AE Order Number Banner

Report Description

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App Number: pCOH0808039348

1RP - 1821

SOUTHERN UNION GAS COMPANY

2/16/2016

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

Form C-144
Revised August 1, 2011

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, Closed-Loop System, Below-Grade Tank, or Proposed Alternative Method Permit or Closure Plan Application

Type of action:
- ☐ Permit of a pit, closed-loop system, below-grade tank, or proposed alternative method
- ☒ Closure of a pit, closed-loop system, below-grade tank, or proposed alternative method
- ☐ Modification to an existing permit
- ☐ Closure plan only submitted for an existing permitted or non-permitted pit, closed-loop system, below-grade tank, or proposed alternative method

Instructions: Please submit one application (Form C-144) per individual pit, closed-loop system, below-grade tank or alternative request

Please be advised that approval of this request does not relieve the operator of liability should operations result in pollution of surface water, ground water or the environment. Nor does approval relieve the operator of its responsibility to comply with any other applicable governmental authority's rules, regulations or ordinances.

1.
Operator: Southern Union Gas Services OGRID #: N/A
Address: 801 S. Loop 464 Monahans, Texas 79756
Facility or well name: Drip Tank #106
API Number: N/A OCD Permit Number:
U/L or Qtr/Qtr K Section 33 Township 21S Range 36E County: Lea County, NM
Center of Proposed Design: Latitude 32 25.933 Longitude -103 16.233 NAD: ☐1927 ☒ 1983
Surface Owner: ☐ Federal ☒ State ☐ Private ☐ Tribal Trust or Indian Allotment

2.
☐ **Pit:** Subsection F or G of 19.15.17.11 NMAC
Temporary: ☐ Drilling ☐ Workover
☐ Permanent ☐ Emergency ☐ Cavitation ☐ P&A
☐ Lined ☐ Unlined Liner type: Thickness _____mil ☐ LLDPE ☐ HDPE ☐ PVC ☐ Other _____
☐ String-Reinforced
Liner Seams: ☐ Welded ☐ Factory ☐ Other _____ Volume: _____bbl Dimensions: L_____ x W_____ x D_____

3.
☐ **Closed-loop System:** Subsection H of 19.15.17.11 NMAC
Type of Operation: ☐ P&A ☐ Drilling a new well ☐ Workover 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 _____

4.
☒ **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: Steel
☐ Secondary containment with leak detection ☐ Visible sidewalls, liner, 6-inch lift and automatic overflow shut-off
☐ Visible sidewalls and liner ☐ Visible sidewalls only ☒ Other Tank was installed by EPNG before BGT regulations
Liner type: Thickness N/A mil ☐ HDPE ☐ PVC ☐ Other _____

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JUN 19 2013
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5.
☐ **Alternative Method:**
Submittal of an exception request is required. Exceptions must be submitted to the Santa Fe Environmental Bureau office for consideration of approval.

6.

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

☐ Chain link, 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_____

7.

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)

8.

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

9.

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.

10.

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	☐ 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	☐ 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

11.
Temporary Pits, Emergency Pits, and Below-grade Tanks 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 box, that the documents are attached.

- ☐ Hydrogeologic Report (Below-grade Tanks) - based upon the requirements of Paragraph (4) of Subsection B of 19.15.17.9 NMAC
- ☐ Hydrogeologic Data (Temporary and Emergency Pits) - based upon the requirements of Paragraph (2) of Subsection B of 19.15.17.9 NMAC
- ☐ Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19.15.17.10 NMAC
- ☐ Design Plan - based upon the appropriate requirements of 19.15.17.11 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 Subsection C of 19.15.17.9 NMAC and 19.15.17.13 NMAC

☐ Previously Approved Design (attach copy of design) API Number: _____ or Permit Number: _____

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 box, that the documents are attached.

- ☐ Geologic and Hydrogeologic Data (only for on-site closure) - based upon the requirements of Paragraph (3) of Subsection B of 19.15.17.9
- ☐ Siting Criteria Compliance Demonstrations (only for on-site closure) - based upon the appropriate requirements of 19.15.17.10 NMAC
- ☐ 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 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)*

13.
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 box, that the documents are attached.

- ☐ Hydrogeologic Report - based upon the requirements of Paragraph (1) of Subsection B of 19.15.17.9 NMAC
- ☐ Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19.15.17.10 NMAC
- ☐ Climatological Factors Assessment
- ☐ Certified Engineering Design Plans - based upon the appropriate requirements of 19.15.17.11 NMAC
- ☐ Dike Protection and Structural Integrity Design - based upon the appropriate requirements of 19.15.17.11 NMAC
- ☐ Leak Detection Design - based upon the appropriate requirements of 19.15.17.11 NMAC
- ☐ Liner Specifications and Compatibility Assessment - based upon the appropriate requirements of 19.15.17.11 NMAC
- ☐ Quality Control/Quality Assurance Construction and Installation Plan
- ☐ Operating and Maintenance Plan - based upon the appropriate requirements of 19.15.17.12 NMAC
- ☐ Freeboard and Overtopping Prevention Plan - based upon the appropriate requirements of 19.15.17.11 NMAC
- ☐ Nuisance or Hazardous Odors, including H_2S, Prevention Plan
- ☐ Emergency Response Plan
- ☐ Oil Field Waste Stream Characterization
- ☐ Monitoring and Inspection Plan
- ☐ Erosion Control Plan
- ☐ Closure Plan - based upon the appropriate requirements of Subsection C of 19.15.17.9 NMAC and 19.15.17.13 NMAC

14.
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 ☐ Closed-loop System ☐ Alternative

Proposed Closure Method: ☒ 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
☐ Alternative Closure Method (Exceptions must be submitted to the Santa Fe Environmental Bureau for consideration)

15.
Waste Excavation and Removal Closure Plan Checklist: (19.15.17.13 NMAC) ***Instructions: Each of the following items must be attached to the closure plan. Please indicate, by a check mark in the box, that the documents are attached.***

- ☒ Protocols and Procedures - based upon the appropriate requirements of 19.15.17.13 NMAC
- ☒ Confirmation Sampling Plan (if applicable) - based upon the appropriate requirements of Subsection F of 19.15.17.13 NMAC
- ☒ Disposal Facility Name and Permit Number (for liquids, drilling fluids and drill cuttings)
- ☒ Soil Backfill and Cover Design Specifications - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC
- ☒ 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

16.

Waste Removal Closure For Closed-loop Systems That Utilize Above Ground Steel Tanks or Haul-off Bins Only: (19.15.17.13.D NMAC)

Instructions: Please indentify the facility or facilities for the disposal of liquids, drilling fluids and drill cuttings. Use attachment if more than two facilities are required.

Disposal Facility Name: _____ Disposal Facility Permit Number: _____

Disposal Facility Name: _____ Disposal Facility Permit Number: _____

Will any of the proposed closed-loop system operations and associated activities occur on or in areas that *will not* be used for future service and operations?

☐ Yes (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 requirements of Subsection H of 19.15.17.13 NMAC

☐ 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

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 closure plan. 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. Justifications and/or demonstrations of equivalency are required. Please refer to 19.15.17.10 NMAC for guidance.

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 obtained 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 obtained 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 obtained from nearby wells	☐ Yes ☐ No ☐ NA
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. - Visual inspection (certification) of the proposed site; Aerial photo; Satellite image	☐ Yes ☐ No
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; Visual inspection (certification) of the proposed site	☐ 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

18.

On-Site Closure Plan Checklist: (19.15.17.13 NMAC) ***Instructions: Each of the following items must be attached to the closure plan. Please indicate, by a check mark in the box, that the documents are attached.***

☐ Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19.15.17.10 NMAC

☐ Proof of Surface Owner Notice - based upon the appropriate requirements of Subsection F of 19.15.17.13 NMAC

☐ Construction/Design Plan of Burial Trench (if applicable) based upon the appropriate requirements of 19.15.17.11 NMAC

☐ Construction/Design Plan of Temporary Pit (for in-place burial of a drying pad) - based upon the appropriate requirements of 19.15.17.11 NMAC

☐ Protocols and Procedures - based upon the appropriate requirements of 19.15.17.13 NMAC

☐ Confirmation Sampling Plan (if applicable) - based upon the appropriate requirements of Subsection F of 19.15.17.13 NMAC

☐ Waste Material Sampling Plan - based upon the appropriate requirements of Subsection F of 19.15.17.13 NMAC

☐ Disposal Facility Name and Permit Number (for liquids, drilling fluids and drill cuttings or in case on-site closure standards cannot be achieved)

☐ Soil Cover Design - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC

☐ 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, accurate 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 Plan (only) ☐ OCD Conditions (see attachment) ☒ CLOSURE CERTIFICATION

OCD Representative Signature: Geoffrey Leking Approval Date: 6/19/13

Title: Environmental Specialist OCD Permit Number: _____

21.
Closure Report (required within 60 days of closure completion): Subsection K of 19.15.17.13 NMAC

Instructions: Operators are required to obtain an approved closure plan prior to implementing any closure activities and submitting the closure report. The closure report is required to be submitted to the division within 60 days of the completion of the closure activities. Please do not complete this section of the form until an approved closure plan has been obtained and the closure activities have been completed.

☒ **Closure Completion Date:** 4/25/13

22.
Closure Method:

☒ Waste Excavation and Removal ☐ On-Site Closure Method ☐ Alternative Closure Method ☐ Waste Removal (Closed-loop systems only)

☐ If different from approved plan, please explain.

23.
Closure Report Regarding Waste Removal Closure For Closed-loop Systems That Utilize Above Ground Steel Tanks or Haul-off Bins Only:

Instructions: Please indentify the facility or facilities for where the liquids, drilling fluids and drill cuttings were disposed. Use attachment if more than two facilities were utilized.

Disposal Facility Name: _____ Disposal Facility Permit Number: _____

Disposal Facility Name: _____ Disposal Facility Permit Number: _____

Were the closed-loop system operations and associated activities performed on or in areas that *will not* be used for future service and operations?

☐ Yes (If yes, please demonstrate compliance to the items below) ☐ No

Required for impacted areas which will not be used for future service and operations:

☐ Site Reclamation (Photo Documentation)
☐ Soil Backfilling and Cover Installation
☐ Re-vegetation Application Rates and Seeding Technique

24.
Closure Report Attachment Checklist: ***Instructions: Each of the following items must be attached to the closure report. Please indicate, by a check mark in the box, that the documents are attached.***

☒ 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)
☒ Confirmation Sampling Analytical Results (if applicable)
☐ Waste Material Sampling Analytical Results (required for on-site closure)
☒ Disposal Facility Name and Permit Number
☒ Soil Backfilling and Cover Installation
☐ Re-vegetation Application Rates and Seeding Technique
☒ Site Reclamation (Photo Documentation)

On-site Closure Location: Latitude _____ Longitude _____ NAD: ☐1927 ☐ 1983

25.
Operator Closure Certification:

I hereby certify that the information and attachments submitted with this closure report is true, accurate and complete to the best of my knowledge and belief. I also certify that the closure complies with all applicable closure requirements and conditions specified in the approved closure plan.

Name (Print): Jacob Krautsch Title: Sr. Director EH&S

Signature: Jacob Krautsch Date: 6-17-2013

e-mail address: jacob.krautsch@regencygas.com Telephone: 817-302-9426

District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources

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

Form C-144
June 1, 2004

For drilling and production facilities, submit to appropriate NMOCD District Office.
For downstream facilities, submit to Santa Fe office

Pit or Below-Grade Tank Registration or Closure

Is pit or below-grade tank covered by a "general plan"? Yes ☒ No ☐
Type of action: Registration of a pit or below-grade tank ☐ Closure of a pit or below-grade tank ☒

Operator: Southern Union Gas Services Telephone: 575-395-2116 e-mail address: tony savoie @sug com
Address: P.O Box 1226 Jal, New Mexico 88252
Facility or well name: Drip Tank #106 API #: _____ U/L or Qtr/Qtr K Sec 33 T 21 S R 36E
County: Lea Latitude 32 deg. 25 933N Longitude 103 deg. 16.233W NAD: 1927 ☐ 1983 ☒
Surface Owner. Federal ☐ State ☒ Private ☐ Indian ☐

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Pit	Below-grade tank	
Type: Drilling ☐ Production ☐ Disposal ☐ Workover ☐ Emergency ☐ Lined ☐ Unlined ☐ Liner type: Synthetic ☐ Thickness ____mil Clay ☐ Pit Volume _____bbl	Volume. _100_bbl Type of fluid: __Produced water and crude oil Construction material: __Steel Double-walled, with leak detection? Yes ☐ If not, explain why not. __Tank was installed by EPNG before the BGT regulations were written	
Depth to ground water (vertical distance from bottom of pit to seasonal high water elevation of ground water.) Average 201ft.	Less than 50 feet 50 feet or more, but less than 100 feet 100 feet or more	(20 points) (10 points) (0 points)
Wellhead protection area: (Less than 200 feet from a private domestic water source, or less than 1000 feet from all other water sources) No, 3257 Horiz. Ft. to a private water well	Yes No	(20 points) (0 points)
Distance to surface water: (horizontal distance to all wetlands, playas, irrigation canals, ditches, and perennial and ephemeral watercourses) 1.80 Horizontal miles to an intermittent water course.	Less than 200 feet 200 feet or more, but less than 1000 feet 1000 feet or more	(20 points) (10 points) (0 points)
	Ranking Score (Total Points)	0 Points

If this is a pit closure: (1) Attach a diagram of the facility showing the pit's relationship to other equipment and tanks (2) Indicate disposal location. (check the onsite box if your are burying in place) onsite ☐ offsite ☐ If offsite, name of facility_____. (3) Attach a general description of remedial action taken including remediation start date and end date. (4) Groundwater encountered: No ☐ Yes ☐ If yes, show depth below ground surface_____ft. and attach sample results.
(5) Attach soil sample results and a diagram of sample locations and excavations.

Additional Comments The Below Grade Tank will be removed in accordance with the NMOCD proposed Pit and Below Grade Tank Rules

I hereby certify that the information above is true and complete to the best of my knowledge and belief **I further certify that the above-described pit or below-grade tank has been/will be constructed or closed according to NMOCD guidelines ☐, a general permit ☐, or an (attached) alternative OCD-approved plan ☐.**

Date. 3/3/08
Printed Name/ Tony Savoie
Title Waste Management and Remediation Specialist Signature Tony Savoie

Your certification and NMOCD approval of this application/closure does not relieve the operator of liability should the contents of the pit or tank contaminate ground water or otherwise endanger public health or the environment. Nor does it relieve the operator of its responsibility for compliance with any other federal, state, or local laws and/or

Approval:
Printed Name/Title _____ Signature ENVIRONMENTAL ENGINEER Date: 3.18.08
1RP-1821

fCOHO 808038868

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

Effective Solutions

REMEDIATION SUMMARY &

SITE CLOSURE REQUEST

SOUTHERN UNION GAS SERVICES
DRIP TANK #106 (1RP-1821)
HISTORICAL RELEASE SITE
Lea County, New Mexico
Unit Letter "K", Section 33, Township 21 South, Range 36 East
Latitude 32° 25.933' North, Longitude 103° 16.233' West
NMOCD Reference # 1RP-1821

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

June 2013

Joel W. Lowry
Project Manager

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FIGURES

TABLES

APPENDICES

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 Drip Tank Battery #106 Historical Release Site (1RP-1821). The legal description of the release site is Unit Letter "K", Section 33, Township 21 South, Range 36 East, in Lea County, New Mexico. The geographic coordinates of the release site are 32° 25.933' North latitude and 103° 16.233' West longitude. The property affected by the release is owned by the State of New Mexico and administered by the New Mexico State Land Office (NMSLO).

On March 3, 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 Drip Tank #106 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. General photographs of the release site are provided as Appendix A. The Form C-144 is provided as Appendix C.

2.0 NMOCD SITE CLASSIFICATION

An NMOCD representative indicated on the initial C-144 that the depth to groundwater is approximately two hundred and ten (210') feet below ground surface (bgs). Based on the NMOCD ranking system, zero (0) 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 are no registered water wells within 1,000' of the remediation site. Based on the NMOCD ranking system, zero (0) points will be assigned to the site as a result of this criterion.

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

NMOCD guidelines indicate the Drip Tank #106 Historical Remediation Site has an initial ranking score of zero (0) points. The soil remediation levels for a site with a ranking score of zero (0) points are as follows:

- Benzene – 10 mg/Kg (ppm)
- Benzene, toluene, ethylbenzene and xylene (BTEX) – 50 mg/Kg (ppm)
- Total petroleum hydrocarbons (TPH) – 5,000 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 March 11, 2008, exhumation of the BGT began. Inactive pipelines and plumbing were disconnected, and the BGT was removed and transported to a disposal facility. Upon removing the BGT, five (5) soil samples (Floor, North Wall, East Wall, South Wall and West Wall) were collected from the excavation floor and sidewalls and submitted to the laboratory for analysis of TPH and chloride concentrations. Laboratory analytical results indicated chloride concentrations ranged from less than the appropriate laboratory method detection limit (MDL) for soil samples Floor, North Wall and East Wall to 40 mg/kg for soil sample South Wall. 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.

On March 14, 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.

On or around March 13, 2013, two decommissioned above ground storage tanks (ASTs) were removed from the location. During the removal of the ASTs, no holes or visible staining were encountered.

On April 3, 2013, four (4) soil samples (West Floor, South Floor, North Floor and East Floor) were collected from the footprint of the #106 AST and submitted to the laboratory for analysis of TPH and chloride concentrations. Laboratory analytical results indicated TPH concentrations were less than the laboratory MDL for each of the submitted soil samples. Chloride concentrations ranged from 32 mg/kg for soil sample East Floor to 832 mg/kg for soil sample West Floor. Soil sample North Floor was also analyzed for concentrations of BTEX which were determined to be less than the laboratory MDL.

On April 25, 2013, a series of test trenches were advanced in the footprints of the former ASTs in an effort to determine soil had been impacted above NMOCD Regulatory Standards. During the advancement of the test trenches, five (5) soil samples (South Tank Surface, South Tank @ 1', South Tank @ 2', North Tank @ 1' and North Tank @ 2') were collected and submitted to the laboratory for analysis of BTEX, TPH and chloride concentrations. Laboratory analytical results indicated BTEX, TPH and chloride concentrations were less than the appropriate laboratory MDL for each of the submitted soil samples. Test trenches were backfilled and the site was contoured to match the surrounding topography. The site will be reseeded at a time more conducive to germination.

4.0 QA/QC PROCEDURES

4.1 Soil Sampling

Soil samples were delivered to Permian Basin Environmental Lab LP, of Midland, Texas, and/or Cardinal Laboratories, of Hobbs, New Mexico, 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 and/or 4500 Cl-B

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 during the BGT removal indicated benzene, BTEX, TPH and chloride concentrations were less than NMOCD regulatory standards. Soil samples collected from beneath the former ASTs indicated soil had not been impacted above 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 Drip Tank #106 Historical Remediation 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: Jacob Krautsch
Southern Union Gas Services
801 S. Loop 464
Monahans, Texas 79756
Jacob.krautsch@SUG.com

Copy 3: Basin Environmental Service Technologies, LLC
P.O. Box 301
Lovington, New Mexico 88260
jwlowry@basinenv.com

1,000 500 0 1,000 2,000
Distance in Feet

Figure 1
Site Location Map
Southern Union Gas Services
Drip Tank #106
Lea County, New Mexico

Basin Environmental Service Technologies
Effective Solutions

Basin Environmental Service Technologies, LLC
3100 Plains Hwy.
Lovington, NM 88260

Drawn By: BJA	Checked By: JWL
June 13, 2013	Scale: 1" = 2000'

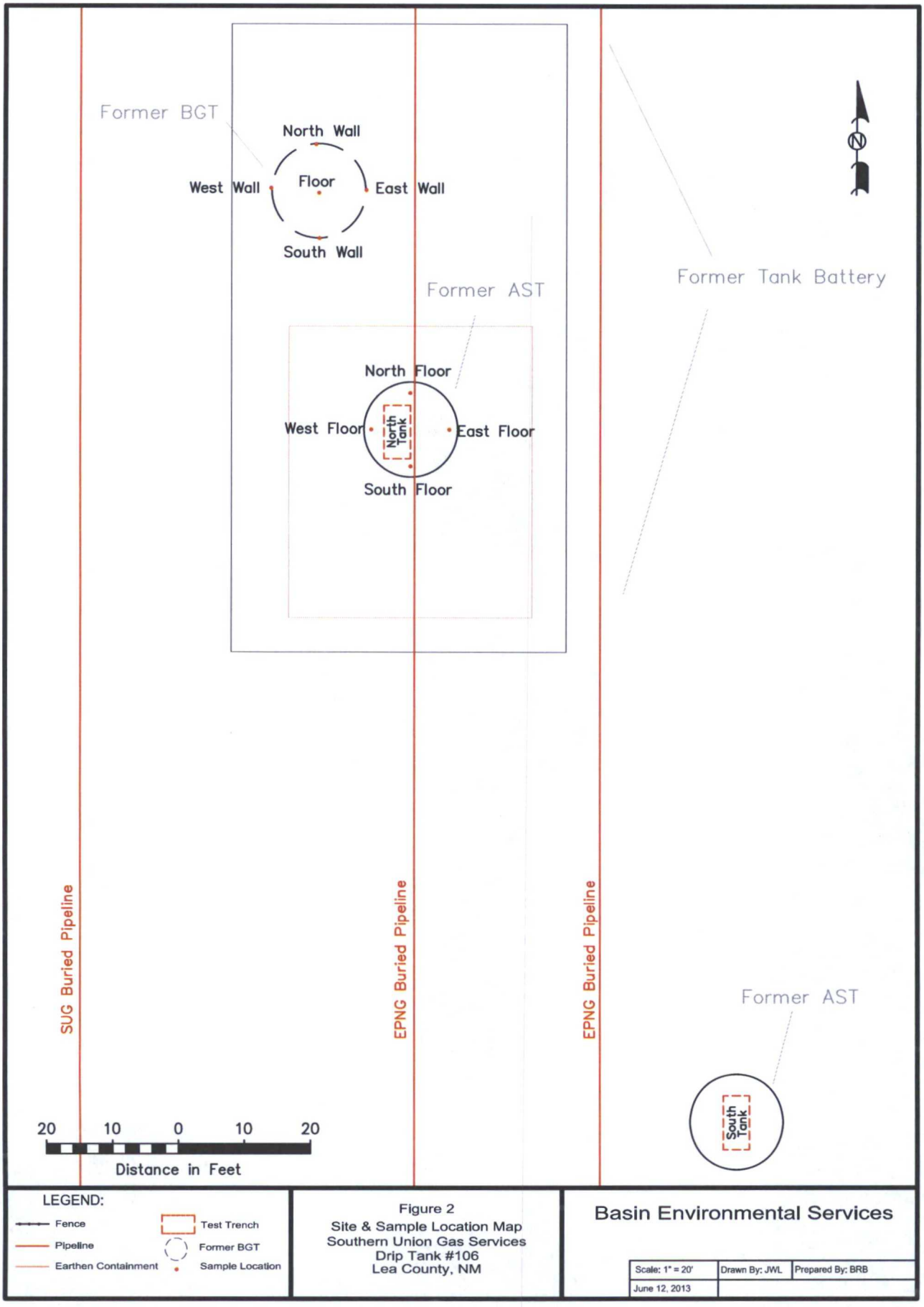
Former BGT
North Wall
West Wall
Floor
East Wall
South Wall
Former AST
North Floor
West Floor
North Tank
East Floor
South Floor
Former Tank Battery
SUG Buried Pipeline
EPNG Buried Pipeline
EPNG Buried Pipeline
Former AST
South Tank
20 10 0 10 20
Distance in Feet
LEGEND:
Fence
Pipeline
Earthen Containment
Test Trench
Former BGT
Sample Location
Figure 2
Site & Sample Location Map
Southern Union Gas Services
Drip Tank #106
Lea County, NM
Basin Environmental Services
Scale: 1" = 20'
Drawn By: JWL
Prepared By: BRB
June 12, 2013

TABLE 1

CONCENTRATIONS OF BENZENE, BTEX, TPH & CHLORIDE IN SOIL

SOUTHERN UNION GAS SERVICES
DRIP TANK BATTERY #106
HISTORICAL RELEASE SITE
LEA COUNTY, NEW MEXICO
NMOCD REF: # 1RP-1821

SAMPLE LOCATION	SAMPLE DEPTH (BGS)	SAMPLE DATE	SOIL STATUS	METHOD: EPA SW 846-8021B, 5030					METHOD: 8015M			TOTAL TPH C_6-C_{28} (mg/Kg)	EPA: 300
				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)		CHLORIDE (mg/Kg)
Floor	N/A	3/11/2008	N/A	-	-	-	-	-	<15.9	<15.9	<15.9	<15.9	<5.00
North Wall	N/A	3/11/2008	N/A	-	-	-	-	-	<15.9	<15.9	<15.9	<15.9	-
East Wall	N/A	3/11/2008	N/A	-	-	-	-	-	<16.2	<16.2	<16.2	<16.2	-
South Wall	N/A	3/11/2008	N/A	-	-	-	-	-	21.2	18.8	<16.0	40	-
West Wall	N/A	3/11/2008	N/A	-	-	-	-	-	20.4	18.4	<15.8	39	-
West Floor	Surface	04/03/13	In-Situ	-	-	-	-	-	<10.0	<10.0	<10.0	<10.0	832
South Floor	Surface	04/03/13	In-Situ	-	-	-	-	-	<10.0	<10.0	<10.0	<10.0	352
North Floor	Surface	04/03/13	In-Situ	<0.050	0.089	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	112
East Floor	Surface	04/03/13	In-Situ	-	-	-	-	-	<10.0	<10.0	<10.0	<10.0	32
South Tank Surface	Surface	04/25/13	In-Situ	<0.050	0.089	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<16.0
South Tank @ 1'	1'	04/25/13	In-Situ	<0.050	0.089	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<16.0
South Tank @ 2'	2'	04/25/13	In-Situ	<0.050	0.089	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<16.0
North Tank @ 1'	1'	04/25/13	In-Situ	<0.050	0.089	<0.050	<0.150	<0.300	<10.0	13.1	<10.0	13.1	<16.0
North Tank @ 2'	2'	04/25/13	In-Situ	<0.050	0.089	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<16.0
NMOCD Standard				**10**				**50**				**5,000**	**1,000**

- = Not analyzed.

Photograph of the BGT removal at Drip Tank #106.

Photograph of the BGT removal and sample locations at Drip Tank #106.

Photograph of the BGT removal and sample locations at Drip Tank #106.

Photograph of the former BGT location after being backfilled.

Photograph of the former above ground storage tank location.

Photograph of the former above ground storage tank location.

Analytical Report 299363

for

Southern Union Gas Services-Jal

Project Manager: Tony Savoie

Drip Tank Battery # 106

BGT-013

17-MAR-08

12600 West I-20 East Odessa, Texas 79765

Texas certification numbers:
Houston, TX T104704215

Florida certification numbers:
Houston, TX E871002 - Miami, FL E86678 - Tampa, FL E86675
Norcross(Atlanta), GA E87429

South Carolina certification numbers:
Norcross(Atlanta), GA 98015

North Carolina certification numbers:
Norcross(Atlanta), GA 483

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

17-MAR-08

Project Manager: **Tony Savoie**
Southern Union Gas Services-Jal
610 Commerce
Jal, NM 88252

Reference: XENCO Report No: **299363**
Drip Tank Battery # 106
Project Address:

Tony Savoie:

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 299363. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. Estimation of data uncertainty for this report is found in the quality control section of this report unless otherwise noted. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 299363 will be filed for 60 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

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

Respectfully,

Brent Barron, II
Odessa Laboratory Manager

Sample Cross Reference 299363

Southern Union Gas Services-Jal, Jal, NM

Drip Tank Battery # 106

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
Floor	S	Mar-11-08 15:05		299363-001
North Wall	S	Mar-11-08 15:35		299363-002
East Wall	S	Mar-11-08 16:00		299363-003
South Wall	S	Mar-11-08 16:30		299363-004
West Wall	S	Mar-11-08 17:00		299363-005

Certificate of Analysis Summary 299363

Southern Union Gas Services-Jal, Jal, NM

Project Name: Drip Tank Battery # 106

Project Id: BGT-013
Contact: Tony Savoie
Project Location:

Date Received in Lab: Wed Mar-12-08 09:05 am
Report Date: 17-MAR-08
Project Manager: Brent Barron, II

Analysis Requested											
	Lab Id:	299363-001		299363-002		299363-003		299363-004		299363-005	
	Field Id:	Floor		North Wall		East Wall		South Wall		West Wall	
	Depth:										
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Mar-11-08 15:05		Mar-11-08 15:35		Mar-11-08 16:00		Mar-11-08 16:30		Mar-11-08 17:00	
Anions by EPA 300/300.1	***Extracted:***										
	Analyzed:	** ** ** **									
	Units/RL:	mg/kg	RL								
Chloride		ND	5.00								
Percent Moisture	***Extracted:***										
	Analyzed:	Mar-12-08 17:00		Mar-12-08 17:00		Mar-12-08 17:00		Mar-12-08 17:00		Mar-12-08 17:00	
	Units/RL:	%	RL	%	RL	%	RL	%	RL	%	RL
Percent Moisture		5.46		5.92		7.52		6.52		5.35	
TPH By SW8015 Mod	***Extracted:***	Mar-13-08 09:30		Mar-13-08 09:30		Mar-13-08 09:30		Mar-13-08 09:30		Mar-13-08 09:30	
	Analyzed:	Mar-13-08 13:59		Mar-14-08 07:50		Mar-14-08 08:16		Mar-14-08 13:22		Mar-14-08 13:47	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
C6-C12 Gasoline Range Hydrocarbons		ND	15.9	ND	15.9	ND	16.2	21.2	16.0	20.4	15.8
C12-C28 Diesel Range Hydrocarbons		ND	15.9	ND	15.9	ND	16.2	18.8	16.0	18.4	15.8
C28-C35 Oil Range Hydrocarbons		ND	15.9	ND	15.9	ND	16.2	ND	16.0	ND	15.8
Total TPH		ND		ND		ND		40		38.8	

Brent Barron
Odessa Laboratory Director

XENCO Laboratories

Flagging Criteria

X In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to effect the recovery of the spike concentration. This condition could also effect the relative percent difference in the MS/MSD.

B A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.

D The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.

E The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.

F RPD exceeded lab control limits.

J The target analyte was positively identified below the MQL(PQL) and above the SQL(MDL).

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.

* Outside XENCO'S scope of NELAC Accreditation

Form 2 - Surrogate Recoveries

Project Name: Drip Tank Battery # 106

Work Order #: 299363 **Project ID:** BGT-013

Lab Batch #: 717290 **Sample:** 299363-001 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	76.6	100	77	70-135	
o-Terphenyl	43.7	50.0	87	70-135	

Lab Batch #: 717290 **Sample:** 299363-002 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	80.4	100	80	70-135	
o-Terphenyl	45.2	50.0	90	70-135	

Lab Batch #: 717290 **Sample:** 299363-002 S / MS **Batch:** 1 **Matrix:** Soil

Units: mg/kg

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	118	100	118	70-135	
o-Terphenyl	62.0	50.0	124	70-135	

Lab Batch #: 717290 **Sample:** 299363-002 SD / MSD **Batch:** 1 **Matrix:** Soil

Units: mg/kg

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	104	100	104	70-135	
o-Terphenyl	54.8	50.0	110	70-135	

Lab Batch #: 717290 **Sample:** 299363-003 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	75.0	100	75	70-135	
o-Terphenyl	42.6	50.0	85	70-135	

** 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: Drip Tank Battery # 106

Work Order #: 299363 **Project ID:** BGT-013

Lab Batch #: 717290 **Sample:** 299363-004 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	82.8	100	83	70-135	
o-Terphenyl	44.5	50.0	89	70-135	

Lab Batch #: 717290 **Sample:** 299363-005 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	82.1	100	82	70-135	
o-Terphenyl	44.5	50.0	89	70-135	

Lab Batch #: 717290 **Sample:** 505965-1-BKS / BKS **Batch:** 1 **Matrix:** Solid

Units: mg/kg

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	94.2	100	94	70-135	
o-Terphenyl	50.7	50.0	101	70-135	

Lab Batch #: 717290 **Sample:** 505965-1-BLK / BLK **Batch:** 1 **Matrix:** Solid

Units: mg/kg

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	87.5	100	88	70-135	
o-Terphenyl	48.2	50.0	96	70-135	

Lab Batch #: 717290 **Sample:** 505965-1-BSD / BSD **Batch:** 1 **Matrix:** Solid

Units: mg/kg

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	88.7	100	89	70-135	
o-Terphenyl	49.5	50.0	99	70-135	

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

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

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

Blank Spike Recovery

Project Name: Drip Tank Battery # 106

Work Order #: 299363 **Project ID:** BGT-013

Lab Batch #: 716973 **Sample:** 716973-1-BKS **Matrix:** Solid

Date Analyzed: 03/12/2008 **Date Prepared:** 03/12/2008 **Analyst:** LATCOR

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

Anions by EPA 300/300.1 Analytes	Blank Result [A]	BLANK /BLANK SPIKE RECOVERY STUDY Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Control Limits %R	Flags
Chloride	ND	10.0	9.57	96	75-125	

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

BS / BSD Recoveries

Project Name: Drip Tank Battery # 106

Work Order #: 299363
Analyst: SHE
Lab Batch ID: 717290
Sample: 505965-1-BKS
Units: mg/kg

Date Prepared: 03/13/2008
Batch #: 1

Project ID: BGT-013
Date Analyzed: 03/13/2008
Matrix: Solid

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
C6-C12 Gasoline Range Hydrocarbons	ND	1000	847	85	1000	797	80	6	70-135	35	
C12-C28 Diesel Range Hydrocarbons	ND	1000	891	89	1000	838	84	6	70-135	35	

Relative Percent Difference RPD = 200*|(D-F)/(D+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: Drip Tank Battery # 106

Work Order #: 299363
Lab Batch #: 716973
Date Analyzed: 03/12/2008
QC- Sample ID: 299281-001 S
Reporting Units: mg/kg

Date Prepared: 03/12/2008
Batch #: 1

Project ID: BGT-013
Analyst: LATCOR
Matrix: Soil

Inorganic Anions by EPA 300	MATRIX / MATRIX SPIKE RECOVERY STUDY					
Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	%R [D]	Control Limits %R	Flag
Chloride	3470	1000	4550	108	75-125	

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

Form 3 - MS / MSD Recoveries

Project Name: Drip Tank Battery # 106

Work Order # : 299363 **Project ID:** BGT-013

Lab Batch ID: 717290 **QC- Sample ID:** 299363-002 S **Batch #:** 1 **Matrix:** Soil

Date Analyzed: 03/15/2008 **Date Prepared:** 03/13/2008 **Analyst:** SHE

Reporting Units: mg/kg

TPH By SW8015 Mod Analytes	MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY										
	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
C6-C12 Gasoline Range Hydrocarbons	ND	1060	1090	103	1060	921	87	17	70-135	35	
C12-C28 Diesel Range Hydrocarbons	ND	1060	1160	109	1060	984	93	16	70-135	35	

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

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

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

Sample Duplicate Recovery

Project Name: Drip Tank Battery # 106

Work Order #: 299363

Lab Batch #: 716973 **Project ID:** BGT-013

Date Analyzed: 03/12/2008 **Date Prepared:** 03/12/2008 **Analyst:** LATCOR

QC- Sample ID: 299281-001 D **Batch #:** 1 **Matrix:** Soil

Reporting Units: mg/kg

Anions by EPA 300/300.1	SAMPLE / SAMPLE DUPLICATE RECOVERY				
Analyte	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Chloride	3470	3460	0	20	

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

Environmental Lab of Texas

a XENCO Laboratory Company

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

12600 West I-20 East
Odessa, Texas 79765

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

Project Manager: Tony Savoie PAGE 1 OF 1

Company Name: Southern Union Gas

Company Address: SUGS, Jal

City/State/Zip: Jal, New Mexico 88252

Telephone No: (575) 631-9376 Fax No:

Sampler Signature: Troy Hall e-mail: tony.savoie@sug.com

Project Name: Drip Tank Battery #106

Project #: BGT-013

Project Loc:

PO #:

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

(lab use only)
ORDER #: 7419303

LAB # (lab use only)	FIELD CODE	Beginning Depth	Ending Depth	Date Sampled	Time Sampled	Field Filtered	Total # of Containers	Preservation & # of Containers: Ice	HNO3	HCl	H2SO4	NaOH	Na2S2O3	None	Other (Specify)	Matrix: DW - Drinking Water	GW - Groundwater	NP - Non-Potable	Specify Other	Analyze For: TPH: 418.1	8015M	TPH: TX 1005	TX 1006	Cations (Ca, Mg, Na, K)	Anions (Cl, SO4, Alkalinity)	SAR / ESP / CEC	Metals: As Ag Ba Cd Cr Pb Hg Se	Volatiles	Semivolatiles	BTEX 8021B/5030 or BTEX 8260	RCI	N.O.R.M.	CHLORIDES	RUSH TAT (Pre-Scheduled) 24, 48, 72 hrs	Standard TAT (3 DAY)
01	Floor			03/11/08	15:05		1	X												X													X		
02	North Wall			03/11/08	15:35		1	X												X															
03	East wall			03/11/08	16:00		1	X												X															
04	South Wall			03/11/08	16:30		1	X												X															
05	West wall			03/11/08	17:00		1	X												X															

Special Instructions:

Relinquished by:	Date	Time	Received by:	Date	Time
Troy Hall	03/12/08	9:05			
Relinquished by:	Date	Time	Received by:	Date	Time
Relinquished by:	Date	Time	Received by ELOT:	3/12/08	9:05

Laboratory Comments:

Sample Containers Intact?	Y	N
VOCs Free of Headspace?	Y	N
Labels on container(s)	Y	N
Custody seals on container(s)	Y	N
Custody seals on cooler(s)	Y	N
Sample Hand Delivered by Sampler/Client Rep. ?	Y	N
by Courier? UPS DHL FedEx Lone Star		
Temperature Upon Receipt:	1.5 °C	

Environmental Lab of Texas

Variance/ Corrective Action Report- Sample Log-In

Client: S.W.G.S.

Date/ Time: 3.12.08 9:05

Lab ID # : 299363

Initials: AL

Sample Receipt Checklist

				Client Initials
#1 Temperature of container/ cooler?	Yes	No	1.5 °C	
#2 Shipping container in good condition?	Yes	No		
#3 Custody Seals intact on shipping container/ cooler?	Yes	No	Not Present	
#4 Custody Seals intact on sample bottles/ container?	Yes	No	Not Present	
#5 Chain of Custody present?	Yes	No		
#6 Sample instructions complete of Chain of Custody?	Yes	No		
#7 Chain of Custody signed when relinquished/ received?	Yes	No		
#8 Chain of Custody agrees with sample label(s)?	Yes	No	ID written on Cont./ Lid	
#9 Container label(s) legible and intact?	Yes	No	Not Applicable	
#10 Sample matrix/ properties agree with Chain of Custody?	Yes	No		
#11 Containers supplied by ELOT?	Yes	No		
#12 Samples in proper container/ bottle?	Yes	No	See Below	
#13 Samples properly preserved?	Yes	No	See Below	
#14 Sample bottles intact?	Yes	No		
#15 Preservations documented on Chain of Custody?	Yes	No		
#16 Containers documented on Chain of Custody?	Yes	No		
#17 Sufficient sample amount for indicated test(s)?	Yes	No	See Below	
#18 All samples received within sufficient hold time?	Yes	No	See Below	
#19 Subcontract of sample(s)?	Yes	No	Not Applicable	
#20 VOC samples have zero headspace?	Yes	No	Not Applicable	

Variance Documentation

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

Regarding: _____

Corrective Action Taken: _____

Check all that Apply:

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

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

April 09, 2013

JOEL LOWRY

Basin Environmental Service

P.O. Box 301

Lovington, NM 88260

RE: DRIP TANK #106

Enclosed are the results of analyses for samples received by the laboratory on 04/04/13 8:30.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-11-3. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/qa/lab_accred_certif.html.

Cardinal Laboratories is accreditated through the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2	Haloacetic Acids (HAA-5)
Method EPA 524.2	Total Trihalomethanes (TTHM)
Method EPA 524.4	Regulated VOCs (V1, V2, V3)

Accreditation applies to public drinking water matrices.

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Celey D. Keene

Celey D. Keene

Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

Basin Environmental Service
JOEL LOWRY
P.O. Box 301
Lovington NM, 88260
Fax To: (575) 396-1429

Received:	04/04/2013	Sampling Date:	04/03/2013
Reported:	04/09/2013	Sampling Type:	Soil
Project Name:	DRIP TANK #106	Sampling Condition:	Cool & Intact
Project Number:	RP-1821	Sample Received By:	Jodi Henson
Project Location:	LEA COUNTY, NM		

Sample ID: WEST FLOOR (H300801-01)

Chloride, SM4500Cl-B mg/kg **Analyzed By: DW**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**832**	16.0	04/05/2013	ND	448	112	400	0.00	

TPH 8015M mg/kg **Analyzed By: MS**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	04/05/2013	ND	190	95.2	200	9.57	
DRO >C10-C28	<10.0	10.0	04/05/2013	ND	190	95.1	200	7.88	
EXT DRO >C28-C35	<10.0	10.0	04/05/2013	ND					

Surrogate: 1-Chlorooctane	*91.0 %*	*65.2-140*
Surrogate: 1-Chlorooctadecane	*108 %*	*63.6-154*

Sample ID: SOUTH FLOOR (H300801-02)

Chloride, SM4500Cl-B mg/kg **Analyzed By: DW**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**352**	16.0	04/05/2013	ND	448	112	400	0.00	

TPH 8015M mg/kg **Analyzed By: MS**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	04/05/2013	ND	190	95.2	200	9.57	
DRO >C10-C28	<10.0	10.0	04/05/2013	ND	190	95.1	200	7.88	
EXT DRO >C28-C35	<10.0	10.0	04/05/2013	ND					

Surrogate: 1-Chlorooctane	*91.0 %*	*65.2-140*
Surrogate: 1-Chlorooctadecane	*109 %*	*63.6-154*

Cardinal Laboratories

*=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

Basin Environmental Service
JOEL LOWRY
P.O. Box 301
Lovington NM, 88260
Fax To: (575) 396-1429

Received:	04/04/2013	Sampling Date:	04/03/2013
Reported:	04/09/2013	Sampling Type:	Soil
Project Name:	DRIP TANK #106	Sampling Condition:	Cool & Intact
Project Number:	RP-1821	Sample Received By:	Jodi Henson
Project Location:	LEA COUNTY, NM		

Sample ID: NORTH FLOOR (H300801-03)

BTEX 8021B mg/kg **Analyzed By: AP**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	04/09/2013	ND	2.15	107	2.00	8.81	
Toluene*	**0.089**	0.050	04/09/2013	ND	2.42	121	2.00	9.15	
Ethylbenzene*	<0.050	0.050	04/09/2013	ND	2.57	128	2.00	9.03	
Total Xylenes*	<0.150	0.150	04/09/2013	ND	7.47	124	6.00	8.65	
Total BTEX	<0.300	0.300	04/09/2013	ND					

Surrogate: 4-Bromofluorobenzene (PID *104 %* *89.4-126*

Chloride, SM4500Cl-B mg/kg **Analyzed By: DW**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**112**	16.0	04/05/2013	ND	448	112	400	0.00	

TPH 8015M mg/kg **Analyzed By: MS**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	04/05/2013	ND	190	95.2	200	9.57	
DRO >C10-C28	<10.0	10.0	04/05/2013	ND	190	95.1	200	7.88	
EXT DRO >C28-C35	<10.0	10.0	04/05/2013	ND					

Surrogate: 1-Chlorooctane *93.0 %* *65.2-140*

Surrogate: 1-Chlorooctadecane *108 %* *63.6-154*

Cardinal Laboratories

*=Accredited Analyte

Celey D. Keene

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

Basin Environmental Service
JOEL LOWRY
P.O. Box 301
Lovington NM, 88260
Fax To: (575) 396-1429

Received:	04/04/2013	Sampling Date:	04/03/2013
Reported:	04/09/2013	Sampling Type:	Soil
Project Name:	DRIP TANK #106	Sampling Condition:	Cool & Intact
Project Number:	RP-1821	Sample Received By:	Jodi Henson
Project Location:	LEA COUNTY, NM		

Sample ID: EAST FLOOR (H300801-04)

Chloride, SM4500Cl-B mg/kg **Analyzed By: DW**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**32.0**	16.0	04/05/2013	ND	448	112	400	0.00	

TPH 8015M mg/kg **Analyzed By: MS**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	04/05/2013	ND	190	95.2	200	9.57	
DRO >C10-C28	<10.0	10.0	04/05/2013	ND	190	95.1	200	7.88	
EXT DRO >C28-C35	<10.0	10.0	04/05/2013	ND					

Surrogate: 1-Chlorooctane	*81.2 %*	*65.2-140*
Surrogate: 1-Chlorooctadecane	*98.8 %*	*63.6-154*

Cardinal Laboratories

*=Accredited Analyte

Celey D. Keene

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Notes and Definitions

ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C
	Samples reported on an as received basis (wet) unless otherwise noted on report

Cardinal Laboratories

*=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

LAB Order ID # _____ Page 1 of 1

Page 6 of 6

Cardinal Laboratories

101 East Marland
Hobbs, NM 88240
Tel (575) 393-2326
Fax (575) 393-2476

Company Name:	Basin Environmental Service Technologies, LLC	Phone #:	(575)396-2378
Address:	P.O. Box 301 Lovington, NM 88260	Fax #:	(575)396-1429
Contact Person:		E-mail:	pm@basinenv.com, rose.slade@sug.com,cyndi.inskeep@sug.com
Invoice to:	Southern Union Gas		
Project #:	RP-1821	Project Name:	Drip Tank #106
Project Location: (Include state)	Lea Co., NM	Sampler Signature:	Joel Lowry

ANALYSIS REQUEST
(Circle or Specify Method No.)

LAB ID (LAB USE)	SAMPLE ID	(G)RAB or (C)OMP	# CONTAINERS	MATRIX: WATER	SOIL	AIR	SLUDGE	PRESERVATIVE METHOD: HCL	HNO_3	H_2SO_4	NaOH	ICE	NONE	SAMPLING: DATE	TIME	Chloride	TPH 8015M	BTEX 8021B	Turn Around Time if different from standard	Hold
1	West Floor	G	1		X							X		4/3/13	1000	X	X			
2	South Floor	G	1		X							X		4/3/13	1005	X	X			
3	North Floor	G	1		X							X		4/3/13	1010	X	X	X		
4	East Floor	G	1		X							X		4/3/13	1015	X	X			

Relinquished by:	Company:	Date:	Time:	Received by:	Company:	Date:	Time:	
Joel Lowry		4/4/13	7:00	BR Blanken		4-4-13		INST _____ OBS _____ °C COR _____ °C
BR Blanken		4/4/13	8:30	Jodi Henson		4/4/13	8:30	INST #26 OBS 2 °C COR 2 °C
								INST _____ OBS _____ °C COR _____ °C

LAB USE ONLY

Intact Y / N

Headspace Y / N /NA

Log-in Review _____

REMARKS:

☐ Dry Weight Basis Required

☐ TRRP Report Required

☐ Check If Special Reporting Limits Are Needed

Carrier # _____

Submittal of samples constitutes agreement to Terms and Conditions

ORIGINAL COPY

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

May 06, 2013

JOEL LOWRY

Basin Environmental Service

P.O. Box 301

Lovington, NM 88260

RE: DRIP TANK BATTERY #106

Enclosed are the results of analyses for samples received by the laboratory on 04/26/13 12:19.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-11-3. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/qa/lab_accred_certif.html.

Cardinal Laboratories is accreditated through the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2	Haloacetic Acids (HAA-5)
Method EPA 524.2	Total Trihalomethanes (TTHM)
Method EPA 524.4	Regulated VOCs (V1, V2, V3)

Accreditation applies to public drinking water matrices.

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Celey D. Keene

Celey D. Keene

Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

Basin Environmental Service
JOEL LOWRY
P.O. Box 301
Lovington NM, 88260
Fax To: (575) 396-1429

Received:	04/26/2013	Sampling Date:	04/25/2013
Reported:	05/06/2013	Sampling Type:	Soil
Project Name:	DRIP TANK BATTERY #106	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Celey D. Keene
Project Location:	LEA COUNTY, NM		

Sample ID: SOUTH TANK @ SURFACE (H301003-01)

BTEX 8021B mg/kg **Analyzed By: AP**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	05/03/2013	ND	1.75	87.7	2.00	15.9	
Toluene*	<0.050	0.050	05/03/2013	ND	1.65	82.6	2.00	14.7	
Ethylbenzene*	<0.050	0.050	05/03/2013	ND	1.73	86.5	2.00	16.9	
Total Xylenes*	<0.150	0.150	05/03/2013	ND	5.15	85.8	6.00	17.6	
Total BTEX	<0.300	0.300	05/03/2013	ND					

Surrogate: 4-Bromofluorobenzene (PID *100 %* *89.4-126*

Chloride, SM4500Cl-B mg/kg **Analyzed By: DW**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	04/29/2013	ND	432	108	400	0.00	

TPH 8015M mg/kg **Analyzed By: MS**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	04/30/2013	ND	176	88.2	200	5.89	
DRO >C10-C28	<10.0	10.0	04/30/2013	ND	168	84.1	200	9.89	
EXT DRO >C28-C35	<10.0	10.0	04/30/2013	ND					

Surrogate: 1-Chlorooctane *75.8 %* *65.2-140*

Surrogate: 1-Chlorooctadecane *82.4 %* *63.6-154*

Cardinal Laboratories

*=Accredited Analyte

Celey D. Keene

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

Basin Environmental Service
JOEL LOWRY
P.O. Box 301
Lovington NM, 88260
Fax To: (575) 396-1429

Received:	04/26/2013	Sampling Date:	04/25/2013
Reported:	05/06/2013	Sampling Type:	Soil
Project Name:	DRIP TANK BATTERY #106	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Celey D. Keene
Project Location:	LEA COUNTY, NM		

Sample ID: SOUTH TANK @ 1' (H301003-02)

BTEX 8021B mg/kg **Analyzed By: AP**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	05/03/2013	ND	1.75	87.7	2.00	15.9	
Toluene*	<0.050	0.050	05/03/2013	ND	1.65	82.6	2.00	14.7	
Ethylbenzene*	<0.050	0.050	05/03/2013	ND	1.73	86.5	2.00	16.9	
Total Xylenes*	<0.150	0.150	05/03/2013	ND	5.15	85.8	6.00	17.6	
Total BTEX	<0.300	0.300	05/03/2013	ND					

Surrogate: 4-Bromofluorobenzene (PID *103 %* *89.4-126*

Chloride, SM4500Cl-B mg/kg **Analyzed By: DW**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	04/29/2013	ND	432	108	400	0.00	

TPH 8015M mg/kg **Analyzed By: MS**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	04/30/2013	ND	176	88.2	200	5.89	
DRO >C10-C28	<10.0	10.0	04/30/2013	ND	168	84.1	200	9.89	
EXT DRO >C28-C35	<10.0	10.0	04/30/2013	ND					

Surrogate: 1-Chlorooctane *86.1 %* *65.2-140*

Surrogate: 1-Chlorooctadecane *93.7 %* *63.6-154*

Cardinal Laboratories

*=Accredited Analyte

Celey D. Keene

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

Basin Environmental Service
JOEL LOWRY
P.O. Box 301
Lovington NM, 88260
Fax To: (575) 396-1429

Received:	04/26/2013	Sampling Date:	04/25/2013
Reported:	05/06/2013	Sampling Type:	Soil
Project Name:	DRIP TANK BATTERY #106	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Celey D. Keene
Project Location:	LEA COUNTY, NM		

Sample ID: SOUTH TANK @ 2' (H301003-03)

BTEX 8021B mg/kg **Analyzed By: AP**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	05/03/2013	ND	1.75	87.7	2.00	15.9	
Toluene*	<0.050	0.050	05/03/2013	ND	1.65	82.6	2.00	14.7	
Ethylbenzene*	<0.050	0.050	05/03/2013	ND	1.73	86.5	2.00	16.9	
Total Xylenes*	<0.150	0.150	05/03/2013	ND	5.15	85.8	6.00	17.6	
Total BTEX	<0.300	0.300	05/03/2013	ND					

Surrogate: 4-Bromofluorobenzene (PID *102 %* *89.4-126*

Chloride, SM4500Cl-B mg/kg **Analyzed By: DW**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	04/29/2013	ND	432	108	400	0.00	

TPH 8015M mg/kg **Analyzed By: MS**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	04/30/2013	ND	176	88.2	200	5.89	
DRO >C10-C28	<10.0	10.0	04/30/2013	ND	168	84.1	200	9.89	
EXT DRO >C28-C35	<10.0	10.0	04/30/2013	ND					

Surrogate: 1-Chlorooctane *77.2 %* *65.2-140*

Surrogate: 1-Chlorooctadecane *88.7 %* *63.6-154*

Cardinal Laboratories

*=Accredited Analyte

Celey D. Keene

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

Basin Environmental Service
JOEL LOWRY
P.O. Box 301
Lovington NM, 88260
Fax To: (575) 396-1429

Received:	04/26/2013	Sampling Date:	04/25/2013
Reported:	05/06/2013	Sampling Type:	Soil
Project Name:	DRIP TANK BATTERY #106	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Celey D. Keene
Project Location:	LEA COUNTY, NM		

Sample ID: NORTH TANK @ 1' (H301003-04)

BTEX 8021B mg/kg Analyzed By: AP

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	05/03/2013	ND	1.75	87.7	2.00	15.9	
Toluene*	<0.050	0.050	05/03/2013	ND	1.65	82.6	2.00	14.7	
Ethylbenzene*	<0.050	0.050	05/03/2013	ND	1.73	86.5	2.00	16.9	
Total Xylenes*	<0.150	0.150	05/03/2013	ND	5.15	85.8	6.00	17.6	
Total BTEX	<0.300	0.300	05/03/2013	ND					

Surrogate: 4-Bromofluorobenzene (PID *103 %* *89.4-126*

Chloride, SM4500Cl-B mg/kg Analyzed By: DW

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	04/29/2013	ND	432	108	400	0.00	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	04/30/2013	ND	176	88.2	200	5.89	
DRO >C10-C28	**13.1**	10.0	04/30/2013	ND	168	84.1	200	9.89	
EXT DRO >C28-C35	<10.0	10.0	04/30/2013	ND					

Surrogate: 1-Chlorooctane *83.2 %* *65.2-140*

Surrogate: 1-Chlorooctadecane *95.3 %* *63.6-154*

Cardinal Laboratories

*=Accredited Analyte

Celey D. Keene

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

Basin Environmental Service
JOEL LOWRY
P.O. Box 301
Lovington NM, 88260
Fax To: (575) 396-1429

Received:	04/26/2013	Sampling Date:	04/25/2013
Reported:	05/06/2013	Sampling Type:	Soil
Project Name:	DRIP TANK BATTERY #106	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Celey D. Keene
Project Location:	LEA COUNTY, NM		

Sample ID: NORTH TANK @ 2' (H301003-05)

BTEX 8021B mg/kg **Analyzed By: AP**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	05/03/2013	ND	1.75	87.7	2.00	15.9	
Toluene*	<0.050	0.050	05/03/2013	ND	1.65	82.6	2.00	14.7	
Ethylbenzene*	<0.050	0.050	05/03/2013	ND	1.73	86.5	2.00	16.9	
Total Xylenes*	<0.150	0.150	05/03/2013	ND	5.15	85.8	6.00	17.6	
Total BTEX	<0.300	0.300	05/03/2013	ND					

Surrogate: 4-Bromofluorobenzene (PID *105 %* *89.4-126*

Chloride, SM4500Cl-B mg/kg **Analyzed By: DW**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	04/29/2013	ND	432	108	400	0.00	

TPH 8015M mg/kg **Analyzed By: MS**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	04/30/2013	ND	176	88.2	200	5.89	
DRO >C10-C28	<10.0	10.0	04/30/2013	ND	168	84.1	200	9.89	
EXT DRO >C28-C35	<10.0	10.0	04/30/2013	ND					

Surrogate: 1-Chlorooctane *72.0 %* *65.2-140*

Surrogate: 1-Chlorooctadecane *79.0 %* *63.6-154*

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*=Accredited Analyte

Celey D. Keene

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Notes and Definitions

ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C
	Samples reported on an as received basis (wet) unless otherwise noted on report

Cardinal Laboratories

*=Accredited Analyte

Celey D. Keene

Celey D. Keene, Lab Director/Quality Manager

LAB Order ID # _____ Page 1 of 1

Cardinal Laboratories

101 East Marland
Hobbs, NM 88240
Tel (575) 393-2326
Fax (575) 393-2476

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Company Name:	Basin Environmental Service Technologies, LLC	**Phone #:**	(575)396-2378
Address:	P.O. Box 301 Lovington, NM 88260	**Fax #:**	(575)396-1429
Contact Person:		**E-mail:**	pm@basinenv.com, rose.slade@sug.com,cyndi.inskeep@sug.com
Invoice to:	Southern Union Gas		
Project #:		**Project Name:**	Drip Tank Battery #106
Project Location: **(include state)**	Lea Co., NM	**Sampler Signature:**	Joel Lowery

ANALYSIS REQUEST
(Circle or Specify Method No.)

LAB ID (LAB USE ONLY) 432000	SAMPLE ID	(G)RAB or (C)OMP	# CONTAINERS	MATRIX: WATER	SOIL	AIR	SLUDGE	PRESERVATIVE METHOD: HCL	HNO_3	H_2SO_4	NaOH	ICE	NONE	SAMPLING: DATE	TIME	Chloride	TPH 8015M	BTEX 8021B added 5/2/13	Rush Rush	Turn Around Time if different from standard	Hold
1	South Tank @ Surface	G	1		X							X		4/25/13	1030	X	X	X			
2	South Tank @ 1'	G	1		X							X		4/25/13	1040	X	X	X			
3	South Tank @ 2'	G	1		X							X		4/25/13	1050	X	X	X			
4	North Tank @ 1'	G	1		X							X		4/25/13	1100	X	X	X			
5	North Tank @ 2'	G	1		X							X		4/25/13	1110	X	X	X			

Relinquished by:	Company:	Date:	Time:	Received by:	Company:	Date:	Time:	
Joel Lowery		4/29/13				4/26/13	12:19	INST #51 OBS ____ °C COR -1.4 °C
Relinquished by:	Company:	Date:	Time:	Received by:	Company:	Date:	Time:	INST ____ OBS ____ °C COR ____ °C
Relinquished by:	Company:	Date:	Time:	Received by:	Company:	Date:	Time:	INST ____ OBS ____ °C COR ____ °C

LAB USE ONLY

Intact Y / N

Headspace Y / N /NA

Log-in Review ____

REMARKS:

☐ Dry Weight Basis Required

☐ TRRP Report Required

☐ Check If Special Reporting Limits Are Needed

Carrier # _____

Submittal of samples constitutes agreement to Terms and Conditions

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