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 June 6, 2013

For temporary pits, below-grade tanks, and multi-well fluid management pits, submit to the appropriate NMOCD District Office.
For permanent pits submit to the Santa Fe Environmental Bureau office and provide a copy to the appropriate NMOCD District Office.

15723

Pit, Below-Grade Tank, or Proposed Alternative Method Permit or Closure Plan Application

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

Instructions: Please submit one application (Form C-144) per individual pit, 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.

OIL CONS. DIV DIST. 3
SEP 06 2016

1.
Operator: Enterprise Products Operating, LLC OGRID #:
Address: P.O. Box 4324, Houston, TX 77210
Facility or well name: Turley Compressor Station Tank #4
API Number: OCD Permit Number:
U/L or Qtr/Qtr NW1/4/SW1/4 Section 33 Township 30N Range 09W County: San Juan
Center of Proposed Design: Latitude 36.76839° Longitude -107.79102° NAD: ☐1927 ☒ 1983
Surface Owner: ☒ Federal ☐ State ☐ Private ☐ Tribal Trust or Indian Allotment

2.
☐ **Pit:** Subsection F, G or J of 19.15.17.11 NMAC
Temporary: ☐ Drilling ☐ Workover
☐ Permanent ☐ Emergency ☐ Cavitation ☐ P&A ☐ Multi-Well Fluid Management Low Chloride Drilling Fluid ☐ yes ☐ no
☐ 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.
☒ **Below-grade tank:** Subsection I of 19.15.17.11 NMAC
Volume: 2,100 50BBL Gal Type of fluid: Produced fluids
Tank Construction material: Steel double walled and bottom
☐ Secondary containment with leak detection ☐ Visible sidewalls, liner, 6-inch lift and automatic overflow shut-off
☐ Visible sidewalls and liner ☐ Visible sidewalls only ☒ Other Double wall tank with level detection and riser pipe in annular space for monitoring
Liner type: Thickness _____mil ☐ HDPE ☐ PVC ☐ Other _____

4.
☐ **Alternative Method:**
Submittal of an exception request is required. Exceptions must be submitted to the Santa Fe Environmental Bureau office for consideration of approval.

5.
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 _____

50

6.
Netting: Subsection E of 19.15.17.11 NMAC *(Applies to permanent pits and permanent open top tanks)*

☐ Screen ☐ Netting ☒ Other Enclosed

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

7.
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

8.
Variances 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:

☒ Variance(s): Requests must be submitted to the appropriate division district for consideration of approval.

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

9.
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. **Siting criteria does not apply to drying pads or above-grade tanks.**

General siting	
Ground water is less than 25 feet below the bottom of a low chloride temporary pit or below-grade tank. - ☐ NM Office of the State Engineer - iWATERS database search; ☐ USGS; ☒ Data obtained from nearby wells	☐ Yes ☒ No ☐ NA
Ground water is less than 50 feet below the bottom of a Temporary pit, permanent pit, or Multi-Well Fluid Management pit . NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells	☐ Yes ☐ No ☐ NA
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. **(Does not apply to below grade tanks)** - Written confirmation or verification from the municipality; Written approval obtained from the municipality	☐ Yes ☐ No
Within the area overlying a subsurface mine. **(Does not apply to below grade tanks)** - Written confirmation or verification or map from the NM EMNRD-Mining and Mineral Division	☐ Yes ☐ No
Within an unstable area. **(Does not apply to below grade tanks)** - 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. **(Does not apply to below grade tanks)** - FEMA map	☐ Yes ☐ No
Below Grade Tanks	
Within 100 feet of a continuously flowing watercourse, significant watercourse, lake bed, sinkhole, wetland or playa lake (measured from the ordinary high-water mark). - Topographic map; Visual inspection (certification) of the proposed site	☐ Yes ☒ No
Within 200 horizontal feet of a spring or a fresh water well used for public or livestock consumption;. - NM Office of the State Engineer - iWATERS database search; Visual inspection (certification) of the proposed site	☐ Yes ☒ No
Temporary Pit using Low Chloride Drilling Fluid (maximum chloride content 15,000 mg/liter)	
Within 100 feet of a continuously flowing watercourse, or any other significant watercourse or within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark). (Applies to low chloride temporary pits.) - Topographic map; Visual inspection (certification) of the proposed site	☐ Yes ☐ No
Within 300 feet from a occupied 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 200 horizontal feet of a spring or a private, domestic fresh water well used by less than five households for domestic or stock watering purposes, or 300feet of any other fresh water well or spring, in existence at the time of the initial application. NM Office of the State Engineer - iWATERS database search; Visual inspection (certification) of the proposed site	☐ Yes ☐ No

Within 100 feet of a wetland. - US Fish and Wildlife Wetland Identification map; Topographic map; Visual inspection (certification) of the proposed site	☐ Yes ☐ No
Temporary Pit Non-low chloride drilling fluid	
Within 300 feet of a continuously flowing watercourse, or any other significant watercourse, or within 200 feet of any 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 spring or a private, domestic fresh water well used by less than five households for domestic or stock watering purposes, or 1000 feet of any other fresh water well or spring, in the existence at the time of the initial application; - NM Office of the State Engineer - iWATERS database search; Visual inspection (certification) of the proposed site	☐ Yes ☐ No
Within 300 feet of a wetland. - US Fish and Wildlife Wetland Identification map; Topographic map; Visual inspection (certification) of the proposed site	☐ Yes ☐ No
Permanent Pit or Multi-Well Fluid Management Pit	
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 1000 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 spring or a fresh water well used for domestic or stock watering purposes, 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 500 feet of a wetland. - US Fish and Wildlife Wetland Identification map; Topographic map; Visual inspection (certification) of the proposed site	☐ Yes ☐ No

10.

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: _____

11.

Multi-Well Fluid Management Pit 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.

☐ 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
☐ A List of wells with approved application for permit to drill associated with the pit.
☐ 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
☐ Hydrogeologic Data - based upon the requirements of Paragraph (4) of Subsection B of 19.15.17.9 NMAC
☐ Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19.15.17.10 NMAC

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

12.
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

13.
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 ☐ Multi-well Fluid Management Pit ☐ 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

14.
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 C 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 H of 19.15.17.13 NMAC
- ☒ Site Reclamation Plan - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC

15.
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 require justifications and/or demonstrations of equivalency. Please refer to 19.15.17.10 NMAC for guidance.

Ground water is less than 25 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 25-50 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 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 100 feet of a continuously flowing watercourse, or 200 feet of any other significant watercourse, 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 300 horizontal feet of a private, domestic fresh water well or spring used for domestic or stock watering purposes, 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
Written confirmation or verification from the municipality; Written approval obtained from the municipality	☐ Yes ☐ No
Within 300 feet of a wetland. US Fish and Wildlife Wetland Identification map; Topographic map; 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 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

16.
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 E of 19.15.17.13 NMAC
- ☐ Construction/Design Plan of Burial Trench (if applicable) based upon the appropriate requirements of Subsection K 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 19.15.17.13 NMAC
- ☐ Waste Material Sampling Plan - based upon the appropriate requirements 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 H of 19.15.17.13 NMAC
- ☐ Site Reclamation Plan - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC

17.
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): Ivan W. Zirbes Title: Vice President-EHS&T

Signature: Date: 8-31-2016

e-mail address: snolan@eprod.com Telephone: 713-381-6595

18.
OCD Approval: ☒ Permit Application (including closure plan) ☒ Closure Plan (only) ☐ OCD Conditions (see attachment)

OCD Representative Signature: **Approval Date:** 12/30/16

Title: Environmental Spec **OCD Permit Number:** 15723

19.
Closure Report (required within 60 days of closure completion): 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:**

20.
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.

21.
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 for private land only)
- ☐ 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

22.

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): _____ Title: _____

Signature: _____ Date: _____

e-mail address: _____ Telephone: _____

Souder, Miller & Associates ♦ 401 W. Broadway ♦ Farmington, NM 87401
(505) 325-7535 ♦ (800) 519-0098 ♦ fax (505) 326-0045

August 2016

SMA #5124213

Mr. Tom Long
Enterprise Products
Field Environmental-San Juan Basin
614 Reilly Avenue
Farmington, NM 87401

BGT REGISTRATION PACKET FOR TURLEY COMPRESSOR STATION TANK #4 LATITUDE 36.76839°, LONGITUDE -107.79102°

Dear Mr. Long:

Souder, Miller and Associates (SMA) has compiled the following BGT Registration Packet including Form C-144 in Accordance with the NMOCD Pit Rules per 19.15.17 NMAC. The tank is located at latitude 36.76839°, longitude -107.79102° within the fenced area of the Turley Compressor Station. Tank information is presented in Table 1.

Table 1: Tank Information

Name	Turley Compressor Station Tank #4			
Location	Latitude/Longitude		Section, Township, Range	
	36.76839°	-107.79102°	NW ¼ / SW ¼ Unit L Section 33	T30N R9W
Date of Site Visit	5-Nov-15			
County	San Juan			
Land Owner	BLM			
Tank Capacity	2,100 Gallons (on EPCO SPCC Tank List)			
Tank Dimensions	8' Width x 15' Height			
Tank Serial Number (If Available)	TK-207 (on attached diagram)			
Tank Contents	Produced fluids			
Tank Construction Notes	Steel double wall tank with level detection and riser pipe in annular space for monthly monitoring			
Tank Operation Notes	Tank is inspected monthly			

Siting Criteria (19.15.17.10 NMAC)

The below-ground tank (BGT) is located at the Turley Compressor Station at an elevation of 5773 feet above mean sea level (amsl). The BGT meets all siting criteria listed in 19.15.17.10 NMAC with the exceptions for which variances are requested.

Depth to groundwater at the site is 53 feet below ground surface (bgs). Local topography and proximity to adjacent water features. This data also supported by the pit closure documentation for the Elliott Gas Com S #001 well, API # 3004508895. The elevation at the Elliott Gas Com S #001 well is recorded at 5683 amsl, and ground water is estimated to be between 50 and 99 feet bgs. The BGT base is 15 feet bgs. Because the BGT base is thus estimated to be 38 feet above the ground water level, a variance is not being requested for this siting criteria.

Figure 1 shows the vicinity of the BGT location and the location of the nearby Elliott Gas Com S #001 well. The base layer of Figure 1 is the ESRI provided Imagery Topo Map[3] and includes USGS Blue Lines[4]. An aerial imagery map of the site is provided as Figure 2 which shows the vicinity of the BGT with 500' and 1000' buffers. Figure 3 demonstrates the BGT is not located within 100 feet of any continuous flowing watercourse, any other significant watercourse, sinkhole, lakebed, wetlands or playa lake as measured from the ordinary high water mark[5], or within 200 feet of a spring or freshwater well used for public or livestock consumption, as indicated by the aerial photo[6] and iWaters map layers[2], or within 300 horizontal feet of any permanent residences, schools, hospitals, institutions or churches.

The BGT subject to the attached application for registration under 19.15.17 NMAC is located within the Turley Compressor Station boundaries and was in existence prior to the promulgation of 19.15.17 NMAC. A review of the best available data and a visual inspection of the siting criteria of 19.15.17 NMAC specific to the BGT in question demonstrate that the BGT does not appear to pose a threat to fresh water, public health or the environment.

Local Geology and Hydrology

The Turley Compressor Station is located on a bench about 200 feet higher in elevation and about 1.25 miles north of the San Juan River, between Blanco, and Largo, New Mexico. The Compressor Station is located on an eroded surface of sandstone, shales and conglomerates belonging to the Paleocene Nacimiento Formation[7]. The location is about 12 miles west of Navajo Lake. The mesas surrounding Navajo Lake are composed mostly of medium-grained mixed clastic rocks belonging to the Eocene San Jose Formation[8]. The San Jose formation extends about halfway between the lake and the BGT location.

Groundwater is estimated to be about 53 feet bgs (5720 feet amsl) at this site, based on the following documentation:

- Using the New Mexico Oil and Gas Association (NMOGA) differential method for "surface drainage influenced groundwater", depth to groundwater is estimated at 53 feet bgs[2]. An unnamed tributary to the San Juan River is approximately 53 feet lower than the BGT at an elevation of 5720 feet amsl[9] and located 1,274 feet west of the BGT. Groundwater is conservatively assumed to be at the base of the wash.
- Depth to groundwater in a closure report of the Elliot Gas Com S #001 well, API #3004508895 declares depth to groundwater to be 50 feet bgs. This well is located about 1700 feet south of the BGT, between the BGT and the San Juan River.

Regional Geology and Hydrology

The San Juan Basin is located in the Navajo section of the Colorado Plateau and is characterized by broad open valleys, mesas, buttes and hogbacks. Away from major valleys and canyons, topographic relief is generally low. Native vegetation is sparse and shrubby consisting primarily of desert scrub (sage and chamisa) in the lower elevations and juniper and piñon in the higher elevations. Drainage of the San Juan Basin is by the San Juan River and its associated tributaries, including the La Plata and the Animas Rivers. The San Juan River is a tributary of the Colorado River. The climate is arid to semi-arid with an average annual precipitation of 8 to 10 inches. Soils within the basin consist of physically weathered parent rock. Aeolian depositional systems are responsible for a majority of the material transport in the San Juan Basin, fluvial systems are also present though less predominant[10].

The primary aquifers in the San Juan Basin are contained in Cretaceous and Tertiary sandstones, as well as Quaternary Alluvial Deposits[10]. The Nacimiento Formation of Paleocene age occurs at the surface in a broad belt at the western and southern edges of the central San Juan Basin and dips beneath the San Jose Formation in the center. The lower part of the Nacimiento Formation is composed of interbedded black carbonaceous mudstones and white coarse grained sandstones. The upper part is comprised of mudstones and sandstones. Shales and conglomerates are often interbedded within the mudstones and sandstones, but they are not the primary rock type. The Nacimiento Formation is generally slope forming, even in the sandstone units. Thickness of the Nacimiento ranges from 418 to 2232 feet[11]. Aquifers within the coarser and continuous sandstone bodies of the Nacimiento Formation are between 0 and 1000 feet deep in this section of the basin. Wells within these bodies flow from 16 to 100 gallons per minute (gpm) and transmissivities are expected to be 100 ft^2/d. Groundwater within these units flows towards the San Juan River[10].

If there are any questions regarding this report, please contact myself or Reid Allan at 505-325-7535.

Sincerely,
Souder, Miller & Associates

Jesse E Sprague
Staff Scientist

Reid S. Allan
Principal Scientist

FIGURES:
Figure 1 – Vicinity Map
Figure 2 – Site Map with 500' and 1000' buffers
Figure 3 – Site Map with 100', 200' and 300' buffers

ATTACHMENTS:
Form C-144
Variance Request
Tank Diagrams
Operation and Maintenance Plan
Depth to Groundwater Documentation

References

[2]Office of the State Engineer (OSE) Water Administrative Technical Engineering Resource System (WATERS), September 4, 2015. *"Water Wells – 2015 – OSE"*, released September, 2015. http://gstore.unm.edu/apps/rgis/datasets/6925a8e3-6f8d-4334-a15e-bf95a11fdaaa/OSE_Wells_May_2015.original.zip

[3]ESRI ArcGIS Online, *"USGSImageryTopo"*, August, 2013. The USGS Imagery Topo base map service from The National Map is a combination of imagery and contours, along with vector layers, such as geographic names, governmental unit boundaries, hydrography, structures, and transportation, to provide a composite base map that resembles the US Topo product. Vector data sources are the National Atlas for small scales, and The National Map for medium to large scales. Imagery data sources are Blue Marble: Next Generation at small scales and NAIP at large scales, with Global Land Survey (Landsat) imagery for medium scales that lack NAIP coverage. Coordinate System: Web Mercator Auxiliary Sphere (WKID 102100) http://www.arcgis.com/home/item.html?id=c641cc5c41d44faba509959748098471

[4]New Mexico Oil and Gas Association Training Manual for 19.15.17 NMAC (Pit Rule) *"NMOGA & NMOCD Pit Rules Training.pdf"* State of New Mexico, October 17, 2014.

[5]National Wetlands Inventory, September 2002. *"San Juan Wetland/Riparian Project"*, R02Y02P01 San Juan, NMRGIS geodatabase. http://rgis.unm.edu/gstore/datasets/757361ef-2000-4f2a-aff8-15fa0a8bd5db/nwi_san_juan_02.original.zip

[6]Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community. November 2015 *"World Imagery"*, Coordinate System: Web Mercator Auxiliary Sphere (WKID 102100) http://server.arcgisonline.com/arcgis/services/World_Imagery/MapServer

[7]Green, Gregory N., Jones, Glen E., 2009. *"Digital Geologic Map of New Mexico – Formations"* http://gstore.unm.edu/apps/rgis/datasets/51349b33-92eb-4ab8-9217-81c82b5c3afa/nmmapdd83shp.original.zip

[8]USGS Mineral Resources On-Line Spatial Data, Green, G.N., and Jones, G.E., 1997, The Digital Geologic Map of New Mexico in ARC/INFO Format: U.S. Geological Survey Open-File Report 97-0052, 9p. http://pubs.er.usgs.gov/publication/ofr9752 http://mrdata.usgs.gov/geology/state/state.php?state=NM

[9]Source: "Turley Compressor Station and Wash Elevations" 36.76801° N, -107.79057° W. Google Earth. May 2, 2013. November 28, 2015. Elevation Datum: NAVD27.

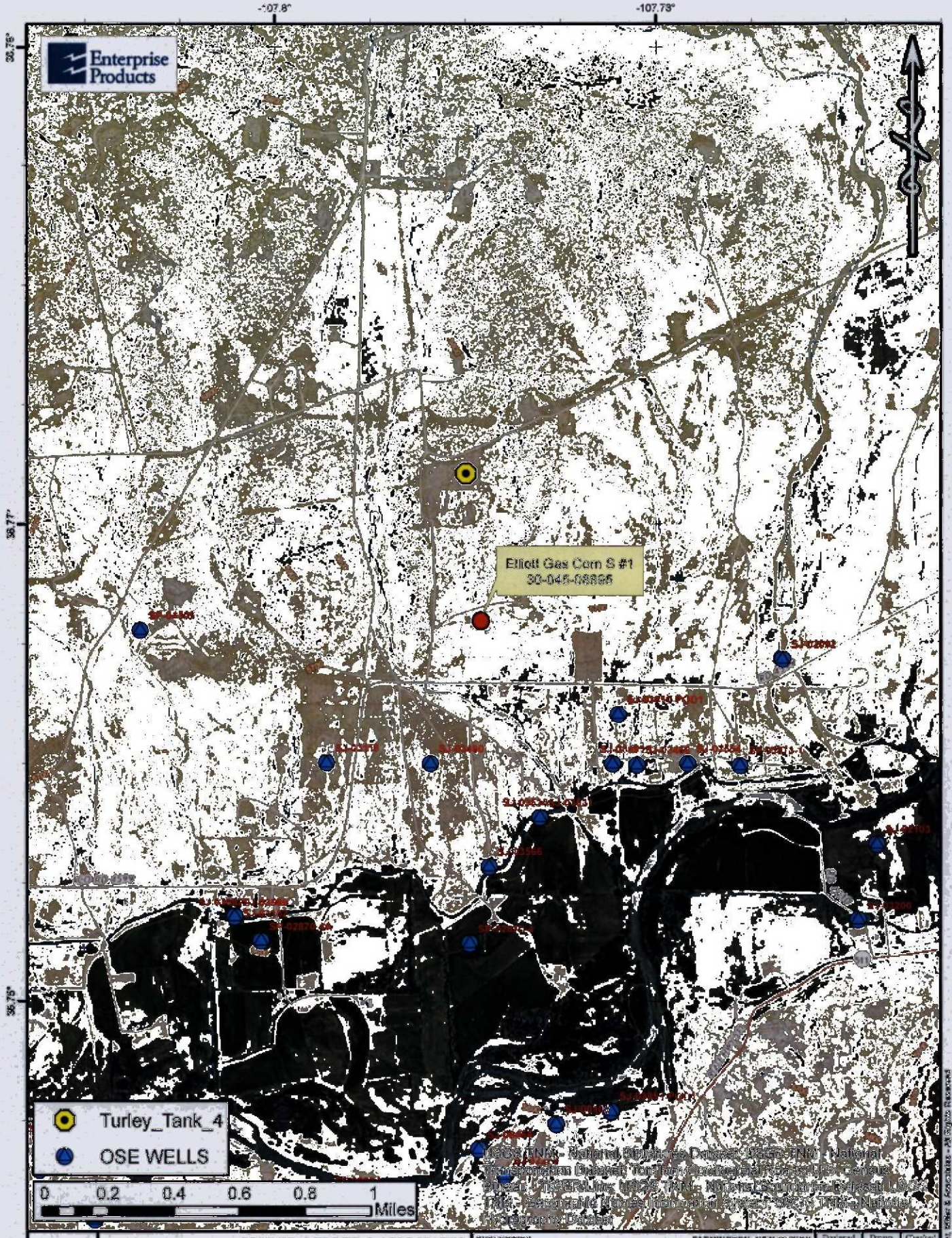
[10] Stone, et.al., 1983, Hydrogeology and Water Resources of the San Juan Basin, New Mexico, Socorro, New Mexico Bureau of Mines and Mineral Resources Hydrologic Report 6.

[11]Kelley, et. Al., 2014, Hydrologic Assessment of Oil and Gas Resource Development of the Mancos Shale in the San Juan Basin, New Mexico. Open-File Report 566, New Mexico Bureau of Mines and Mineral Resources.

Turley Compressor Station, Tank#4 Variance Request

Enterprise requests a variance for the items listed below. The requested variances, per 19.15.17.15A, provide equal or better protection of fresh water, public health and the environment.

1. Signage
    - BGT is located within a facility signed appropriate to NMAC 20.2.70, Title V General Construction Permit. The sign is legible and contains the operator's name, the location of the compressor station in decimal degrees and township section and range, and emergency contact telephone numbers. Additional signage relevant to the Title V air quality permit is also present and provides equal or better protection of fresh water, public health and the environment.
2. 2008 Pit Rules
    - Turley Compressor Station Tank #4 was installed prior to the 2008 pit rules. The BGT does not pose an imminent threat to the protection of fresh water, public health or the environment.



SOUDER, MILLER & ASSOCIATES
401 West Broadway Avenue
Farmington, NM 87401-5907
Phone (505) 325-7535 Toll-Free (800) 519-0098
www.soudermiller.com

SUIT NUMBER# FARMINGTON, NEW MEXICO

TURLEY COMPRESSOR STATION TANK #4
AUGUST, 2016
SITE VICINITY MAP
SECTION 33, T30N, R9W
SAN JUAN COUNTY, NEW MEXICO

Designed	Drawn	Checked
JES	JES	ADM

DATE: AUGUST 2016
PROJECTION: WGS 1984
PROJECT NO: 5124213
FIGURE: 1

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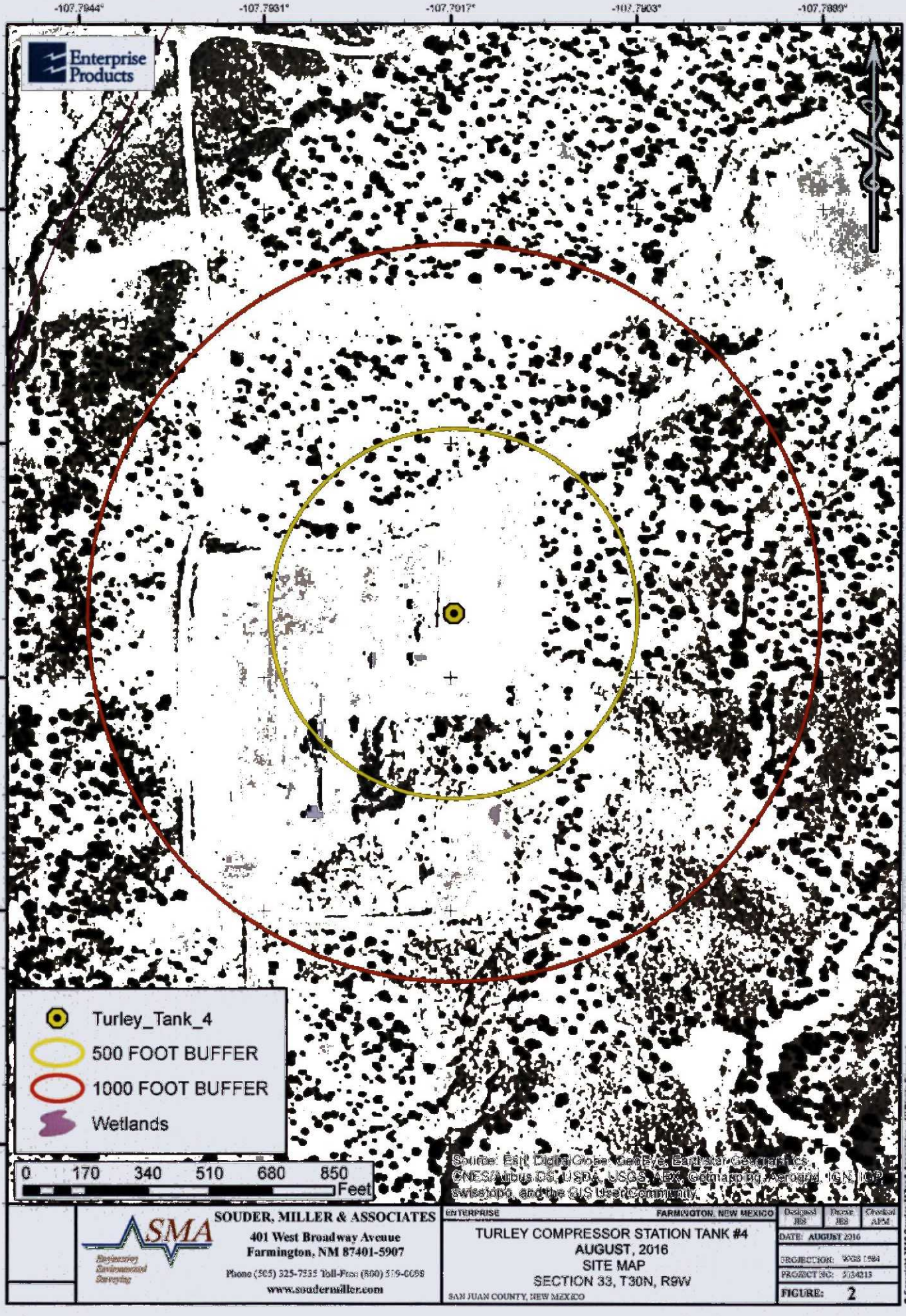

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www.soudermiller.com

ENTERPRISE — FARMINGTON, NEW MEXICO

TURLEY COMPRESSOR STATION TANK #4
AUGUST, 2016
SITE MAP
SECTION 33, T30N, R9W
SAN JUAN COUNTY, NEW MEXICO

Designed	Drawn	Checked
JES	JES	APM

DATE: AUGUST 2016
PROJECTION: NAD 1983
PROJECT NO: 5134215
FIGURE: 2

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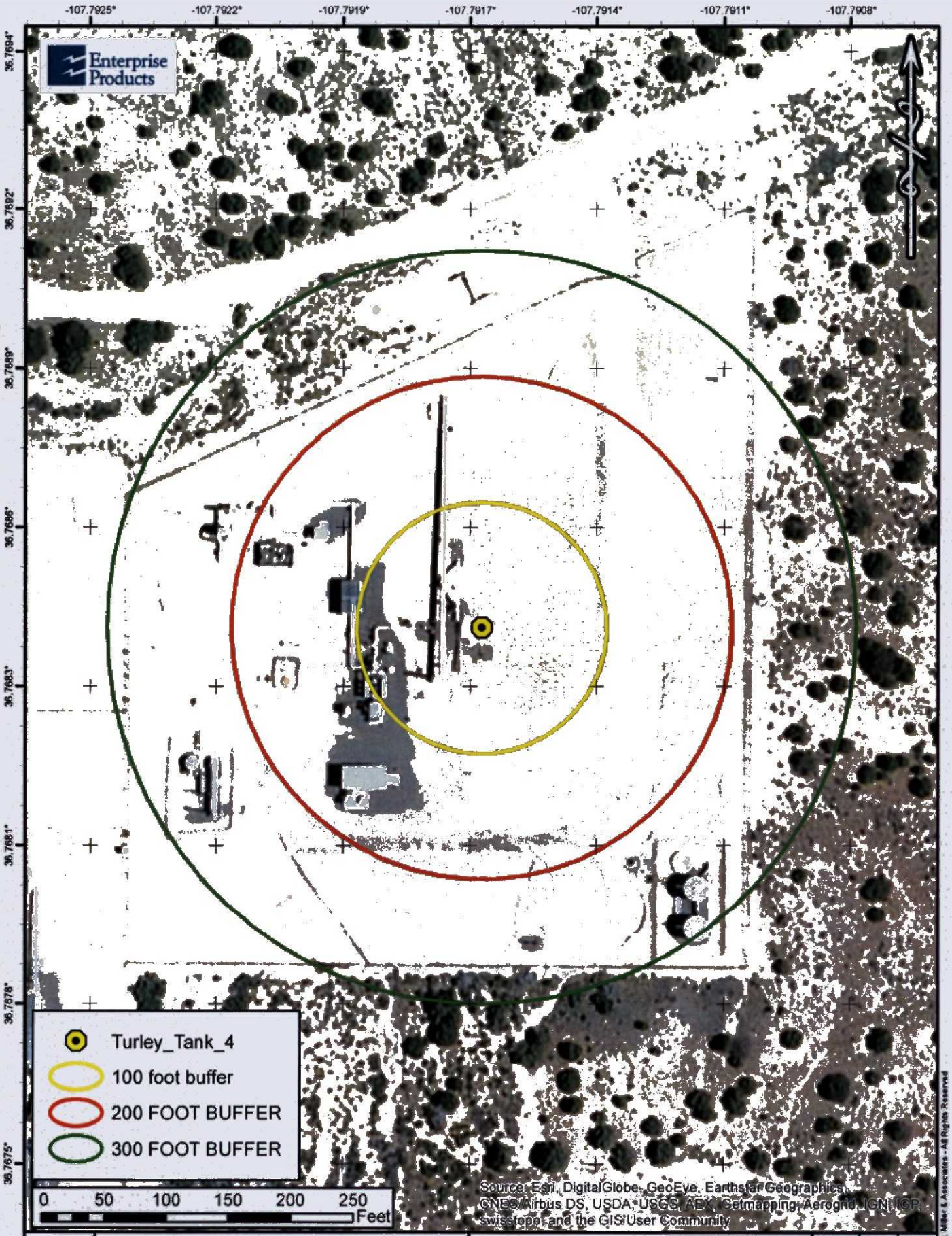

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Phone (505) 325-7535 Toll-Free (800) 519-0098
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ENTERPRISE FARMINGTON, NEW MEXICO

TURLEY COMPRESSOR STATION TANK #4
AUGUST, 2016
SITE MAP
SECTION 33, T30N, R9W
RIO ARRIBA COUNTY, NEW MEXICO

Designed	Drawn	Checked
JES	JES	AFM

DATE: AUGUST 2016
SCALE: 1:1,000
PROJECTION: WGS 1984
PROJECT NO: 5124213
FIGURE: 3

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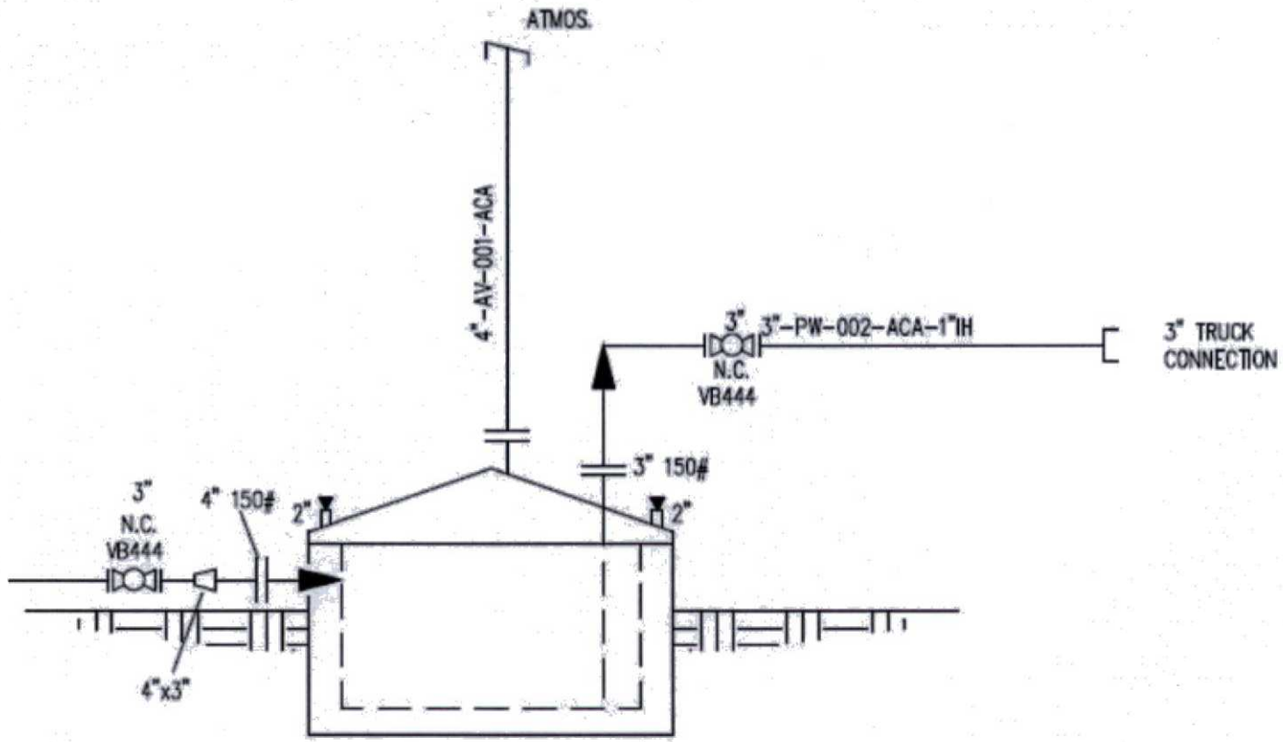
Below Grade Tank Diagram
Turley Compressor Station Tank #4



T-207 (F) EPFS

OIL CONS. DIV DIST. 3
OCT 21 2016

Enterprise Field Services, LLC
Existing Buried Double-Wall Steel Tank(s)
San Juan Basin - Below Grade Tank(s)
Design and Construction Plan

In accordance with Rule 19.15.17 NMAC, the following plan describes the general design and construction of the Below Grade Tank(s) (BGT) using double-wall steel tanks at Enterprise Field Services, LLC (Enterprise) facilities in the San Juan Basin of New Mexico.

Plan requirements:

1. The existing BGT(s) is/are located within a facility signed appropriately to NMAC 20.2.70, Title V General Construction Permit requirements. The sign is legible and contains the operator's name, the location of the compressor station in decimal degrees and township section and range, and emergency contact telephone numbers. Additional signage relevant to the Title V air quality permit is also present and provides equal or better protection of fresh water, public health and the environment than the 19.15.17.11 NMAC Subsection C signage requirement.

2. The existing BGT(s) is/are located within a facility with a minimum six foot high chain link fence topped with barbed or razor wire which provides equal or better protection of fresh water, public health and the environment than the 19.15.17.11 NMAC Subsection D fencing requirement.

3. The existing BGT(s) has/have an enclosed double wall steel top which provides equal or better protection of fresh water, public health and the environment than the 19.15.17.11 NMAC Subsection E netting requirement.

4. The existing BGT(s) foundation(s) is/are level and free of rocks, debris, sharp edges or irregularities and has compacted bottom and sidewalls that are stable for the soil conditions.

5. The existing BGT(s) is/are protected from rainwater run-on because the top of the BGT(s) is a minimum of six inches above the ground surface.

6. The existing BGT(s) is steel double-wall and bottom equipped with an Electronic Flow Meter (EFM) to monitor high liquid levels and automatically shuts off liquid discharges to prevent overflows. The annulus between the double walls is also monitored and inspected monthly.

Operational Plan

NMAC 19.15.17.12

OPERATIONAL REQUIREMENTS

Enterprise will operate and maintain the below-grade tank to contain liquids and solids and maintain the secondary containment system to prevent contamination of fresh water and protect public health and the environment.

Enterprise shall not discharge into or store any hazardous waste in the below-grade tank.

If the below-grade tank develops a leak, Enterprise shall remove all liquid above the damage or leak within 48 hours of discovery, notify the appropriate division office and repair the damage or replace the below-grade tank as applicable per 19.15.29 NMAC.

Enterprise shall operate and install the below-grade tank to prevent the collection of surface water run-on.

Enterprise shall not allow a below-grade tank to overflow or allow surface water run-on to enter the below-grade tank.

Enterprise shall remove any measurable layer of oil from the fluid surface of a below-grade tank.

Enterprise shall inspect the below-grade tank for leakage and damage at least monthly.

Enterprise shall document the integrity of each tank at least annually and maintain a written record of the integrity for five years.

Enterprise shall maintain adequate freeboard to prevent overtopping of the below-grade tank.

CLOSURE REQUIREMENTS

Enterprise shall not commence closure without first obtaining approval of the closure plan submitted with the permit application or registration pursuant to 19.15.17.13 NMAC.

Enterprise shall close the below-grade tank by first removing all contents and transferring the materials to a division approved facility.

Enterprise shall test the soils beneath the below-grade tank as follows:

A minimum of one composite sample to include any obvious stained or wet soils, or other evidence of contamination shall be collected from under the below-grade tank and the sample shall be analyzed for the identified constituents with respective concentrations listed in Table I of 19.15.17.13 NMAC below.

Table I
Closure Criteria for Soils Beneath Below-Grade Tanks, Drying Pads Associated with Closed-Loop Systems and Pits where Contents are Removed

Depth below bottom of pit to groundwater less than 10,000 mg/l TDS	Constituent	Method*	Limit**
≤50 feet	Chloride	EPA 300.0	600 mg/kg
	TPH	EPA SW-846 Method 418.1	100 mg/kg
	BTEX	EPA SW-846 Method 8021B or 8260B	50 mg/kg
	Benzene	EPA SW-846 Method 8021B or 8015M	10 mg/kg
51 feet-100 feet	Chloride	EPA 300.0	10,000 mg/kg
	TPH	EPA SW-846 Method 418.1	2,500 mg/kg
	GRO+DRO	EPA SW-846 Method 8015M	1,000 mg/kg
	BTEX	EPA SW-846 Method 8021B or 8260B	50 mg/kg
	Benzene	EPA SW-846 Method 8021B or 8015M	10 mg/kg
> 100 feet	Chloride	EPA 300.0	20,000 mg/kg
	TPH	EPA SW-846 Method 418.1	2,500 mg/kg
	GRO+DRO	EPA SW-846 Method 8015M	1,000 mg/kg
	BTEX	EPA SW-846 Method 8021B or 8260B	50 mg/kg
	Benzene	EPA SW-846 Method 8021B or 8015M	10 mg/kg

*Or other test methods approved by the division
**Numerical limits or natural background level, whichever is greater
*** Or Method 8015 with GRO, DRO, & MRO

If any contaminant concentration is higher than the above parameters, the division may require additional delineation upon review of the results and Enterprise must receive approval before proceeding with closure.

If all contaminant concentrations are less than or equal to the parameters listed above, Enterprise can proceed to backfill the excavation with non-waste containing, uncontaminated, earthen material.

CLOSURE NOTICE

Enterprise shall notify the appropriate division district office verbally, and in writing, at least 72 hours, but not more than one week, prior to any closure operation. The notice shall include the Enterprise name and the location to be closed, including the unit letter, section, township, and range.

Enterprise shall notify the surface owner by certified mail (return receipt requested) that Enterprise plans closure operations at least 72 hours, but not more than one week, prior to any closure operation. Evidence of mailing of the notice to the address of the surface owner shown in the county tax records is sufficient to demonstrate compliance with this requirement.

CLOSURE REPORT AND BURIAL IDENTIFICATION

Within 60 days of closure completion, Enterprise shall submit a closure report on form C-144, with necessary attachments to document all closure activities including sampling results, information required by 19.15.17 NMAC, and details on back-filling, capping and covering, where applicable. In the closure report, Enterprise shall certify that all information in the report and attachments is correct and that Enterprise has complied with all applicable closure requirements and conditions specified in the approved closure plan.

TIMING REQUIREMENTS FOR CLOSURE

Within 60 days of cessation of operations, Enterprise shall remove liquids and sludge from a below-grade tank prior to implementing a closure method and shall dispose of the liquids and sludge in a division-approved facility.

Within six months of cessation of operations, Enterprise shall remove the below-grade tank and dispose of it in a division-approved facility or recycle, reuse, or reclaim it in a manner that the appropriate division district office approves. If there is any equipment associated with a below-grade tank, Enterprise shall remove the equipment, unless the equipment is required for some other purpose.

SOIL COVER DESIGNS FOR BELOW-GRADE TANKS

The soil cover for closures after site contouring (where Enterprise has removed the below-grade tank and, if necessary, remediated the soil beneath the below-grade tank to chloride concentrations less than 600 mg/kg as analyzed by EPA Method 300.0) shall consist of the background thickness of topsoil or one foot of suitable material, whichever is greater.

Enterprise shall construct the soil cover to the site's existing grade and prevent ponding of water and erosion of the cover material.

RECLAMATION AND RE-VEGETATION

RECLAMATION OF AREAS NO LONGER IN USE

All areas disturbed by the closure of the below-grade tanks, except areas reasonably needed for production operations or for subsequent drilling operations, shall be reclaimed as early and as nearly as practicable to their original condition or their final land use and shall be maintained to control dust and minimize erosion to the extent practicable.

Enterprise shall replace topsoils and subsoils to their original relative positions and shall be contoured to achieve erosion control, long-term stability and preservation of surface water flow patterns. The disturbed area then shall be reseeded in the first favorable growing season following closure of the below-grade tank.

Reclamation of all disturbed areas no longer in use shall be considered complete when all ground surface disturbing activities at the site have been completed, and a uniform vegetative cover has been established that reflects a life-form ratio of plus or minus fifty percent (50%) of pre-disturbance levels and a total percent plant cover of at least seventy percent (70%) of pre-disturbance levels, excluding noxious weeds.

OTHER REGULATORY REQUIREMENTS

The re-vegetation and reclamation obligations imposed by other applicable federal or tribal agencies on lands managed by those agencies shall supersede these provisions and govern the obligations of any operations subject to those provisions, provided the other requirements provide equal or better protection of fresh water, human health and the environment.

Enterprise shall notify the division when reclamation and re-vegetation are complete.

District I
P.O. Box 1980, Hobbs, NM
District II
P.O. Drawer DD, Artesia, NM 88211
District III
1000 Rio Brazos Rd, Aztec, NM 87410

State of New Mexico
Energy, Minerals and Natural Resources Department

OIL CONSERVATION DIVISION
P.O. Box 2088
Santa Fe, New Mexico 87504-2088

SUBMIT 1 COPY TO APPROPRIATE DISTRICT OFFICE AND 1 COPY TO SANTA FE OFFICE

PIT REMEDIATION AND CLOSURE REPORT

Operator: Amoco Production Company Telephone: (505) - 326-9200

Address: 200 Amoco Court, Farmington, New Mexico 87401

Facility Or: ELLIOTT GC S1
Well Name

Location: Unit or Qtr/Qtr Sec M Sec 33 T 30N R 9W County SAN JUAN

Pit Type: Separator X Dehydrator ___ Other ___

Land Type: BLM X, State ___, Fee ___, Other COM. AGMT.

Pit Location: (Attach diagram) Pit dimensions: length 19', width 19', depth 22'
Reference: wellhead X, other ___
Footage from reference: 145
Direction from reference: 82 Degrees ___ East North X of X West South ___

Approved
DEPUTY OIL & GAS INSPECTOR
DEC 19 1996

Depth To Ground Water: (Vertical distance from contaminants to seasonal high water elevation of ground water)	Less than 50 feet (20 points) 50 feet to 99 feet (10 points) Greater than 100 feet (0 Points)	10
Wellhead Protection Area: (Less than 200 feet from a private domestic water source, or; less than 1000 feet from all other water sources)	Yes (20 points) No (0 points)	0
Distance To Surface Water: (Horizontal distance to perennial lakes, ponds, rivers, streams, creeks, irrigation canals and ditches)	Less than 200 feet (20 points) 200 feet to 1000 feet (10 points) Greater than 1000 feet (0 points)	0
	RANKING SCORE (TOTAL POINTS):	10

Date Remediation Started: _____ **Date Completed:** 7/29/94

Remediation Method: (Check all appropriate sections) Excavation X Approx. cubic yards 300

Landfarmed X Insitu Bioremediation ___

Other _____

Remediation Location: (ie. landfarmed onsite, name and location of offsite facility) Onsite X Offsite _____

General Description Of Remedial Action: _____

Excavation

Ground Water Encountered: No X Yes ___ Depth _____

Final Pit: Closure Sampling: (if multiple samples, attach sample results and diagram of sample locations and depths)

Sample location see Attached Documents

Sample depth 16'

Sample date 7/29/94 Sample time 0745

Sample Results

Benzene(ppm) ND

Total BTEX(ppm) 1.57

Field headspace(ppm) 996

TPH 628 ppm

Ground Water Sample: Yes ___ No X (If yes, attach sample results)

I HEREBY CERTIFY THAT THE INFORMATION ABOVE IS TRUE AND COMPLETE TO THE BEST OF MY KNOWLEDGE AND BELIEF

DATE 8/1/94

SIGNATURE B J Shaw PRINTED NAME AND TITLE Buddy D. Shaw Environmental Coordinator

CLIENT: AMOCO	BLAGG ENGINEERING, INC. P.O. BOX 87, BLOOMFIELD, NM 87413 (505) 632-1199	LOCATION NO: B0031 C.O.C. NO:

FIELD REPORT: CLOSURE VERIFICATION

PAGE No: 1 of 1

LOCATION: NAME: ELLIOTT GC WELL #: 51 PIT: SEP

QUAD/UNIT: M SEC: 33 TWP: 30N RNG: 9W PM: NM CNTY: SJ ST: NM

QTR/FOOTAGE: SW/4 SW/4 CONTRACTOR: MOSS

DATE STARTED: 7/29/94
DATE FINISHED: 7/29/94

ENVIRONMENTAL SPECIALIST: NV

SOIL REMEDIATION: EXCAVATION APPROX. 19 FT. x 19 FT. x 22 FT. DEEP.

DISPOSAL FACILITY: LANDFARMED ON-SITE CUBIC YARDAGE: 300

LAND USE: RANGE LEASE: SF-078139

FIELD NOTES & REMARKS: PIT LOCATED APPROXIMATELY 145 FEET N82W FROM WELLHEAD.

DEPTH TO GROUNDWATER: <100 NEAREST WATER SOURCE: >1000 NEAREST SURFACE WATER: >1000

NMOCD RANKING SCORE: 10 NMOCD TPH CLOSURE STD: 1000 PPM FORMATION: DK

SOIL AND EXCAVATION DESCRIPTION: SEE PIT PROFILE BELOW.

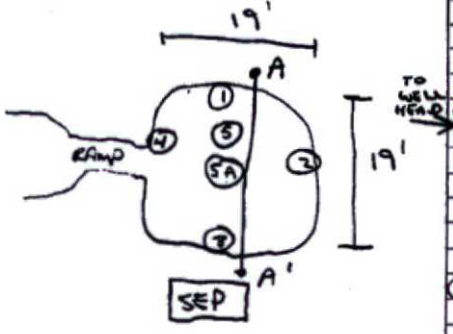
FIELD 418.1 CALCULATIONS

SAMPLE I.D.	LAB No.	WEIGHT (g)	mL. FREON	DILUTION	READING	CALC. ppm
① @ 16'	TPH-10477	5	20	1:1	157	628

SCALE

0 FT

PIT PERIMETER

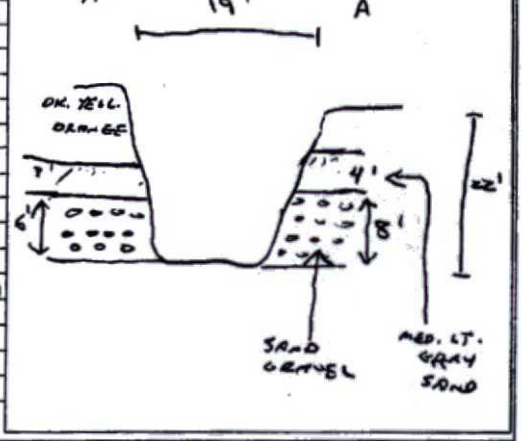


N

OVM RESULTS

SAMPLE ID	FIELD HEADSPACE PID (ppm)
1 @ 16'	996
2 @ 16'	942
3 @ 17'	996
4 @ 18'	976
5 @ 22'	972
SAC @ 23	228
	LAB SAMPLES
① @ 16'	BTEX (8020)

PIT PROFILE



TRAVEL NOTES: CALLOUT: 7/27/94 ONSITE: 7/29/94

BLAGG ENGINEERING, INC.
P.O. Box 87, Bloomfield, New Mexico 87413
Phone: (505)632-1199 Fax: (505)632-3903

FIELD MODIFIED EPA METHOD 418.1
TOTAL PETROLEUM HYDROCARBONS

Client:	Amoco	Project #:	
Sample ID:	1 @ 16'	Date Analyzed:	7-29-94
Project Location:	Elliott GC S 1	Date Reported:	7-29-94
Laboratory Number:	TPH-1042	Sample Matrix:	Soil

Parameter	Result, mg/kg	Detection Limit, mg/kg
Total Recoverable Petroleum Hydrocarbons	630	20

ND = Not Detectable at stated detection limits.

QA/QC:

QA/QC Sample TPH mg/kg	Duplicate TPH mg/kg	% *Diff.
978	938	4.18

*Administrative Acceptance limits set at 30%.

Method: Modified Method 418.1, Petroleum Hydrocarbons, Total Recoverable, Chemical Analysis of Water and Waste, USEPA Storet No.4551, 1978

Comments: Separator Pit – B0031

Analyst

Review

ON SITE TECHNOLOGIES, LTD.

AROMATIC VOLATILE ORGANICS

Attn:	Nelson Velez	Date:	7/30/94
Company:	Blagg Engineering	Lab ID:	1675
Address:	P.O. Box 87	Sample ID:	2194
City, State:	Bloomfield, NM 87413	Job No.	2-1000

Project Name:	Elliott GC S1				
Project Location:	1 @ 16' - Separator Pit				
Sampled by:	NV	Date:	7/29/94	Time:	7:45
Analyzed by:	DLA	Date:	7/30/94		
Sample Matrix:	Soil				

Aromatic Volatile Organics

Component	**Measured Concentration ug/kg
Benzene	ND
Toluene	3.3
Ethylbenzene	83
m,p-Xylene	1,464
o-Xylene	23.3
TOTAL	1,574 ug/kg

ND - Not Detectable
** - Method Detection Limit, 2 ug/kg

Method - SW-846 EPA Method 8020 Aromatic Volatile Organics by Gas Chromatography

Approved by:
Date: 7/31/94

FAX: (505) 327-1496 • 24 HR. – (505) 327-7105 • OFF.: (505) 325-8786
3005 NORTHRIDGE DRIVE • SUITE F • P. O. BOX 2606 • FARMINGTON, NEW MEXICO 87499

RISK
BTEX
TPH

EL PASO FIELD SERVICES
PRODUCTION PIT CLOSURE

Elliot Gas Com S #1
Meter/Line ID – 75265

SITE DETAILS

Legals - Twn: 30N	**Rng: 9W**	**Sec: 33**	**Unit: M**
NMOCD Hazard Ranking: 10		**Land Type: BLM**	
Operator: Amoco		**Pit Closure Date: 09/12/94**	

RATIONALE FOR RISK-BASED CLOSURE

The pit noted above was assessed and ranked according to the criteria in the New Mexico Oil Conservation Division's (NMOCD) Unlined Surface Impoundment Closure Guidelines.

A Phase I excavation was conducted on September 12, 1994, to 12 feet below ground surface, and a soil sample was collected for field headspace analysis and laboratory analysis for benzene, total BTEX, and TPH. Groundwater was not encountered in the pit. Approximately 40 cubic yards of material was removed for landfarming and sent to an OCD approved centralized site. The pit was backfilled and graded in a manner to direct surface runoff away from the pit area. Headspace analysis indicated an organic vapor content of 1070 ppm; laboratory analysis indicated a benzene concentration of 13 mg/kg, a total BTEX concentration of 256 mg/kg, and a TPH concentration of 1470 mg/kg. BTEX and TPH were above required remediation levels for the Hazard Ranking Score.

On May 9, 1995, a Phase II excavation was conducted to 17 feet below ground surface and a soil sample was collected for field headspace analysis and laboratory analysis for benzene, total BTEX, and TPH. Groundwater was not encountered in the test pit. Approximately 40 cubic yards of material was removed for landfarming and sent to an OCD approved centralized site. The pit was backfilled and graded in a manner to direct surface runoff away from the pit area. Headspace analysis indicated an organic vapor content of 366 ppm; laboratory analysis indicated a benzene concentration of 0.86 mg/kg, a total BTEX concentration of 372 mg/kg, and a TPH concentration of 1470 mg/kg. BTEX and TPH remained above the required remediation levels for the Hazard Ranking Score.

On August 8, 1995, a Phase III borehole was conducted to 20 feet below ground surface where bedrock was encountered. Groundwater was not encountered in the borehole. The borehole was grouted to the surface in a manner to direct surface runoff away from the pit area. A soil gas survey conducted indicates BTEX compounds to be below action level directly down gradient of excavated pit.

El Paso Field Services Company (EPFS) requests closure of the above mentioned production pit location for the following reasons:

- The primary source, discharge to the pit, has been removed for almost six years.
- The pit was backfilled and the former pit area graded to direct surface runoff away from the former pit.

- Groundwater was not encountered in the excavation or the borehole.
- Residual hydrocarbons in the soil will degrade naturally with minimal risk to the environment.
- Bedrock was encountered at 20 feet below ground surface; consequently, impact to groundwater is unlikely.
- There are no water supply wells or other sources of fresh water extraction within 1,000 feet of site.
- Excavated material has been removed from the pit, eliminating potential direct contact with livestock or the public.

ATTACHMENT

Field Pit Assessment Form
Field Pit Remediation/Closure Form Phase I
Field Pit Remediation/Closure Form Phase II
Soil Gas Survey
Phase III Geologic Log
Laboratory Analytical Results

FIELD PIT SITE ASSESSMENT FORM

GENERAL

Meter: 75265 Location: ELLIOT GAS COM S #1
Operator #: 0203 Operator Name: Amoco P/L District: BLOOMFIELD
Coordinates: Letter: M Section 33 Township: 30 Range: 9
Or Latitude _____ Longitude _____
Pit Type: Dehydrator X Location Drip: ___ Line Drip: ___ Other: _____
Site Assessment Date: 6.8.94 Area: 10 Run: 43

SITE ASSESSMENT

NMOCD Zone: (From NMOCD Maps) Inside ☒ (1) Outside ☐ (2)

Land Type: BLM ☒ (1) State ☐ (2) Fee ☐ (3) Indian _____

Depth to Groundwater
Less Than 50 Feet (20 points) ☐ (1)
50 Ft to 99 Ft (10 points) ☒ (2)
Greater Than 100 Ft (0 points) ☐ (3)

Wellhead Protection Area :
Is it less than 1000 ft from wells, springs, or other sources of fresh water extraction? , or ; Is it less than 200 ft from a private domestic water source? ☐ (1) YES (20 points) ☒ (2) NO (0 points)

Horizontal Distance to Surface Water Body
Less Than 200 Ft (20 points) ☐ (1)
200 Ft to 1000 Ft (10 points) ☐ (2)
Greater Than 1000 Ft (0 points) ☒ (3)
Name of Surface Water Body _____
(Surface Water Body : Perennial Rivers, Major Wash, Streams, Creeks, Irrigation Canals, Ditches, Lakes, Ponds)
Distance to Nearest Ephemeral Stream ☐ (1) < 100' (Navajo Pits Only)
☐ (2) > 100'

TOTAL HAZARD RANKING SCORE: 10 **POINTS**

REMARKS

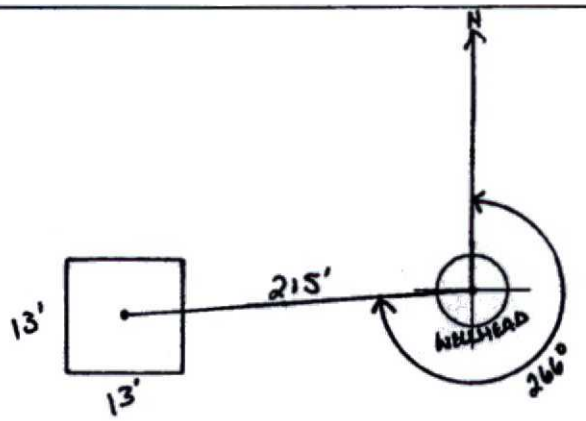
Remarks : THREE PITS ON LOCATION. WILL CLOSE ONLY ONE. PIT IS DRY. LOCATION IS ON THE NORTH SIDE OF C.R. 4599 ON THE 3.8-1 RD. REDLINE AND TOPO CONFIRMED LOCATION IS INSIDE V.Z.

ORIGINAL PIT LOCATION

ORIGINAL PIT LOCATION

Original Pit : a) Degrees from North 266° Footage from Wellhead 215'

b) Length : 13' Width : 13' Depth : 2'



REMARKS

Remarks :

TOOK PICTURES AT 1:41 P.M.

END DUMP

Completed By:

Robert Thompson
Signature

6.8.94
Date

FIELD PIT REMEDIATION/CLOSURE FORM

GENERAL

Meter: 75265 Location: Elliot Gas Com S #1

Coordinates: Letter: M Section 33 Township: 30 Range: 9

Or Latitude _____ Longitude _____

Date Started : 9/12/94 Run: 10 43

FIELD OBSERVATIONS

Sample Number(s): KD 250 _____ _____ _____

Sample Depth: 12' Feet

Final PID Reading 1070 ppm PID Reading Depth 12' Feet

	Yes	No
Groundwater Encountered	☐	☒

Approximate Depth _____ Feet

CLOSURE

Remediation Method :

Excavation	☒	Approx. Cubic Yards 40
Onsite Bioremediation	☐	
Backfill Pit Without Excavation	☐	

Soil Disposition:

Envirotech	☒	☐	Tierra
Other Facility	☐	Name:	

Pit Closure Date: 9/12/94 Pit Closed By: BEI

REMARKS

Remarks : Excavated pit to 12', Took PID Sample, Closed Pit.

Signature of Specialist: Kenny Donam

(SP3191) 03/16/94

El Paso Natural Gas Company

FIELD SERVICES LABORATORY
ANALYTICAL REPORT
PIT CLOSURE PROJECT - Soil Samples Inside the GWV Zone

SAMPLE IDENTIFICATION

	Field ID	Lab ID
SAMPLE NUMBER:	KD 250	946095
MTR CODE | SITE NAME:	75265	N/A
SAMPLE DATE | TIME (Hrs):	9-12-94	1000
SAMPLED BY:	N/A	
DATE OF TPH EXT. | ANAL.:	9-13-94	9-13-94
DATE OF BTEX EXT. | ANAL.:	9-14-94	9-17-94
TYPE | DESCRIPTION:	VC	Brown/Grey Sand/Clay

REMARKS:

RESULTS

PARAMETER	RESULT	UNITS	QUALIFIERS DF	Q	M(g)	V(ml)
BENZENE	13	MG/KG	20			
TOLUENE	73	MG/KG	20			
ETHYL BENZENE	<0.5	MG/KG	20			
TOTAL XYLENES	170	MG/KG	20			
TOTAL BTEX	256	MG/KG				
TPH (418.1) 1470	~~1467~~ 9/16/94	MG/KG			2.07	28
HEADSPACE PID	1070	PPM				
PERCENT SOLIDS	90.7	%				

-- TPH is by EPA Method 418.1 and BTEX is by EPA Method 8020 --

The Surrogate Recovery was at 153 % for this sample All QA/QC was acceptable.

Narrative:

ATI Results attached. Surrogate Recovery was outside ATI QC limits due to matrix interference.

DF = Dilution Factor Used

Approved By: _____ Date: 10/23/94

Analytical Technologies, Inc.

GAS CHROMATOGRAPHY RESULTS

TEST : BTEX (EPA 8020)
CLIENT : EL PASO NATURAL GAS CO. ATI I.D.: 409354
PROJECT # : 24324
PROJECT NAME : PIT CLOSURE

SAMPLE ID. #	CLIENT I.D.	MATRIX	DATE SAMPLED	DATE EXTRACTED	DATE ANALYZED	DIL. FACTOR
13	946087	NON-AQ	09/09/94	09/14/94	09/17/94	1
14	946088	NON-AQ	90/09/94	09/14/94	09/17/94	1
15	946095	NON-AQ	09/12/94	09/14/94	09/17/94	20

PARAMETER	UNITS	13	14	15
BENZENE	MG/KG	<0.025	<0.025	13
TOLUENE	MG/KG	1.6	<0.025	73
ETHYLBENZENE	MG/KG	1.8	<0.025	<0.5
TOTAL XYLENES	MG/KG	88 D(5)	0.059	170
SURROGATE:				
BROMOFLUOROBENZENE (%)		107	108	153*

*OUTSIDE ATI QUALITY CONTROL LIMITS DUE TO MATRIX INTERFERENCE

D(5)=DILUTED 5X, ANALYZED 09/19/94

Analytical Technologies, Inc.

2709-D Pan American Freeway, NE Albuquerque, NM 87107
Phone (505) 344-3777 FAX (505) 344-4413

ATI I.D. 409354

September 22, 1994

El Paso Natural Gas Co.
P.O. Box 4990
Farmington, NM 87499

Project Name/Number: PIT CLOSURE 24324

Attention: John Lambdin

On 09/14/94, Analytical Technologies, Inc., (ADHS License No. AZ0015), received a request to analyze non-aqueous samples. The samples were analyzed with EPA methodology or equivalent methods. The results of these analyses and the quality control data, which follow each set of analyses, are enclosed.

If you have any questions or comments, please do not hesitate to contact us at (505) 344-3777.

Letitia Krakowski, Ph.D.
Project Manager

MR:jt

Enclosure

El Paso Natural Gas Company

CHAIN OF CUSTODY RECORD

Page _____ of _____

PROJECT NUMBER	PROJECT NAME							REQUESTED ANALYSIS						CONTRACT LABORATORY P. O. NUMBER
# 24324	Pit Closure Project													
SAMPLERS: (Signature)	Kenny Donner	DATE:	9/12/94											
LAB ID	DATE	TIME	MATRIX	FIELD ID	TOTAL NUMBER OF CONTAINERS	SAMPLE TYPE	TPH EPA 418.1	BTEX EPA 8020	LAB PID			SEQUENCE #	REMARKS	
946095	9/12/94	1000	Soil	KD 250	1	VC	X	X				226	Very High PID Reading	
946096	9/12/94	1340	Soil	KD 251	1	VC	X	X				227		
946097	9/12/94	1605	Soil	KD 252	1	VC	X	X				228		

RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)
Kenny Donner	9/12/94 1740	Brenda Kiess	Brenda Kiess	9/13/94 1020	
	DATE/TIME	RECEIVED BY: (Signature)	RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED OF LABORATORY BY: (Signature)

REQUESTED TURNAROUND TIME:
☐ ROUTINE ☐ RUSH

CARRIER CO.

BILL NO.:

SAMPLE RECEIPT REMARKS

CHARGE CODE

RESULTS & INVOICES TO:

FIELD SERVICES LABORATORY
EL PASO NATURAL GAS COMPANY
P. O. BOX 4990
FARMINGTON, NEW MEXICO 87499

505-599-2144 FAX: 505-599-2261

White - *Testing Laboratory* Canary - *EPNG Lab* Pink - *Field Sampler*

FM-08-0565 A (Rev. 05-94)

Elliot Gas Com S#1

EL PASO Natural Gas Company

FIELD SERVICES LABORATORY

ANALYTICAL REPORT

PIT CLOSURE PROJECT - Soil Samples Inside the GWV Zone PHASE 2

SAMPLE IDENTIFICATION

	Field ID	Lab ID
SAMPLE NUMBER:	KD 432	946798
MTR CODE | SITE NAME:	75245	N/A
SAMPLE DATE | TIME (Hrs):	5-9-95	1145
SAMPLED BY:	~~5-10-95~~ N/A	
DATE OF TPH EXT. | ANAL.:	5-10-95	
DATE OF BTEX EXT. | ANAL.:	5/10/95	5/10/95
TYPE | DESCRIPTION:	VG	Brown sand & clay

REMARKS:

RESULTS

PARAMETER	RESULT	UNITS	QUALIFIERS			
			DF	Q	M(g)	V(ml)
BENZENE	0.86	MG/KG	0.30166		4.42	20
TOLUENE	79.0	MG/KG				
ETHYL BENZENE	18.8	MG/KG				
TOTAL XYLENES	274	MG/KG		D1, J		
TOTAL BTEX	372	MG/KG				
TPH (418.1)	1470	MG/KG			2.04	28
HEADSPACE PID	366	PPM				
PERCENT SOLIDS	92.0	%				

– TPH is by EPA Method 418.1 and BTEX is by EPA Method 8020 –

The Surrogate Recovery was at 107 % for this sample All QA/QC was acceptable.

Narrative:

BTU Results attached for modified 8015

DF = Dilution Factor Used

Approved By: John Londa Date: 5/11/95

BTEX SOIL SAMPLE WORKSHEET

File	946798A	Date Printed	5/11/95
Soil Mass (g)	4.42	Multiplier (L/g)	0.00113
Extraction vol. (mL)	20	DF (Analytical)	266.667
Shot Volume (uL)	75	DF (Report)	0.30166

			Det. Limit
Benzene (ug/L)	2.84	Benzene (mg/Kg): **0.857**	0.754
Toluene (ug/L)	261.98	Toluene (mg/Kg): **79.029**	0.754
Ethylbenzene (ug/L)	62.34	Ethylbenzene (mg/Kg): **18.805**	0.754
p & m-xylene (ug/L)	732.02	p & m-xylene (mg/Kg): 220.821	1.508
o-xylene (ug/L)	175.32	o-xylene (mg/Kg): 52.887	0.754
		Total xylenes (mg/Kg): 273.707	2.262
		Total BTEX (mg/Kg): 372.398	

Analytical Technologies, Inc.

GAS CHROMATOGRAPHY RESULTS

TEST : EPA 8015 MODIFIED

CLIENT : EL PASO NATURAL ATI I.D.: 505344

PROJECT # : 23324

PROJECT NAME : PIT CLOSURE

SAMPLE ID. #	CLIENT I.D.	MATRIX	DATE SAMPLED	DATE EXTRACTED	DATE ANALYZED	DIL. FACTOR
01	946798	NON-AQ	05/09/95	05/11/95	05/12/95	5
02	946799	NON-AQ	05/09/95	05/11/95	05/12/95	1

PARAMETER	UNITS	01	02
FUEL HYDROCARBONS	MG/KG	5400	7
HYDROCARBON RANGE		C6 - C14	C9 - C18
HYDROCARBONS QUANTITATED USING		GASOLINE	DIESEL
SURROGATE:			
O-TERPHENYL (%)		99	102

Analytical Technologies, Inc.

2709-D Pan American Freeway, NE Albuquerque, NM 87107
Phone (505) 344-3777 FAX (505) 344-4413

ATI I.D. 505344

May 17, 1995

El Paso Natural Gas
P.O. Box 4990
Farmington, Nm 87499

Phase II pits

Project Name/Number: PIT CLOSURE 24324

Attention: JOHN LAMBDIN

On 05/11/95, Analytical Technologies, Inc., (ADHS License No. AZ0015), received a request to analyze non-aqueous samples. The samples were analyzed with EPA methodology or equivalent methods. The results of these analyses and the quality control data, which follow each set of analyses, are enclosed.

If you have any questions or comments, please do not hesitate to contact us at (505) 344-3777.

Letitia Krakowski, Ph.D.
Project Manager

H. Mitchell Rubenstein, Ph.D.
Laboratory Manager

MR:jt

Enclosure

El Paso Natural Gas Company

CHAIN OF CUSTODY RECORD

Page 1 of 1

PROJECT NUMBER	PROJECT NAME							REQUESTED ANALYSIS						CONTRACT LABORATORY P. O. NUMBER
# 24324	Pit Closure Project – Phase 2													
SAMPLERS: (Signature)	Kenny Deaver			DATE: 5/9/95										
LAB ID	DATE	TIME	MATRIX	FIELD ID	TOTAL NUMBER OF CONTAINERS	SAMPLE TYPE	TPH EPA 418.1	BTEX EPA 8020	LAB PID			SEQUENCE #	REMARKS	
946798	5/9/95	1145	soil	KD 432	1	VG	X	X				394	PID 346 ppm	
946799	5/9/95	1550	soil	KD 433	1	VG	X	X				395	PID 115 ppm	

RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)
Kenny Deaver	5/9/95 1555	John Ford			
RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED OF LABORATORY BY: (Signature)
				5/5/95 1600	John Ford

REQUESTED TURNAROUND TIME:
☐ ROUTINE ☒ RUSH

CARRIER CO.

BILL NO.:

SAMPLE RECEIPT REMARKS: Cool And Intact

CHARGE CODE

RESULTS & INVOICE TO:

FIELD SERVICES LABORATORY
EL PASO NATURAL GAS COMPANY
P. O. BOX 4990
FARMINGTON, NEW MEXICO 87499
505-599-2144 FAX: 505-599-2261

White - Testing Laboratory Canary - EPNG Lab Pink - Field Sampler

RECORD OF SUBSURFACE EXPLORATION

Phase III Drilling

Borehole # BH-1
Well #
Page 1 of 1

Philip Environmental Services Corp.
4000 Monroe Road
Farmington, New Mexico 87401
(505) 326-2262 FAX (505) 326-2388

Project Name EPNG Pits
Project Number 14509 Phase ~~601~~ 6000
Project Location Elliot Gas Com S #1, T5263

Elevation
Borehole Location T30, R9, S.33, M
GWL Depth
Logged By S.Kelly
Drilled By M. Donahue
Date/Time Started 9/8/95 0730
Date/Time Completed 9/8/95, 0845

Well Logged By S.Kelly
Personnel On-Site M. Donahue, J. O'Keefe
Contractors On-Site
Client Personnel On-Site

Drilling Method 4¼" ID HSA
Air Monitoring Method CGI, PID

Depth (Feet)	Sample Number	Sample Interval	Sample Type & Recovery (inches)	Sample Description Classification System: USCS	USCS Symbol	Depth Lithology Change (feet)	Air Monitoring Units: NDU BZ	BH	S	Drilling Conditions & Blow Counts
0				Backfill to 12'.						
5										
10										
15										
20	1	18-20	.3'/2.0'	Sandy GRAVEL, brown, 30-45% fine to med sand, med. to coarse, rounded gravel. dense. damp.					65/652	2K @ 9/8/95 0810 Hit cobble.
25				TOB - 20.0'						
30										
35										
40										

Comments: Auger refusal at 20'. No sample taken due to high headspace reading at refusal. BH grouted to surface.

Geologist Signature Sarah Kelly

TABLE 1

RECON® Soil-Gas and Groundwater Investigation

El Paso Natural Gas Company Sites
San Juan Basin
Farmington, New Mexico

PIT LOCATION NAME	METER NUMBER	SAMPLE IDENTIFICATION	PREVIOUS INVESTIGATION
RINCON No. 48	71025	RINCON48	Phase II HSA refusal at 23' bls
RINCON No. 10	70645	RINCON10	Phase II HSA refusal at 25' bls
RINCON No. 70	71580	RINCON70	Phase II HSA refusal at 32' bls
CHACON AMIGOS No. 2	93370	CA2	Phase II HSA refusal at 30' bls
JAQUEZ A No. 1A	89619	JAC1A	Phase II HSA refusal at 18' bls
FLORANCE No. 107 PC	87017	FLORANCE107	Phase II HSA refusal at 29.5' bls
WALKER COM No. 1	75879	WALKERCOM1	Phase II HSA refusal at 27.5' bls
HEATH F1	72505	HEATHF1	Phase II HSA refusal at 18' bls
DAY No. 3	90847	DAY3	Phase II HSA refusal at 30' bls
SULLIVAN No. 1	70760	SULLIVAN1	Phase II HSA refusal at 23' bls
MARCOTTE 1A	89903	MARCOTTE1A	Phase II HSA refusal at 18' bls
TRUJILLO No.1 PC	72089	TRUJILLO1PC	GW encountered in phase I excavtion
FEDERAL 6 No. 32	94768	FEDERAL6No32	Phase II soil boring indicated GW at less than 20' bls
CANYON LARGO 304	93788	C-LARGO304	Phase II soil boring indicated GW at less than 20' bls
CANYON LARGO 298	93590	C-LARGO298	Phase II soil boring indicated GW at less than 20' bls
CANYON LARGO 302	93793	C-LARGO302	Phase II soil boring indicated GW at less than 20' bls
K-17 LINE DRIP	N/A	K17LINEDRIP	Phase II soil boring indicated GW at less than 20' bls
HOWELL No. 3 LINE DRIP	N/A	HOWELL#3LD	Phase II soil boring indicated GW at less than 20' bls
LATERAL 2C-1 LINE DRIP	N/A	LATERAL2C-1	Phase II HSA refusal at 42' bls
CUTLER 2	74289	CUTLER2	Phase II soil boring indicated GW at less than 20' bls
LATERAL 2C-22 No. 3 LINE DRIP	N/A	L2C-22No3LD	Phase II soil boring indicated GW at less than 20' bls
NICKELS No. 1 DK	73034	NICKELS#1DK	Phase II soil boring indicated GW at less than 20' bls
McGRATH No. 1	70862	MACGRATH#1	Phase II soil boring indicated GW at less than 20' bls
FLORA VISTA #1	75718	FLORAVISTA1	Phase II soil boring indicated GW at less than 20' bls
MARSHALL B-1J	89039	MB1J	Phase II soil boring indicated GW at less than 20' bls
ARGO No. 1E	93780	ARGO#1E	Phase II soil boring indicated GW at less than 20' bls
TRUNK D LINE DRIP	N/A	TDLD	Phase II soil boring indicated GW at less than 20' bls
K-31 LINE DRIP	N/A	K31LINEDRIP	Phase II soil boring indicated GW at less than 20' bls
MILES FEDERAL No. 1E	94495	MILESF#1E-01	Phase II soil boring indicated GW at less than 20' bls
ELLIOT GAS COM No. M1	73147	EGC#M1	Phase II HSA refusal at 22' bls
ELLIOT GAS COM No. S1	75265	EGC#S1	Phase II HSA refusal at 20' bls
LINDRITH B24	94967	LINDRITHB24	Phase II soil boring indicated GW at less than 20' bls
LINDRITH 23	74692	LINDRITH23	Phase II soil boring indicated GW at less than 20' bls
CANEPLE GAS COM No. 1	70714	CGC#1	Phase II HSA refusal at 18.5' bls
OHIO C GVT #3	72890	OCG3	GW encountered during Phase II excavation
C3 LOOP LINE DRIP	N/A	C3LLD	No GW encountered in Phase I excavation
SAN JUAN UNIT 28-6 #79 PM	72265	SJU28679PM	Phase II soil boring indicated GW at less than 20' bls
HAMMOND 41A	89894	H41A	Phase II soil boring indicated GW at less than 20' bls

HSA = Hollow-stem auger drill rig
bls = below land surface
GW = groundwater

TA. !

RECON® Soil-Gas and Groundwater Investigation

El Paso Natural Gas Company Sites
San Juan Basin
Farmington, New Mexico

Location Name	U-S-T-R	Meter No.	Sample I.D.	Sample Matrix	No. of Probe Holes	No. of Samples	Depth	Comments
Rincon No. 48	N30-27-6	71025	RINCON48	Soil-gas	3	12	3-12	BTEX below action levels
Rincon No. 10	C36-27-7	70645	RINCON10	Soil-gas	3	12	3-12	BTEX below action levels
Rincon No. 70	A27-27-7	71580	RINCON70	Soil-gas	3	12	3-12	BTEX below action levels
Chacon Amigos No. 2	I2-22-3	93370	CA2	Soil-gas	4	16	3-12	Benzene above action levels
Jaquez A No. 1A	D5-29-9	89619	JAC1A	Soil-gas	3	12	3-12	BTEX below action levels
Florance No. 107 PC	E8-30-9	87017	FLORANCE107	Soil-gas	6	24	3-12	BTEX below action levels
Walker Com No. 1	P25-30-9	75879	WALKERCOM1	Soil-gas	3	12	3-12	BTEX below action levels
Heath F1	E8-29-9	72505	HEATHF1	Soil-gas	3	12	3-12	BTEX below action levels
Day No. 3	A17-29-8	90847	DAY3	Soil-gas	3	12	3-12	BTEX below action levels
Sullivan No. 1	M22-32-10	70760	SULLIVAN1	Soil-gas	3	12	3-12	BTEX below action levels
Marcotte 1A	I5-31-10	89903	MARCOTTE1A	Soil-gas	3	12	3-12	BTEX below action levels
Trujillo No. 1 PC	M21-29-10	72089	TRUJILLO1PC	Groundwater	15	18	4-6	Benzene above action level and offsite
Federal 6 No. 32	G6-26-7	94768	FEDERAL6No32	Soil-gas and Groundwater	6	32	3-30	BTEX above action levels
Canyon Largo 304	C11-24-6	93788	C-LARGO304	Soil-gas and Groundwater	6	15	3-21	BTEX above action levels
Canyon Largo 298	A3-24-6	93590	C-LARGO298	Soil-gas	3	12	3-12	BTEX below action levels
Canyon Largo 302	J3-24-6	93793	C-LARGO302	Soil-gas and Groundwater	8	17	3-24	BTEX below action levels
K-17 Line Drip	C26-27-8	N/A	K17LINEDRIP	Groundwater	3	3	18-27	BTEX below action levels
Howell No. 3 Line Drip	C3-27-8	N/A	HOWELL#3LD	Groundwater	3	3	21-27	BTEX below action levels
Lateral 2C-1 Line Drip	P36-27-11	N/A	LATERAL2C-1	Soil-gas	3	12	3-12	BTEX below action levels
Cutler 2	A14-24-6	93793	CUTLER2	Groundwater	4	4	24-27	BTEX below action levels
Lateral 2C-22 No. 3 Line Drip	G13-24-6	N/A	L2C-22No3LD	Groundwater	3	3	18-24	BTEX below action levels
Nickels No. 1 DK	K11-31-13	73034	NICKELS#1DK	Groundwater	5	5	12-15	Benzene above action levels
McGrath No. 1	F7-31-11	70862	MACGRATH#1	Soil-gas	3	3	9	BTEX below action levels
Flora Vista #1	F22-30-12	75718	FLORAVISTA1	Groundwater	3	3	24-30	BTEX below action levels
Marshall B-1J	O14-27-9	89039	MB1J	Soil-gas	3	3	8-20	BTEX below action levels
Argo No. 1E	N18-27-10	93780	ARGO#1E	Groundwater	3	3	24-30	BTEX below action levels
Trunk D Line Drip	E20-28-8	N/A	TDLD	Groundwater	3	3	15-24	BTEX below action levels
K-31 Line Drip	N16-25-6	N/A	K31LINEDRIP	Groundwater	14	14	21-24	Benzene above action levels and offsite

TA. !

RECON® Soil-Gas and Groundwater Investigation

El Paso Natural Gas Company Sites
San Juan Basin
Farmington, New Mexico

Location Name	U-S-T-R	Meter No	Sample I.D.	Sample Matrix	No. of Probe Holes	No. of Samples	Depth	Comments
Miles Federal No. 1E	N5-26-7	94495	MILESF#1E	Groundwater	3	3	24-30	BTEX below action levels
Elliot Gas Com No. M1	I33-30-9	73147	EGC#M1	Soil-gas	3	12	3-12	BTEX below action levels
Elliot Gas Com No. S1	M33-30-9	75265	EGC#S1	Soil-gas	3	12	3-12	BTEX below action levels
Lindrith B24	N9-24-3	94967	LINDRITHB24	Groundwater	3	3	21-27	Benzene above action levels and offsite
Lindrith B23	D9-24-3	74691	LINDRITHB23	Groundwater	3	3	21-27	BTEX below action levels
Canepie Gas Com No. 1	M18-31-10	70714	CGC#1	Soil-gas	3	12	3-12	BTEX below action levels
Ohio C Gvt #3	P26-28-11	72890	OCG3	Soil-gas and Groundwater	3	3	9-17	Benzene above action levels and offsite
C3 Loop Line Drip	D28-29-9	N/A	C3LLD	Soil-gas	3	12	3-12	BTEX below action levels
San Juan Unit 28-6 #79 PM	M11-27-6	722654	SJU28679PM	Groundwater	7	7	30-36	BTEX above action levels
Hammond 41A	O25-27-8	89894	H41A	Groundwater	9	9	15-23	BTEX above action levels

U-S-T-R = Unit-Section-Township-Range

BTEX = benzene, toluene, ethyl benzene, and xylenes

PHILIP

Sample Analysis Worksheet

Sample I.D.	Probe Hole Number	Depth (Feet)	Analysis Time	Analysis Date	Injection Vol. (µL)	Multiplier	VAC in. Hg	Comments
MILESF#1E-01	PH-01	24-30	1027	12/1/95	500	0.2	N/A	Groundwater
MILESF#1E-02	PH-02	18-30	1107	12/1/95	500	0.2	N/A	Groundwater
MILESF#1E-03	PH-03	24-30	1159	12/1/95	500	0.2	N/A	Groundwater
MILESF#1E-03-D	PH-03	24-30	1241	12/1/95	500	0.2	N/A	QC - Duplicate
MILESF#1E-03-MS	PH-03	24-30	1330	12/1/95	500	0.2	N/A	QC - Matrix Spike
Blank-83	N/A	N/A	1659	12/1/95	500	0.2	N/A	QC - System Blank
QCRT-30	N/A	N/A	1716	12/1/95	100	1	N/A	QC - Retention Times
Blank-84	N/A	N/A	0641	12/2/95	500	0.2	N/A	QC - System Blank
STD-1202	N/A	N/A	0729	12/2/95	100	1	N/A	Calibration Standard
Blank-85	N/A	N/A	0802	12/2/95	500	0.2	N/A	QC - System Blank
Blank-86	N/A	N/A	0855	12/2/95	500	0.2	N/A	QC - Probe Rod Blank
ARGO#1E-01	PH-01	24-30	0929	12/2/95	500	0.2	N/A	Groundwater
ARGO#1E-02	PH-02	24-30	0957	12/2/95	500	0.2	N/A	Groundwater
ARGO#1E-03	PH-03	24-30	1035	12/2/95	500	0.2	N/A	Groundwater
ARGO#1E-03-D	PH-03	24-30	1101	12/2/95	500	0.2	N/A	QC - Duplicate
ARGO#1E-03-MS	PH-03	24-30	1117	12/2/95	500	0.2	N/A	QC - Matrix Spike
Blank-87	N/A	N/A	1513	12/2/95	500	0.2	N/A	QC - System Blank
QCRT-30	N/A	N/A	1549	12/2/95	100	1	N/A	QC - Retention Times
Blank-88	N/A	N/A	0635	12/4/95	500	0.2	N/A	QC - System Blank
STD-1204	N/A	N/A	0728	12/4/95	100	1	N/A	Calibration Standard
Blank-89	N/A	N/A	0757	12/4/95	500	0.2	N/A	QC - System Blank
Blank-90	N/A	N/A	0814	12/4/95	500	0.2	N/A	QC - Probe Rod Blank
EGC#S1-01	PH-01	3	0858	12/4/95	500	0.2	8	Soil-gas
EGC#S1-02	PH-01	6	0913	12/4/95	500	0.2	9	Soil-gas
EGC#S1-03	PH-01	9	0928	12/4/95	500	0.2	8	Soil-gas
EGC#S1-04	PH-01	12	0943	12/4/95	500	0.2	8	Soil-gas
EGC#S1-05	PH-02	3	1011	12/4/95	500	0.2	10	Soil-gas
EGC#S1-06	PH-02	6	1026	12/4/95	500	0.2	8	Soil-gas
EGC#S1-07	PH-02	9	1041	12/4/95	500	0.2	8	Soil-gas

P&A
1-31-96

N/A - not applicable
QC - quality control
D - duplicate analysis
MS - matrix spike

r _IILIP

RECON SAMPLE ANALYSIS

DATA SUMMARY TABLE

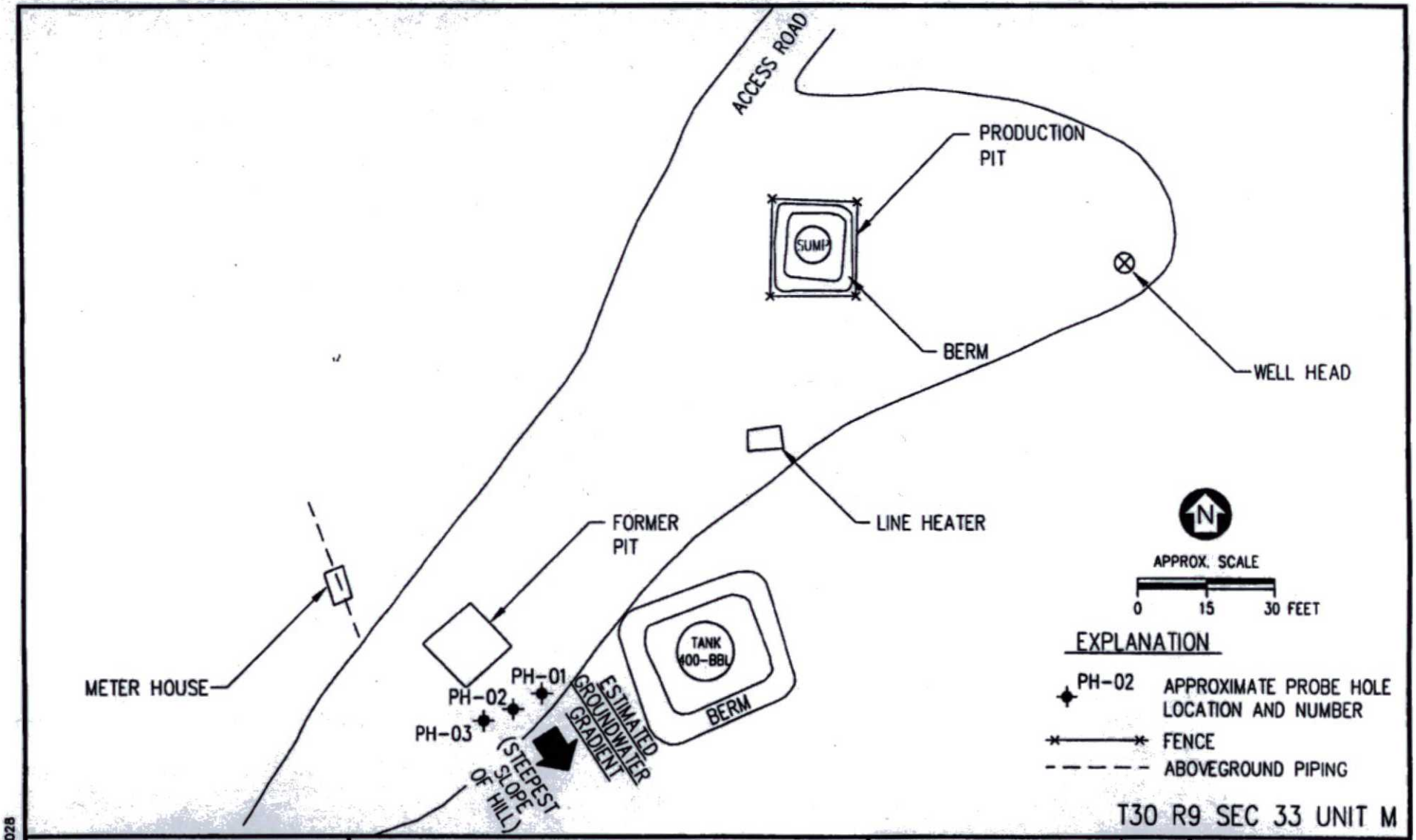
Project: 13947

Sample I.D.	Probe Hole Number	Depth (feet)	Benzene (ug/L)	Toluene (ug/L)	Ethyl benzene (ug/L)	m+p-Xylene (ug/L)	o-Xylene (ug/L)	Comments
EGC#S1-08	PH-02	12	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	Soil-gas
EGC#S1-09	PH-03	3	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	Soil-gas
EGC#S1-10	PH-03	6	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	Soil-gas
EGC#S1-11	PH-03	9	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	Soil-gas
EGC#S1-12	PH-03	12	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	Soil-gas
EGC#M1-01	PH-01	3	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	Soil-gas
EGC#M1-02	PH-01	6	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	Soil-gas
EGC#M1-03	PH-01	9	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	Soil-gas
EGC#M1-04	PH-01	12	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	Soil-gas
EGC#M1-05	PH-02	3	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	Soil-gas
EGC#M1-06	PH-02	6	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	Soil-gas
EGC#M1-07	PH-02	9	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	Soil-gas
EGC#M1-08	PH-02	12	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	Soil-gas
EGC#M1-09	PH-03	3	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	Soil-gas
EGC#M1-10	PH-03	6	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	Soil-gas
EGC#M1-11	PH-03	9	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	Soil-gas
EGC#M1-12	PH-03	12	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	Soil-gas
EGC#M1-12-D	PH-03	12	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	QC - Duplicate
Blank-91	N/A	N/A	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	QC - System Blank
QCRT-30	N/A	N/A	11	611	534	532	512	QC - Retention Times
Blank-92	N/A	N/A	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	QC - System Blank
STD-1205	N/A	N/A	12	705	705	706	707	Calibration Standard
Blank-93	N/A	N/A	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	QC - System Blank
Blank-94	N/A	N/A	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	QC - Probe Rod Blank
LINDRITH23-01	PH-01	21-27	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	Groundwater
LINDRITH23-02	PH-02	21-27	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	Groundwater
LINDRITH23-03	PH-03	21-27	<1	3	ND(1)	2	ND(1)	Groundwater
LINDRITHB24-01	PH-01	21-27	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	Groundwater

D = duplicate analysis.
QC = quality control.
ug/L = micrograms of compound detected per liter of soil or groundwater vapor analyzed.
ND = not detected at the lower quantifiable limit indicated in parenthesis.
N/A = not applicable.
MS = matrix spike.

QA Review: Paul E Anderson

Review Date: 1-31-96 AK 2/13/96



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PHILIP ENVIRONMENTAL

TITLE:
ELLIOT GAS COM "S" NO. 1
METER 75265
"SOIL GAS ONLY"

SCALE	AS NOTED	DATE
DWN:	M.R.W.	12/6/95
DES:		
CHKD:	K.B.G.	12/8/95
APPD:		

PROJECT NO: 13947
EPNG-RECON PITS

FIGURE 28

REV: 1

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

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

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

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

(NAD83 UTM in meters)

(In feet)

POD Number	POD Sub-Code basin	County	Q 64	Q 16	Q 4	Sec	Twn	Rng	X	Y	Depth Well	Depth Water	Water Column
SJ 00009		SJ			3	06	30N	09W	248261	4080567*	396	60	336
SJ 00091		SJ	2	2	3	35	30N	09W	254455	4072563*	34		
SJ 00140		SJ			1	25	30N	09W	255769	4074625*	10		
SJ 01330		SJ	2	1	1	36	30N	09W	255654	4073322*	20	5	15
SJ 02092		SJ	4	4	4	33	30N	09W	252048	4072066*	32	15	17
SJ 02170		SJ	3	4	1	35	30N	09W	254257	4072752*	20	10	10
SJ 02298		SJ			3	36	30N	09W	255777	4072235*	15	4	11
SJ 02744		SJ	4	4	2	25	30N	09W	256992	4074273*	21	10	11
SJ 03565		SJ	3	4	2	35	30N	09W	255060	4072735*	20		
SJ 03859 POD1		SJ	2	2	3	35	30N	09W	254523	4072637	34	20	14
SJ 03899 POD1		SJ	4	4	4	34	30N	09W	253727	4071951	35	4	31
SJ 04050 POD1		SJ		1	4	10	30N	09W	253540	4078667	380	240	140
SJ 04066 POD1		SJ		2	4	25	30N	09W	257174	4073384	260	200	60

Average Depth to Water: **56 feet**
Minimum Depth: **4 feet**
Maximum Depth: **240 feet**

Record Count: 13

PLSS Search:

Township: 30N **Range:** 09W

***UTM location was derived from PLSS - see Help**

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