

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.

12508 Pit, Below-Grade Tank, or
Proposed Alternative Method Permit or Closure Plan Application

OIL CONS. DIV DIST. 3

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

DEC 31 2014

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.

1.
Operator: Roddy Production Company OGRID #: 36845
Address: P O Box 2221, Farmington, NM 87499
Facility or well name: Chacon Jicarilla Apache D#9
API Number: 30-043-20430 OCD Permit Number: _____
U/L or Qtr/Qtr _____ Section 23 Township 23N Range 3W County: Sandoval
Center of Proposed Design: Latitude 36°12'15"N Longitude 107°07'22.8"W 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: _____ bbl Type of fluid: _____
Tank Construction material: _____
☐ Secondary containment with leak detection ☐ Visible sidewalls, liner, 6-inch lift and automatic overflow shut-off
☐ Visible sidewalls and liner ☐ Visible sidewalls only ☐ Other _____
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 _____

62

6.
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)

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 H₂S, 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	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> 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	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> 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	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> 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	<input type="checkbox"/> Yes <input type="checkbox"/> 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	<input type="checkbox"/> Yes <input type="checkbox"/> 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	<input type="checkbox"/> Yes <input type="checkbox"/> No
Written confirmation or verification from the municipality; Written approval obtained from the municipality	<input type="checkbox"/> Yes <input type="checkbox"/> No
Within 300 feet of a wetland. US Fish and Wildlife Wetland Identification map; Topographic map; Visual inspection (certification) of the proposed site	<input type="checkbox"/> Yes <input type="checkbox"/> No
Within incorporated municipal boundaries or within a defined municipal fresh water well field covered under a municipal ordinance	<input type="checkbox"/> Yes <input type="checkbox"/> No

adopted pursuant to NMSA 1978, Section 3-27-3, as amended. - Written confirmation or verification from the municipality; Written approval obtained from the municipality	<input type="checkbox"/> Yes <input type="checkbox"/> No
Within the area overlying a subsurface mine. - Written confirmation or verification or map from the NM EMNRD-Mining and Mineral Division	<input type="checkbox"/> Yes <input type="checkbox"/> No
Within an unstable area. - Engineering measures incorporated into the design; NM Bureau of Geology & Mineral Resources; USGS; NM Geological Society; Topographic map	<input type="checkbox"/> Yes <input type="checkbox"/> No
Within a 100-year floodplain. - FEMA map	<input type="checkbox"/> Yes <input type="checkbox"/> 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.*

<input type="checkbox"/> Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19.15.17.10 NMAC
<input type="checkbox"/> Proof of Surface Owner Notice - based upon the appropriate requirements of Subsection E of 19.15.17.13 NMAC
<input type="checkbox"/> Construction/Design Plan of Burial Trench (if applicable) based upon the appropriate requirements of Subsection K of 19.15.17.11 NMAC
<input type="checkbox"/> 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
<input type="checkbox"/> Protocols and Procedures - based upon the appropriate requirements of 19.15.17.13 NMAC
<input type="checkbox"/> Confirmation Sampling Plan (if applicable) - based upon the appropriate requirements of 19.15.17.13 NMAC
<input type="checkbox"/> Waste Material Sampling Plan - based upon the appropriate requirements of 19.15.17.13 NMAC
<input type="checkbox"/> Disposal Facility Name and Permit Number (for liquids, drilling fluids and drill cuttings or in case on-site closure standards cannot be achieved)
<input type="checkbox"/> Soil Cover Design - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC
<input type="checkbox"/> Re-vegetation Plan - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC
<input type="checkbox"/> Site Reclamation Plan - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC

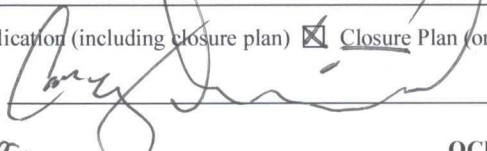
17.
Operator Application Certification:
 I hereby certify that the information submitted with this application is true, accurate and complete to the best of my knowledge and belief.

Name (Print): _____ Title: _____

Signature: _____ Date: _____

e-mail address: _____ Telephone: _____

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

OCD Representative Signature:  _____ Approval Date: 3/19/15

Title: Environmental Spec. _____ OCD Permit Number: _____

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.*

<input checked="" type="checkbox"/> Proof of Closure Notice (surface owner and division)
<input type="checkbox"/> Proof of Deed Notice (required for on-site closure for private land only)
<input type="checkbox"/> Plot Plan (for on-site closures and temporary pits)
<input checked="" type="checkbox"/> Confirmation Sampling Analytical Results (if applicable)
<input type="checkbox"/> Waste Material Sampling Analytical Results (required for on-site closure)
<input checked="" type="checkbox"/> Disposal Facility Name and Permit Number
<input checked="" type="checkbox"/> Soil Backfilling and Cover Installation
<input checked="" type="checkbox"/> Re-vegetation Application Rates and Seeding Technique
<input checked="" type="checkbox"/> Site Reclamation (Photo Documentation)

On-site Closure Location: Latitude 36°12'15"N Longitude 107°07'22.8"W 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: _____

Hydrogeologic Report

Roddy Production Company, Inc.
Chacon Jicarilla Apache D#9

Regional Hydrology

This pit is located on Federal surface within the San Juan Basin a large structural depression covering approximately 30,000 acres in northwest New Mexico and southwestern Colorado. The basin is bounded on the west by the Hogback monocline, on the north by the San Juan Mountains, on the east by the Nacimiento uplift and on the south by the Zuni uplift. The basin contains sediments ranging in age from the Tertiary Eocene to Upper Jurassic with some Quaternary deposits in the major valleys and their tributaries.

The Continental Divide cuts across the southwestern part of the basin which divides the basin into the surface water drainage basins of the Colorado River in the northwestern portion and the Rio Grande in the southwest. The San Juan and Animas rivers are the major drainages feeding the Colorado River drainage and the Rio Puerco is the main drainage feeding the Rio Grande drainage. These surface water flows account for much of the irrigation, municipal and industrial water uses in the San Juan Basin.

Ground water resources in the basin are primarily contained in the confined sandstones of the Tertiary and Cretaceous age and Quaternary surficial valley fills in the northern basin. Sandstones of the Jurassic and Triassic age are added to the above as possible ground water resource rocks in the southern part of the basin. In the northern part of the basin where this pit is located, the major ground water resource rocks are the Quaternary valley fills and the Tertiary sandstones in the San Jose, Nacimiento and Ojo Alamo. There is some contribution from the Cretaceous Mesa Verde sandstones in the far northwest part of the area. Generally the regional ground water flow in the Quaternary valley fills is from the topographically high outcrop areas to the west and north to the Animas, La Plata and San Juan River. The regional water flow for the Tertiary sandstones is from the topographically high surface outcrop areas into the central basin. General ground water quality range for Quaternary and Tertiary sediments is 350 – 70,000 ppm TDS. Ground water resources are primarily used for irrigation of individual owned farms, household water supply and industrial supply.

Site Specific Hydrology

This pit is located in the basal remnant of the Tertiary San Jose that has not been eroded. The pit is at 7460 feet per the Chaco Canyon Quad Map. Surface water runoff drainage is to southwest into via a Unnamed Arroyo which drains to the Menfee Canyon. Depth to ground water investigation included review of the New State Engineer iWater database and NMOCD Wellsearch review of all wells in a 7 section area surrounding section 23 where the pit is located. This review yielded one recorded water well drilling record in the 8.8 miles from the pit. The depth to water was recorded for the water well at 145 ft or 6705 feet in elevation. The ground elevation is 6850 feet and the water column elevation is 6528, shown in the attached Water Column/Average Depth to water. If you assume depth to water is the average of 192 ft in the shallow zone, the ground water depth at the pit is 7268 feet. Based on the probability that the shallow water in the nearest well is

likely in alluvium that is not present under the existing pit the depth to groundwater is likely > 100 feet. Distance to surface water was calculated by measurement from the Chaco Canyon Quad Map at 755 feet by measurement from pit center to the center of the arroyo to the south. The nearest fresh water well is 7350 feet as shown on the attached map.

References

Hydrogeology and Water Resources of San Juan Basin, Hydrologic Report 6 – NM
Bureau of Mines and Mineral Resources – 1983

iWaters database-NM State Engineers office-researched in September, 2014

WellSearch- NMOCD – researched in September, 2014

Waste Excavation and Removal Closure Plan
(19.15.17.13 NMAC)

Protocols and Procedures

Roddy Production Company, Inc.
Chacon Jicarilla Apache D#9

1. Roddy Production Company, Inc. plans to close the permanent pit at the Chacon Jicarilla Apache D#9 by the Waste Excavation and Removal method.
2. Form C-144 with attachments required for a pit closure shall be submitted to the OCD.
3. The pit closure will take place after OCD has received, reviewed and approved the pit closure plan.
4. Roddy Production Company, Inc. will notify the BLM and the NMOCD via email as outlined in the proposed variances section of the proposed closure date one week to 72 hours prior to the proposed closure date.
5. All materials removed from the site in connection with the pit closure shall be disposed of in division approved facilities.
6. The liquid contents of the permanent pit will be pulled and hauled to Aqua Moss (Permit # - NM19) or Basin Disposal (Permit # NM15) within 60 days of cessation of use.
7. Any sludge/solids contained in the pit will be vacuumed out. These will be disposed of at Envirotech (Permit # - NM111).
8. The soils beneath the pit will then be tested according to the Confirmation Sampling Plan, included with this application.

Waste Excavation and Removal Closure Plan
(19.15.17.13 NMAC)
Confirmation Sampling Plan
Roddy Production Company, Inc.
Chacon Jicarilla Apache D#9

Once any existing liquid and sludge are removed, a minimum five point composite sample will be collected from the pit area, which shall include any obvious stained, wet or apparently contaminated areas. All samples will be analyzed by the protocols outlined in Table I. Results of the analysis shall be compared to limiting values in Table I using the Depth To Water >100' criteria. This information shall be submitted to OCD for review.

If the test results indicate any concentrations of contaminants higher than the limits listed in Table 1, the division, upon review of the results, may require additional delineation. If the testing indicates that the samples are within acceptable limits, the pit shall be backfilled with uncontaminated earthen material, free from waste and debris.

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 801B 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 801B 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 801B or 8260B	50 mg/kg
	Benzene	EPA SW-846 Method 8021B or 8015M	10 mg/kg

* Or test method approved by the division

** Numerical limits or natural background, whichever is greater

Waste Excavation and Removal Closure Plan
(19.15.17.13 NMAC)

Disposal Facility

Roddy Production Company, Inc.
Chacon Jicarilla Apache D#9

Name

Permit Number

Envirotech

NM111

Soil Backfill and Cover Design Specifications

1. Once the analysis of the pit soil samples have been reviewed and approved by OCD, the pit shall be backfilled with earthen material, free from waste and debris. The backfill shall be sufficiently compacted to avoid noticeable settling. The backfill shall be contoured to match existing adjacent ground, and shall be placed to avoid ponding of water and to minimize erosion of cover material.
2. The surface cover shall include a depth of topsoil to match the adjacent soil, or a depth of one foot, whichever is greater. The topsoil shall be capable of supporting existing vegetation.

Waste Excavation and Removal Closure Plan

(19.15.17.13 NMAC)

Re-vegetation Plan

Roddy Production Company, Inc.

Chacon Jicarilla Apache D#9

After the pit has been backfilled with suitable material, and a surface cover is in place, the next step is to re-vegetate the disturbed area. Reseeding shall take place during the first favorable growing season after the pit closure.

Selection of a seed mix should take into consideration the soil type, seed availability, wildlife needs and landowner requirements. The Jicarilla Apache Tribe and OCD shall be contacted to determine if a seed mix has been prescribed. If a seed mix has not been prescribed, one will be selected that is composed primarily of species indigenous to the area.

One of the following methods will be used for reseeded of the pit area: drilling, broadcast seeding, hydro-seeding, dozer track walking, mulching, irrigating or fertilizing.

Site Reclamation Plan

All areas disturbed in relation to the pit shall be returned to their previous condition or to their final condition as soon as possible. The reclaimed area shall be maintained to control dust and minimize erosion to the extent practicable. Soils shall be returned to their original contours, and graded with the intent to control erosion, and provide long-term stability and preserve historic surface water flow patterns.

Once all surface disturbing activities at the site have been completed, and a uniform vegetative cover has been established with 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, reclamation shall be considered complete.

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

Closure Report
(19.15.17.13 NMAC)
Roddy Production Company, Inc.
Chacon Jicarilla Apache D#9

Brief Discussion of Pit Closure:

The following information is provided to detail the closure process for the permanent pit located at the Chacon Jicarilla Apache D#9. There is some deviation from the Waste Excavation and Removal Closure Plan due to the fact that a spill occurred, and emergency procedures were followed in order to clean up the spill as soon as possible.

Once the spill was identified, contaminated soil was excavated from the pit area and removed from location by Envirotech. This material was taken to their land farm south of Bloomfield, NM. Excavation continued until analytical results of field samples were at regulatory standards. Once field samples were below standards, 5 point composite samples were taken to a lab to confirm results. Included as Attachment are Envirotech's Analytical Results.

Closure Report Attachments

Attachment A	Proof of Closure Notice (surface owner and division)
Attachment B	Confirmation Sampling Analytical Results Source: Envirotech
Attachment C	Site Reclamation (Photo Documentation)

Disposal Facility

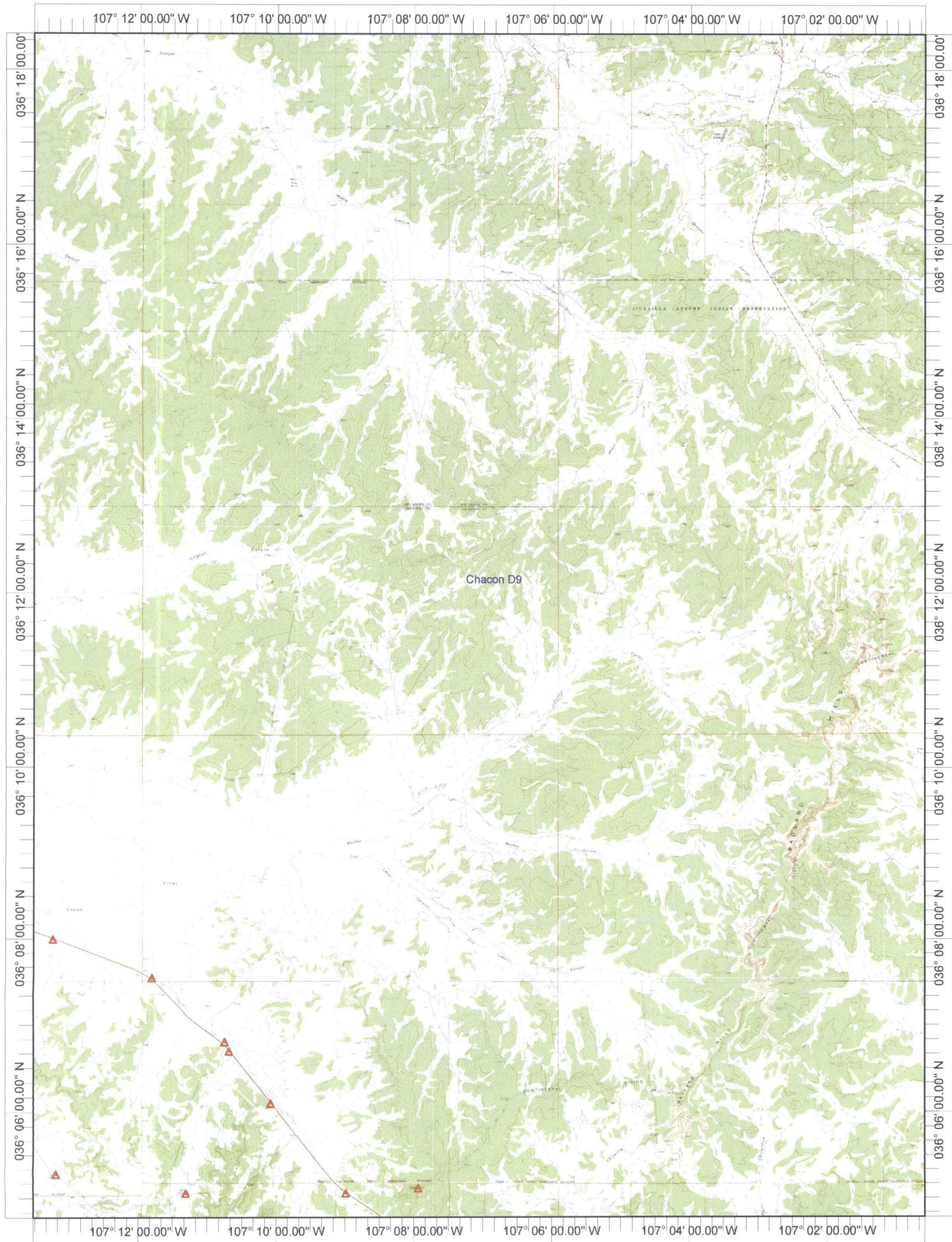
<u>Name:</u> Envirotech	<u>Permit Number:</u> NM111
-------------------------	-----------------------------

Soil Backfilling and Cover Installation

Once the analysis of the pit soil samples were reviewed and approved by OCD, the pit was backfilled with earthen material, free from waste and debris. The backfill was sufficiently compacted to avoid noticeable settling. The backfill was contoured to match existing adjacent ground, and placed to avoid ponding of water and to minimize erosion of cover material.

The surface cover was constructed to include a depth of topsoil to match the adjacent soil, or a depth of one foot, whichever is greater. The topsoil shall be capable of supporting existing vegetation.

Re-vegetation Application Rates and Seeding Technique



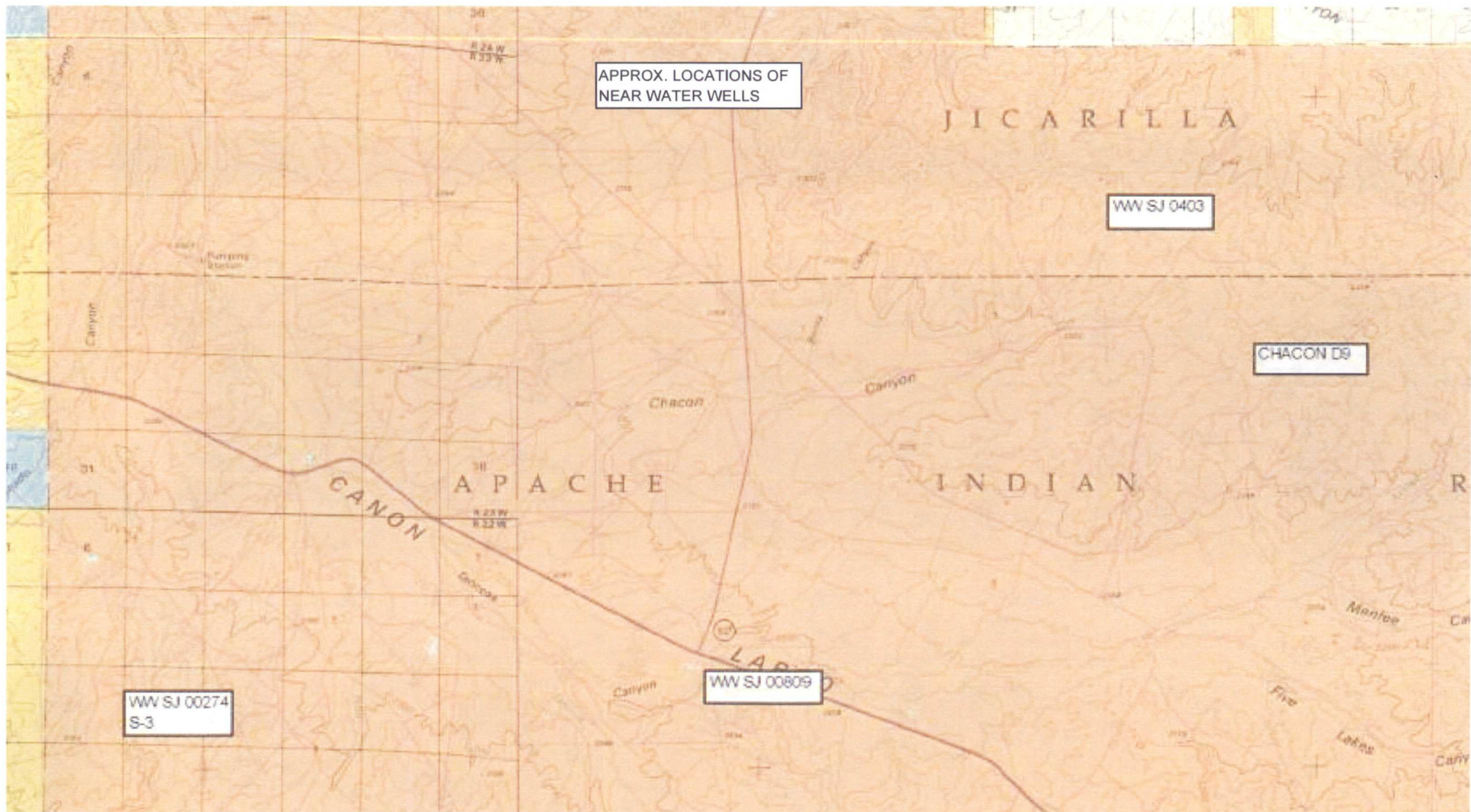
APPROX. LOCATIONS OF
NEAR WATER WELLS

WW SJ 0403

CHACON D9

WW SJ 00274
S-3

WW SJ 00809





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	Code	POD Sub-basin	County	Q	Q	Q	Sec	Tws	Rng	X	Y	Distance	DepthWell	DepthWater	Water Column
SJ 00403		SA	3	2	2	15	23N	03W	307811	4011399*		2363	1403		
SJ 00809		SA	2	3	09	22N	04W	296267	4002910*			14108	322	145	177
SJ 00274 S-2		SA	3	3	16	23N	05W	286665	4010877*			22248	600		
SJ 00274 S-3		SA	4	4	16	22N	05W	287567	4001050*			22824	1313		
SJ 01506		SA	1	1	3	22	23N	06W	278535	4010015*		30329	280		
SJ 01824		SA	3	3	1	07	21N	07W	263575	3994603*		47599	100		
SJ 03562		SA	3	3	1	07	21N	07W	263575	3994603*		47599	680	240	440

Average Depth to Water: **192 feet**

Minimum Depth: **145 feet**

Maximum Depth: **240 feet**

Record Count: 7

Basin/County Search:

Basin: San Juan

County: Sandoval

UTM NAD83 Radius Search (in meters):

Easting (X): 308856

Northing (Y): 4009279

Radius: 50000

*UTM location was derived from PLSS - see Help

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

12/11/14 7:46 AM

WATER COLUMN/ AVERAGE DEPTH TO WATER

Client:

CrownQuest


envirotech
 (888) 632-0818 (888) 332-1878
 5790 U.S. Hwy 84, Farmington, NM 87401

Project No:

07151-0016

COC No:

FIELD REPORT: SPILL CLOSURE VERIFICATION

PAGE NO: 1 OF 1

 LOCATION: NAME: Crown Quest Warehouse WELL #: D#9
 QUAD/UNIT: SEC: TWP: RNG: PM: CNTY: ST:
 QTR/FOOTAGE: CONTRACTOR:
DATE STARTED: 10/31/14DATE FINISHED: 11/3/14

ENVIRONMENTAL

SPECIALIST: S. FlewEXCAVATION APPROX: 46 FT. X 36 FT. X 10 FT. DEEP CUBIC YARDAGE:

DISPOSAL FACILITY: REMEDIATION METHOD:

LAND USE: LEASE: LAND OWNER:

CAUSE OF RELEASE: MATERIAL RELEASED:

SPILL LOCATED APPROXIMATELY: FT. FROM

DEPTH TO GROUNDWATER: NEAREST WATER SOURCE: NEAREST SURFACE WATER:

NMOCD RANKING SCORE: NMOCD TPH CLOSURE STD: 100 PPM

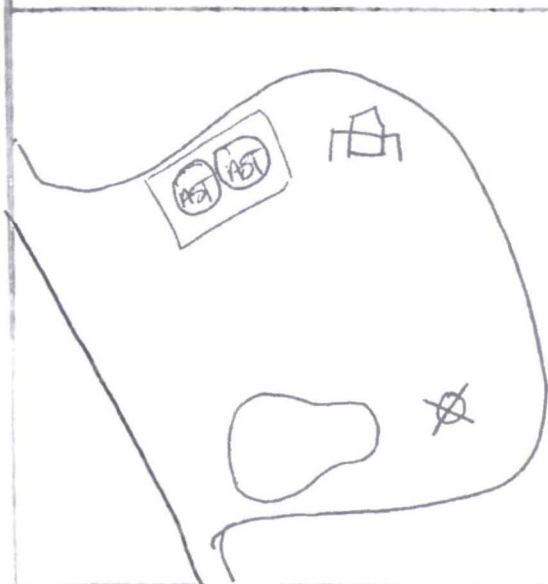
SOIL AND EXCAVATION DESCRIPTION:

SAMPLE DESCRIPTION	TIME	SAMPLE I.D.	LAB NO.	WEIGHT (g)	mL FREON	DILUTION	READING	CALC. ppm
200ppm Sd	12:55	1					104	
North Bottom	13:05	2		5g	20ml	X4	40	160
South Bottom	13:15	3					98	392
South Walls	13:27	3					28	112

SPILL PERIMETER

OVM
RESULTS

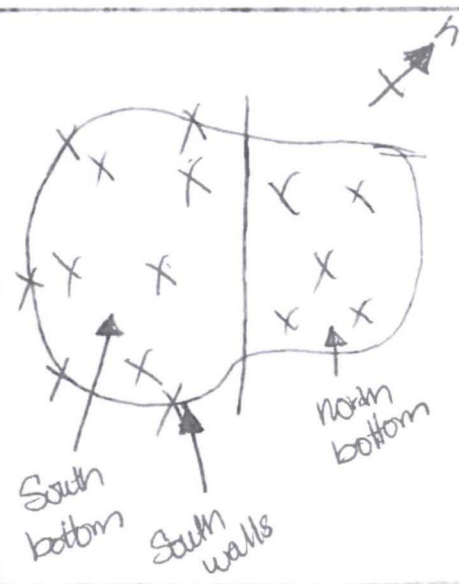
SPILL PROFILE



SAMPLE ID	FIELD HEADSPACE PID (ppm)
1	0
2	5.2
3	0.2

LAB SAMPLES

SAMPLE ID	ANALYSIS	TIME
1	8015, 8021	13:31
2		13:34
3		13:39



TRA

5

Trey Tixier

Client: Crown Quest	<p>envirotech <small>(808) 632-0615 (800) 362-1879 5788 U.S. Hwy 84, Farmington, NM 87401</small></p>	Project No: 0715-0016 COC No:
--	--	---

FIELD REPORT: SPILL CLOSURE VERIFICATION		PAGE NO: <u>1</u> OF <u>1</u>
LOCATION: NAME: <u>Orlton Junction Above D Well #: 9</u>		DATE STARTED: <u>10/30/14</u>
QUAD/UNIT: SEC: <u>23</u> TWP: <u>23N</u> RNG: <u>3W</u> PM: CNTY: <u>Santa Fe</u> ST: <u>NM</u>		DATE FINISHED: <u>10/31/14</u>
QTR/FOOTAGE: CONTRACTOR:		ENVIRONMENTAL SPECIALIST: <u>S. Lem</u>

EXCAVATION APPROX: _____	FT. X _____	FT. X _____	FT. DEEP CUBIC YARDAGE: _____
DISPOSAL FACILITY: _____		REMEDICATION METHOD: _____	
LAND USE: _____	LEASE: _____	LAND OWNER: _____	
CAUSE OF RELEASE: _____		MATERIAL RELEASED: _____	
SPILL LOCATED APPROXIMATELY: _____		FT. FROM _____	
DEPTH TO GROUNDWATER: _____	NEAREST WATER SOURCE: _____	NEAREST SURFACE WATER: _____	
NMOCD RANKING SCORE: _____	NMOCD TPH CLOSURE STD: <u>100</u>	PPM	
<u>SOIL AND EXCAVATION DESCRIPTION:</u>			

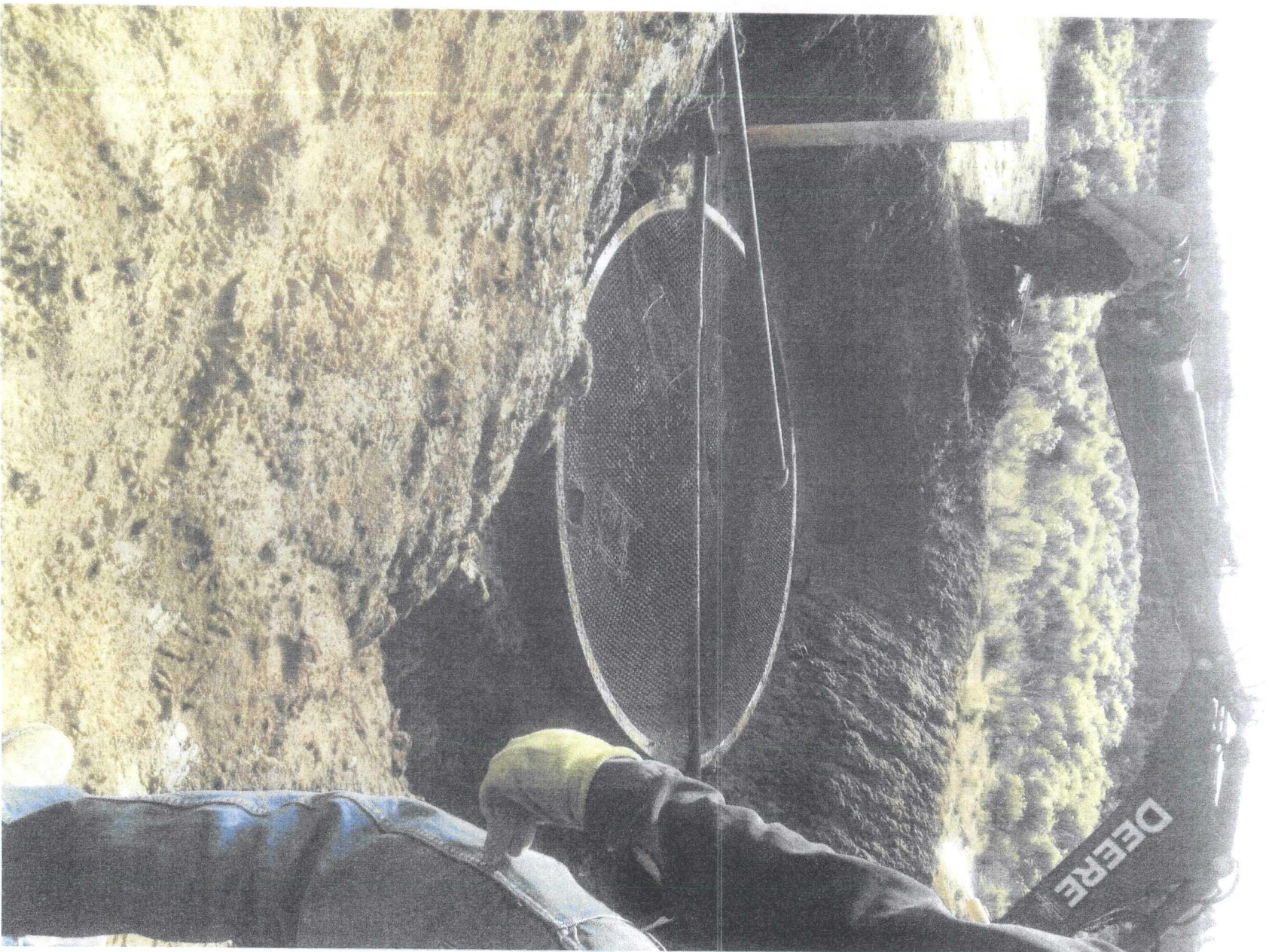
SAMPLE DESCRIPTION	TIME	SAMPLE I.D.	LAB NO.	WEIGHT (g)	mL FREON	DILUTION	READING	CALC. ppm
200 ppm Std	10:30						193	
South bottom	10:45	1		5g	20ml	x4	2694	10784
South walls	10:55	2					152	1202
North bottom	11:10	3					75	300
North walls	11:20	4					5	20

SPILL PERIMETER	OVM RESULTS	SPILL PROFILE										
	<table border="1" style="margin: auto; border-collapse: collapse;"> <thead> <tr> <th>SAMPLE ID</th> <th>FIELD HEADSPACE PID (ppm)</th> </tr> </thead> <tbody> <tr><td>1</td><td>12.2</td></tr> <tr><td>2</td><td>10.2</td></tr> <tr><td>3</td><td>2.5</td></tr> <tr><td>4</td><td>0</td></tr> </tbody> </table>	SAMPLE ID	FIELD HEADSPACE PID (ppm)	1	12.2	2	10.2	3	2.5	4	0	
	SAMPLE ID	FIELD HEADSPACE PID (ppm)										
1	12.2											
2	10.2											
3	2.5											
4	0											
<table border="1" style="margin: auto; border-collapse: collapse;"> <thead> <tr> <th colspan="3">LAB SAMPLES</th> </tr> <tr> <th>SAMPLE ID</th> <th>ANALYSIS</th> <th>TIME</th> </tr> </thead> <tbody> <tr> <td>4</td> <td>805, 808</td> <td>11:24</td> </tr> </tbody> </table>	LAB SAMPLES			SAMPLE ID	ANALYSIS	TIME	4	805, 808	11:24			
LAB SAMPLES												
SAMPLE ID	ANALYSIS	TIME										
4	805, 808	11:24										

TRAVEL NOTES: _____	CALLED OUT: _____	ONSITE: Trey Tixer
---------------------	-------------------	---





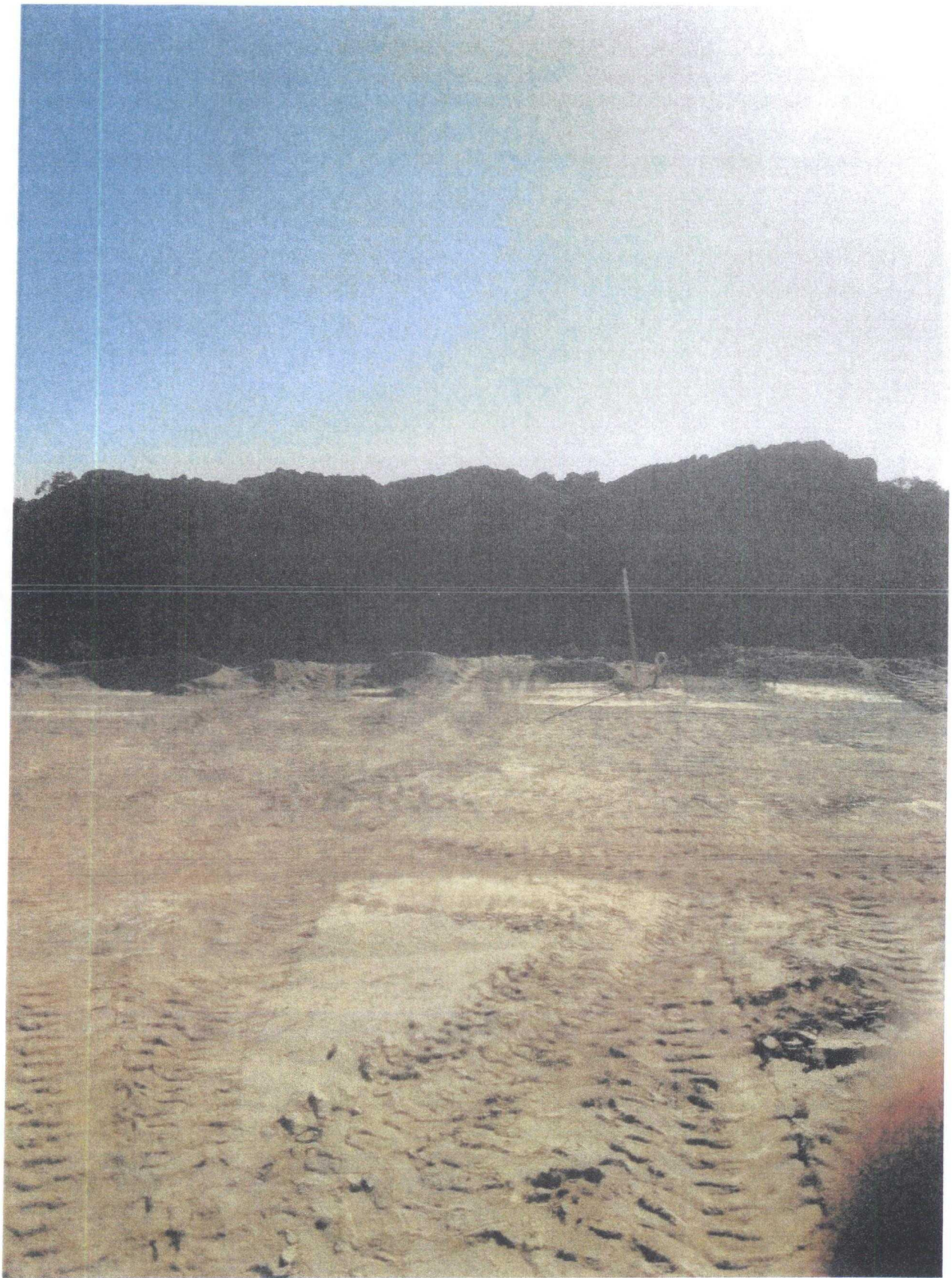


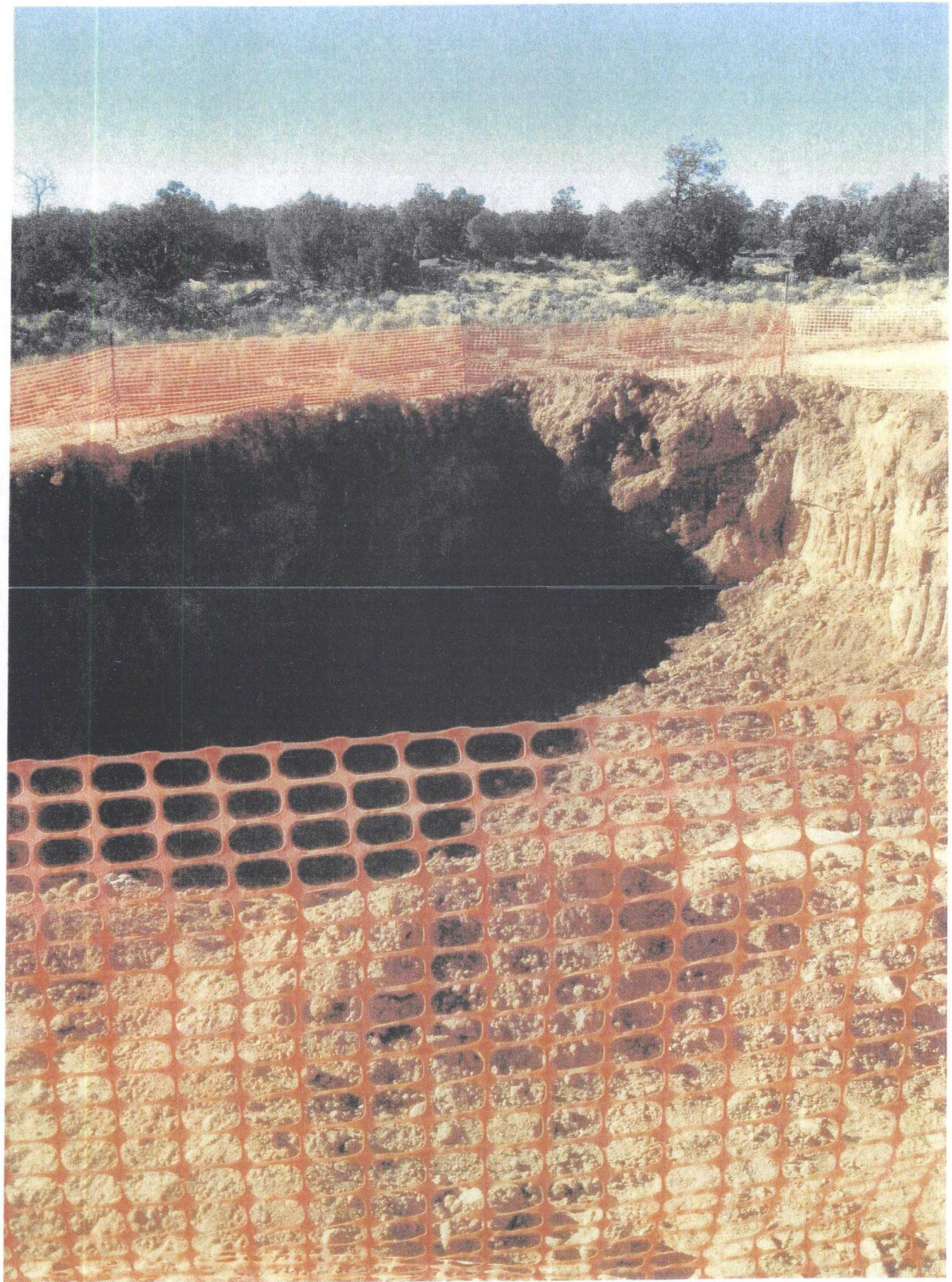


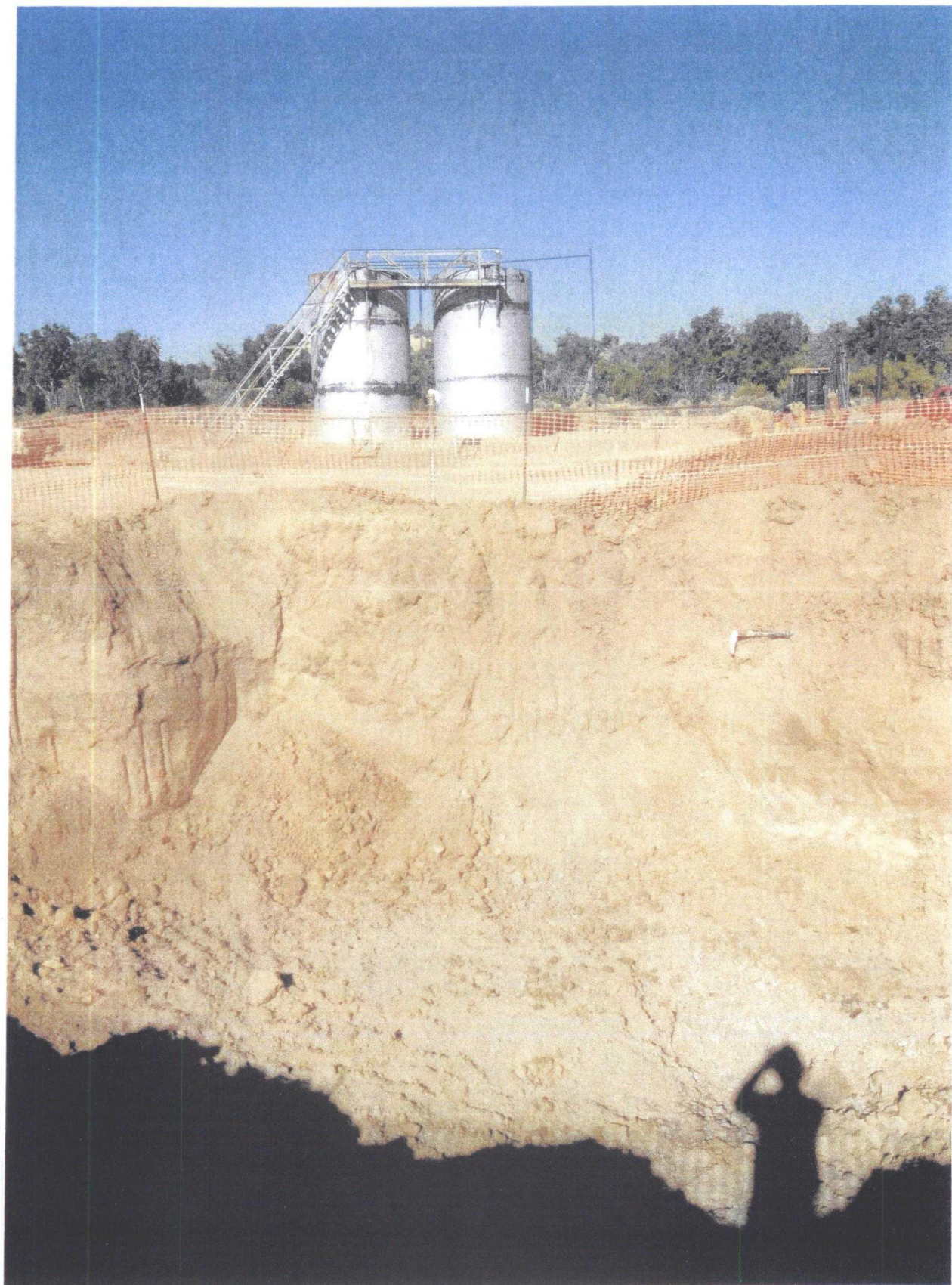


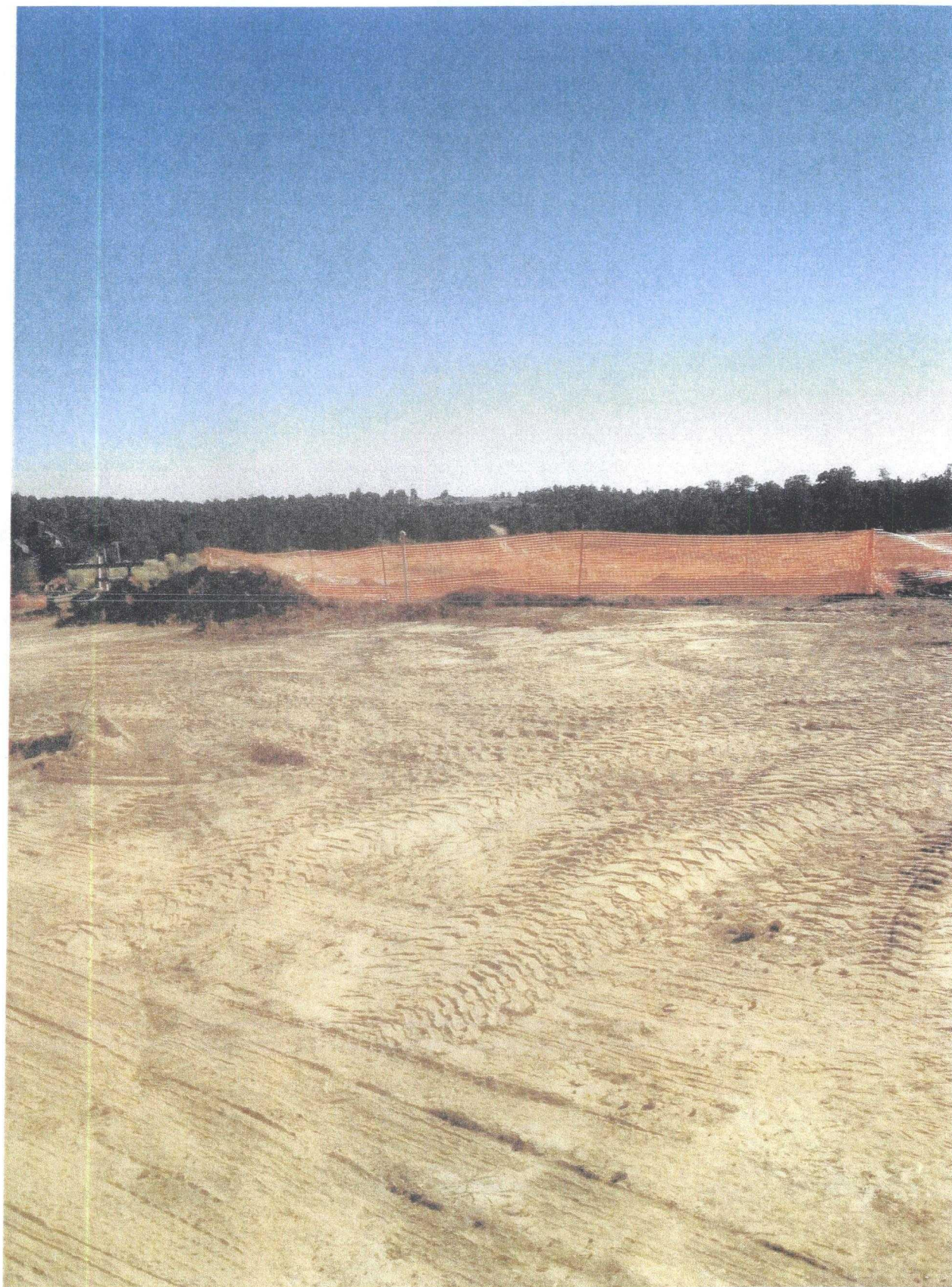




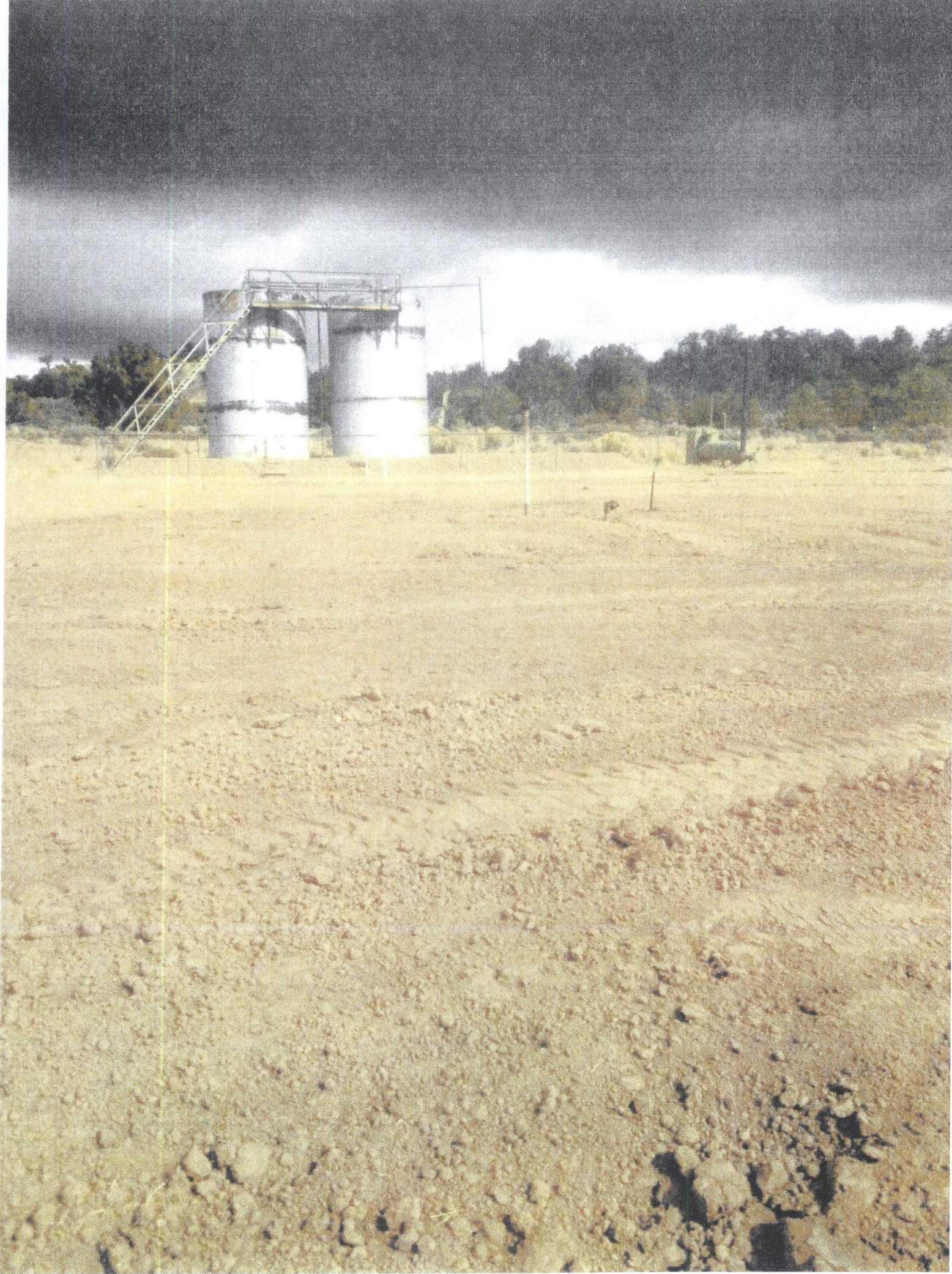














Analytical Report

Report Summary

Client: Crown Quest Operating

Chain Of Custody Number: 17479

Samples Received: 10/31/2014 4:15:00PM

Job Number: 07151-0016

Work Order: P411001

Project Name/Location: Chacon Jicarilla Apache
D #9

Entire Report Reviewed By:

A handwritten signature in black ink, appearing to read 'Tim Cain', is written over a horizontal line.

Date: 11/21/14

Tim Cain, Laboratory Manager

Supplement to analytical report generated on: 11/10/14 10:38 am

The results in this report apply to the samples submitted to Envirotech's Analytical Laboratory and were analyzed in accordance with the chain of custody document supplied by you, the client, and as such are for your exclusive use only. The results in this report are based on the sample as received unless otherwise noted. Partial or incomplete reproduction of this report is prohibited, unless approved by Envirotech, Inc. If you have any questions regarding this analytical report, please don't hesitate to contact Envirotech's Laboratory Staff.

Crown Quest Operating
PO 2221
Farmington NM, 87499

Project Name: Chacon Jicarilla Apache D #9
Project Number: 07151-0016
Project Manager: Sheena Leon

Reported:
21-Nov-14 11:23

Analytical Report for Samples

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
North Bottom	P411001-01A	Soil	10/31/14	10/31/14	Glass Jar, 4 oz.
South Bottom	P411001-02A	Soil	10/31/14	10/31/14	Glass Jar, 4 oz.
South Walls	P411001-03A	Soil	10/31/14	10/31/14	Glass Jar, 4 oz.

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Crown Quest Operating
 PO 2221
 Farmington NM, 87499

 Project Name: Chacon Jicarilla Apache D #9
 Project Number: 07151-0016
 Project Manager: Sheena Leon

Reported:
 21-Nov-14 11:23

North Bottom
P411001-01 (Solid)

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Volatile Organics by EPA 8021									
Benzene	ND	0.10	mg/kg	1	1445028	11/07/14	11/07/14	EPA 8021B	
Toluene	ND	0.10	mg/kg	1	1445028	11/07/14	11/07/14	EPA 8021B	
Ethylbenzene	ND	0.10	mg/kg	1	1445028	11/07/14	11/07/14	EPA 8021B	
p,m-Xylene	ND	0.20	mg/kg	1	1445028	11/07/14	11/07/14	EPA 8021B	
o-Xylene	ND	0.10	mg/kg	1	1445028	11/07/14	11/07/14	EPA 8021B	
Total Xylenes	ND	0.10	mg/kg	1	1445028	11/07/14	11/07/14	EPA 8021B	
Total BTEX	ND	0.10	mg/kg	1	1445028	11/07/14	11/07/14	EPA 8021B	
Surrogate: 4-Bromochlorobenzene-PID		89.2 %		50-150	1445028	11/07/14	11/07/14	EPA 8021B	
Nonhalogenated Organics by 8015									
Gasoline Range Organics (C6-C10)	ND	9.99	mg/kg	1	1445028	11/07/14	11/07/14	EPA 8015D	
Diesel Range Organics (C10-C28)	93.2	29.9	mg/kg	1	1445029	11/07/14	11/07/14	EPA 8015D	
Surrogate: o-Terphenyl		115 %		50-200	1445029	11/07/14	11/07/14	EPA 8015D	
Surrogate: 4-Bromochlorobenzene-FID		87.2 %		50-150	1445028	11/07/14	11/07/14	EPA 8015D	
Cation/Anion Analysis									
Chloride	469	9.86	mg/kg	1	1447020	11/19/14	11/19/14	EPA 300.0	

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5796 US Highway 64, Farmington, NM 87401

Ph (505) 632-0615 Fx (505) 632-1865

Three Springs • 65 Mercado Street, Suite 115, Durango, CO 81301

Ph (970) 259-0615 Fr (800) 362-1879

 envirotech-inc.com
 laboratory@envirotech-inc.com

Crown Quest Operating
 PO 2221
 Farmington NM, 87499

 Project Name: Chacon Jicarilla Apache D #9
 Project Number: 07151-0016
 Project Manager: Sheena Leon

 Reported:
 21-Nov-14 11:23

South Bottom
P411001-02 (Solid)

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Volatile Organics by EPA 8021									
Benzene	ND	0.10	mg/kg	1	1445028	11/07/14	11/07/14	EPA 8021B	
Toluene	ND	0.10	mg/kg	1	1445028	11/07/14	11/07/14	EPA 8021B	
Ethylbenzene	ND	0.10	mg/kg	1	1445028	11/07/14	11/07/14	EPA 8021B	
p,m-Xylene	ND	0.20	mg/kg	1	1445028	11/07/14	11/07/14	EPA 8021B	
o-Xylene	ND	0.10	mg/kg	1	1445028	11/07/14	11/07/14	EPA 8021B	
Total Xylenes	ND	0.10	mg/kg	1	1445028	11/07/14	11/07/14	EPA 8021B	
Total BTEX	ND	0.10	mg/kg	1	1445028	11/07/14	11/07/14	EPA 8021B	
Surrogate: 4-Bromochlorobenzene-PiD		89.2 %		50-150	1445028	11/07/14	11/07/14	EPA 8021B	
Nonhalogenated Organics by 8015									
Gasoline Range Organics (C6-C10)	ND	10.0	mg/kg	1	1445028	11/07/14	11/07/14	EPA 8015D	
Diesel Range Organics (C10-C28)	203	29.9	mg/kg	1	1445029	11/07/14	11/07/14	EPA 8015D	
Surrogate: o-Terphenyl		113 %		50-200	1445029	11/07/14	11/07/14	EPA 8015D	
Surrogate: 4-Bromochlorobenzene-FID		87.5 %		50-150	1445028	11/07/14	11/07/14	EPA 8015D	
Cation/Anion Analysis									
Chloride	461	9.94	mg/kg	1	1447020	11/19/14	11/19/14	EPA 300.0	

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5796 US Highway 64, Farmington, NM 87401

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Three Springs • 65 Mercado Street, Suite 115, Durango, CO 81301

Ph (970) 259-0615 Fr (800) 362-1879

 envirotech-inc.com
 laboratory@envirotech-inc.com

Crown Quest Operating
 PO 2221
 Farmington NM, 87499

 Project Name: Chacon Jicarilla Apache D #9
 Project Number: 07151-0016
 Project Manager: Sheena Leon

 Reported:
 21-Nov-14 11:23

South Walls
P411001-03 (Solid)

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Volatile Organics by EPA 8021										
Benzene	ND	0.10	mg/kg	1		1445028	11/07/14	11/07/14	EPA 8021B	
Toluene	ND	0.10	mg/kg	1		1445028	11/07/14	11/07/14	EPA 8021B	
Ethylbenzene	ND	0.10	mg/kg	1		1445028	11/07/14	11/07/14	EPA 8021B	
p,m-Xylene	ND	0.20	mg/kg	1		1445028	11/07/14	11/07/14	EPA 8021B	
o-Xylene	ND	0.10	mg/kg	1		1445028	11/07/14	11/07/14	EPA 8021B	
Total Xylenes	ND	0.10	mg/kg	1		1445028	11/07/14	11/07/14	EPA 8021B	
Total BTEX	ND	0.10	mg/kg	1		1445028	11/07/14	11/07/14	EPA 8021B	
Surrogate: 4-Bromochlorobenzene-PID		91.2 %		50-150		1445028	11/07/14	11/07/14	EPA 8021B	
Nonhalogenated Organics by 8015										
Gasoline Range Organics (C6-C10)	ND	10.0	mg/kg	1		1445028	11/07/14	11/07/14	EPA 8015D	
Diesel Range Organics (C10-C28)	83.2	29.9	mg/kg	1		1445029	11/07/14	11/07/14	EPA 8015D	
Surrogate: o-Terphenyl		112 %		50-200		1445029	11/07/14	11/07/14	EPA 8015D	
Surrogate: 4-Bromochlorobenzene-FID		88.9 %		50-150		1445028	11/07/14	11/07/14	EPA 8015D	
Cation/Anion Analysis										
Chloride	1010	9.92	mg/kg	1		1447020	11/19/14	11/19/14	EPA 300.0	

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Crown Quest Operating
 PO 2221
 Farmington NM, 87499

 Project Name: Chacon Jicarilla Apache D #9
 Project Number: 07151-0016
 Project Manager: Sheena Leon

Reported:
 21-Nov-14 11:23

Volatile Organics by EPA 8021 - Quality Control
Envirotech Analytical Laboratory

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

Batch 1445028 - Purge and Trap EPA 5030A
Blank (1445028-BLK1)

Prepared: 06-Nov-14 Analyzed: 07-Nov-14

Benzene	ND	0.10	mg/kg							
Toluene	ND	0.10	"							
Ethylbenzene	ND	0.10	"							
p,m-Xylene	ND	0.20	"							
o-Xylene	ND	0.10	"							
Total Xylenes	ND	0.10	"							
Total BTEX	ND	0.10	"							
Surrogate: 4-Bromochlorobenzene-PID	0.371		"	0.400		92.8	50-150			

LCS (1445028-BS1)

Prepared: 06-Nov-14 Analyzed: 07-Nov-14

Benzene	20.7	0.10	mg/kg	20.0		104	75-125			
Toluene	20.3	0.10	"	20.0		102	70-125			
Ethylbenzene	20.3	0.10	"	20.0		102	75-125			
p,m-Xylene	41.8	0.20	"	40.0		105	80-125			
o-Xylene	20.3	0.10	"	20.0		102	75-125			
Surrogate: 4-Bromochlorobenzene-PID	0.380		"	0.400		95.0	50-150			

Matrix Spike (1445028-MS1)

Source: P411019-01

Prepared: 06-Nov-14 Analyzed: 07-Nov-14

Benzene	21.2	0.10	mg/kg	20.0	ND	106	75-125			
Toluene	20.6	0.10	"	20.0	ND	103	70-125			
Ethylbenzene	20.9	0.10	"	20.0	ND	105	75-125			
p,m-Xylene	42.6	0.20	"	39.9	ND	107	80-125			
o-Xylene	21.1	0.10	"	20.0	ND	106	75-125			
Surrogate: 4-Bromochlorobenzene-PID	0.387		"	0.399		97.0	50-150			

Matrix Spike Dup (1445028-MSD1)

Source: P411019-01

Prepared: 06-Nov-14 Analyzed: 07-Nov-14

Benzene	18.4	0.10	mg/kg	20.0	ND	92.1	75-125	14.2	15	
Toluene	18.0	0.10	"	20.0	ND	90.0	70-125	13.6	15	
Ethylbenzene	17.4	0.10	"	20.0	ND	87.1	75-125	18.4	15	D1
p,m-Xylene	39.8	0.20	"	40.0	ND	99.6	80-125	6.70	15	D1
o-Xylene	18.3	0.10	"	20.0	ND	91.3	75-125	14.6	15	
Surrogate: 4-Bromochlorobenzene-PID	0.404		"	0.400		101	50-150			

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Crown Quest Operating
PO 2221
Farmington NM, 87499

Project Name: Chacon Jicarilla Apache D #9
Project Number: 07151-0016
Project Manager: Sheena Leon

Reported:
21-Nov-14 11:23

Nonhalogenated Organics by 8015 - Quality Control
Envirotech Analytical Laboratory

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

Batch 1445028 - Purge and Trap EPA 5030A

Blank (1445028-BLK1)

Prepared: 06-Nov-14 Analyzed: 07-Nov-14

Gasoline Range Organics (C6-C10)	ND	10.0	mg/kg						
Surrogate: 4-Bromochlorobenzene-FID	0.363		"	0.400		90.9	50-150		

LCS (1445028-BS1)

Prepared: 06-Nov-14 Analyzed: 07-Nov-14

Gasoline Range Organics (C6-C10)	273	9.99	mg/kg	292		93.5	80-120		
Surrogate: 4-Bromochlorobenzene-FID	0.371		"	0.400		92.9	50-150		

Matrix Spike (1445028-MS1)

Source: P411019-01

Prepared: 06-Nov-14 Analyzed: 07-Nov-14

Gasoline Range Organics (C6-C10)	285	9.98	mg/kg	291	13.5	93.2	75-125		
Surrogate: 4-Bromochlorobenzene-FID	0.374		"	0.399		93.8	50-150		

Matrix Spike Dup (1445028-MSD1)

Source: P411019-01

Prepared: 06-Nov-14 Analyzed: 07-Nov-14

Gasoline Range Organics (C6-C10)	418	9.99	mg/kg	292	13.5	139	75-125	37.8	15	D1
Surrogate: 4-Bromochlorobenzene-FID	0.351		"	0.400		87.7	50-150			

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5796 US Highway 64, Farmington, NM 87401

Ph (505) 632-0615 Fx (505) 632-1865

Three Springs • 65 Mercado Street, Suite 115, Durango, CO 81301

Ph (970) 259-0615 Fr (800) 362-1879

envirotech-inc.com
laboratory@envirotech-inc.com

Crown Quest Operating
 PO 2221
 Farmington NM, 87499

 Project Name: Chacon Jicarilla Apache D #9
 Project Number: 07151-0016
 Project Manager: Sheena Leon

Reported:
 21-Nov-14 11:23

Nonhalogenated Organics by 8015 - Quality Control
Envirotech Analytical Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1445029 - DRO Extraction EPA 3550M										
Blank (1445029-BLK1)				Prepared: 06-Nov-14 Analyzed: 07-Nov-14						
Diesel Range Organics (C10-C28)	ND	25.0	mg/kg							
Surrogate: <i>o</i> -Terphenyl	42.9		"	40.0		107	50-200			
LCS (1445029-BS1)				Prepared: 06-Nov-14 Analyzed: 07-Nov-14						
Diesel Range Organics (C10-C28)	517	25.0	mg/kg	500		103	38-132			
Surrogate: <i>o</i> -Terphenyl	44.4		"	40.0		111	50-200			
Matrix Spike (1445029-MS1)				Source: P411019-01 Prepared: 06-Nov-14 Analyzed: 07-Nov-14						
Diesel Range Organics (C10-C28)	615	34.9	mg/kg	498	ND	123	38-132			
Surrogate: <i>o</i> -Terphenyl	50.9		"	39.9		128	50-200			
Matrix Spike Dup (1445029-MSD1)				Source: P411019-01 Prepared: 06-Nov-14 Analyzed: 07-Nov-14						
Diesel Range Organics (C10-C28)	834	34.9	mg/kg	499	ND	167	38-132	30.2	20	D1
Surrogate: <i>o</i> -Terphenyl	67.9		"	39.9		170	50-200			

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Crown Quest Operating
 PO 2221
 Farmington NM, 87499

 Project Name: Chacon Jicarilla Apache D #9
 Project Number: 07151-0016
 Project Manager: Sheena Leon

 Reported:
 21-Nov-14 11:23

Cation/Anion Analysis - Quality Control
Envirotech Analytical Laboratory

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

Batch 1447020 - Anion Extraction EPA 300.0
Blank (1447020-BLK1)

Prepared & Analyzed: 19-Nov-14

Chloride ND 9.88 mg/kg

LCS (1447020-BS1)

Prepared & Analyzed: 19-Nov-14

Chloride 469 9.87 mg/kg 493 95.1 90-110

Matrix Spike (1447020-MS1)

Source: P411001-01

Prepared & Analyzed: 19-Nov-14

Chloride 932 9.89 mg/kg 495 469 93.4 80-120

Matrix Spike Dup (1447020-MSD1)

Source: P411001-01

Prepared & Analyzed: 19-Nov-14

Chloride 963 9.81 mg/kg 490 469 101 80-120 3.32 20

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Crown Quest Operating
PO 2221
Farmington NM, 87499

Project Name: Chacon Jicarilla Apache D #9
Project Number: 07151-0016
Project Manager: Sheena Leon

Reported:
21-Nov-14 11:23

Notes and Definitions

D1 Duplicates or Matrix Spike Duplicates Relative Percent Difference exceeds control limits.

DET Analyte DETECTED

ND Analyte NOT DETECTED at or above the reporting limit

NR Not Reported

dry Sample results reported on a dry weight basis

RPD Relative Percent Difference

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CHAIN OF CUSTODY RECORD

17479

Client: Crown Quest			Project Name / Location: Chacoan Tlacotalia Apache #9			ANALYSIS / PARAMETERS															
Email results to: S. Leon			Sampler Name: S. Leon			TPH (Method 8015)	BTEX (Method 8021)	VOC (Method 8260)	RCRA 8 Metals	Cation / Anion	RCI	TCLP with H/P	CO Table 910-1	TPH (418.1)	CHLORIDE				Sample Cool	Sample Intact	
Client Phone No.:			Client No.: 07151-0010																		
Sample No. / Identification	Sample Date	Sample Time	Lab No.	No./Volume of Containers	Preservative																
					HNO ₃	HCl															
North Bottom	10/21/14	13:37	P411001-01	14 oz glass jar			X	X	X										X	X	
South Bottom	10/21/14	13:34	P411001-02	↓			X	X	X										X	X	
South walls	10/21/14	13:39	P411061-03					X	X	X										X	X
Relinquished by: (Signature) <i>Sheena</i>					Date	Time	Received by: (Signature) <i>[Signature]</i>										Date	Time			
					10/21/14	10:15											10/21/14	16:15			
Relinquished by: (Signature)							Received by: (Signature)														
Sample Matrix																					
Soil <input checked="" type="checkbox"/> Solid <input type="checkbox"/> Sludge <input type="checkbox"/> Aqueous <input type="checkbox"/> Other <input type="checkbox"/>																					
<input type="checkbox"/> Sample(s) dropped off after hours to secure drop off area.																					



13.1, 9.8, 8.9

10.6

Client:

CrownQuest



Project No:

07151-0014

COC No:

FIELD REPORT: SPILL CLOSURE VERIFICATION

PAGE NO: 1 OF 1

LOCATION: NAME: Crown Quest LLC WELL #: D#9
 QUAD/UNIT: SEC: TWP: RNG: PM: CNTY: ST:
 QTR/FOOTAGE: CONTRACTOR:

DATE STARTED: 10/31/14DATE FINISHED: 11/3/14

ENVIRONMENTAL

SPECIALIST: S. LeeEXCAVATION APPROX: 40 FT. X 30 FT. X 10 FT. DEEP CUBIC YARDAGE:

DISPOSAL FACILITY: REMEDIATION METHOD:

LAND USE: LEASE: LAND OWNER:

CAUSE OF RELEASE: MATERIAL RELEASED:

SPILL LOCATED APPROXIMATELY: FT. FROM

DEPTH TO GROUNDWATER: NEAREST WATER SOURCE: NEAREST SURFACE WATER:

NMOCD RANKING SCORE: NMOCD TPH CLOSURE STD: 100 PPM

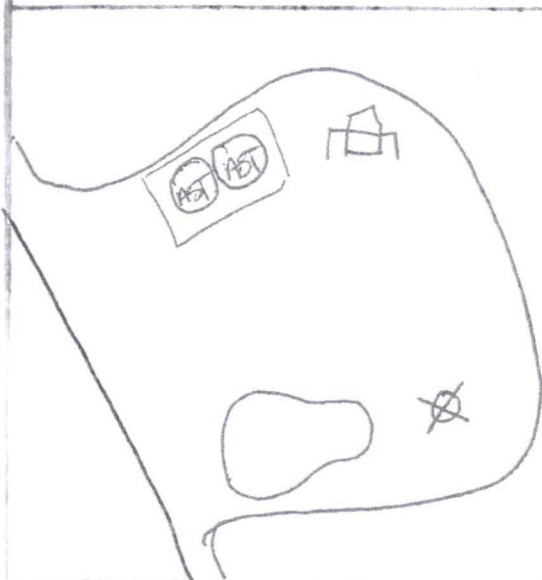
SOIL AND EXCAVATION DESCRIPTION:

SAMPLE DESCRIPTION	TIME	SAMPLE I.D.	LAB NO.	WEIGHT (g)	mL FREON	DILUTION	READING	CALC. ppm
200ppm 2d	12:55						104	
North Bottom	13:05	1		50	20ml	X4	40	160
South Bottom	13:15	2		↓	↓	↓	98	392
South Walls	13:27	3		↓	↓	↓	28	112

SPILL PERIMETER

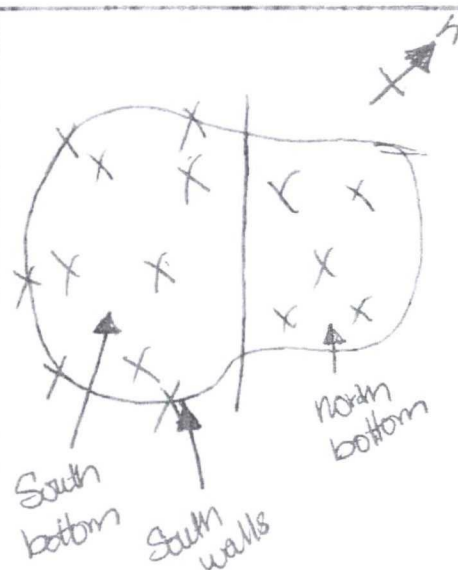
OVM
RESULTS

SPILL PROFILE



SAMPLE ID	FIELD HEADSPACE PID (ppm)
1	0
2	5.2
3	0.2

SAMPLE ID	ANALYSIS	TIME
1	8015.8021	13:37
2	↓	13:34
3	↓	13:39



TRA

5

Trey Tivier

Client: <div style="font-size: 1.5em; font-family: cursive;">Crown Quest</div>	<div style="font-weight: bold; font-size: 1.2em;">(808) 632-0615 (800) 362-1879</div> <div style="font-size: 0.8em;">5788 U.S. Hwy 84, Farmington, NM 87401</div>	Project No: <div style="font-size: 1.5em; font-family: cursive;">0715-0016</div> COC No:
---	---	---

FIELD REPORT: SPILL CLOSURE VERIFICATION		PAGE NO: <u>1</u> OF <u>1</u>
LOCATION: NAME: <u>Orton Junction Area D</u> WELL #: <u>9</u>		DATE STARTED: <u>10/30/14</u>
QUAD/UNIT: SEC: <u>23</u> TWP: <u>23N</u> RNG: <u>3W</u> PM: CNTY: <u>Santa Fe</u> ST: <u>NM</u>		DATE FINISHED: <u>10/30/14</u>
QTR/FOOTAGE: CONTRACTOR:		ENVIRONMENTAL SPECIALIST: <u>S. Jean</u>

EXCAVATION APPROX:	FT. X	FT. X	FT. DEEP CUBIC YARDAGE:
DISPOSAL FACILITY:		REMEDICATION METHOD:	
LAND USE:	LEASE:	LAND OWNER:	
CAUSE OF RELEASE:		MATERIAL RELEASED:	
SPILL LOCATED APPROXIMATELY:		FT.	FROM
DEPTH TO GROUNDWATER:		NEAREST WATER SOURCE:	NEAREST SURFACE WATER:
NMOCD RANKING SCORE:		NMOCD TPH CLOSURE STD: <u>100</u> PPM	
SOIL AND EXCAVATION DESCRIPTION:			

SAMPLE DESCRIPTION	TIME	SAMPLE ID.	LAB NO.	WEIGHT (g)	mL FREON	DILUTION	READING	CALC. ppm
200 gpm Std	10:30						193	
South bottom	10:45	1		5g	20ml	x4	2694	10784
South walls	10:55	2		↓	↓	↓	153	1008
North bottom	11:10	3		↓	↓	↓	75	300
North walls	11:20	4		↓	↓	↓	5	20

SPILL PERIMETER	OVM RESULTS	SPILL PROFILE																																		
	<table border="1" style="width:100%; border-collapse: collapse; font-size: 0.8em;"> <tr> <th style="width:10%;">SAMPLE ID</th><th style="width:90%;">FIELD HEADSPACE PID (ppm)</th></tr> <tr><td>1</td><td>13.2</td></tr> <tr><td>2</td><td>10.2</td></tr> <tr><td>3</td><td>2.5</td></tr> <tr><td>4</td><td>0</td></tr> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> </table> <table border="1" style="width:100%; border-collapse: collapse; font-size: 0.8em;"> <tr> <th style="width:10%;">SAMPLE ID</th><th style="width:50%;">ANALYSIS</th><th style="width:40%;">TIME</th></tr> <tr> <td>4</td><td>805, 8031</td><td>11:24</td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> </table>	SAMPLE ID	FIELD HEADSPACE PID (ppm)	1	13.2	2	10.2	3	2.5	4	0							SAMPLE ID	ANALYSIS	TIME	4	805, 8031	11:24													
SAMPLE ID	FIELD HEADSPACE PID (ppm)																																			
1	13.2																																			
2	10.2																																			
3	2.5																																			
4	0																																			
SAMPLE ID	ANALYSIS	TIME																																		
4	805, 8031	11:24																																		

TRAVEL NOTES:	CALLED OUT:	ONSITE: <u>Trey Tixier</u>
---------------	-------------	----------------------------

**envirotech**

Bill of Lading

MANIFEST # 49491

GENERATOR Koddy Productions

POINT OF ORIGIN Charo Tr. Apache D-9

TRANSPORTER ETACH

DATE 10-28-14 JOB # 07151-00110

PHONE: (505) 632-0615 • 5796 U.S. HIGHWAY 64 • FARMINGTON, NEW MEXICO 87401

[illegible]

By signing as the driver/transporter, I certify the material hauled from the above location has not been added to or tampered with. I certify the material is from the above mentioned Generator/Point of Origin and that no additional material has been added or mixed into the load.

Generator Onsite Contact

Phone

Signatures required prior to distribution of the legal document.

DISTRIBUTION

White - Company Records

Yellow - Billing.

Pink - Customer.

Goldenrod - LF Copy



Bill of Lading

MANIFEST # 49506

GENERATOR RODDY PRODUCTIONPOINT OF ORIGIN CHACON S/C APACHE D-9TRANSPORTER E-techDATE 10-29-14 JOB # 07151-6010

PHONE: (505) 632-0615 • 5796 U.S. HIGHWAY 64 • FARMINGTON, NEW MEXICO 87401

LOAD NO.	COMPLETE DESCRIPTION OF SHIPMENT					TRANSPORTING COMPANY			
	DESTINATION	MATERIAL	GRID	YDS	BBLS	TKT#	TRK#	TIME	DRIVER SIGNATURE
1	LFI-4	cont Soil	J-5	20	—	—	663	10:00	Mike Dean
2	"	"	J-5	20	—	—	560	10:10	Mike Dean
3	"	"	J-5	20	—	—	663	12:55	Mike Dean
4	"	"	J-5	20	—	—	560	15:15	Mike Dean
5	"	"	J-5	20	—	—	663	16:15	Mike Dean
				100					
RESULTS			LANDFARM EMPLOYEE			NOTES			
5289	CHLORIDE TEST	2	Certification of above receipt & placement			ENTERED NOV 12 2014			
	PAINT FILTER TEST	2							

By signing as the driver/transporter, I certify the material hauled from the above location has not been added to or tampered with. I certify the material is from the above mentioned Generator/Point of Origin and that no additional material has been added or mixed into the load.

Generator Onsite Contact _____

Phone _____

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Bill of Lading

MANIFEST # 49526

GENERATOR RODDY PRODUCTIONPOINT OF ORIGIN CHACON 5: C APACHE D-9TRANSPORTER E-tech

PHONE: (505) 632-0615 • 5796 U.S. HIGHWAY 64 • FARMINGTON, NEW MEXICO 87401

DATE 10-30-14 JOB # 07151-0016

LOAD NO.	COMPLETE DESCRIPTION OF SHIPMENT					TRANSPORTING COMPANY			
	DESTINATION	MATERIAL	GRID	YDS	BBLS	TKT#	TRK#	TIME	DRIVER SIGNATURE
1	LFI-4	cont soil	K-4	20	—	—	663	9:35	Mike Hott
2	"	"	K-4	20	—	—	560	10:15	Mike Dean
3	"	"	K-4	20	—	—	663	12:30	Mike Hott
4	"	"	K-4	20	—	—	560	13:20	Mike Dean
5	"	"	K-4	20	—	—	663	15:50	Mike Hott
				100					
RESULTS									
327	CHLORIDE TEST	2	LANDFARM EMPLOYEE <u>[Signature]</u>			NOTES			
	PAINT FILTER TEST	2	Certification of above receipt & placement			ENTERED NOV 12 2014			

By signing as the driver/transporter, I certify the material hauled from the above location has not been added to or tampered with. I certify the material is from the above mentioned Generator/Point of Origin and that no additional material has been added or mixed into the load.

Generator Onsite Contact

Phone

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Bill of Lading

MANIFEST # 49537

GENERATOR Reddy ProductionPOINT OF ORIGIN Chaco Jic Nac 0-9TRANSPORTER E-techDATE 10-31-14 JOB # 07151-0016

PHONE: (505) 632-0615 • 5796 U.S. HIGHWAY 64 • FARMINGTON, NEW MEXICO 87401

LOAD NO.	COMPLETE DESCRIPTION OF SHIPMENT					TRANSPORTING COMPANY			
	DESTINATION	MATERIAL	GRID	YDS	BBLS	TKT#	TRK#	TIME	DRIVER SIGNATURE
1	LFII-4	CONT SDIC	I-2	20	-	-	663	9:45	Mike Dean
2	"	"	I-2	20	-	-	560	10:00	Mike Dean
3	"	"	I-2	20	-	-	663	12:35	Mike Dean
4	"	"	I-2	20	-	-	560	12:45	Mike Dean
5	"	"	I-2	20	-	-	663	15:25	Mike Dean
6	"	"	I-2	20	-	-	560	15:25	Mike Dean
				120					
RESULTS		LANDFARM EMPLOYEE <u>[Signature]</u> Certification of above receipt & placement				NOTES ENTERED NOV 14 2014			
CHLORIDE TEST	2								
PAINT FILTER TEST	2								

By signing as the driver/transporter, I certify the material hauled from the above location has not been added to or tampered with. I certify the material is from the above mentioned Generator/Point of Origin and that no additional material has been added or mixed into the load.

Generator Onsite Contact _____

Phone _____

Signatures required prior to distribution of the legal document.

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MANIFEST # 49539

GENERATOR Roddy Production

POINT OF ORIGIN *Chacon 5: C above the D-*

TRANSPORTER Roberts Trucking

DATE 10-21-14 JOB # 07151-00160

PHONE: (505) 632-0615 • 5796 U.S. HIGHWAY 64 • FARMINGTON, NEW MEXICO 87401

By signing as the driver/transporter, I certify the material hauled from the above location has not been added to or tampered with. I certify the material is from the above mentioned Generator/Point of Origin and that no additional material has been added or mixed into the load.

Generator Onsite Contact

Phone

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DISTRIBUTION:

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Yellow - Billing,

Pink - Customer,

Goldenrod - LF Copy



Bill of Lading

GENERATOR Roddy Productions

POINT OF ORIGIN Jic Choccon A Poche D

TRANSPORTER E. tech

DATE 11-4-14 JOB # 07151-0016

PHONE: (505) 632-0615 • 5796 U.S. HIGHWAY 64 • FARMINGTON, NEW MEXICO 87401

[illegible]

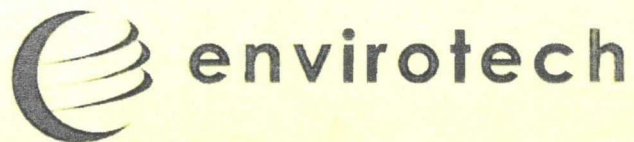
By signing as the driver/transporter, I certify the material hauled from the above location has not been added to or tampered with. I certify the material is from the above mentioned Generator/Point of Origin and that no additional material has been added or mixed into the load.

Generator Onsite Contact

Phone

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Bill of Lading

MANIFEST # 49590
GENERATOR Roddy Production
POINT OF ORIGIN J. Chacon Apoche D-9
TRANSPORTER Roberts
DATE 11/4/14 JOB # 07151-0016

PHONE: (505) 632-0615 • 5796 U.S. HIGHWAY 64 • FARMINGTON, NEW MEXICO 87401

LOAD NO.	COMPLETE DESCRIPTION OF SHIPMENT					TRANSPORTING COMPANY			
	DESTINATION	MATERIAL	GRID	YDS	BBLS	TKT#	TRK#	TIME	DRIVER SIGNATURE
1	LFII 4	CON + SOIL	I 4	20	-		80	935	11/4/14
2	LFII 4	CON + SOIL	I 4	20	-		90	9:43	Bobby Archuleta
3	LFII 4	" "	I 4	20	-		80	1227	11/4/14
4	"	" "	I 4	20	-		90	1228	Bobby Archuleta
5	"	" "	I 4	20	-		80	1523	11/4/14
6	"	" "	I 4	20	-		90	1536	Bobby Archuleta
				120					
RESULTS									
CHLORIDE TEST		2	LANDFARM EMPLOYEE		GARY ROBINSON EL		NOTES		
PAINT FILTER TEST		2	Certification of above receipt & placement		ENTERED NOV 14 2014				

By signing as the driver/transporter, I certify the material hauled from the above location has not been added to or tampered with. I certify the material is from the above mentioned Generator/Point of Origin and that no additional material has been added or mixed into the load.

Generator Onsite Contact

Jimmy E. Toop

Phone

Signatures required prior to distribution of the legal document.

DISTRIBUTION

White - Company Records,

Yellow - Billing,

Pink - Customer,

Goldenrod - LF Copy



MANIFEST # 49611

GENERATOR Raddy Production

POINT OF ORIGIN Chocoma Tiz Apached

TRANSPORTER Roberts

DATE 11-5-14 JOB # 07151-0016

[illegible]

By signing as the driver/transporter, I certify the material hauled from the above location has not been added to or tampered with. I certify the material is from the above mentioned Generator/Point of Origin and that no additional material has been added or mixed into the load.

Generator Onsite Contact

Jimmy M. Etch

Phone

Signatures required prior to distribution of the legal document.

DISTRIBUTION: **White** - Company Records, **Yellow** - Billing, **Pink** - Customer, **Goldenrod** - LF Copy



MANIFEST # 49636

MANIFEST # 45050
GENERATOR Roddy Production

POINT OF ORIGIN *Chacon Jic Apache D-9*

TRANSPORTER *E. coli*

DATE 11-6-14 JOB # 07157-0016

PHONE: (505) 632-0615 • 5796 U.S. HIGHWAY 64 • FARMINGTON, NEW MEXICO 87401

By signing as the driver/transporter, I certify the material hauled from the above location has not been added to or tampered with. I certify the material is from the above mentioned Generator/Point of Origin and that no additional material has been added or mixed into the load.

Generator Onsite Contact

Phone

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DISTRIBUTION

White - Company Records.

Yellow - Billing.

Pink - Customer

Goldenrod - LF Copy

Envirotech
 5796 US Hwy 64
 Farmington, NM 87401
 Phone: 505-632-0615
 Fax: 505-632-1865



To:
 CrownQuest Operating LLC
 PO Box 2221
 Farmington, NM 87499

Invoice

Invoice Number: 37034
 Job: 07151-0016
 DATE: November 18, 2014

Chacon Jicarilla Apache D 9 - Accept
 contaminated soil

Ordered by Jeremy Divine

Project Manager: Kendra Runung LF

<u>Employee</u>	<u>Staff Type</u>	<u>Description</u>	<u>Units</u>	<u>Rate</u>	<u>Total</u>
10/28/2014					
Equipment					
(659) : Kenworth Truck		M.Hoyt-Haul contam soil	10.00 Hours	85.00	850.00
Equipment Total:			10.00		850.00
Material & Supplies					
		Fuel surcharge	1.00 EA	127.50	127.50
Material & Supplies Total:			1.00		127.50
Landfarm					
		BOL# 49491	1.00 EA	10.00	10.00
Paint Filter Test (LF)		BOL# 49491	1.00 EA	15.00	15.00
Chloride (LF)		BOL# 49491	40.00 CY	18.00	720.00
Contaminated Soil Receival					
Landfarm Total:			42.00		745.00
10/28/2014 Total:			53.00		1,722.50

10/29/2014

Equipment					
(560) : Peterbilt Truck		M.Dean-Haul contam soil	11.00 Hours	85.00	935.00
(663) : Western Star		M.Hoyt-Haul contam soil	11.00 Hours	85.00	935.00
Equipment Total:			22.00		1,870.00
Material & Supplies					
		Fuel surcharge	1.00 EA	280.50	280.50
Material & Supplies Total:			1.00		280.50
Landfarm					

Invoice # 37034 Job # 07151-0016

<u>Employee</u>	<u>Staff Type</u>	<u>Description</u>	<u>Units</u>		<u>Rate</u>	<u>Total</u>
		BOL# 49506	2.00	EA	10.00	20.00
Paint Filter Test (LF)		BOL# 49506	2.00	EA	15.00	30.00
Chloride (LF)		BOL# 49506	100.00	CY	18.00	1,800.00
Contaminated Soil Receival						
Landfarm Total:			104.00			1,850.00
10/29/2014 Total:			127.00			4,000.50

10/30/2014

Labor

Sheena Leon	Sr. Environmental Field Tech	Sampling	9.00	Hrs	55.00	495.00
Labor Total:			9.00			495.00

Equipment

(560) : Peterbilt Truck	M.Dean-Haul contam soil	6.50	Hours	85.00	552.50
(663) : Western Star	M.Hoyt-Haul contam soil	10.50	Hours	85.00	892.50
(957) : Support Vehicle	S.Leon-Sampling	9.00	Hours	15.00	135.00
Equipment Total:			26.00		1,580.00

Material & Supplies

Environmental Field Supplies	1.00	EA	32.00	32.00
Field TPH Analysis	4.00	EA	48.00	192.00
OVN Instrument	1.00	DAY	65.00	65.00
Fuel surcharge	1.00	EA	237.00	237.00
Material & Supplies Total:			7.00	526.00

Landfarm

	BOL# 49526	2.00	EA	10.00	20.00
Paint Filter Test (LF)	BOL# 49526	2.00	EA	15.00	30.00
Chloride (LF)	BOL# 49526	100.00	CY	18.00	1,800.00
Contaminated Soil Receival					
Landfarm Total:			104.00		1,850.00

Lab

	COC# 17477	1.00	EA	80.00	80.00
USEPA 8021 BTEX	COC# 17477	1.00	EA	80.00	80.00
GRO and DRO by 8015					
Lab Total:			2.00		160.00
10/30/2014 Total:			148.00		4,611.00

10/31/2014

Labor

Sheena Leon	Sr. Environmental Field Tech	Sampling	7.00	Hrs	55.00	385.00
Labor Total:			7.00			385.00

Equipment

(560) : Peterbilt Truck	M.Dean-Haul contam soil	10.00	Hours	85.00	850.00
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Invoice # 37034 Job # 07151-0016

<u>Employee</u>	<u>Staff Type</u>	<u>Description</u>	<u>Units</u>	<u>Rate</u>	<u>Total</u>
(663) : Western Star		M.Hoyt-Haul contam soil	11.00 Hours	85.00	935.00
(957) : Support Vehicle		S.Leon-Sampling	7.00 Hours	15.00	105.00
Equipment Total:			28.00		1,890.00
Material & Supplies					
		Environmental Field Supplies	1.00 EA	32.00	32.00
		Field TPH Analysis	3.00 EA	48.00	144.00
		OVM Instrument	1.00 DAY	65.00	65.00
		Fuel surcharge	1.00 EA	283.50	283.50
Material & Supplies Total:			6.00		524.50
Landfarm					
		BOL# 49537	2.00 EA	10.00	20.00
Paint Filter Test (LF)		BOL# 49537	2.00 EA	15.00	30.00
Chloride (LF)		BOL# 49537	120.00 CY	18.00	2,160.00
Contaminated Soil Receival		BOL# 49539	2.00 EA	10.00	20.00
Paint Filter Test (LF)		BOL# 49539	2.00 EA	15.00	30.00
Chloride (LF)		BOL# 49539	100.00 CY	18.00	1,800.00
Contaminated Soil Receival					
Landfarm Total:			228.00		4,060.00
Lab					
		COC# 17479	3.00 EA	80.00	240.00
USEPA 8021 BTEX		COC# 17479	3.00 EA	80.00	240.00
GRO and DRO by 8015					
Lab Total:			6.00		480.00
10/31/2014 Total:			275.00		7,339.50
11/04/2014					
Labor					
Sheena Leon	Sr. Environmental Field Tech	Project documentation	1.00 Hrs	55.00	55.00
Labor Total:			1.00		55.00
Equipment					
(663) : Western Star		M.Hoyt-Haul contam soil	10.50 Hours	85.00	892.50
Equipment Total:			10.50		892.50
Material & Supplies					
		Fuel surcharge	1.00 EA	133.88	133.88
Material & Supplies Total:			1.00		133.88
Subcontractor					
		Robert's Trucking	1.00 EA	3,898.62	3,898.62
Subcontractor Total:			1.00		3,898.62
Landfarm					
		BOL# 49589	1.00 EA	10.00	10.00

Invoice # 37034 Job # 07151-0016

<u>Employee</u>	<u>Staff Type</u>	<u>Description</u>	<u>Units</u>	<u>Rate</u>	<u>Total</u>
Paint Filter Test (LF)		BOL# 49589	1.00 EA	15.00	15.00
Chloride (LF)		BOL# 49589	60.00 CY	18.00	1,080.00
Contaminated Soil Receival		BOL# 49590	2.00 EA	10.00	20.00
Paint Filter Test (LF)		BOL# 49590	2.00 EA	15.00	30.00
Chloride (LF)		BOL# 49590	120.00 CY	18.00	2,160.00
Contaminated Soil Receival					
Landfarm Total:			186.00		3,315.00
11/4/2014 Total:			199.50		8,295.00

11/05/2014

Equipment

(663) : Western Star	M.Hoyt-Haul contam soil	10.50 Hours	85.00	892.50
Equipment Total:		10.50		892.50

Material & Supplies

Fuel surcharge	1.00 EA	133.88	133.88
Material & Supplies Total:		1.00	133.88

Subcontractor

Robert's Trucking	1.00 EA	2,599.08	2,599.08
Subcontractor Total:		1.00	2,599.08

Landfarm

	BOL# 49610	1.00 EA	10.00	10.00
Paint Filter Test (LF)	BOL# 49610	1.00 EA	15.00	15.00
Chloride (LF)	BOL# 49610	60.00 CY	18.00	1,080.00
Contaminated Soil Receival	BOL# 49611	1.00 EA	10.00	10.00
Paint Filter Test (LF)	BOL# 49611	1.00 EA	15.00	15.00
Chloride (LF)	BOL# 49611	60.00 CY	18.00	1,080.00
Contaminated Soil Receival				
Landfarm Total:			124.00	2,210.00
11/05/2014 Total:			136.50	5,835.46

11/06/2014

Equipment

(659) : Kenworth Truck	M.Hoyt-Haul contam soil	10.50 Hours	85.00	892.50
Equipment Total:		10.50		892.50

Material & Supplies

Fuel surcharge	1.00 EA	133.88	133.88
Material & Supplies Total:		1.00	133.88

Invoice # 37034 Job # 07151-0016

<u>Employee</u>	<u>Staff Type</u>	<u>Description</u>	<u>Units</u>	<u>Rate</u>	<u>Total</u>
Landfarm					
		BOL# 49636	1.00 EA	10.00	10.00
Paint Filter Test (LF)		BOL# 49636	1.00 EA	15.00	15.00
Chloride (LF)		BOL# 49636	60.00 CY	18.00	1,080.00
Contaminated Soil Recelval					
Landfarm Total:			62.00		1,105.00
11/6/2014 Total:			73.50		2,131.38

11/18/2014

Material & Supplies

	Report	1.00 EA	500.00	500.00
Material & Supplies Total:		1.00		500.00
11/18/2014 Total:		1.00		500.00

Invoice Sub-total 34,435.34
Sales Tax 2,195.25

Amount due this Invoice **\$36,630.59**

This may not be the final bill - if charges are received after this invoice has been mailed, you will receive a separate invoice for those costs.

TERMS: Net 30 Days from Invoice Date. Interest Charged at the Rate of 1.5% PER MONTH or 18% PER ANNUM on Accounts Not Paid Within 30 Days. **PLEASE PAY FROM THIS INVOICE.**

Jeremy Divine

From: Smith, Cory, EMNRD <Cory.Smith@state.nm.us>
Sent: Wednesday, November 12, 2014 8:05 AM
To: Jeremy Divine
Subject: RE: Chacon Jicarilla Apache D #9 Final Results.

Jeremy,

After Reviewing the Data provided, NMOCD is approving your request to close the excavation at the Chacon Jicarilla Apache D #9.

Please include a copy of this email in your Final C-141.

Thank you,

Cory Smith
Environmental Specialist
Oil Conservation Division
Energy, Minerals, & Natural Resources
1000 Rio Brazos, Aztec, NM 87410
(505)334-6178 ext 115
cory.smith@state.nm.us

From: Jeremy Divine [mailto:jdivine@crownquest.com]
Sent: Tuesday, November 11, 2014 10:30 AM
To: Smith, Cory, EMNRD
Subject: Fwd: Chacon Jicarilla Apache D #9 Final Results.

Corey,

Here is the final soil sample results on the Chacon Jicarilla Apache D#9. As we discussed last week The Jicarilla EPO does not want us to dig any further and wants us to backfill ASAP. Let me know if you have any question and if we are approved to backfill. Thanks

Jeremy Divine

Begin forwarded message:

From: Sheena Leon <sleon@envirotech-inc.com>
Date: November 11, 2014 at 9:43:44 AM MST
To: Jeremy Divine <jdivine@crownquest.com>, "ttixier@crownquest.com" <ttixier@crownquest.com>

Jeremy & Trey,

Here are the results for the samples collected from the Chacon Jicarilla Apache D #9. All of the samples returned results below regulatory standards, except for the sample from the South Bottom of the excavation, which came in at 203 mg/kg (ppm). This was the section that the Jicarilla EPA wanted to avoid any further excavation on, due to depth of excavation and already hitting rock. Please let me know if you have any questions.

Thank you ☺

Sheena Leon

Environmental Technician

Envirotech Inc.

5796 U.S. Hwy 64

Farmington, NM 87401

sleon@envirotech-inc.com

Office: (505) 632-0615 ext. 153

Cell: (505) 320-1428