BLM he Watercourse						
was a water	Course Reaci	nca:		es 🗐	No		11 1E3, Vo	idine impacing t	ne watercourse.						
If a Watercon	irse was Imn	acted i	Describe	Fully *			<u> </u>								
	•														
Describe Cau	ise of Problei	m and	Remedia	Action	Taken.* Worke	d over	Federal "BO"	'#6. Well flowe	d during night ar	nd pushed w	ater fro	m the gun			
		11		3					rage tank. We a						
barrel capab	ole of handli	ng pr	duction	surges	of this volume.										
			··· • · · · · · · · · · · · · · · · · ·												
Describe Are	a Affected ar	nd Cle	anup Act	on Take	en.* Please refe	r to att	ached google	e earth map. Th	e green line mai	ks the lengt	h and p	ath of the			
				3		-			pervision of a BL	_	it. We	will			
have the cut	areas samp	pled a	nd analy	zed for	contamination	prior to	backfilling w	ith approved so	il or road materia	al.					
Thombs. sout	15 - 41 - 4 - 41 - 1 - 1 - 1 - 1 - 1 - 1 -	£2		-1	:- 4	1-4-4-41	N = 1 = 4 = F = = 1			11.10	VOD.				
regulations a	ry that the in Il operators a	re reon	ion give: ired to r	n above :	is true and compi i/or file certain re	ete to ti elease n	ne best of my lotifications an	cnowledge and ur	nderstand that purs	suant to NMC eases which r	ICD rule nav end:	es and anger			
public health	or the enviro	nmen	. The ac	‡eptanc∈	e of a C-141 repo	rt by the	e NMOCD ma	rked as "Final Re	port" does not rel	ieve the opera	ator of li	ability			
should their o	perations have	ve fail	ed to ade	quately i	investigate and re	mediat	e contaminatio	n that pose a thre	at to ground water	, surface wat	er, huma	an health			
federal, state,					ance of a C-141 i	ероп а	oes not reneve	the operator of re	esponsibility for c	omphance wi	in any o	iner			
***************************************	·		20				<del></del>	OIL CONS	ERVATION	DIVISIO	N				
Signature:	In a		10	L 0	100					Remediation A	chors to b	e con-pleted 21.q			
organice.				M	<i>20</i> 7U		Annrowed by I	District <b>Spp</b> érviso	Pro material and a first and	Final C-141 su analyses/docum	omated w nemation	on or before the			
Printed Name		_	JOE L	Compto	on .		MALL	in the	Adores .	Expiration Date	ŝ,	arter strong in			
Title:		in the second	Agen				9	12-16-69	Evaluation	Date: 02 -	11.	21:10			
1100.	· · · · · · · · · · · · · · · · · · ·						Approvar Date	10-40/	Expiration.			-			
E-mail Addre	ss:	CON	ipton@	pp2ene	rgy.com	- 10/-1	Conditions of	Approval: U/-	21-2010			oval shall be any backfillin			
Date: 12-11	-2009	all the second		Phone:4	32-684-4748			nediation work pl		Obtained	activit				
Attach Addit	ional Sheets	s If N				deline	eation should	be finalized and	submitted for -	Notify OC	D. d.C. box				
		, manual						ision summarizin taken to mitigate	g all actions	Notify OCI obtaining s	o nou amples v	ns prior to where analyses			
Selogy 48	4 l l l l l l l l l l l l l l l l l l l	THE PARTY OF THE P					onmental dam	_		are to be pr					
ASEB0934	27 19TL							ierai site characterist							
i \$2809344	14.140	o stratement						tion levels, soil remer ting for TPH, B-TEX							
				1		other CC	Cs as applicable	Please use the "Gui	delines for						
				1				ills, & Keleases" as y	our guide i his						

document may be found at the following link

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