4

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	Energy Minerals and Natural Resources Department Oil Conservation Division 1220 South St. Francis Dr. Santa Fe, NM 87505	Revised August 1, 201 For temporary pits, closed-loop systems, and below-grade tanks, submit to the appropriate NMOCD District Office. For permanent pits and exceptions submit to the Santa Fe Environmental Bureau office and provide a copy to the appropriate NMOCD District Office.				
Pit, Cl	losed-Loop System, Below-Grade	<u>Fank, or</u>				
Proposed Alter	rnative Method Permit or Closure I	Plan Application				
Type of action: Permit X Closury Modifi Closury below-grade tank, or propos	of a pit, closed-loop system, below-grade tank, of e of a pit, closed-loop system, below-grade tank, ication to an existing permit e plan only submitted for an existing permitted of ed alternative method	or proposed alternative method or proposed alternative method r non-permitted pit, closed-loop system,				
Instructions: Please submit one applicat	tion (Form C-144) per individual pit, closed-loop syst	em, below-grade tank or alternative request				
Please be advised that approval of this request does no environment. Nor does approval relieve the operator of	t relieve the operator of liability should operations result is of its responsibility to comply with any other applicable get	in pollution of surface water, ground water or the overnmental authority's rules, regulations or ordinances.				
1. Operator: Southern Union Gas Service	es OGRID #: N	/A				
Address: 801 S. Loop 464 Monahans, 5						
Facility or well name: Trunk "O" Tank Bat	ttery (RP-1800)					
API Number: N/A	OCD Permit Number:					
U/L or Qtr/Qtr H Section 28	Township 20S Range 37E	County: Lea Co, NM				
Center of Proposed Design: Latitude32_3	32.326' Longitude103_1	NAD: □1927 🛛 1983				
Surface Owner: 🗌 Federal 🗌 State 🖾 Private 🗌] Tribal Trust or Indian Allotment					
2. Difference of the second	AC					
Permanent Emergency Cavitation	P&A	HOBBSOCD				
Lined Unlined Liner type: Thickness	mil 🔲 LLDPE 🔲 HDPE 🛄 PVC 🛄 O	ther				
String-Reinforced		AUG 2 3 2013				
Liner Seams: Welded Factory Other	Volume:bb	DI Dimensions: L x W x D				
3.		RECEIVED				

Closed loop Systems	Subsection H of 10 15 17 11 NMAC	
[] Closed-loop System:	Subsection H of 19.15.17.11 NMAC	
Type of Operation: P	🗛 🗌 Drilling a new well 🕡 Workove	r or Drilling (Applies to activities which require prior approval of a permit or notice of

intent) Drying Pad Above Ground Steel Tanks Haul-off Bins Other

Lined Unlined Liner type: Thickness	_mil	LLDPE HDPE PVC Other
Liner Seams: Welded Factory Other		

X Below-grade tank: Subsection I of 19.15.17.11 NMAC

Volume: 100 bbl bbl Type of fluid: Produced Water and Crude Oil

Tank Construction material: <u>Steel</u>

Secondary containment with leak detection 🗌 Visible sidewalls, liner, 6-inch lift and automatic overflow shut-off

Visible sidewalls and liner	Visible sidewalls only	Х	Other	Tank	was	installed by	EPNG	before	BGT	regulations
	=									

Liner type: Thickness N/A ____mil 🔲 HDPE 🗌 PVC 🛄 Other ___

Alternative Method:

Submittal of an exception request is required. Exceptions must be submitted to the Santa Fe Environmental Bureau office for consideration of approval.

Oil Conservation Division

SEP 0 4 2013

Fencing: Subsection D of 19.15.17.11 NMAC (Applies to permanent pits, temporary pits, and below-grade tanks)

Chain Nink, six feet in height, two strands of barbed wire at top (Required if located within 1000 feet of a permanent residence, school, hospital, institution or church)

Four foot height, four strands of barbed wire evenly spaced between one and four feet

Alternate. Please specify

Netting: Subsection E of 19.15.17.11 NMAC (Applies to permanent pits and permanent open top tanks)

Screen 🗌 Netting 🗌 Other_

Monthly inspections (If netting or screening is not physically feasible)

Signs: Subsection C of 19.15.17.11 NMAC

12"x 24", 2" lettering, providing Operator's name, site location, and emergency telephone numbers

Signed in compliance with 19.15.16.8 NMAC

Administrative Approvals and Exceptions:

Justifications and/or demonstrations of equivalency are required. Please refer to 19.15.17 NMAC for guidance.

Please check a box if one or more of the following is requested, if not leave blank:

Administrative approval(s): Requests must be submitted to the appropriate division district or the Santa Fe Environmental Bureau office for consideration of approval.

Exception(s): Requests must be submitted to the Santa Fe Environmental Bureau office for consideration of approval.

Siting Criteria (regarding permitting): 19.15.17.10 NMAC

Instructions: The applicant must demonstrate compliance for each siting criteria below in the application. Recommendations of acceptable source material are provided below. Requests regarding changes to certain siting criteria may require administrative approval from the appropriate district office or may be considered an exception which must be submitted to the Santa Fe Environmental Bureau office for consideration of approval. Applicant must attach justification for request. Please refer to 19.15.17.10 NMAC for guidance. Siting criteria does not apply to drying pads or above-grade tanks associated with a closed-loop system.

Ground water is less than 50 feet below the bottom of the temporary pit, permanent pit, or below-grade tank. - NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells	X Yes 🗍 No
 Within 300 feet of a continuously flowing watercourse, or 200 feet of any other significant watercourse or lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark). Topographic map; Visual inspection (certification) of the proposed site 	🗌 Yes 🗵 No
 Within 300 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application. (Applies to temporary, emergency, or cavitation pits and below-grade tanks) Visual inspection (certification) of the proposed site; Aerial photo; Satellite image 	☐ Yes ⊠ No ☐ NA
 Within 1000 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application. (Applies to permanent pits) Visual inspection (certification) of the proposed site; Aerial photo; Satellite image 	☐ Yes ⊠ No ☐ NA
 Within 500 horizontal feet of a private, domestic fresh water well or spring that less than five households use for domestic or stock watering purposes, or within 1000 horizontal feet of any other fresh water well or spring, in existence at the time of initial application. NM Office of the State Engineer - iWATERS database search; Visual inspection (certification) of the proposed site 	X Yes No
 Within incorporated municipal boundaries or within a defined municipal fresh water well field covered under a municipal ordinance adopted pursuant to NMSA 1978, Section 3-27-3, as amended. Written confirmation or verification from the municipality; Written approval obtained from the municipality 	🗌 Yes 🕅 No
 Within 500 feet of a wetland. US Fish and Wildlife Wetland Identification map; Topographic map; Visual inspection (certification) of the proposed site 	🗌 Yes 🔀 No
 Within the area overlying a subsurface mine. Written confirmation or verification or map from the NM EMNRD-Mining and Mineral Division 	🗌 Yes 🗶 No
 Within an unstable area. Engineering measures incorporated into the design; NM Bureau of Geology & Mineral Resources; USGS; NM Geological Society; Topographic map 	🗌 Yes 🛛 No
Within a 100-year floodplain. - FEMA map	🗌 Yes 🗶 No

Temporary Pits, Emergency Pits, and Below-grade Tanks Permit Application Attachment Checklist: Subsection Instructions: Each of the following items must be attached to the application. Please indicate, by a check mark in the attached. Hydrogeologic Report (Below-grade Tanks) - based upon the requirements of Paragraph (4) of Subsection B of 19 Hydrogeologic Data (Temporary and Emergency Pits) - based upon the requirements of Paragraph (2) of Subsection Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19.15.17.10 NMAC Design Plan - based upon the appropriate requirements of 19.15.17.12 NMAC Closure Plan (Please complete Boxes 14 through 18, if applicable) - based upon the appropriate requirements of S and 19.15.17.13 NMAC Previously Approved Design (attach copy of design) API Number: or Permit Number	B of 19.15.17.9 NMAC e box, that the documents are 0.15.17.9 NMAC on B of 19.15.17.9 NMAC ubsection C of 19.15.17.9 NMAC
 12. Closed-loop Systems Permit Application Attachment Checklist: Subsection B of 19.15.17.9 NMAC Instructions: Each of the following items must be attached to the application. Please indicate, by a check mark in the attached. Geologic and Hydrogeologic Data (only for on-site closure) - based upon the requirements of Paragraph (3) of Su Siting Criteria Compliance Demonstrations (only for on-site closure) - based upon the appropriate requirements of Design Plan - based upon the appropriate requirements of 19.15.17.11 NMAC Operating and Maintenance Plan - based upon the appropriate requirements of 19.15.17.12 NMAC Closure Plan (Please complete Boxes 14 through 18, if applicable) - based upon the appropriate requirements of 19.15.17.12 NMAC 	e box, that the documents are bsection B of 19.15.17.9 f 19.15.17.10 NMAC Subsection C of 19.15.17.9 NMAC
and 19.15.17.13 NMAC	
Previously Approved Design (attach copy of design) API Number:	
Previously Approved Operating and Maintenance Plan API Number: (Applies only	to closed-loop system that use
above ground steel tanks or haul-off bins and propose to implement waste removal for closure)	
Permanent Pits Permit Application Checklist: Subsection B of 19.15.17.9 NMAC Instructions: Each of the following items must be attached to the application. Please indicate, by a check mark in the attached.	e box, that the documents are
Proposed Closure: 19.15.17.13 NMAC Instructions: Please complete the applicable boxes, Boxes 14 through 18, in regards to the proposed closure plan. Type: Drilling Workover Emergency Cavitation P&A Permanent Pit Below-grade Tank Alternative Proposed Closure Method: X Waste Excavation and Removal Waste Removal (Closed-loop systems only) On-site Closure Method (Only for temporary pits and closed-loop systems) In-place Burial On-site Trench Burial	Closed-loop System
Alternative Closure Method (Exceptions must be submitted to the Santa Fe Environmen	tal Bureau for consideration)
Waste Excavation and Removal Closure Plan Checklist: (19.15.17.13 NMAC) Instructions: Each of the following closure plan. Please indicate, by a check mark in the box, that the documents are attached.	<i>items must be attached to the</i> 7.13 NMAC 5.17.13 NMAC

4

11.

Waste Removal Closure For Closed-loop Systems That Utilize Above Ground Stee Instructions: Please indentify the facility or facilities for the disposal of liquids, drill facilities are required.	el Tanks or Haul-off Bins Only: (19.15.17.13.E ing fluids and drill cuttings. Use attachment if n) NMAC) nore than two							
Disposal Facility Name: Dis	posal Facility Permit Number:								
Disposal Facility Name: Dis	posal Facility Permit Number:								
Will any of the proposed closed-loop system operations and associated activities occur Yes (If yes, please provide the information below) No	/ill any of the proposed closed-loop system operations and associated activities occur on or in areas that <i>will not</i> be used for future service and operations? Ves (If yes, please provide the information below) No								
Required for impacted areas which will not be used for future service and operations: Soil Backfill and Cover Design Specifications based upon the appropriate req Re-vegetation Plan - based upon the appropriate requirements of Subsection I of Site Reclamation Plan - based upon the appropriate requirements of Subsection 0	uirements of Subsection H of 19.15.17.13 NMA 19.15.17.13 NMAC G of 19.15.17.13 NMAC	2							
^{17.} Siting Criteria (regarding on-site closure methods only): 19.15.17.10 NMAC Instructions: Each siting criteria requires a demonstration of compliance in the closs provided below. Requests regarding changes to certain siting criteria may require and considered an exception which must be submitted to the Santa Fe Environmental Bu demonstrations of equivalency are required. Please refer to 19.15.17.10 NMAC for g	ure plan. Recommendations of acceptable sour ministrative approval from the appropriate distr reau office for consideration of approval. Justi uidance.	ce material are rict office or may be fications and/or							
Ground water is less than 50 feet below the bottom of the buried waste. - NM Office of the State Engineer - iWATERS database search; USGS; Data ob	tained from nearby wells	□ Yes □ No □ NA							
Ground water is between 50 and 100 feet below the bottom of the buried waste - NM Office of the State Engineer - iWATERS database search; USGS; Data ob	tained from nearby wells	□ Yes □ No □ NA							
Ground water is more than 100 feet below the bottom of the buried waste. - NM Office of the State Engineer - iWATERS database search; USGS; Data ob	tained from nearby wells	□ Yes □ No □ NA							
 Within 300 feet of a continuously flowing watercourse, or 200 feet of any other significe lake (measured from the ordinary high-water mark). Topographic map; Visual inspection (certification) of the proposed site 	cant watercourse or lakebed, sinkhole, or playa	🗋 Yes 🗌 No							
Within 300 feet from a permanent residence, school, hospital, institution, or church in e - Visual inspection (certification) of the proposed site; Aerial photo; Satellite images	existence at the time of initial application.	🗋 Yes 🗌 No							
Within 500 horizontal feet of a private, domestic fresh water well or spring that less that watering purposes, or within 1000 horizontal feet of any other fresh water well or sprint - NM Office of the State Engineer - iWATERS database; Visual inspection (cert	n five households use for domestic or stock g, in existence at the time of initial application. ification) of the proposed site	🗌 Yes 🗌 No							
Within incorporated municipal boundaries or within a defined municipal fresh water we adopted pursuant to NMSA 1978, Section 3-27-3, as amended. - Written confirmation or verification from the municipality; Written approval of	ell field covered under a municipal ordinance ptained from the municipality	🗌 Yes 🗌 No							
Within 500 feet of a wetland. - US Fish and Wildlife Wetland Identification map; Topographic map; Visual in	spection (certification) of the proposed site	🗌 Yes 🗌 No							
Within the area overlying a subsurface mine.Written confirmation or verification or map from the NM EMNRD-Mining and	Mineral Division	🗌 Yes 🗌 No							
 Within an unstable area. Engineering measures incorporated into the design; NM Bureau of Geology & Society; Topographic map 	Mineral Resources; USGS; NM Geological	🗌 Yes 🗌 No							
Within a 100-year floodplain. - FEMA map		🗌 Yes 🗌 No							
 18. On-Site Closure Plan Checklist: (19.15.17.13 NMAC) Instructions: Each of the for by a check mark in the box, that the documents are attached. Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of Sult Crostruction/Design Plan of Burial Trench (if applicable) based upon the appropriate construction/Design Plan of Temporary Pit (for in-place burial of a drying pad) Protocols and Procedures - based upon the appropriate requirements of 19.15.17. Confirmation Sampling Plan (if applicable) - based upon the appropriate requirements of Sub Disposal Facility Name and Permit Number (for liquids, drilling fluids and drill Soil Cover Design - based upon the appropriate requirements of Subsection H of 	<i>Clowing items must be attached to the closure pla</i> ments of 19.15.17.10 NMAC bisection F of 19.15.17.13 NMAC oriate requirements of 19.15.17.11 NMAC - based upon the appropriate requirements of 19. 13 NMAC ments of Subsection F of 19.15.17.13 NMAC section F of 19.15.17.13 NMAC cuttings or in case on-site closure standards canne (19.15.17.13 NMAC	an. Please indicate, 15.17.11 NMAC ot be achieved)							

Re-vegetation Plan - based upon the appropriate requirements of Subsection I of 19.15.17.13 NMAC
 Site Reclamation Plan - based upon the appropriate requirements of Subsection G of 19.15.17.13 NMAC

 19. Operator Application Certification: I hereby certify that the information submitted with this application is true, accur 	ate and complete to the best of my knowledge and belief.
Name (Print):	Title:
Signature:	Date:
e-mail address:	Telephone:
20. OCD Approval: Permit Application (including closure plan) Closure P	lan (only) OCD Conditions (see attachment)
OCD Representative Signature:	Approval Date:
Title:	OCD Permit Number:
21. <u>Closure Report (required within 60 days of closure completion)</u> : Subsection Instructions: Operators are required to obtain an approved closure plan prior The closure report is required to be submitted to the division within 60 days of a section of the form until an approved closure plan has been obtained and the cl	K of 19.15.17.13 NMAC to implementing any closure activities and submitting the closure report. the completion of the closure activities. Please do not complete this losure activities have been completed. X Closure Completion Date: <u>4/3/13</u>
22. Closure Method: X Waste Excavation and Removal On-Site Closure Method If different from approved plan, please explain.	ative Closure Method 🔲 Waste Removal (Closed-loop systems only)
23. <u>Closure Report Regarding Waste Removal Closure For Closed-loop Systems</u> Instructions: Please indentify the facility or facilities for where the liquids, driv two facilities were utilized.	s That Utilize Above Ground Steel Tanks or Haul-off Bins Only: Iling fluids and drill cuttings were disposed. Use attachment if more than
Disposal Facility Name:	Disposal Facility Permit Number:
Disposal Facility Name:	Disposal Facility Permit Number:
☐ Yes (If yes, please demonstrate compliance to the items below) ☐ No	in areas that will not be used for future solvice and operations:
Required for impacted areas which will not be used for future service and operation Site Reclamation (Photo Documentation) Soil Backfilling and Cover Installation Re-vegetation Application Rates and Seeding Technique	ions:
24. Closure Report Attachment Checklist: Instructions: Each of the following it mark in the box, that the documents are attached. X Proof of Closure Notice (surface owner and division) Proof of Deed Notice (required for on-site closure) Plot Plan (for on-site closures and temporary pits) X Confirmation Sampling Analytical Results (if applicable) Waste Material Sampling Analytical Results (required for on-site closure) X Disposal Facility Name and Permit Number X Soil Backfilling and Cover Installation Re-vegetation Application Rates and Seeding Technique Site Reclamation (Photo Documentation) On-site Closure Location: Latitude Longin	ems must be attached to the closure report. Please indicate, by a check approved State Specialist NMOC D - DIST (1/4/13 rude NAD: [1927] 1983
25. Operator Closure Certification:	
I hereby certify that the information and attachments submitted with this closure belief. I also certify that the closure complies with all applicable closure requirer	report is true, accurate and complete to the best of my knowledge and nents and conditions specified in the approved closure plan.
Name (Print): Vhihip Little	Title: EHS Specialist
Signature: Dir futt.	Date: 8-23-13
e-mail address: philip, Little @ resency gas. com	Telephone: 575-631-2586

.

Basin Environmental Service Technologies, LLC

3100 Plains Highway
P. O. Box 301
Lovington, New Mexico 88260
jwlowry@basinenv.com
Office: (575) 396-2378
Fax: (575) 396-1429

čگ **Effective Solutions**

REMEDIATION SUMMARY &

SITE CLOSURE REQUEST

SOUTHERN UNION GAS SERVICES TRUNK "O" TANK BATTERY (1RP-1800) HISTORICAL RELEASE SITE Lea County, New Mexico Unit Letter "H" (SE/NE), Section 28, Township 20 South, Range 37 East Latitude 32° 32.326' North, Longitude 103° 17.689' West NMOCD Reference # 1RP-1800

Prepared For:

Southern Union Gas Services 801 S. Loop 464 Monahans, TX 79756

Prepared By: Basin Environmental Service Technologies, LLC 3100 Plains Highway Lovington, New Mexico 88260

October 2012

TABLE OF CONTENTS

1.0	INTRODUCTION	1
2.0	NMOCD SITE CLASSIFICATION	1
3.0	SUMMARY OF SOIL REMEDIATION ACTIVITIES	2
4.0	QA/QC PROCEDURES	3
	4.1 Soil Sampling	3
	4.2 Decontamination of Equipment	4
	4.3 Laboratory Protocol.	4
5.0	SITE CLOSURE REQUEST	4
6.0	LIMITATIONS	4
7.0	DISTRIBUTION	5

FIGURES

Figure 1 – Site Location Map Figure 2 – Site & Sample Location Map

TABLES

· . '

Table 1 - Concentrations of Benzene, BTEX, TPH & Chloride in Soil

APPENDICES

Appendix A – Photographs Appendix B – Laboratory Analytical Reports Appendix C – Pit or Below-Grade Tank Registration Form (Form C-144)

1.0 INTRODUCTION & BACKGROUND INFORMATION

Basin Environmental Service Technologies, LLC (Basin), on behalf of Southern Union Gas Services (Southern Union), has prepared this *Remediation Summary & Site Closure Request* for the Trunk "O" Tank Battery Historical Release Site (1RP-1800). The legal description of the release site is Unit Letter "H" (SE/NE), Section 28, Township 20 South, Range 37 East, in Lea County, New Mexico. The geographic coordinates of the release site are 32° 32.326' North latitude and 103° 17.689' West longitude. The property affected by the release is owned by the Millard Deck Estate.

On February 5, 2008, Southern Union filed a "Pit or Below-Grade Tank Registration of Closure Form" (Form C-144) with the New Mexico Oil Conservation Division (NMOCD) Hobbs District Office, registering the Trunk "O" Tank Battery and notifying them of their intentions to remove the on-site below-grade tank (BGT) and remediate the area. The Form C-144 described the BGT as a steel one hundred barrel (100 bbl) tank used to contain produced water and crude oil. The C-144 indicated the tank was installed by El Paso Natural Gas (EPNG) before the BGT regulations were written.

On February 18, 2008, exhumation of the BGT began. Inactive pipelines and plumbing were disconnected, and the BGT was removed and transported to a disposal facility. Five (5) field samples were collected from the excavation floor and sidewalls for photo-ionization detector (PID) analysis. PID readings suggested there were no total petroleum hydrocarbons (TPH) present in the soil surrounding the BGT. General photographs of the release site are provided as Appendix A. The Form C-144 is provided as Appendix C.

On February 21, 2008, the excavated area representing the former BGT location was backfilled with locally purchased, non-impacted material. Excavation backfill was water-packed and compacted in eighteen-inch (18") lifts.

2.0 NMOCD SITE CLASSIFICATION

An NMOCD representative indicated on the initial C-144 that the depth to groundwater is approximately thirty feet (30') below ground surface (bgs). Based on the NMOCD ranking system, twenty (20) points will be assigned to the site as a result of this criterion.

A search of the New Mexico Water Rights Reporting System (NMWRRS) database indicated there is one registered water well located approximately three hundred feet (300') northeast (upgradient) of the release. Based on the NMOCD ranking system, twenty (20) points will be assigned to the site as a result of this criterion.

There is one surface water body approximately two hundred thirty feet (230') northeast (upgradient) of the release. Based on the NMOCD ranking system, ten (10) points will be assigned to the site as a result of this criterion.

NMOCD guidelines indicate the Trunk "O" Tank Battery Historical Release Site has an initial ranking score of fifty (50) points. The soil remediation levels for a site with a ranking score of greater than nineteen (>19) points are as follows:

1

- Benzene -10 mg/Kg (ppm)
- Benzene, toluene, ethylbenzene and xylene (BTEX) 50 mg/Kg (ppm)
- Total petroleum hydrocarbons (TPH) 100 mg/Kg (ppm)

The New Mexico Administrative Code (NMAC) does not currently specify a remediation level for chloride concentrations in soil. Chloride remediation levels are set by the NMOCD on a site-specific basis.

3.0 SUMMARY OF SOIL REMEDIATION ACTIVITIES

On August 10, 2012, Basin responded to the Trunk "O" Tank Battery Historical Release Site. The location characterized by the former BGT was excavated to approximately twelve feet (12') bgs. A series of test trenches were advanced in the undisturbed soil adjacent to the former BGT location in an effort to determine if impacted soil containing BTEX, TPH and chloride concentrations above NMOCD regulatory standards remained in-situ.

Prior to excavating the former BGT location, one (1) surface soil sample (Surface) was collected from the inferred center of the former BGT location and submitted to Permian Basin Environmental Lab, LP, of Midland, Texas for determination of BTEX, TPH and chloride concentrations in accordance with EPA Methods SW 846-8021B, SW 846-8015M and 300.0. Laboratory analytical results indicated benzene and BTEX concentrations were less than the appropriate laboratory method detection limit (MDL). Analytical results indicated the TPH concentration was less than the laboratory MDL. The chloride concentration was 31.6 mg/Kg. Table 1 summarizes the "Concentrations of Benzene, BTEX, TPH & Chloride in Soil". Soil sample locations are depicted in Figure 2, "Site & Sample Location Map". Laboratory analytical reports are provided as Appendix B.

Test trench S.E. Wall was advanced to approximately six feet (6') bgs radiating southeast from the former BGT location. During the advancement of the test trench, one (1) soil sample (S.E. Wall @ 6') was collected and submitted to the laboratory for analysis. Laboratory analytical results indicated benzene and BTEX concentrations were less than the appropriate laboratory method detection limit (MDL). Analytical results indicated the TPH concentration was less than the laboratory MDL. The chloride concentration was 93.3 mg/Kg.

Test trench N.E. Wall was advanced to approximately six feet (6') bgs radiating northeast from the former BGT location. During the advancement of the test trench, one (1) soil sample (N.E. Wall @ 6') was collected and submitted to the laboratory for analysis. Laboratory analytical results indicated benzene and BTEX concentrations were less than the appropriate laboratory method detection limit (MDL). Analytical results indicated the TPH concentration was less than the laboratory MDL. The chloride concentration was 327 mg/Kg. Laboratory analytical reports indicated the sidewall defined by soil sample N.E. Wall @ 6' needed further excavation.

Test trench S.W. Wall was advanced to approximately six feet (6') bgs radiating southwest from the former BGT location. During the advancement of the test trench, one (1) soil sample (S.W. Wall @ 6') was collected and submitted to the laboratory for analysis. Laboratory analytical results indicated benzene and BTEX concentrations were less than the appropriate laboratory

MDL. Analytical results indicated the TPH concentration was less than the laboratory MDL. The chloride concentration was 142 mg/Kg.

Test trench N.W. Wall was advanced to approximately six feet (6') bgs radiating northwest from the former BGT location. During the advancement of the test trench, one (1) soil sample (N.W. Wall @ 6') was collected and submitted to the laboratory for analysis. Laboratory analytical results indicated benzene and BTEX concentrations were less than the appropriate laboratory MDL. Analytical results indicated the TPH concentration was less than the laboratory MDL. The chloride concentration was 31.8 mg/Kg.

Following advancement of the test trenches, one (1) soil sample (Floor @ 12') was collected from the floor of the inferred center of the former BGT location and submitted to the laboratory for analysis. Laboratory analytical results indicated benzene and BTEX concentrations were less than the appropriate laboratory MDL. Analytical results indicated the TPH concentration was less than the laboratory MDL. The chloride concentration was 192 mg/Kg.

One (1) five-point composite soil sample (Stockpile) was collected from the stockpiled material and submitted for laboratory analysis to determine if the material was suitable for use as backfill. Laboratory analytical results indicated benzene and BTEX concentrations were less than the appropriate laboratory MDL. Analytical results indicated the TPH concentration was less than the laboratory MDL. The chloride concentration was 28.4 mg/Kg.

On September 4, 2012, excavation activities resumed at the Trunk "O" Tank Battery Historical Release Site. As per NMOCD request, the sidewall defined by soil sample N.E. Wall @ 6' was advanced an additional two feet (2'). On removal of the soil defined by soil sample N.E. Wall @ 6', one (1) additional soil sample (North East Wall) was collected from the excavation sidewall and submitted to the laboratory for analysis of chloride concentrations. Laboratory analytical results indicated the chloride concentration was 43.5 mg/Kg.

On September 4, 2012, the excavation was backfilled with the on-site stockpiled material. Prior to backfilling, the final dimensions of the excavation were approximately twenty feet (20') in length, seventeen feet (17') in width, and twelve feet (12') in depth.

4.0 QA/QC PROCEDURES

4.1 Soil Sampling

Soil samples were delivered to Permian Basin Environmental Lab LP, of Midland, Texas, for BTEX, TPH, and/or chloride analyses using the methods described below:

- BTEX concentrations in accordance with EPA Method SW-846 8021b
- TPH concentrations in accordance with modified EPA Method SW-846 8015M
- Chloride concentrations in accordance with EPA Method 300.0

4.2 Decontamination of Equipment

Cleaning of the sampling equipment was the responsibility of the environmental technician. Prior to use, and between each sample, the sampling equipment was cleaned with Liqui-Nox® detergent and rinsed with distilled water.

4.3 Laboratory Protocol

The laboratory was responsible for proper QA/QC procedures after signing the chain-of-custody form(s). These procedures were either transmitted with the laboratory reports or are on file at the laboratory.

5.0 SITE CLOSURE REQUEST

Laboratory analytical results from confirmation soil samples collected from the excavation floor and sidewalls indicated benzene, BTEX, TPH and chloride concentrations were less than NMOCD regulatory standards. Based on these laboratory analytical results, Basin recommends Southern Union provide the NMOCD Hobbs District Office a copy of this *Remediation Summary & Site Closure Request* and request the NMOCD grant site closure to the Trunk "O" Tank Battery Historical Release Site.

6.0 LIMITATIONS

Basin Environmental Service Technologies, LLC, has prepared this *Remediation Summary & Site Closure Request* to the best of its ability. No other warranty, expressed or implied, is made or intended. Basin has examined and relied upon documents referenced in the report and on oral statements made by certain individuals. Basin has not conducted an independent examination of the facts contained in referenced materials and statements. Basin has presumed the genuineness of these documents and statements and that the information provided therein is true and accurate. Basin has prepared this report in a professional manner, using the degree of skill and care exercised by similar environmental consultants. Basin 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 Southern Union Gas Services. 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 Service Technologies, LLC, and/or Southern Union Gas Services.

7.0 **DISTRIBUTION**

- Copy 1: Geoffrey Leking New Mexico Energy, Minerals and Natural Resources Department Oil Conservation Division (District 1) 1625 French Drive Hobbs, NM 88240 GeoffreyR.Leking@state.nm.us
- Copy 2: Rose Slade Southern Union Gas Services 801 S. Loop 464 Monahans, Texas 79756 rose.slade@sug.com
- Copy 3: Basin Environmental Service Technologies, LLC P.O. Box 301 Lovington, New Mexico 88260

FIGURES





TABLES

TABLE 1

¢

CONCENTRATIONS OF BENZENE, BTEX, TPH & CHLORIDE IN SOIL

SOUTHERN UNION GAS SERVICES TRUNK "O" TANK BATTERY HISTORICAL RELEASE SITE LEA COUNTY, NEW MEXICO NMOCD REF# 1RP-1800

					METHOD: E	PA SW 846-80	21B, 5030		ME	THOD: 801	5M	τοται	METHOD: E300.0	
SAMPLE LOCATION	SAMPLE DEPTH (BGS)	SAMPLE DEPTH D (BGS)	SAMPLE DATE	SOIL STATUS	BENZENE (mg/Kg)	TOLUENE (mg/Kg)	ETHYL- BENZENE (mg/Kg)	TOTAL XYLENES (mg/Kg)	TOTAL BTEX (mg/Kg)	GRO C ₆ -C ₁₂ (mg/Kg)	DRO C ₁₂ -C ₂₈ (mg/Kg)	ORO C ₂₈ -C ₃₅ (mg/Kg)	TPH C ₆ -C ₃₅ (mg/Kg)	CHLORIDE (mg/Kg)
Surface	Surface	8/23/2012	In-Situ	<0.00100	<0.00200	<0.00100	<0.00200	<0.00200	<15.0	<15.0	<15.0	<15.0	31.6	
S.E. Wall	6'	8/23/2012	In-Situ	<0.00100	<0.00200	<0.00100	<0.00200	<0.00200	<15.8	<15.8	<15.8	<15.8	93.3	
N.E. Wall	6'	8/23/2012	Excavated	<0.00100	<0.00200	<0.00100	<0.00200	<0.00200	<15.6	<15.6	<15.6	<15.6	327	
S.W. Wall	6'	8/23/2012	In-Situ	<0.00100	<0.00200	<0.00100	<0.00200	<0.00200	<15.3	<15.3	<15.3	<15.3	142	
N.W. Wall	6'	8/23/2012	In-Situ	<0.00100	<0.00200	<0.00100	<0.00200	<0.00200	<15.3	<15.3	<15.3	<15.3	31.8	
Floor @ 12'	12'	8/23/2012	In-Situ	<0.00100	<0.00200	<0.00100	<0.00200	<0.00200	<15.5	<15.5	<15.5	<15.5	192	
Stockpile	N/A	8/23/2012	Excavated	<0.00100	<0.00200	<0.00100	<0.00200	<0.00200	<15.2	<15.2	<15.2	<15.2	28.4	
North East Wall	6'	9/4/2012	In-Situ	-	-	-	-	-	-	-	-	_	43.5	
NMOCD Standard				10				50				100	250	

- = Not analyzed.

APPENDICES

Photographs



Photograph of Below Grade Tank prior to removal at the Trunk "O" Tank Battery.



Photograph of exhumed Below Grade Tank at the Trunk "O" Tank Battery.



Photograph of the area excavated during Below Grade Tank removal at the Trunk "O" Tank Battery.



Photograph of the area excavated during Below Grade Tank removal at the Trunk "O" Tank Battery.



Photograph of Former Below Grade Tank Location prior to Initial Investigation at the Trunk "O" Tank Battery



Photograph of Former Below Grade Tank Location prior to Initial Investigation at the Trunk "O" Tank Battery



Photograph of excavation and delineation trenches advanced during initial investigation at the Trunk "O" Tank Battery.



Photograph of excavation and delineation trenches advanced during initial investigation at the Trunk "O" Tank Battery.



Photograph of backfilled excavation at the Trunk "O" Tank Battery.



Photograph of backfilled excavation at the Trunk "O" Tank Battery.

Laboratory Analytical Reports

PERMIAN BASIN ENVIRONMENTAL LAB, LP 10014 SCR 1213 Midland, TX 79706



Analytical Report

Prepared for:

Joel Lowry Basin Environmental Services P.O. Box 301 Lovington, NM 88260

Project: Trunk O Tank Battery (RP 1800) Project Number: SUG Historical Releases Location: Lea County, New Mexico

Lab Order Number: 2H24006



NELAP/TCEQ # T104704156-12-1

Report Date: 08/28/12

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
Surface	2H24006-01	Soil	08/23/12 09:30	08-24-2012 13:55
S.E. Wall	2H24006-02	Soil	08/23/12 10:00	08-24-2012 13:55
N.E. Wall	2H24006-03	Soil	08/23/12 10:30	08-24-2012 13:55
S.W. Wall	2H24006-04	Soil	08/23/12 11:00	08-24-2012 13:55
N.W. Wall	2H24006-05	Soil	08/23/12 12:00	08-24-2012 13:55
Floor @ 12'	2H24006-06	Soil	08/23/12 11:30	08-24-2012 13:55
Stockpile	2H24006-07	Soil	08/23/12 12:00	08-24-2012 13:55

Organics by GC

Permian Basin Environmental Lab

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prenared	Analyzed	Method	Notes
Surface (21124006-01) Soil				Ditation		riepareu			
Benzene	ND	0.00100	mg/kg dry	1 ·	EH22707	08/24/12	08/24/12	EPA 8021B	
Toluene	ND	0.00200	n	"		"	н	"	
Ethylbenzene	ND	0.00100	"	11	"	"	**	u	
Xylene (p/m)	ND	0.00200		н	"	11	"	"	
Xylene (o)	ND	0.00100	11	"	"		*1	"	
Surrogate: 4-Bromofluorobenzene		101 %	75-12	5	"	"		"	
Surrogate: 1,4-Difluorobenzene		103 %	75-12	5	n	"	u	п	
C6-C12	ND	15.0	mg/kg dry		EH22706	08/24/12	08/25/12	EPA 8015M	
>C12-C28	ND	15.0	U		"	11	"		
>C28-C35	ND	15.0	"	"	"	"	"	n	
Total Hydrocarbons	ND	15.0	"	"	"	н	"	11	
Surrogate: 1-Chlorooctane		97.8 %	70-13	0	"	"	"	"	
Surrogate: o-Terphenyl		100 %	70-13	0	"	"	"	"	
S.E. Wall (2H24006-02) Soil									
Benzene	ND	0.00100	mg/kg dry	1	EH22707	08/24/12	08/24/12	EPA 8021B	
Toluenc	ND	0.00200	11	"		"	"	•	
Ethylbenzene	ND	0.00100	11	н	"		"	"	
Xylene (p/m)	ND	0.00200		"	"	"	n	н	
Xylene (0)	ND	0.00100	**	"	н	11	"		
Surrogate: 4-Bromofluorobenzene		102 %	75-12	5	"	"	"	"	
Surrogate: 1,4-Difluorobenzene		101 %	75-12	5	"	"	"	n	
C6-C12	ND	15.8	mg/kg dry	"	EH22706	08/24/12	08/25/12	EPA 8015M	
>C12-C28	ND	15.8	•	••	11	11	"	19	
>C28-C35	ND	15.8	"	"			"	.,	
Total Hydrocarbons	ND	15.8	n	"	"	"	н	11	
Surrogate: 1-Chlorooctane		104 %	70-13	0	"	"	"	"	
Surrogate: o-Terphenyl		108 %	70-13	0	"	"	"	"	
N.E. Wall (21124006-03) Soil									
Benzene	ND	0.00100	mg/kg dry	1	EH22707	08/24/12	08/24/12	EPA 8021B	
Toluene	ND	0.00200	"	"	**	**	"	n	
Ethylbenzene	ND	0.00100	"		*		"	"	
Xylene (p/m)	ND	0.00200	11	"	"	n	"		
Xylene (o)	ND	0.00100	**	11	11	"	"	"	
Surrogate: 1,4-Difluorobenzene		103 %	75-12	5		"	"	"	·····
Surrogate: 4-Bromofluorobenzene		99.7 %	75-12	5	"	"	"	"	
C6-C12	ND	15.6	mg/kg dry	"	EH22706	08/24/12	08/25/12	EPA 8015M	
Permian Basin Environmental Lab			The marrie	Ite in this	eaport applied	the complete of	advant in annu		

The results in this report apply to the samples analyzed in accordance with the sample

received in the laboratory. This analytical report must be reproduced in its entirety, with written approval of Permian Basin Environmental Lab.

Organics by GC

Permian Basin Environmental Lab

		Reporting							
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
N.E. Wall (2H24006-03) Soil									
>C12-C28	ND	15.6	mg/kg dry	1	EH22706	08/24/12	08/25/12	EPA 8015M	
>C28-C35	ND	15.6		"	"	**	11	н	
Total Hydrocarbons	ND	15.6	**	0	"	"	**	5	
Surrogate: 1-Chlorooctane		103 %	70-130)	"	"	"	"	
Surrogate: o-Terphenyl		110 %	70-130)	n	"	"	"	
S.W. Wall (2H24006-04) Soil									
Benzene	ND	0.00100	mg/kg dry	1	EH22707	08/24/12	08/24/12	EPA 8021B	
Toluene	ND	0.00200	"	н	"		"	••	
Ethylbenzene	ND	0.00100	"	п	"	"	"	**	
Xylene (p/m)	ND	0.00200	"		"		11	и	
Xylene (0)	ND	0.00100	"	"	"		ш		
Surrogate: 1,4-Difluorobenzene		102 %	75-125	i	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		102 %	75-125	;	"	"	11	"	
C6-C12	ND	15.3	mg/kg dry	"	EH22706	08/24/12	08/25/12	EPA 8015M	
>C12-C28	ND	15.3	н	н	"	"	11	**	
>C28-C35	ND	15.3	"	"	"		0	**	
Total Hydrocarbons	ND	15.3	"	"	n	"	"	11	
Surrogate: 1-Chlorooctane		96.1 %	70-130)	"	"	"	"	
Surrogate: o-Terphenyl		102 %	70-130)	"	"	"	"	
N.W. Wall (2H24006-05) Soil									
Benzene	ND	0.00100	mg/kg dry	l	EH22707	08/24/12	08/24/12	EPA 8021B	
Toluene	ND	0.00200		"		"	"		
Ethylbenzene	ND	0.00100	"			**	n	"	
Xylene (p/m)	ND	0.00200	"	"		"	11	11	
Xylene (o)	ND	0.00100	"			**	"	н	
Surrogate: 1,4-Difluorobenzene		101 %	75-125	5	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		101 %	75-125	5	"	"	"	"	
C6-C12	ND	15.3	mg/kg dry	"	EH22706	08/24/12	08/25/12	EPA 8015M	
>C12-C28	ND	15.3	U.	"	"	п	"	••	
>C28-C35	ND	15.3	**	"	"	0		11	
Total Hydrocarbons	ND	15.3	"	"	"	11	"	"	
Surrogate: 1-Chlorooctane		105 %	70-130)	"	"	"	п	
Surrogate: o-Terphenyl		113 %	70-130)	"	"	"	"	

Permian Basin Environmental Lab

Organics by GC

Permian Basin Environmental Lab

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Floor @ 12' (2H24006-06) Soil									
Benzene	ND	0.00100	mg/kg dry	1	EH22707	08/24/12	08/24/12	EPA 8021B	
Toluene	ND	0.00200	"	"	"	"	"		
Ethylbenzene	ND	0.00100	"	"	11	и	"	51	
Xylene (p/m)	ND	0.00200	н		н	"	**	"	
Xylene (0)	ND	0.00100		n	"	"	**	**	
Surrogate: 1.4-Difluorobenzene		101 %	75-12	25	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		101 %	75-12	25	"	"	"	"	
C6-C12	ND	15.5	mg/kg dry	"	EH22706	08/24/12	08/25/12	EPA 8015M	
>C12-C28	ND	15.5		"	"	u		"	
>C28-C35	ND	15.5		11	"		"	н	
Total Hydrocarbons	ND	15.5	**		**	"	**	"	
Surrogate: 1-Chlorooctane		104 %	70-1	30	"	"	"	"	
Surrogate: o-Terphenyl		110 %	70-1	30	"	"	"	"	
Stockpile (2H24006-07) Soil									
Benzene	ND	0.00100	mg/kg dry	1	EH22707	08/24/12	08/24/12	EPA 8021B	
Toluene	ND	0.00200			"	п	11	n	
Ethylbenzene	ND	0.00100	"		"	n	н	17	
Xylene (p/m)	ND	0.00200			н	"	"	"	
Xylene (o)	ND	0.00100	0	11	"	**	"	11	
Surrogate: 1,4-Difluorobenzene		104 %	75-1.	25	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		102 %	75-1.	25	"	"	"	"	
C6-C12	ND	15.2	mg/kg dry	"	EH22706	08/24/12	08/25/12	EPA 8015M	
>C12-C28	ND	15.2		"	11	"	"	н	
>C28-C35	ND	15.2		"			"	n	
Total Hydrocarbons	ND	15.2	н	"	"	"	н	51	
Surrogate: 1-Chlorooctane		100 %	70-1.	30	"	"	"	"	
Surrogate: o-Terphenyl		103 %	70-1.	30	"	n	"	"	

Permian Basin Environmental Lab

General Chemistry Parameters by EPA / Standard Methods

Permian Basin Environmental Lab

Analuta	Popult	Reporting	Unite	D11.1	D. I	D			М
Surface (21124006 01) Soil		Linit	UIIIS	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surface (2r124000-01) Soli									
Chloride	31.6	1.00	mg/kg dry wt. dry	1	EH22705	08/26/12	08/27/12	EPA 300.0	
% Moisture	ND	0.1	%	"	EH22702	08/24/12	08/27/12	% calculation	
S.E. Wall (2H24006-02) Soil		-							
Chloride	93.3	1.05	mg/kg dry wt. dry	l	EH22705	08/26/12	08/27/12	EPA 300.0	
% Moisture	5.0	0.1	%	11	EH22702	08/24/12	08/27/12	% calculation	
N.E. Wall (2H24006-03) Soil									
Chloride	327	1.04	mg/kg dry wt. dry	l	EH22705	08/26/12	08/27/12	EPA 300.0	
% Moisture	4.0	0.1	%	"	EH22702	08/24/12	08/27/12	% calculation	
S.W. Wall (21124006-04) Soil									
Chloride	142	1.02	mg/kg dry wt. dry	l	EH22705	08/26/12	08/27/12	EPA 300.0	
% Moisture	2.0	0.1	%	**	EH22702	08/24/12	08/27/12	% calculation	
N.W. Wall (2H24006-05) Soil									
Chloride	31.8	1.02	mg/kg dry wt. dry	1	EH22705	08/26/12	08/27/12	EPA 300.0	
% Moisture	2.0	0.1	%	"	EH22702	08/24/12	08/27/12	% calculation	
Floor @ 12' (2H24006-06) Soil									
Chloride	192	1.03	mg/kg dry wt. dry	1	EH22705	08/26/12	08/27/12	EPA 300.0	
% Moisture	3.0	0.1	%	"	EH22702	08/24/12	08/27/12	% calculation	
Stockpile (21124006-07) Soil									
Chloride	28.4	1.01	mg/kg dry wt. dry	l	EH22705	08/26/12	08/27/12	EPA 300.0	
% Moisture	1.0	0.1	%		EH22702	08/24/12	08/27/12	% calculation	

Permian Basin Environmental Lab

Organics by GC - Quality Control

Permian Basin Environmental Lab

		Reporting		Spike	Source	N/DEC	%REC	0.00	RPD	Net
Anaryte	Kesult		Units	Level	result		Limits	ĸru		inotes
Batch EH22706 - 8015M	<u> </u>									<u></u>
Blank (EH22706-BLK1)				Prepared &	2 Analyzed	: 08/24/12				
C6-C12	ND	15.0	mg/kg wet							
>C12-C28	ND	15.0	•							
>C28-C35	ND	15.0	"							
Total Hydrocarbons	ND	15.0	"							
Surrogate: 1-Chlorooctane	114		n	100		114	70-130			
Surrogate: o-Terphenyl	60.2		"	50.0		120	70-130			
LCS (EH22706-BS1)				Prepared &	د Analyzed	: 08/24/12				
C6-C12	779	15.0	mg/kg wet	1000		77.9	75-125			
>C12-C28	804	15.0	n	1000		80.4	75-125			
>C28-C35	ND	15.0	u	0.00			. 75-125			
Total Hydrocarbons	ND	15.0	"	0.00			75-125			
Surrogate: 1-Chlorooctane	129		"	100		129	70-130			
Surrogate: o-Terphenyl	53.5		"	50.0		107	70-130			
LCS Dup (EH22706-BSD1)				Prepared &	k Analyzed	: 08/24/12				
C6-C12	840	15.0	mg/kg wet	1000		84.0	75-125	7.54	20	
>C12-C28	865	15.0	"	1000		86.5	75-125	7.31	20	
Total Hydrocarbons	ND	15.0		0.00			75-125		20	
Surrogate: 1-Chlorooctane	130		"	100		130	70-130			
Surrogate: o-Terphenyl	55.8		"	50.0		112	70-130			
Matrix Spike (EH22706-MS1)	Sou	rce: 2H23002	2-01	Prepared:	08/24/12 A	nalyzed: 0	8/25/12			
C6-C12	864	15.8	mg/kg dry	1050	ND	82.3	75-125			
>C12-C28	977	15.8		1050	ND	93.0	75-125			
>C28-C35	ND	15.8	н	0.00	ND		75-125			
Total Hydrocarbons	ND	15.8	"	0.00	ND		75-125			
Surrogate: 1-Chlorooctane	135		"	105		129	70-130			
Surrogate: o-Terphenyl	58.0		"	52.6		110	70-130			

Permian Basin Environmental Lab

The results in this report apply to the samples analyzed in accordance with the samples received in the laboratory. This analytical report must be reproduced in its entirety, with written approval of Permian Basin Environmental Lab.

I

Organics by GC - Quality Control

Permian Basin Environmental Lab

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch FH22706 - 8015M										
Matrix Snike Dun (FH22706-MSD1)		rce: 21123002		Prenared ()8/24/12	nalvzed: 09	/25/12			
С6-С12	847	15.8	mg/kg dry	1050	ND	80.7	75-125	1.96	20	·
>C12-C28	883	15.0		1050	ND	84 1	75-125	10.1	20	
Total Hydrocarbons	ND	15.8		0.00	ND	01.1	75-125		20	
Suprante: 1 Chlapanetana						126	70 120			
Surrogate: o-Terphenyl	132 53.9		"	52.6		102	70-130			
Batch EH22707 - General Preparation (GC)										
Blank (EH22707-BLK1)				Prepared &	2 Analyzed:	08/24/12				
Benzene	ND	0.00100	mg/kg wet							
Toluene	ND	0.00200	"							
Ethylbenzene	ND	0.00100	"							
Xylene (p/m)	ND	0.00200	11							
Xylene (o)	ND	0.00100	н							
Surrogate: 4-Bromofluorobenzene	60.6		ug/kg	60.0		101	75-125			
Surrogate: 1,4-Difluorobenzene	59.3		"	60.0		98.8	75-125			
LCS (EH22707-BS1)				Prepared &	¿ Analyzed:	08/24/12				
Benzene	0.103	0.00100	mg/kg wet	0.100		103	80-120			
Toluene	0.116	0.00200	н	0.100		116	80-120			
Ethylbenzene	0.107	0.00100	"	0.100		107	80-120			
Xylene (p/m)	0.210	0.00200	"	0.200		105	80-120			
Xylene (o)	0.109	0.00100	"	0.100		109	80-120			
Surrogate: 4-Bromofluorobenzene	62.8		ug/kg	60.0		105	75-125			
Surrogate: 1,4-Difluorobenzene	59.7		"	60.0		99.5	75-125			
LCS Dup (EH22707-BSD1)				Prepared &	& Analyzed:	: 08/24/12				
Benzene	0.106	0.00100	mg/kg wet	0.100		106	80-120	2.87	20	
Toluene	0.118	0.00200	"	0.100		118	80-120	1.71	20	
Ethylbenzene	0.109	0.00100	n	0.100		109	80-120	1.85	20	
Xylene (p/m)	0.216	0.00200	н	0.200		108	80-120	2.82	20	
Xylene (o)	0.111	0.00100	н	0.100		111	80-120	1.82	20	
Surrogate: 4-Bromofluorobenzene	61.9		ug/kg	60.0	<u></u>	103	75-125			
Surrogate: 1,4-Difluorobenzene	60.6		"	60.0		101	75-125			

Permian Basin Environmental Lab

Organics by GC - Quality Control

Permian Basin Environmental Lab

		Reporting		Spike	Source		%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes

Batch EH22707 - General Preparation (GC)

Matrix Spike (EH22707-MS1)	Sou	rce: 21123002	2-01	Prepared &	Analyzed:	08/24/12				
Benzene	0.0789	0.00100	mg/kg dry	0.105	ND	75.1	80-120			QM-05
Toluene	0.0890	0.00200	"	0.105	NĎ	84.8	80-120			
Ethylbenzene	0.0814	0.00100	"	0.105	ND	77.5	80-120			QM-05
Xylene (p/m)	0.158	0.00200		0.211	ND	74.9	80-120			QM-05
Xylene (0)	0.0835	0.00100	11	0.105	ND	79.5	80-120			QM-05
Surrogate: 1,4-Difluorobenzene	59.9		ug/kg	60.0		99.8	75-125			
Surrogate: 4-Bromofluorobenzene	61.3		"	60.0		102	75-125			
Matrix Spike Dup (EH22707-MSD1)	Sou	rce: 2H23002	2-01	Prepared &	Analyzed	: 08/24/12				
Benzene	0.0790	0.00100	mg/kg dry	0.105	ND	75.2	80-120	0.133	20	QM-05
Toluene	0.0882	0.00200	н	0.105	ND	84.0	80-120	0.948	20	
Ethylbenzene	0.0811	0.00100	"	0.105	ND	77.2	80-120	0.388	20	QM-05
Xylene (p/m)	0.157	0.00200	"	0.211	ND	74.4	80-120	0.670	20	QM-05
Xylene (o)	0.0833	0.00100	н	0.105	ND	79.3	80-120	0.252	20	QM-05
Surrogate: 1,4-Difluorohenzene	59.3		ug/kg	60,0		98.8	75-125			
Surrogate: 4-Bromofluorobenzene	60.3		"	60.0		100	75-125			

Permian Basin Environmental Lab

General Chemistry Parameters by EPA / Standard Methods - Quality Control

Permian Basin Environmental Lab

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EH22705 - *** DEFAULT PREP ***										
Blank (EH22705-BLK1)				Prepared: (08/26/12	Analyzed: 08	3/27/12			
Chloride	ND	1,00	mg/kg dry wt. wet							
LCS (EH22705-BS1)				Prepared: (08/26/12	Analyzed: 08	8/27/12			
Chloride	9.63		mg/kg Wet	10.0		96,3	80-120			
LCS Dup (EH22705-BSD1)				Prepared: (08/26/12	Analyzed: 08	8/27/12			
Chloride	9.95		mg/kg Wet	10.0		99.5	80-120	3.27	20	
Duplicate (EH22705-DUP1)	Sou	rce: 2H24006	6-01	Prepared: (08/26/12	Analyzed: 08	8/27/12			
Chloride	31.6	1.00	mg/kg dry wt. dry		31.6			0.00	20	
Matrix Spike (EH22705-MS1)	Sou	rce: 21124000	6-01	Prepared: (08/26/12	Analyzed: 08	8/27/12			
Chloride	140	1.00	mg/kg dry wt. dry	100	31.6	108	80-120			
Matrix Spike (EH22705-MS2)	Sou	rce: 2H24001	7-04	Prepared: (08/26/12	Analyzed: 08	8/27/12			
Chloride	108	1.09	mg/kg dry wt_dry	109	8.90	90.9	80-120			

Permian Basin Environmental Lab

Notes and Definitions

- QM-05 The spike recovery was outside acceptance limits for the MS and/or MSD due to matrix interference. The LCS and/or LCSD were within acceptance limits showing that the laboratory is in control and the data is acceptable.
- DET Analyte DETECTED
- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- dry Sample results reported on a dry weight basis
- RPD Relative Percent Difference
- LCS Laboratory Control Spike
- MS Matrix Spike
- Dup Duplicate

Bun Barron 8/28/2012 Date:

Report Approved By:

Brent Barron, Laboratory Director/Technical Director

This material is intended only for the use of the individual (s) or entity to whom it is addressed, and may contain information that is privileged and confidential.

If you have received this material in error, please notify us immediately at 432-661-4184.

Permian Basin Environmental Lab



10014 SCR 1213 Midland, TX 79706 432-661-4184

PERMIAN BASIN ENVIRONMENTAL LAB, LP 10014 SCR 1213 Midland, TX 79706



Analytical Report

Prepared for:

Joel Lowry Basin Environmental Services P.O. Box 301 Lovington, NM 88260

Project: Trunk O Tank Battery (RP 1800) Project Number: RP-1800 Location: Lea County, NM

Lab Order Number: 2105001



NELAP/TCEQ # T104704156-12-1

Report Date: 09/07/12

Basin Environmental Services									
P.O. Box 301									
Lovington NM, 88260									

Project: Trunk O Tank Battery (RP 1800) Project Number: RP-1800 Project Manager: Joel Lowry Fax: (505) 396-1429-

. '

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
North East Wall	2105001-01	Soil	09/04/12 11:00	09-04-2012 17:12

General Chemistry Parameters by EPA / Standard Methods

Permian Basin Environmental Lab

Analyte North East Wall (2105001-01) Soil	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chloride	43.5	1.06	mg/kg dry wt. dry	1	E120702	09/06/12	09/07/12	EPA 300.0	
% Moisture	6.0	0.1	%	"	EI20701	09/06/12	09/07/12	% calculation	

Permian Basin Environmental Lab

General Chemistry Parameters by EPA / Standard Methods - Quality Control

Permian Basin Environmental Lab

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EI20701 - *** DEFAULT PREP ***			_							
Blank (E120701-BLK1)				Prepared:	09/06/12 A	Analyzed: 09	9/07/12			
% Moisture	ND	0.1	%							
Duplicate (EI20701-DUP1)	Sou	rce: 2105001-	01	Prepared:	09/06/12 A	Analyzed: 09	9/07/12			
% Moisture	6.0	0.1	%		6.0			0.00	20	
Batch El20702 - *** DEFAULT PREP ***										
Blank (E120702-BLK1)				Prepared:	09/06/12 A	Analyzed: 09	9/07/12			
Chloride	ND	1.00	mg/kg dry wt. wet				·			
LCS (E120702-BS1)				Prepared:	09/06/12 A	Analyzed: 09	9/07/12			
Chloride	10.4		mg/kg Wet	10.0		104	80-120			
LCS Dup (E120702-BSD1)				Prepared:	09/06/12	Analyzed: 09	9/07/12			
Chloride	10.4		mg/kg Wet	10.0		104	80-120	0.00	20	
Duplicate (E120702-DUP1)	Sou	rce: 2105001-	-01	Prepared:	09/06/12	Analyzed: 09	9/07/12			
Chloride	44.3	1.06	mg/kg dry wt. dry		43.5			1.82	20	
Matrix Spike (E120702-MS1)	Sou	rce: 2105001-	-01	Prepared:	09/06/12	Analyzed: 09	9/07/12			
Chloride	152	1.06	mg/kg dry wt. dry	106	43.5	102	80-120			
Matrix Spike (E120702-MS2)	Source: 2105002-10		Prepared:	09/06/12	Analyzed: 09	9/07/12				
Chloride	96.7	1.01	mg/kg dry	101	ND	95.7	80-120			

Notes and Definitions

DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference
LCS	Laboratory Control Spike
MS	Matrix Spike
Dup	Duplicate

Report Approved By:

Buron Date:

: 9/7/2012

Brent Barron, Laboratory Director/Technical Director

This material is intended only for the use of the individual (s) or entity to whom it is addressed, and may contain information that is privileged and confidential.

If you have received this material in error, please notify us immediately at 432-661-4184.

Permian Basin Environmental Lab



Pit of Below-Grade Tank Registration Form (Form C-144)

J

1625 N French Dr, Hobbs, NM 88240 District II	Sta Energy Mi	ate of New Mexico nerals and Natural Resources	Form C-144 June 1, 2004
 1301 W Grand Avenue, Artesia, NM 88210 <u>District III</u> 1000 Rio Brazos Road, Aztec, NM 87410 <u>District IV</u> 1220 S St Francis Dr., Santa Fe, NM 87505 	Oil C 1220 Sa	Conservation Division F South St. Francis Dr. F anta Fe, NM 87505	For drilling and production facilities, submit to ppropriate NMOCD District Office. For downstream facilities, submit to Santa Fe fflice
P Is Type of ac	Pit or Below-Gra pit or below-grade tan ction Registration of a pit o	de Tank Registration or C k covered by a "general plan"? Yes r below-grade tank Closure of a pit or bel	losure ⊠ No □ low-grade tank ⊠
Operator. Southern Union Gas Services	Telephone 575-	<u>395-2116</u> e-mail addres	s_tony savole (@sug com
Address P.O. Box 1226 Jal, New Mexico 882: Facility or well name: Trunk "O" Tank Battery County Lea Surface Owner Federal □ State □ Private IX	22 API # Latitude <u>33</u> I Indian []	U/L or Qtr/ 2 deg 32.326 Longitude 103 deg	Qtr <u>H</u> Sec 28 T 20 S R 37E <u>17 689</u> NAD ⁻ 1927 ☐ 1983 ⊠
Pit		Below-grade tank	
Type Drilling Production Disposal		Volume _100_bbl Type of fluidProd	uced water and crude oil
		Double-walled with leak detection? Yes	$\overline{}$
Liner type: Synthetic [] Thicknessmil Pit Volumebbl	Clay 🔲	Tank was installed by EPNG before the E	BGT regulations were written
Doubt to proved water (warting) distance from	hottom of nut to specanal	Less than 50 feet	(20 points)
high water elevation of ground water) 36 ft	bottom of pit to seasonal	50 feet or more, but less than 100 feet	(10 points)
ingli waler elevation of ground water) 50 h		100 feet or more	(0 points)
Wellhead protection area (Less than 200 feet water source, or less than 1000 feet from all of	from a private domestic her water sources)	Yes No	(20 points) (0 points)
1 ICS, 207 IOTHVAIC WAICH WOH			
Distance to surface water (horizontal distance	to all watlands playes	Less than 200 feet	(20 points)
Distance to surface water (horizontal distance	e to all wetlands, playas,	Less than 200 feet	(20 points)
Distance to surface water (horizontal distance irrigation canals, ditches, and perennial and ep	e to all wetlands, playas, hemeral watercourses)	Less than 200 feet 200 feet or more, but less than 1000 feet 1000 feet or more.	(20 points) (10 points) (0 points)
Distance to surface water (horizontal distance irrigation canals, ditches, and perennial and ep 227 Horizontal Feet to Monument Draw	e to all wetlands, playas, hemeral watercourses)	Less than 200 feet 200 feet or more, but less than 1000 feet 1000 feet or more	(20 points) (10 points) (0 points) 50 Points
Distance to surface water (horizontal distance irrigation canals, ditches, and perennial and ep 227 Horizontal Feet to Monument Draw	the facility showing the pit	Less than 200 feet 200 feet or more, but less than 1000 feet 1000 feet or more Ranking Score (Total Points) s relationship to other equipment and tanks. (1)	(20 points) (10 points) (0 points) 50 Points 2) Indicate disposal location: (check the onsite box if
Distance to surface water (horizontal distance irrigation canals, ditches, and perennial and ep 227 Horizontal Feet to Monument Draw <u>If this is a pit closure:</u> (1) Attach a diagram of your are burying in place) onsite offsite remediation start date and end date (4) Ground (5) Attach soil sample results and a diagram of s Additional Comments	the facility showing the pit for fisite, name of facility_ water encountered No	Less than 200 feet 200 feet or more, but less than 1000 feet 1000 feet or more Ranking Score (Total Points) s relationship to other equipment and tanks. (3) Yes □ If yes, show depth below ground surfations.	(20 points) (10 points) (0 points) 50 Points 2) Indicate disposal location: (check the onsite box if general description of remedial action taken including inceft and attach sample results
Distance to surface water (horizontal distance irrigation canals, ditches, and perennial and ep 227 Horizontal Feet to Monument Draw <u>If this is a pit closure:</u> (1) Attach a diagram of your are burying in place) onsite offsite remediation start date and end date (4) Ground (5) Attach soil sample results and a diagram of s <u>Additional Comments</u>	to all wetlands, playas, hemeral watercourses) the facility showing the pit? If offsite, name of facility_ water encountered No No Nample locations and excaval	Less than 200 feet 200 feet or more, but less than 1000 feet 1000 feet or more Ranking Score (Total Points) s relationship to other equipment and tanks. (3) (3) Attach a g Yes ☐ If yes, show depth below ground surfations.	(20 points) (10 points) (0 points) 50 Points 2) Indicate disposal location: (check the onsite box if general description of remedial action taken including aceft and attach sample results
Distance to surface water (horizontal distance irrigation canals, ditches, and perennial and ep 227 Horizontal Feet to Monument Draw If this is a pit closure: (1) Attach a diagram of your are burying in place) onsite offsite offsite remediation start date and end date (4) Ground (5) Attach soil sample results and a diagram of s Additional Comments	the facility showing the pit? the facility showing the pit? If offsite, name of facility water encountered No cample locations and excaval	Less than 200 feet 200 feet or more, but less than 1000 feet 1000 feet or more Ranking Score (Total Points) s relationship to other equipment and tanks. (3) Yes □ If yes, show depth below ground surfations.	(20 points) (10 points) (0 points) 50 Points 2) Indicate disposal location: (check the onsite box if general description of remedial action taken including inceft and attach sample results
Distance to surface water (horizontal distance irrigation canals, ditches, and perennial and ep 227 Horizontal Feet to Monument Draw <u>If this is a pit closure:</u> (1) Attach a diagram of your are burying in place) onsite offsite [] remediation start date and end date (4) Ground (5) Attach soil sample results and a diagram of s Additional Comments 	the facility showing the pit's the facility showing the pit's if offsite, name of facility water encountered No ample locations and excavation the facility showing the pit's is a pit offsite, name of facility water encountered No ample locations and excavation the facility showing the pit's ample location showing the	Less than 200 feet 200 feet or more, but less than 1000 feet 1000 feet or more Ranking Score (Total Points) s relationship to other equipment and tanks. (2 (3) Attach a g Yes [] If yes, show depth below ground surfa- tions. of my knowledge and belief I further certifies s , a general permit [], or an (attached)	(20 points) (10 points) (0 points) 50 Points 2) Indicate disposal location: (check the onsite box if general description of remedial action taken including nceft and attach sample results y that the above-described pit or below-grade tank alternative OCD-approved plan □,
Distance to surface water (horizontal distance irrigation canals, ditches, and perennial and ep 227 Horizontal Feet to Monument Draw If this is a pit closure: (1) Attach a diagram of your are burying in place) onsite [] offsite [] remediation start date and end date (4) Ground (5) Attach soil sample results and a diagram of s Additional Comments Additional Comments 1 hereby certify that the information above is to has been/will be constructed or closed accor Date _2/14/08 Waste Management an	the facility showing the pit? the facility showing the pit? If offsite, name of facility water encountered No cample locations and excaval rule and complete to the best rding to NMOCD guideline So Vo; C d Remediation Specialist	Less than 200 feet 200 feet or more, but less than 1000 feet 1000 feet or more Ranking Score (Total Points) s relationship to other equipment and tanks. (2 (3) Attach a g Yes [] If yes, show depth below ground surfations. of my knowledge and belief I further certifiets [], a general permit [], or an (attached) Signature	(20 points) (10 points) (0 points) 50 Points 2) Indicate disposal location: (check the onsite box if general description of remedial action taken including aceft and attach sample results including the above-described pit or below-grade tank alternative OCD-approved plan [].
Distance to surface water (horizontal distance irrigation canals, ditches, and perennial and ep 227 Horizontal Feet to Monument Draw If this is a pit closure: (1) Attach a diagram of your are burying in place) onsite offsite remediation start date and end date (4) Ground (5) Attach soil sample results and a diagram of s Additional Comments 	the facility showing the pit's the facility showing the pit's if offsite, name of facility water encountered No ample locations and excaval true and complete to the best rding to NMOCD guideline to the facility ample location specialist is application/closure does r nment. Nor does it relieve t	Less than 200 feet 200 feet or more, but less than 1000 feet 1000 feet or more Ranking Score (Total Points) s relationship to other equipment and tanks. (2 (3) Attach a g Yes [] If yes, show depth below ground surfations. (3) Attach a g Yes [] If yes, show depth below ground surfations. (4) Signature [] (5) Signature [(20 points) (10 points) (0 points) 50 Points 2) Indicate disposal location: (check the onsite box if general description of remedial action taken including aceft and attach sample results ft and attach sample results y that the above-described pit or below-grade tank alternative OCD-approved plan [].
Distance to surface water (horizontal distance irrigation canals, ditches, and perennial and ep 227 Horizontal Feet to Monument Draw If this is a pit closure: (1) Attach a diagram of your are burying in place) onsite offsite remediation start date and end date (4) Ground (5) Attach soil sample results and a diagram of s Additional Comments Additional Comments I hereby certify that the information above is the has been/will be constructed or closed accor Date _2/14/08 CONY Printed Name/TitleWaste Management an Your certification and NMOCD approval of the otherwise endanger public health or the enviror regulations	the facility showing the pit's the facility showing the pit's if offsite, name of facility water encountered No ample locations and excavation ample locations and excavation true and complete to the best rding to NMOCD guideline S& VO; & d Remediation Specialist is application/closure does r nment. Nor does it relieve t	Less than 200 feet 200 feet or more, but less than 1000 feet 1000 feet or more Ranking Score (Total Points) s relationship to other equipment and tanks. (2 (3) Attach a g Yes [] If yes, show depth below ground surfations. 9 of my knowledge and belief I further certifies s ignature [], a general permit [], or an (attached) Signature [] Signature [] Sign	(20 points) (10 points) (0 points) 50 Points 2) Indicate disposal location: (check the onsite box if general description of remedial action taken including nceft and attach sample results y that the above-described pit or below-grade tank alternative OCD-approved plan □. 2. 2. 2. 2. 2. 2. 2. 3. 3. 3. 3. 3. 3. 3. 3. 3. 3
Distance to surface water (horizontal distance irrigation canals, ditches, and perennial and ep 227 Horizontal Feet to Monument Draw If this is a pit closure: (1) Attach a diagram of your are burying in place) onsite offsite offsite remediation start date and end date (4) Ground (5) Attach soil sample results and a diagram of s Additional Comments Additional Comments I hereby certify that the information above is the has been/will be constructed or closed accor Date _2/14/08 TONY Printed Name/TitleWaste Management an Your certification and NMOCD approval of the otherwise endanger public health or the enviror regulations	the facility showing the pit's the facility showing the pit's if offsite, name of facility water encountered No sample locations and excavast true and complete to the best ding to NMOCD guideline of CVO; C d Remediation Specialist is application/closure does r nment. Nor does it relieve t	Less than 200 feet 200 feet or more, but less than 1000 feet 1000 feet or more Ranking Score (Total Points) s relationship to other equipment and tanks. (2 (3) Attach a g Yes [] If yes, show depth below ground surfations. of my knowledge and belief I further certifies s [], a general permit [], or an (attached) Signature signature bot relieve the operator of hability should the che operator of its responsibility for compliance	(20 points) (10 points) (0 points) 50 Points 2) Indicate disposal location: (check the onsite box if general description of remedial action taken including nceft and attach sample results the above-described pit or below-grade tank alternative OCD-approved plan □. 2. Source contents of the pit or tank contaminate ground water or e with any other federal, state, or local laws and/or

;

.

2

+WHUDU0347179