



July 28, 2015

Mr. Jim Amos
BUREAU OF LAND MANAGEMENT

620 E. Green Street
Carlsbad, NM 88220

AMARILLO
921 North Bivins
Amarillo, Texas 79107
Phone 806.467.0607
Fax 806.467.0622

Subject: **Soil Assessment and Remediation Work Plan**
Energy Transfer Partners
California B Release

ARTESIA
408 West Texas Ave.
Artesia, New Mexico 88210
Phone 575.746.8768
Fax 575.746.8905

Dear Mr. Amos,

Regency Field Services (Regency) has contracted Talon/LPE (Talon) to perform soil assessment and remediation services at the above referenced location. The results of our soil assessment and proposed remediation activities consist of the following.

HOBBS
318 East Taylor Street
Hobbs, New Mexico 88240
Phone 575.393.4261
Fax 575.393.4658

Background Information

MIDLAND
2901 State Hwy 349
Midland, Texas 79706
Phone 432.522.2133
Fax 432.522.2180

The Regency California B Release is located approximately thirty-four (34) miles south of Carlsbad, New Mexico. The legal location for this site is Unit Letter D, Section 9, Township 26 South and Range 29 East in Eddy County New Mexico. More specifically the latitude and longitude for this release are 32.064283 North and -103.99685 West. A site plan is presented in [Appendix I](#).

OKLAHOMA CITY
7700 North Hudson Avenue
Suite 10
Oklahoma City, Oklahoma 73116
Phone 405.486.7030
Fax 806.467.0622

According to the soil survey provided by the United States Department of Agriculture Natural Resources Conservation Service, the soil in this area is made up of the Pajarito-Dune land complex with 0 to 3 percent slopes. Per the New Mexico Bureau of Geology and Mineral Resources, the local surface and shallow geology is made up of Holocene to upper Pleistocene alluvium. Drainage courses in this area are normally dry. Ground water in the project vicinity is approximately 75-feet below ground surface (bgs) according to the New Mexico Office of the State Engineer. The referenced ground water data is presented in [Appendix II](#).

SAN ANTONIO
13111 Lookout Way
San Antonio, Texas 78233
Phone 210.265.8025
Fax 210.568.2191

The ranking for this site is **10** based on the following:

Depth to ground water	<100'
Wellhead Protection Area	>1000'
Distance to surface water body	>1000'

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SPILL MANAGEMENT
GENERAL CONTRACTING

Toll Free: 866.742.0742
www.talonlpe.com

Incident Description

The California B Pipeline ruptured due to internal corrosion. The rupture resulted in a release of approximately 12bbls of produced water. A vacuum truck was utilized to recover approximately 10bbls of produced water. Talon mobilized personnel to conduct a site assessment and soil sampling activities within the impacted area. Analytical results from the soil sampling activities are summarized in the table below. Due to the presence of the below grade pipelines vertical delineation of the TPH impacts was not possible during the initial sampling event.

Laboratory Results

See [Appendix III](#) for complete report of laboratory results.

Sample ID	Depth (feet)	BTEX (mg/kg)	Chlorides (mg/kg)	TPH (mg/kg) GRO	TPH (mg/kg) DRO
S-1	0	41.3	503	2380	36800
S-2	0	8.48	29.7	272	809
S-3	0	8.72	58.1	973	11900
S-4	0	9.99	151	2050	32600
S-5	0	8.14	ND	1090	4780

(ND) Analyte Not Detected

Based upon the site ranking of **10**, NMOCD Recommended Remedial Action Levels (RRAL) are 50 mg/kg for BTEX, 10 mg/kg for Benzene, and 1,000 mg/kg for TPH.

Proposed Remedial Actions


- Once the pipeline is spotted the impacted area will be excavated using PID readings and visual observations to guide the excavation.
- Once field data indicates that all of the impacted soil above NMOCD RRAL's has been removed confirmation soil samples will be taken for laboratory analysis.
- All of the excavated material will be hauled to an NMOCD approved solid waste disposal facility.
- Upon receipt of acceptable analytical results and regulatory approval by NMOCD and BLM, the excavation will be backfilled with topsoil, contoured to match the surrounding terrain and seeded with BLM #1 seed mixture.

Should you have any questions or if further information is required, please do not hesitate to contact our office at 575.746.8768.

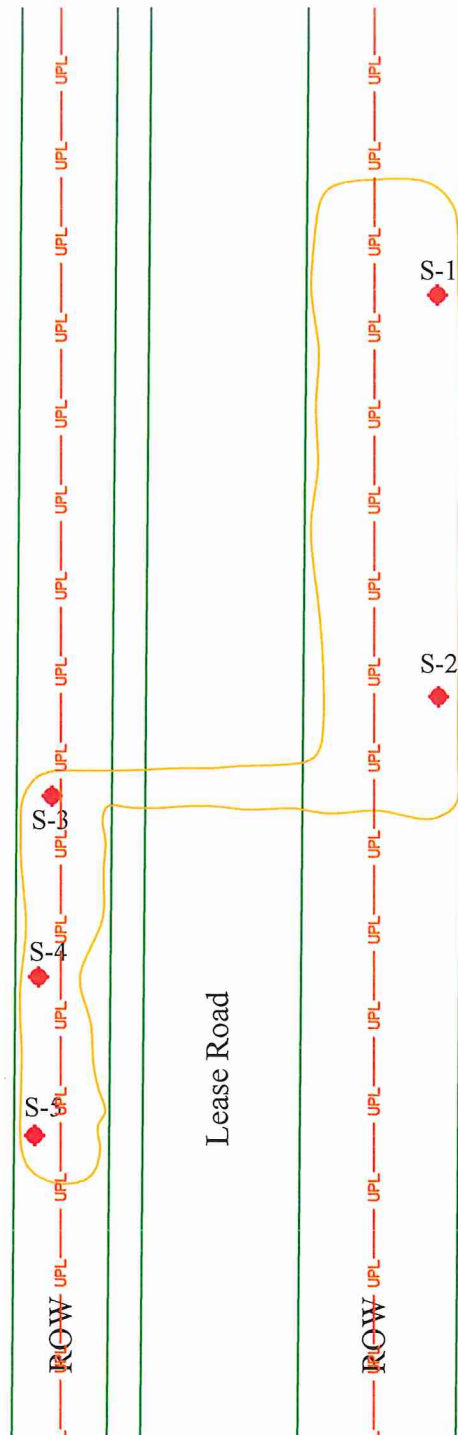
Respectfully submitted,

TALON/LPE


Sheldon L. Hitchcock
Project Manager


David J. Adkins
District Manager

SITE PLAN



0 15 30
Scale in Feet

Legend	
	- Sample Location
	- Impacted Area
	- Underground Pipeline



Date: 07/27/2015

Scale: 1" = 30'

Drawn By: TJS

Cal B
Southern Union Gas Services
Eddy County, New Mexico
Figure 1 - Site Plan

GROUNDWATER DATA



New Mexico Office of the State Engineer Water Column/Average Depth to Water

(A CLW##### in the
POD suffix indicates the
POD has been replaced
& no longer serves a
water right file.)

(R=POD has
been replaced,
O=orphaned,
C=the file is
closed)

(quarters are 1=NW 2=NE 3=SW 4=SE)

(quarters are smallest to largest) (NAD83 UTM in meters)

(In feet)

POD Number	POD Sub-Code	basin	County	Q 64	Q 16	Q 4	Sec	Tws	Rng	X	Y	Distance	Depth Well	Depth Water	Water Column
C 03507 POD1	C	ED		1	3	3	05	26S	29E	593064	3548313	1445	140	78	62
C 03508 POD1	C	ED		1	3	3	05	26S	29E	593063	3548361	1464	140	75	65

Average Depth to Water: 76 feet

Minimum Depth: 75 feet

Maximum Depth: 78 feet

Record Count: 2

Basin/County Search:

County: Eddy

UTMNAD83 Radius Search (in meters):

Easting (X): 594416

Northing (Y): 3547801

Radius: 1500

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.

INITIAL C-141

District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 S. First St., Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources

Form C-141
Revised August 8, 2011

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

Submit 1 Copy to appropriate District Office in
accordance with 19.15.29 NMAC.

Release Notification and Corrective Action

OPERATOR

☒ Initial Report ☐ Final Report

Name of Company	Regency Gas Partners	Contact	Rachel Johnson
Address	PO Box 1467 McCamey, TX 79752	Telephone No.	325-514-2636
Facility Name	Cal B	Facility Type	Pipeline

Surface Owner	NMBLM	Mineral Owner	API No.
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LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
	23	26S	29E					Eddy

Latitude 32.064147 Longitude 103.995385

NATURE OF RELEASE

Type of Release	Produced Water	Volume of Release	12bbls	Volume Recovered	10bbls
Source of Release	16" steel pipeline	Date and Hour of Occurrence	unknown	Date and Hour of Discovery	1/11/15 2:30pm
Was Immediate Notice Given?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required				
	If YES, To Whom? Voicemail to Tomas Oberding				
By Whom?	Rachel Johnson	Date and Hour	1/12/15 4:00pm		
Was a Watercourse Reached?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No				
	If YES, Volume Impacting the Watercourse.				

If a Watercourse was Impacted, Describe Fully.*

DTW 145'

Describe Cause of Problem and Remedial Action Taken.*

On January 11, 2015 an operator with Regency Gas discovered a pipeline release in Eddy County. A 16" steel line leaked caused by pipeline corrosion. Following the discovery of the release the line was shut in. Due to the line being in a road the line was covered and soil not remediated at this time.

Describe Area Affected and Cleanup Action Taken.*

The release affected the pipeline road measuring approximately 110' length x 75' in width. Once the line is cut and capped, and removed from the right-of-way, Talon of Midland will remediate.

Contaminated soil will be removed from site and replaced with clean backfill. The release will be remediated in accordance with NMOCD Regulatory Guidelines.

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

OIL CONSERVATION DIVISION

Signature:

Printed Name: Rachel Johnson

Approved by Environmental Specialist:

Title: Environmental Specialist

Approval Date:

Expiration Date:

E-mail Address: rachel.johnson@regencygas.com

Conditions of Approval:

Attached ☐

Date: Phone:

* Attach Additional Sheets If Necessary

LABORATORY RESULTS

Analytical Report 509403

for
Talon LPE

Project Manager: Sheldon Hitckcock

Cal B

701583.141.01

17-JUN-15

Collected By: Client



12600 West I-20 East Odessa, Texas 79765

Xenco-Houston (EPA Lab code: TX00122):
Texas (T104704215-14-18), Arizona (AZ0765), Florida (E871002), Louisiana (03054)
Oklahoma (9218)

Xenco-Atlanta (EPA Lab Code: GA00046):
Florida (E87429), North Carolina (483), South Carolina (98015), Kentucky (85), DoD (L10-135)
Texas (T104704477), Louisiana (04176), USDA (P330-07-00105)

Xenco-Lakeland: Florida (E84098)
Xenco-Odessa (EPA Lab code: TX00158): Texas (T104704400-TX)
Xenco-Dallas (EPA Lab code: TX01468): Texas (T104704295-TX)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)
Xenco-Phoenix Mobile (EPA Lab code: AZ00901): Arizona (AZM757)
Xenco Tucson (EPA Lab code: AZ000989): Arizona (AZ0758)



17-JUN-15

Project Manager: **Sheldon Hitckcock**

Talon LPE

408 W. Texas St.

Artesia, NM 88210

Reference: XENCO Report No(s): **509403**

Cal B

Project Address:

Sheldon Hitckcock:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 509403. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

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

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 509403 will be filed for 60 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

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

Respectfully,

Kelsey Brooks

Project Manager

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Sample Cross Reference 509403



Talon LPE, Artesia, NM

Cal B

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
S-1 0'	S	06-10-15 10:35	- 0	509403-001
S-2 0'	S	06-10-15 10:36	- 1	509403-002
S-3 0'	S	06-10-15 10:37	- 0	509403-003
S-4 0'	S	06-10-15 10:40	- 1	509403-004
S-5 0'	S	06-10-15 10:45	- 1	509403-005



CASE NARRATIVE



Client Name: Talon LPE

Project Name: Cal B

Project ID: 701583.141.01
Work Order Number(s): 509403

Report Date: 17-JUN-15
Date Received: 06/11/2015

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

Certificate of Analysis Summary 509403

Talon LPE, Artesia, NM

Project Name: Cal B

Project Id: 701583.141.01
Contact: Sheldon Hitchcock
Project Location:



Date Received in Lab: Thu Jun-11-15 09:45 am
Report Date: 17-JUN-15

Project Manager: Kelsey Brooks

Analysis Requested	Lab Id: Field Id: Depth: Matrix: Sampled:	509403-001	509403-002	509403-003	509403-004	509403-005
		S-1 0' 0 SOIL Jun-10-15 10:35	S-2 0' 1 SOIL Jun-10-15 10:36	S-3 0' 0 SOIL Jun-10-15 10:37	S-4 0' 1 SOIL Jun-10-15 10:40	S-5 0' 1 SOIL Jun-10-15 10:45
BTX by EPA 8021B	Extracted:	Jun-11-15 13:00	Jun-11-15 13:00	Jun-11-15 13:00	Jun-11-15 13:00	Jun-11-15 13:00
	Analyzed:	Jun-12-15 13:02	Jun-12-15 13:19	Jun-12-15 13:36	Jun-12-15 13:52	Jun-12-15 14:09
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
		0.887 0.0575	ND 0.0255	ND 0.0216	ND 0.0215	ND 0.0261
		5.57 0.115	ND 0.0510	ND 0.0432	ND 0.0429	0.161 0.0523
Inorganic Anions by EPA 300/300.1	Extracted:	Jun-12-15 17:00	Jun-12-15 17:00	Jun-12-15 17:00	Jun-12-15 17:00	Jun-12-15 17:00
	Analyzed:	Jun-14-15 07:32	Jun-14-15 08:40	Jun-14-15 09:03	Jun-14-15 09:26	Jun-14-15 09:48
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
		503 46.2	29.7 12.8	58.1 21.8	151 10.8	ND 13.2
Percent Moisture	Extracted:	Jun-11-15 17:30	Jun-11-15 17:30	Jun-11-15 17:30	Jun-11-15 17:30	Jun-11-15 17:30
	Analyzed:					
	Units/RL:	% RL	% RL	% RL	% RL	% RL
TPH By SW8015 Mod	Extracted:	Jun-15-15 17:00	Jun-15-15 17:00	Jun-15-15 17:00	Jun-15-15 17:00	Jun-15-15 17:00
	Analyzed:	Jun-16-15 07:58	Jun-15-15 21:09	Jun-15-15 21:32	Jun-15-15 21:53	Jun-15-15 22:14
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
C6-C12 Gasoline Range Hydrocarbons		2380 173	272 19.2	973 81.3	2050 161	1090 19.7
C12-C28 Diesel Range Hydrocarbons		36800 173	809 19.2	11900 81.3	32600 161	4780 19.7
C28-C35 Oil Range Hydrocarbons		1810 173	32.3 19.2	1320 81.3	1140 161	138 19.7
Total TPH		41000 173	1110 19.2	14200 81.3	35800 161	6010 19.7

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

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Kelsey Brooks
Project Manager



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

****** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit.

RL Reporting Limit

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

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

DL Method Detection Limit

NC Non-Calculable

+ NELAC certification not offered for this compound.

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

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5332 Blackberry Drive, San Antonio TX 78238
2505 North Falkenburg Rd, Tampa, FL 33619
12600 West I-20 East, Odessa, TX 79765
6017 Financial Drive, Norcross, GA 30071
3725 E. Atlanta Ave, Phoenix, AZ 85040

Phone	Fax
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(214) 902 0300	(214) 351-9139
(210) 509-3334	(210) 509-3335
(813) 620-2000	(813) 620-2033
(432) 563-1800	(432) 563-1713
(770) 449-8800	(770) 449-5477
(602) 437-0330	



Form 2 - Surrogate Recoveries

Project Name: Cal B

Work Orders : 509403,

Lab Batch #: 970120

Sample: 509403-001 / SMP

Project ID: 701583.141.01

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 06/12/15 13:02

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0246	0.0300	82	80-120	
4-Bromofluorobenzene	0.0314	0.0300	105	80-120	

Lab Batch #: 970120

Sample: 509403-002 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 06/12/15 13:19

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	0.0355	0.0300	118	80-120	

Lab Batch #: 970120

Sample: 509403-003 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 06/12/15 13:36

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0256	0.0300	85	80-120	
4-Bromofluorobenzene	0.0355	0.0300	118	80-120	

Lab Batch #: 970120

Sample: 509403-004 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 06/12/15 13:52

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0246	0.0300	82	80-120	
4-Bromofluorobenzene	0.0353	0.0300	118	80-120	

Lab Batch #: 970120

Sample: 509403-005 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 06/12/15 14:09

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0257	0.0300	86	80-120	
4-Bromofluorobenzene	0.0356	0.0300	119	80-120	

* Surrogate outside of Laboratory QC limits

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

*** Poor recoveries due to dilution

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

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



Form 2 - Surrogate Recoveries
Project Name: Cal B

Work Orders : 509403,

Project ID: 701583.141.01

Lab Batch #: 970422

Sample: 509403-002 / SMP

Batch: 1 **Matrix:** Soil

Units: mg/kg

Date Analyzed: 06/15/15 21:09

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	121	99.9	121	70-135	
o-Terphenyl	61.4	50.0	123	70-135	

Lab Batch #: 970422

Sample: 509403-003 / SMP

Batch: 1 **Matrix:** Soil

Units: mg/kg

Date Analyzed: 06/15/15 21:32

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	117	99.7	117	70-135	
o-Terphenyl	56.8	49.9	114	70-135	

Lab Batch #: 970422

Sample: 509403-004 / SMP

Batch: 1 **Matrix:** Soil

Units: mg/kg

Date Analyzed: 06/15/15 21:53

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	127	99.6	128	70-135	
o-Terphenyl	60.8	49.8	122	70-135	

Lab Batch #: 970422

Sample: 509403-005 / SMP

Batch: 1 **Matrix:** Soil

Units: mg/kg

Date Analyzed: 06/15/15 22:14

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	124	99.7	124	70-135	
o-Terphenyl	59.1	49.9	118	70-135	

Lab Batch #: 970422

Sample: 509403-001 / SMP

Batch: 1 **Matrix:** Soil

Units: mg/kg

Date Analyzed: 06/16/15 07:58

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	126	99.6	127	70-135	
o-Terphenyl	62.4	49.8	125	70-135	

* Surrogate outside of Laboratory QC limits

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

*** Poor recoveries due to dilution

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

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



Form 2 - Surrogate Recoveries
Project Name: Cal B

Work Orders : 509403,

Project ID: 701583.141.01

Lab Batch #: 970120

Sample: 693780-1-BLK / BLK

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 06/11/15 14:31

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1,4-Difluorobenzene	0.0277	0.0300	92	80-120	
4-Bromofluorobenzene	0.0296	0.0300	99	80-120	

Lab Batch #: 970422

Sample: 693961-1-BLK / BLK

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 06/15/15 17:57

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1-Chlorooctane	115	100	115	70-135	
o-Terphenyl	60.0	50.0	120	70-135	

Lab Batch #: 970120

Sample: 693780-1-BKS / BKS

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 06/11/15 14:48

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1,4-Difluorobenzene	0.0278	0.0300	93	80-120	
4-Bromofluorobenzene	0.0323	0.0300	108	80-120	

Lab Batch #: 970422

Sample: 693961-1-BKS / BKS

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 06/15/15 18:20

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1-Chlorooctane	127	100	127	70-135	
o-Terphenyl	57.3	50.0	115	70-135	

Lab Batch #: 970120

Sample: 693780-1-BSD / BSD

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 06/11/15 15:04

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1,4-Difluorobenzene	0.0300	0.0300	100	80-120	
4-Bromofluorobenzene	0.0307	0.0300	102	80-120	

* Surrogate outside of Laboratory QC limits

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

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

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



Form 2 - Surrogate Recoveries

Project Name: Cal B

Work Orders : 509403,

Project ID: 701583.141.01

Lab Batch #: 970422

Sample: 693961-1-BSD / BSD

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 06/15/15 18:42

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	126	100	126	70-135	
o-Terphenyl	58.7	50.0	117	70-135	

Lab Batch #: 970120

Sample: 509265-001 S / MS

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 06/11/15 15:21

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0285	0.0300	95	80-120	
4-Bromofluorobenzene	0.0338	0.0300	113	80-120	

Lab Batch #: 970422

Sample: 509361-001 S / MS

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 06/15/15 19:24

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	125	99.9	125	70-135	
o-Terphenyl	59.5	50.0	119	70-135	

Lab Batch #: 970120

Sample: 509265-001 SD / MSD

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 06/11/15 15:37

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0285	0.0300	95	80-120	
4-Bromofluorobenzene	0.0335	0.0300	112	80-120	

Lab Batch #: 970422

Sample: 509361-001 SD / MSD

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 06/15/15 19:45

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	129	99.7	129	70-135	
o-Terphenyl	59.3	49.9	119	70-135	

* Surrogate outside of Laboratory QC limits

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

*** Poor recoveries due to dilution

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

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

Work Order #: 509403

Analyst: ARM

Lab Batch ID: 970120

Units: mg/kg

Project ID: 701583.141.01

Date Analyzed: 06/11/2015

Matrix: Solid

Date Prepared: 06/11/2015

Batch #: 1

Sample: 693780-1-BKS

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY												
Units: mg/kg												
Analytes	BTEX by EPA 8021B											
	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	<0.00100	0.100	0.0953	95	0.100	0.0943	94	1	70-130	35	
	Toluene	<0.00200	0.100	0.102	102	0.100	0.100	100	2	70-130	35	
	Ethylbenzene	<0.00100	0.100	0.110	110	0.100	0.108	108	2	71-129	35	
	m,p-Xylenes	<0.00200	0.200	0.219	110	0.200	0.215	108	2	70-135	35	
	o-Xylene	<0.00100	0.100	0.109	109	0.100	0.106	106	3	71-133	35	

Date Prepared: 06/12/2015

Date Analyzed: 06/13/2015

Batch #: 1

Matrix: Solid

Sample: 693808-1-BKS

Analyst: JUM

Lab Batch ID: 970265

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY											
Inorganic Anions by EPA 300/300.1	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Analytes											
Chloride	<2.00	50.0	51.3	103	50.0	51.6	103	1	90-110	20	

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

Project Name: Cal B

Work Order #: 509403

Analyst: ARM

Lab Batch ID: 970422

Units: mg/kg

Date Prepared: 06/15/2015

Batch #: 1

Sample: 693961-1-BKS

Project ID: 701583.141.01

Date Analyzed: 06/15/2015

Matrix: Solid

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

Analytes	TPH By SW8015 Mod											
	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag	
C6-C12 Gasoline Range Hydrocarbons	<15.0	1000	1040	104	1000	1040	104	0	70-135	35		
C12-C28 Diesel Range Hydrocarbons	<15.0	1000	1050	105	1000	1060	106	1	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: Cal B



Work Order #: 509403

Lab Batch #: 970265

Date Analyzed: 06/14/2015

QC- Sample ID: 509252-003 S

Reporting Units: mg/kg

Date Prepared: 06/12/2015

Batch #: 1

Project ID: 701583.141.01

Analyst: JUM

Matrix: Soil

MATRIX / MATRIX SPIKE RECOVERY STUDY						
Inorganic Anions by EPA 300	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	%R [D]	Control Limits %R	Flag
Analytes						
Chloride	1400	2820	4690	117	80-120	

Lab Batch #: 970265

Date Analyzed: 06/14/2015

QC- Sample ID: 509281-001 S

Reporting Units: mg/kg

Date Prepared: 06/12/2015

Batch #: 1

Analyst: JUM

Matrix: Soil

MATRIX / MATRIX SPIKE RECOVERY STUDY						
Inorganic Anions by EPA 300	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	%R [D]	Control Limits %R	Flag
Analytes						
Chloride	122000	100000	219000	97	80-120	

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

BRL - Below Reporting Limit

Project Name: Cal B

Work Order #: 509403
 Lab Batch ID: 970120
 Date Analyzed: 06/11/2015
 Reporting Units: mg/kg

Project ID: 701583.141.01

QC- Sample ID: 509265-001 S

Batch #: 1 Matrix: Soil

Date Prepared: 06/11/2015

Analyst: ARM

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Analytes	Parent Sample Result [A]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [B]	Spiked Sample %R [D]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
BTEX by EPA 8021B											
Benzene	<0.000998	0.0912	91	0.0998	0.0998	0.0920	92	1	70-130	35	
Toluene	<0.00200	0.0980	98	0.0998	0.0998	0.0983	98	0	70-130	35	
Ethylbenzene	<0.000998	0.106	106	0.0998	0.0998	0.106	106	0	71-129	35	
m,p-Xylenes	<0.00200	0.210	105	0.200	0.200	0.209	105	0	70-135	35	
o-Xylene	<0.000998	0.105	105	0.0998	0.0998	0.104	104	1	71-133	35	

QC- Sample ID: 509361-001 S

Batch #: 1 Matrix: Soil

Date Prepared: 06/15/2015

Analyst: ARM

Lab Batch ID: 970422

Date Analyzed: 06/15/2015

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Analytes	Parent Sample Result [A]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [B]	Spiked Sample %R [D]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
TPH By SW8015 Mod											
C6-C12 Gasoline Range Hydrocarbons	<18.2	1240	102	1220	102	1340	111	8	70-135	35	
C12-C28 Diesel Range Hydrocarbons	<18.2	1380	113	1220	113	1360	112	1	70-135	35	

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

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

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



Sample Duplicate Recovery



Project Name: Cal B

Work Order #: 509403

Lab Batch #: 970118

Project ID: 701583.141.01

Date Analyzed: 06/11/2015 17:30

Date Prepared: 06/11/2015

Analyst: WRU

QC- Sample ID: 509081-015 D

Batch #: 1

Matrix: Soil

Reporting Units: %

SAMPLE / SAMPLE DUPLICATE RECOVERY					
Percent Moisture	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
Percent Moisture	10.0	10.6	6	20	

Lab Batch #: 970118

Date Analyzed: 06/11/2015 17:30

Date Prepared: 06/11/2015

Analyst: WRU

QC- Sample ID: 509470-004 D

Batch #: 1

Matrix: Soil

Reporting Units: %

SAMPLE / SAMPLE DUPLICATE RECOVERY					
Percent Moisture	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
Percent Moisture	<1.00	<1.00	0	20	U

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

Setting the Standard since 1990
Stafford, Texas (281-240-4200)
Dallas, Texas (214-902-0300)

Service Center - San Antonio, Texas (210-509-3334)

www.xenco.com

Odessa, Texas (432-563-1800)

Norcross, Georgia (770-443-8800)

Lakeland, Florida (863-646-8526)

Tampa, Florida (813-620-2000)

504A03

Client / Reporting Information		Project Information		Analytical Information		Matrix Codes	
Company Name / Branch: Talen/LPE		Project Name/Number: Cal 3 701583, 141, 01					
Company Address: 408 W. Texas Ave. Box 1111, NM 88210		Project Location: Sheldon Hitchcock - Talen/LPE					
Email: Sheldon.Hitchcock@TalenLPE.com		Invoice To: Sheldon Hitchcock - Talen/LPE					
Project Contact: Sheldon Hitchcock		PO Number: 701583, 141, 01					
Sampler's Name: Sheldon Hitchcock							

No.	Field ID / Point of Collection	Collection		Number of preserved bottles								Field Comments			
		Sample Depth	Date	Time	Matrix	# of bottles	HCl	NaOH/Zn Acetate	HNO3	H2SO4	NaOH		NaHSO4	MEOH	None
1	5-1 0'	0'	4/16/15	6:35	S	1									TPH 8015 M
2	5-2 0'	0'		6:36	S	1									BTEX 8021 B
3	5-3 0'	0'		6:37	S	1									Total Chlorides
4	5-4 0'	0'		6:40	S	1									
5	5-5 0'	0'		6:45	S	1									
6															
7															
8															
9															
10															

Turnaround Time (Business days)		Data Deliverable Information		Notes	
<input type="checkbox"/> Same Day TAT	<input type="checkbox"/> 5 Day TAT	<input type="checkbox"/> Level II Std QC	<input type="checkbox"/> Level IV (Full Data Pkg /raw data)		
<input type="checkbox"/> Next Day EMERGENCY	<input checked="" type="checkbox"/> 7 Day TAT	<input type="checkbox"/> Level III Std QC+ Forms	<input type="checkbox"/> TRRP Level IV		
<input type="checkbox"/> 2 Day EMERGENCY	<input type="checkbox"/> Contract TAT	<input type="checkbox"/> Level 3 (CLP Forms)	<input type="checkbox"/> UST / RG-411		
<input type="checkbox"/> 3 Day EMERGENCY		<input type="checkbox"/> TRRP Checklist			

TAT Starts Day received by Lab, if received by 3:00 pm		FED-EX / UPS: Tracking #	
Relinquished by Sampler: Sheldon Hitchcock	Date Time: 1/3/17	Received By: Sheldon Hitchcock	Relinquished By: Sheldon Hitchcock
Relinquished by: Sheldon Hitchcock	Date Time: 1/3/17	Received By: Sheldon Hitchcock	Relinquished By: Sheldon Hitchcock
Relinquished by: Sheldon Hitchcock	Date Time: 1/3/17	Received By: Sheldon Hitchcock	Relinquished By: Sheldon Hitchcock
Relinquished by: Sheldon Hitchcock	Date Time: 1/3/17	Received By: Sheldon Hitchcock	Relinquished By: Sheldon Hitchcock

On Ice <input checked="" type="checkbox"/>	Cooler Temp. 1.3C	Thermo Corr. Factor 0
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XENCO Laboratories
Prelogin/Nonconformance Report- Sample Log-In



Client: Talon LPE

Date/ Time Received: 06/11/2015 09:45:00 AM

Work Order #: 509403

Acceptable Temperature Range: 0 - 6 degC

Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used :

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

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

Analyst:

PH Device/Lot#:

Checklist completed by:

Kelsey Brooks
Kelsey Brooks

Date: 06/11/2015

Checklist reviewed by:

Kelsey Brooks
Kelsey Brooks

Date: 06/11/2015