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

State of New Mexico
Energy Minerals and Natural Resources
Department
Oil Conservation Division
1220 South St Francis Dr
Santa Fe, NM 87505

Form C-144
June 16 2008

For temporary pits, closed-loop systems, and below-grade tanks submit to the appropriate NMOCD District Office
For permanent pits and exceptions submit to the Santa Fe Environmental Bureau office and provide a copy to the appropriate NMOCD District Office

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

Type of action ☒ Permit of a pit closed-loop system below-grade tank, or proposed alternative method
☐ Closure of a pit, closed-loop system, below-grade tank, or proposed alternative method

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

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

Operator **Burlington Resources Oil & Gas Company, LP** OGRID # **14538**
Address **PO Box 4289, Farmington NM 87499**
Facility or well name **San Juan 27-4 Unit 52N**
API Number **30-039-30488** OCD Permit Number _____
U/L or Qtr/Qtr **C (NENW)** Section **29** Township **27N** Range **4W** County **Rio Arriba**
Center of Proposed Design Latitude **36 54863333N** Longitude **107 278116667 W** NAD ☐1927 ☒ 1983
Surface Owner ☒ Federal ☐ State ☐ Private ☐ Tribal Trust or Indian Allotment

☒ **Pit** Subsection F or G of 19 15 17 11 NMAC
Temporary ☒ Drilling ☐ Workover
☐ Permanent ☐ Emergency ☐ Cavitation
☒ Lined ☐ Unlined
Liner type Thickness **20** mil ☒ LLDPE ☐ HDPE ☐ PVC
☐ Other _____ ☒ String-Reinforced
Seams ☒ Welded ☒ Factory ☐ Other _____
Volume **7000** bbl Dimensions L **120'** x W **55'** x D **12'**

☐ **Closed-loop System** Subsection H of 19 15 17 11 NMAC
☐ Drying Pad ☐ Tanks ☐ Haul-off Bins ☐ Other _____
☐ Lined ☐ Unlined
Liner type Thickness _____ mil ☐ LLDPE ☐ HDPE ☐ PVC
☐ Other _____
Seams ☐ Welded ☐ Factory ☐ Other _____
Volume _____ bbl _____ yd^3
Dimensions Length _____ x Width _____

☐ **Below-grade tank** Subsection I of 19 15 17 11 NMAC
Volume
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 ☐ HDPE ☐ PVC
☐ Other _____

Fencing Subsection D of 19 15 17 11 NMAC
☐ Chain link, six feet in height two strands of barbed wire at top
☐ Four foot height four strands of barbed wire evenly spaced between one and four feet
Netting Subsection E of 19 15 17 11 NMAC
☐ Screen ☐ Netting ☐ Other _____
☐ Monthly inspections
Signs Subsection C of 19 15 17 11 NMAC
☐ 12 x24' 2' lettering providing Operator s name site location, and emergency telephone numbers
☒ Signed in compliance with 19 15 3 103 NMAC

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

Administrative Approvals and Exceptions.
Justifications and/or demonstrations of equivalency are required Please refer to 19 15 17 NMAC for guidance
Please check a box if one or more of the following is requested, if not leave blank
☒ Administrative approval(s) Requests must be submitted to the appropriate division district or the Santa Fe Environmental Bureau office for consideration of approval **(Fencing in Design Plan)**
☐ Exception(s) Requests must be submitted to the Santa Fe Environmental Bureau office for consideration of approval

Siting Criteria (regarding permitting) 19 15 17 10 NMAC

Instructions ***The applicant must demonstrate compliance for each siting criteria below in the application Recommendations of acceptable source material are provided below Requests regarding changes to certain siting criteria may require administrative approval from the appropriate district office or may be considered an exception which must be submitted to the Santa Fe Environmental Bureau office for consideration of approval Applicant must attach justification for request Please refer to 19 15 17 10 NMAC for guidance*** **Siting criteria does not apply to drying pads or above-grade tanks associated with a closed-loop system**

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

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 - 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 _____

Closed-loop Systems Permit Application Attachment Checklist Subsection B of 19 15 17 9 NMAC

Instructions ***Each of the following items must be attached to the application Please indicate, by a check mark in the box, that the documents are attached***

- ☐ Geologic and Hydrogeologic Data (required for on-site closure) - based upon the requirements of Paragraph (3) of Subsection B of 19 15 17 9
- ☐ Siting Criteria Compliance Demonstrations (required for on-site closure) - based upon the appropriate requirements of 19 15 17 10 NMAC
- ☐ Design Plan - based upon the appropriate requirements of 19 15 17 11 NMAC
- ☐ Operating and Maintenance Plan - based upon the appropriate requirements of 19 15 17 12 NMAC
- ☐ Closure Plan - based upon the appropriate requirements of Subsection C of 19 15 17 9 NMAC and 19 15 17 13 NMAC

NMAC

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

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

Proposed Closure: 19 15 17 13 NMAC

Type: ☒ Drilling ☐ Workover ☐ Emergency ☐ Cavitation ☐ Permanent Pit ☐ Below-grade Tank ☐ Closed-loop System ☐ Alternative

Proposed Closure Method: ☐ Waste Excavation and Removal
☒ On-site Closure Method (only for temporary pits and closed-loop systems)
☒ In-place Burial ☐ On-site Trench Burial
☐ Alternative Closure Method (Exceptions must be submitted to the Santa Fe Environmental Bureau for consideration)

Siting Criteria (regarding on-site closure methods only): 19 15 17 10 NMAC

Instructions: Each siting criteria requires a demonstration of compliance in the closure plan. Recommendations of acceptable source material are provided below. Requests regarding changes to certain siting criteria may require administrative approval from the appropriate district office or may be considered an exception which must be submitted to the Santa Fe Environmental Bureau office for consideration of approval. Justifications and/or demonstrations of equivalency are required. Please refer to 19 15 17 10 NMAC for guidance.

Ground water is less than 50 feet below the bottom of the buried waste - NM Office of the State Engineer - iWATERS database search. USGS; Data obtained from nearby wells	☐ Yes ☐ No ☒ NA
Ground water is between 50 and 100 feet below the bottom of the buried waste - NM Office of the State Engineer - iWATERS database search. USGS. Data obtained from nearby wells	☐ Yes ☐ No ☒ NA
Ground water is more than 100 feet below the bottom of the buried waste - NM Office of the State Engineer - iWATERS database search. USGS. Data obtained from nearby wells	☒ Yes ☐ No ☐ NA
Within 300 feet of a continuously flowing watercourse, or 200 feet of any other 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 500 horizontal feet of a private, domestic fresh water well or spring that less than five households use for domestic or stock watering purposes, or within 1000 horizontal feet of any other fresh water well or spring, in existence at the time of initial application - NM Office of the State Engineer - iWATERS database. Visual inspection (certification) of the proposed site	☐ Yes ☒ No
Within incorporated municipal boundaries or within a defined municipal fresh water well field covered under a municipal ordinance adopted pursuant to NMSA 1978, Section 3-27-3, as amended - Written confirmation or verification from the municipality; Written approval obtained from the municipality	☐ Yes ☒ No
Within 500 feet of a wetland - US Fish and Wildlife Wetland Identification map. Topographic map; Visual inspection (certification) of the proposed site	☐ Yes ☒ No
Within the area overlying a subsurface mine - Written confirmation or verification or map from the NM EMNRD-Mining and Mineral Division	☐ Yes ☒ No
Within an unstable area - Engineering measures incorporated into the design. NM Bureau of Geology & Mineral Resources. USGS; NM Geological Society; Topographic map	☐ Yes ☒ No
Within a 100-year floodplain - FEMA map	☐ Yes ☒ No

Waste Excavation and Removal Closure Plan Checklist: (19 15 17 13 NMAC) *Instructions Each of the following items must be attached to the closure plan Please indicate, by a check mark in the box, that the documents are attached*

- ☐ Protocols and Procedures - based upon the appropriate requirements of 19 15 17 13 NMAC
- ☐ Confirmation Sampling Plan (if applicable) - based upon the appropriate requirements of Subsection F of 19 15 17 13 NMAC
- ☐ Disposal Facility Name and Permit Number (for liquids drilling fluids and drill cuttings)
- ☐ Soil Backfill and Cover Design Specifications - based upon the appropriate requirements of Subsection H of 19 15 17 13 NMAC
- ☐ Re-vegetation Plan - based upon the appropriate requirements of Subsection I of 19 15 17 13 NMAC
- ☐ Site Reclamation Plan - based upon the appropriate requirements of Subsection G of 19 15 17 13 NMAC

Waste Removal Closure For Closed-loop Systems That Utilize Haul-off Bins Only (19 15 17 13 D NMAC) *Instructions Please indentify the facility or facilities for the disposal of liquids, drilling fluids and drill cuttings*

Disposal Facility Name _____ Disposal Facility Permit Number _____

On-Site Closure Plan Checklist (19 15 17 13 NMAC) *Instructions Each of the following items must be attached to the closure plan Please indicate, by a check mark in the box, that the documents are attached*

- ☐ Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19 15 17 10 NMAC
- ☐ Proof of Surface Owner Notice - based upon the appropriate requirements of Subsection F of 19 15 17 13 NMAC
- ☐ Construction and Design of Burial Trench (if applicable) based upon the appropriate requirements of 19 15 17 11 NMAC
- ☐ Protocols and Procedures - based upon the appropriate requirements of 19 15 17 13 NMAC
- ☐ Confirmation Sampling Plan (if applicable) - based upon the appropriate requirements of Subsection F of 19 15 17 13 NMAC
- ☐ Waste Material Sampling Plan - based upon the appropriate requirements of Subsection F of 19 15 17 13 NMAC
- ☐ Disposal Facility Name and Permit Number (for liquids drilling fluids and drill cuttings or in case on-site closure standards cannot be achieved)
- ☐ Soil Cover Design - based upon the appropriate requirements of Subsection H of 19 15 17 13 NMAC
- ☐ Re-vegetation Plan - based upon the appropriate requirements of Subsection I of 19 15 17 13 NMAC
- ☐ Site Reclamation Plan - based upon the appropriate requirements of Subsection G of 19 15 17 13 NMAC

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) **Crystal Tafoya** Title **Regulatory Technician**

Signature Crystal Tafoya Date **07/01/2008**

e-mail address **crystal.tafoya@conocophillips.com** Telephone **(505) 326-9837**

OCD Approval ☒ Permit Application (including closure plan) ☐ Closure Plan (only)

OCD Representative Signature: Brandon Powell **Approval Date:** 7/2/08

Title: Envir. Spec **OCD Permit Number:** _____

Closure Report (required within 60 days of closure completion). Subsection K of 19 15 17 13 NMAC

☐ **Closure Completion Date** _____

Closure Method:

☐ Waste Excavation and Removal ☐ On-Site Closure Method ☐ Alternative Closure Method

☐ If different from approved plan please explain

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
- ☐ Proof of Deed Notice (if applicable)
- ☐ Plot Plan
- ☐ Confirmation Sampling Analytical Results
- ☐ Waste Material Sampling Analytical Results
- ☐ 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

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 _____

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

State of New Mexico
Energy, Minerals & Natural Resources Department
OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

RECEIVED
FEB 14 2008
Bureau of Land Management
Farmington Field Office

Fee Lease - 3 Copies
State Lease - 7 Copies
Submit to Appropriate District Office
Revised June 10, 2003
Form C-102

☐ AMMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

1 API Number	2 Pool Code	3 Pool Name
30-039-30488	71599/72319	DAKOTA / MESA VERDE
4 Property Code	5 Property Name	6 Well Number
7452	SAN JUAN 27-4 UNIT	52N
7 OGRID No.	8 Operator Name	9 Elevation
14538	BURLINGTON OIL AND GAS COMPANY LP	7,190.4'

10 SURFACE LOCATION

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
C	29	27-N	04-W		1034	NORTH	1338	WEST	RIO ARRIBA

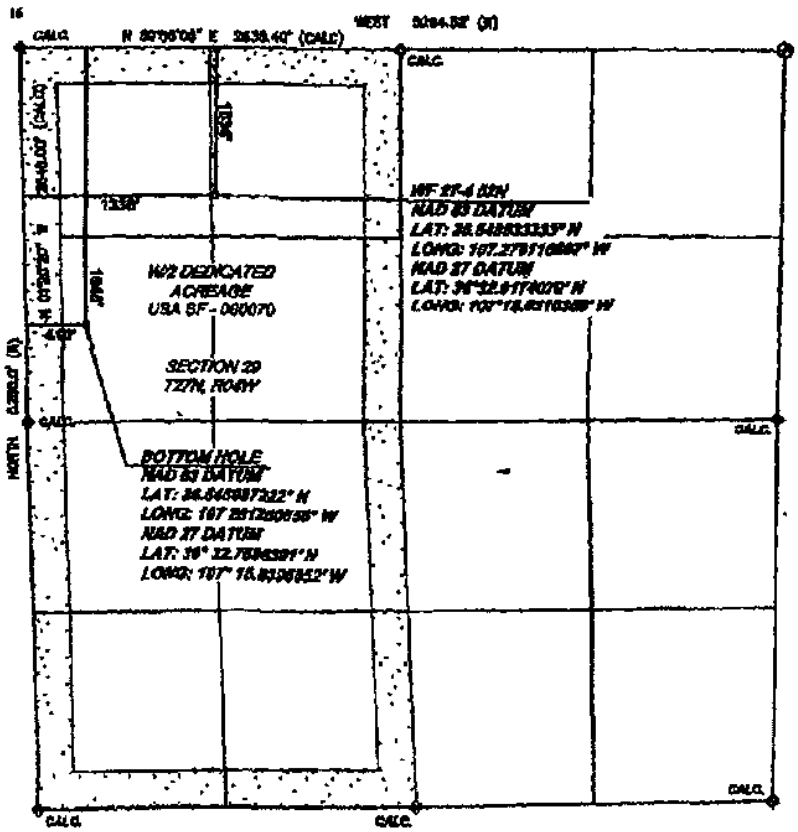
11 Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
E	29	27-N	04-W		1945	NORTH	410	WEST	RIO ARRIBA

12 Dedicated Acres	13 Joint or Infill	14 Consolidation Code	15 Order No.
320.0 W/2			

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

16



17 OPERATOR CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

Jamie Goodwin
Signature

Jamie Goodwin
Printed Name

Regulatory Tech.
Title and E-mail Address

02/12/2008
Date

18 SURVEYOR CERTIFICATION

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.

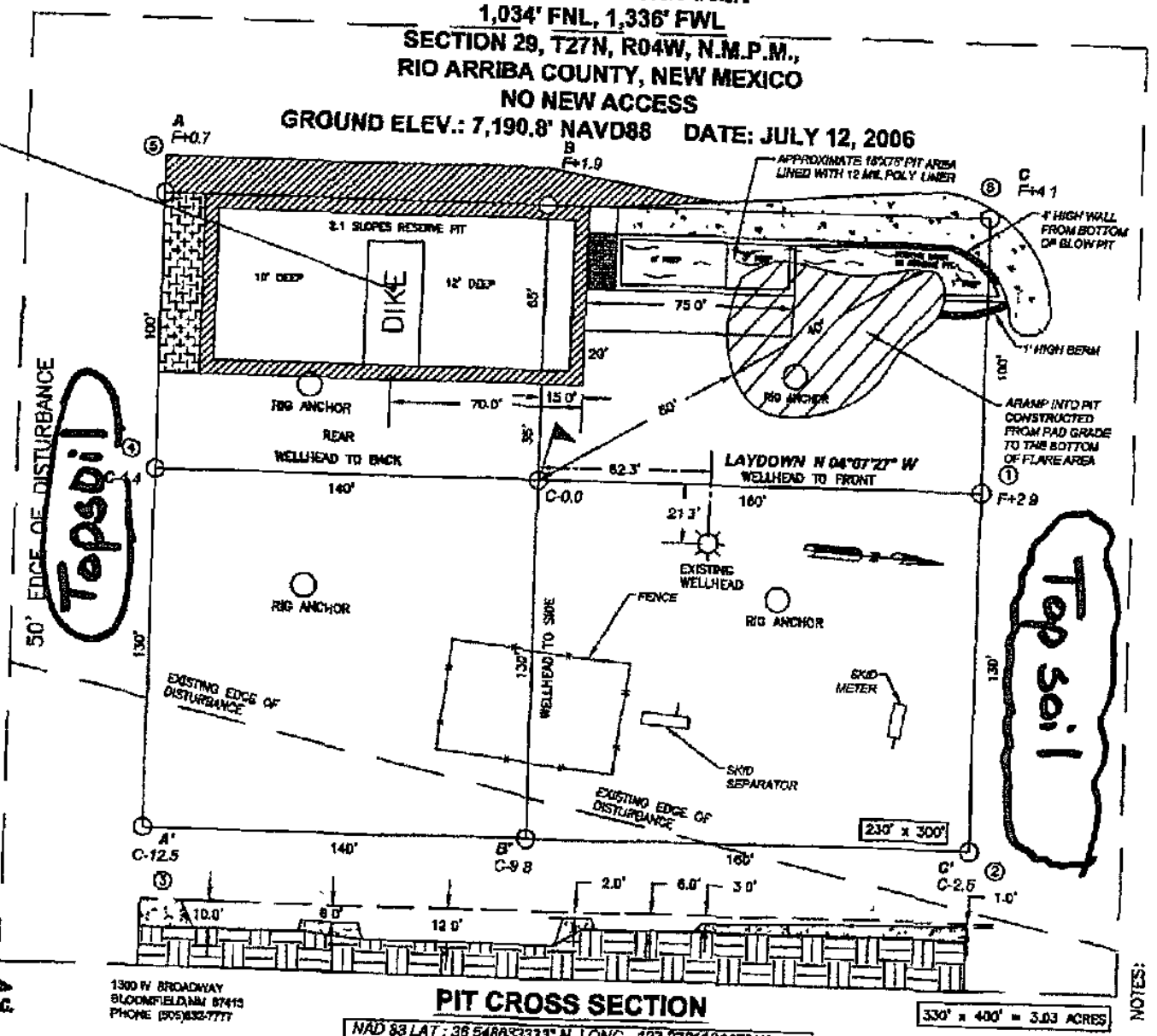
Date of Survey: 8/25/06
Signature and Seal of Professional Surveyor

Certificate Number NM 11393

BURLINGTON RESOURCES OIL & GAS COMPANY LP

SAN JUAN 27-4 UNIT #52N
1,034' FNL, 1,336' FWL
SECTION 29, T27N, R04W, N.M.P.M.,
RIO ARRIBA COUNTY, NEW MEXICO
NO NEW ACCESS
GROUND ELEV.: 7,190.8' NAVD88 DATE: JULY 12, 2006

Pit Location
at 36°32'54" N
long. 107° 16' 42" W
NAD 83



PIT CROSS SECTION

NAD 83 LAT : 36.548933333° N LONG . 107.278116667° W

330' x 400' = 3.03 ACRES

CCI
CHENAULT CONSULTING INC.

1300 W BROADWAY
BLOOMFIELD,NM 87413
PHONE (505)632-7777

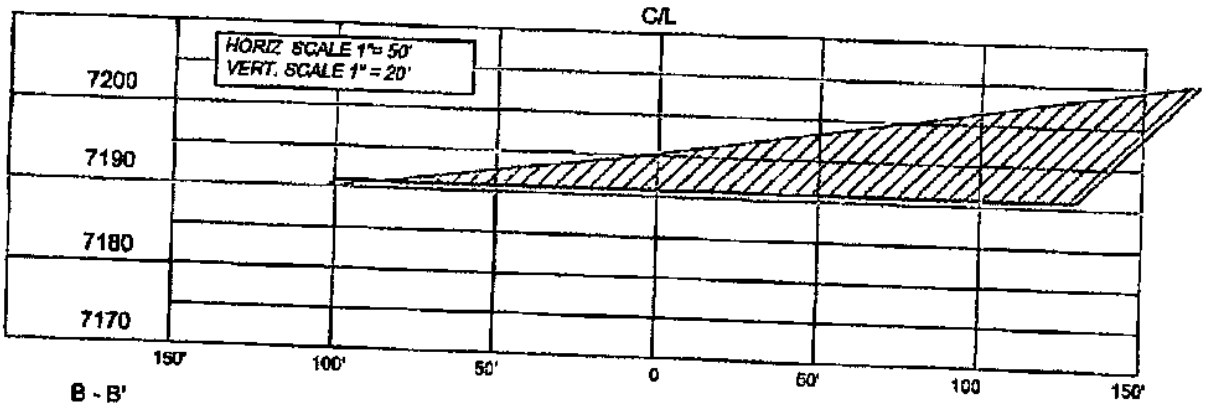
NOTES:

1. RESERVE PIT DIKE: TO BE 8' ABOVE DEEP SIDE (OVERFLOW-3' WIDE AND 1' ABOVE SHALLOW SIDE).
2. C.C.I. SURVEYS IS NOT LIABLE FOR UNDERGROUND UTILITIES OR PIPELINES. CONTRACTOR SHOULD CALL ONE-CALL FOR LOCATION OF ANY MARKED OR UNMARKED BURIED PIPLINES OR CABLES ON WELL PAD AND OR ACCESS ROAD AT LEAST TWO (2) WORKING DAYS PRIOR TO CONSTRUCTION.

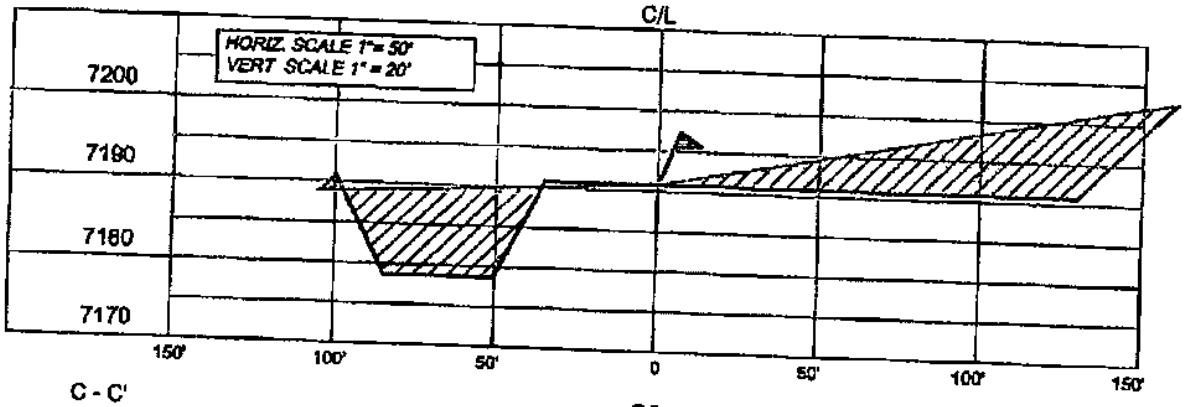
BURLINGTON RESOURCES OIL & GAS COMPANY LP

SAN JUAN 27-4 UNIT #52N
1,034' FNL, 1,336' FWL
SECTION 29, T27N, R04W, N.M.P.M.,
RIO ARRIBA COUNTY, NEW MEXICO
ELEV.: 7,190.8' NAVD88

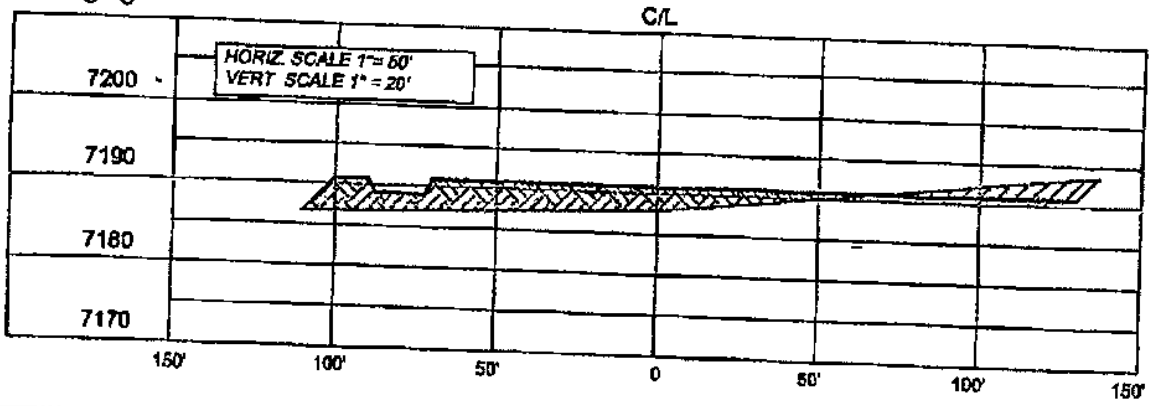
A - A'



B - B'



C - C'



NOTE: CCI IS NOT LIABLE FOR UNDERGROUND UTILITIES OR PIPELINES.

CONTRACTOR SHOULD CALL ONE-CALL FOR LOCATION OF ANY MARKED OR UNMARKED BURIED PIPELINES OR CABLES ON WELL PAD AND OR ACCESS ROAD PRIOR TO CONSTRUCTION

REVISIONS			
NO	DESCRIPTION	REVISED BY	DATE

CCI
1300 W BROADWAY
BLOOMFIELD, NM 87413
PHONE: (505)632-1777
CHENAULT CONSULTING INC.

Hydrogeological report for San Juan 27-4 #52N

Regional Hydrogeological context:

The San Jose Formation of Eocene age occurs in New Mexico and Colorado, and its outcrop forms the land surface over much of the eastern half of the central basin It overlies the Nacimiento Formation in the area generally south of the Colorado-New Mexico State line and overlies the Animas Formation in the area generally north of the State line

The San Jose Formation was deposited in various fluvial-type environments In general, the unit consists of an interbedded sequence of sandstone, siltstone, and variegated shale Thickness of the San Jose Formation generally increases from west to east (200 feet in the west and south to almost 2,700 feet in the center of the structural basin)

Ground water is associated with alluvial and fluvial sandstone aquifers Thus, the occurrence of ground water is mainly controlled by the distribution of sandstone in the formation The distribution of such sandstone is the result of original depositional extent plus any post-depositional modifications, namely erosion and structural deformation

Transmissivity data for San Jose Formation are minimal Values of 40 and 120 feet squared per day were determined from two aquifer tests (Stone et al, 1983, table 5) The reported or measured discharge from 46 water wells completed in San Jose Formation ranges from 0 15 to 61 gallons per minute and the median is 5 gallons per minute Most of the wells provide water for livestock and domestic use

The San Jose Formation is a very suitable unit for recharge from precipitation because soils that form on the unit are sandy and highly permeable and therefore readily adsorb precipitation However, low annual precipitation, relatively high transpiration and evaporation rates, and deep dissection of the San Jose Formation by the San Juan River and its tributaries all tend to reduce the effective recharge to the unit

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, 70 p

Site specific information:

Surface *hydrology*:	The site is located on top of Cereza Mesa drained by a number of small intermittent drainages
1st water-bearing formation:	San Jose, tertiary
Formation thickness:	700 feet
Underlying formation:	Nacimiento, tertiary
Depth to groundwater:	A number of nearby water wells in the valley bottom draw water from about 30–200-foot depth

New Mexico Office of the State Engineer
POD Reports and Downloads

Township 27N Range 04W Sections

NAD27 X Y Zone ☐ Search Radius

County ☐ Basin ☐ Number Suffix

Owner Name (First) (Last) ○ Non-Domestic ○ Domestic ◉ All

POD / Surface Data Report | Avg Depth to Water Report | Water Column Report

Clear Form | iWATERS Menu | Help

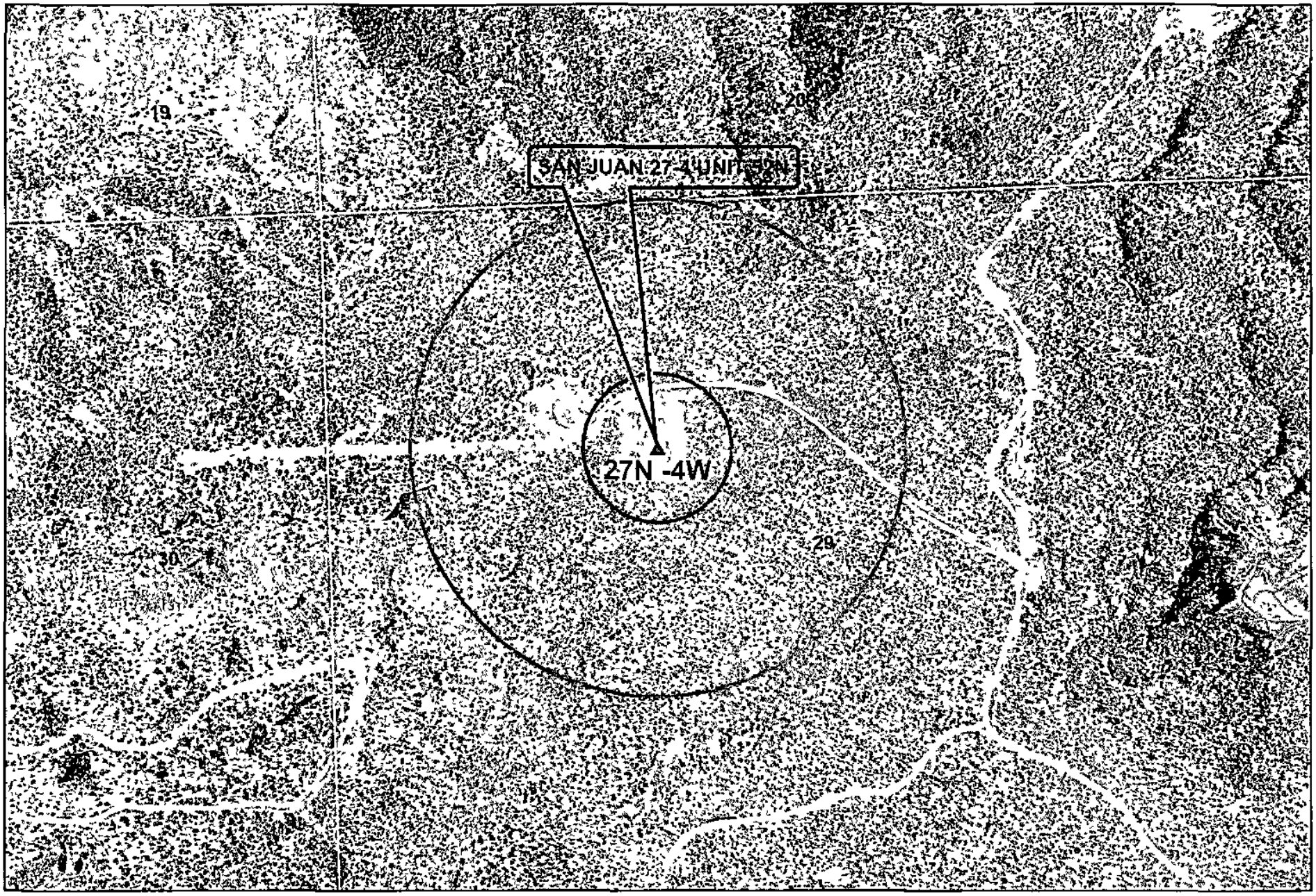
WATER COLUMN REPORT 07/01/2008

(Quarters are 1=NW 2=NE 3=SW 4=SE)
(Quarters are biggest to smallest)

POD Number	Tws	Rng	Sec	q	q	q	Zone	X	Y	Depth Well	Depth Water	Wate Colun
SJ 00048	27N	04W	01							143		
SJ 01049	27N	04W	18	4	2	2				15		
SJ 01205	27N	04W	34	4	4	4				3054	750	23(

Record Count 3

AERIAL MAP



Data Source
Aerial flown locally Sedgewick in 2005

300ft

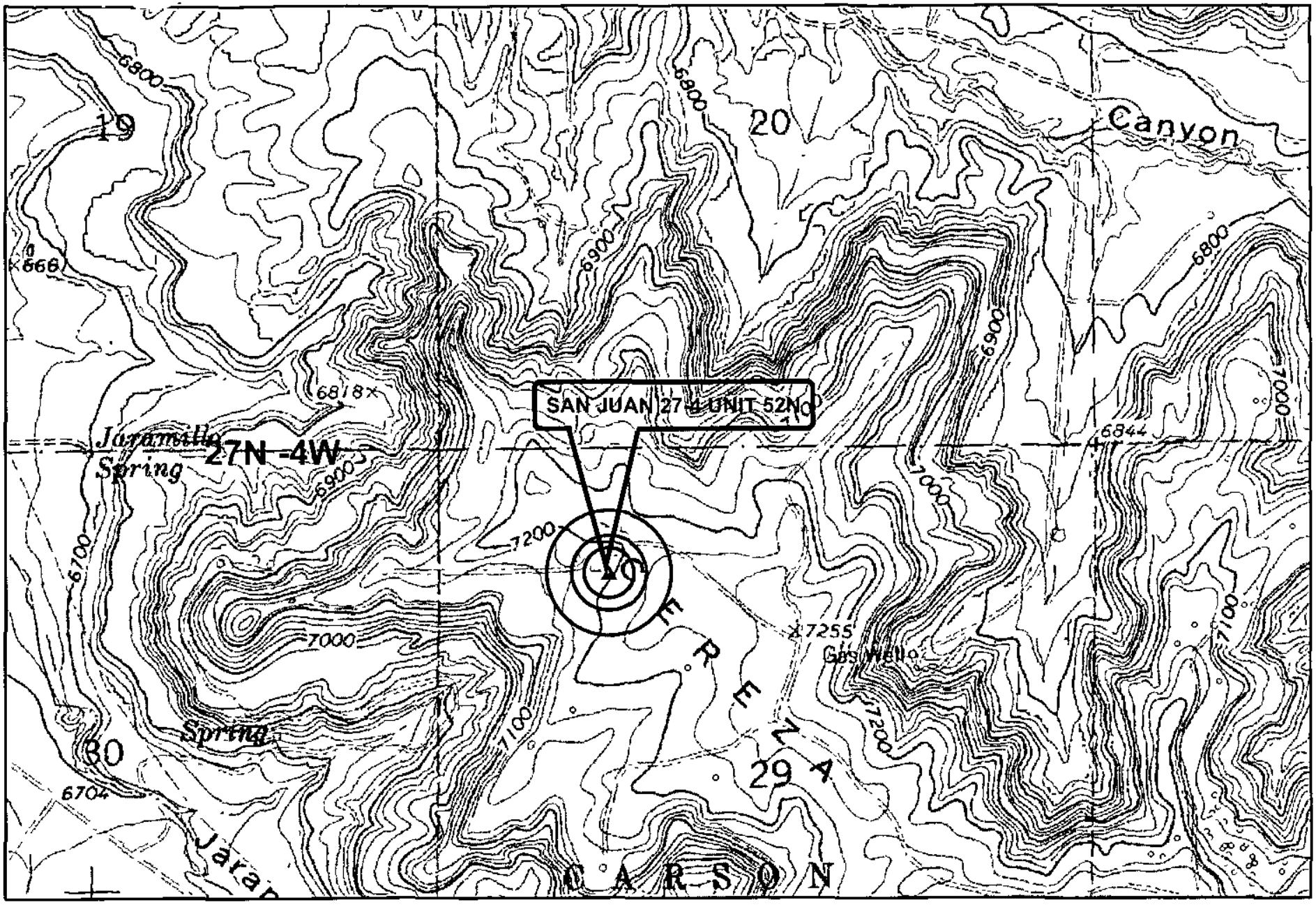
1000ft

0 300 600 1,200 Feet

1 6,000

NAD_1983_SP_
NM West_FIPS_3003
6/08

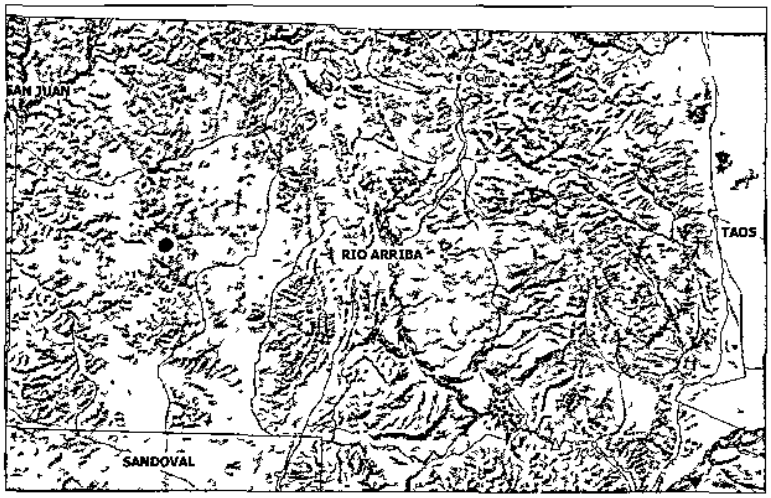
USGS TOPO MAP



SJ 27-4 Unit 52N Mines, Mills and Quarries Web Map

Mines, Mills & Quarries Commodity Groups

- Aggregate & Stone Mines
- Coal Mines
- Industrial Minerals Mines
- Industrial Minerals Mills
- Metal Mines and Mill Concentrate
- Potash Mines & Refineries
- Smelters & Refinery Ops.
- Uranium Mines
- Uranium Mills



SCALE 1 1,542,480

20 0 20 40 60

MILES

N

FEMA Map – 100 year floodplain

The FEMA Map for the San Juan 27-4 Unit 52N is unavailable due to its location being in the forest FEMA does not provide floodplain information for Forest Service land This well is not located near a wash or watercourse and is not in 100 year floodplain as visible on the topographic map

Siting Criteria Compliance Demonstrations

The San Juan 27-4 Unit 52N is not located in an unstable area The location is not over a mine and is not on the side of a hill The location of the excavated pit material will not be located within 300' of any continuously flowing watercourse or 200' from any other watercourse

Burlington Resources Oil & Gas Company, LP
San Juan Basin
Pit Design and Construction Plan

In accordance with Rule 19 15 17 the following information describes the design and construction of temporary pits on Burlington Resources Oil & Gas Company, LP (BR) locations This is BR's standard procedure for all temporary pits A separate plan will be submitted for any temporary pit which does not conform to this plan

General Plan

1 BR will design and construct a temporary pit to contain liquids and solids and prevent contamination of fresh water and protect public health and environment
2 Prior to constructing the pit, topsoil will be stockpiled in the construction zone for later use in restoration
3 BR will post a well sign, not less than 12" by 24", on the well site prior to construction of the temporary pit The sign will list the operator on record as the operator, the location of the well site by unit letter, section, township range, and emergency telephone numbers
4 BR shall construct all new fences utilizing 48" steel mesh field-fence (hogwire) on the bottom with a single strand of barbed wire on top T-posts shall be installed every 12 feet and corners shall be anchored utilizing a secondary T-post Temporary pits will be fenced at all times excluding drilling or workover operations, when the front side of the fence will be temporarily removed for operational purposes
5 BR shall construct the temporary pit so that the foundation and interior slopes are firm and free of rocks, debris, sharp edges or irregularities to prevent liner failure
6 BR shall construct the pit so that the slopes are no steeper than two horizontal feet to 1 vertical foot
7 Pit walls will be walked down by a crawler type tractor following construction
8 All temporary pits will be lined with a 20-mil, string reinforced, LLDPE liner, complying with EPA SW-846 method 9090A requirements
9 Geotextile will be installed beneath the liner when rocks, debris, sharp edges or irregularities cannot be avoided
10 All liners will be anchored in the bottom of a compacted earth-filled trench at least 18 inches deep
11 BR will minimize liner seams and orient them up and down, not across a slope Factory seams will be used whenever possible BR will ensure all field seams are welded by qualified personnel Field seams will be overlapped four to six inches and will be oriented parallel to the line of maximum slope BR will minimize the number of field seams in corners and irregularly shaped areas
12 The liner shall be protected from any fluid force or mechanical damage through the use of mud pit slides, or a manifold system
13 The pit shall be protected from run-off by constructing and maintaining diversion ditches around the location or around the perimeter of the pit in some cases
14 The volume of the pit shall not exceed 10 acre-feet, including freeboard
15 Temporary blow pits will be constructed to allow gravity flow to discharge into lined drill pit
16 The lower half of the blow pit (nearest lined pit) will be lined with the same 20 mil liner The upper half of the blow pit will remain unlined as allowed in Rule 19 15 17 11 F 11
17 BR will not allow freestanding liquids to remain on the unlined portion of a temporary blow pit

Burlington Resources Oil & Gas Company, LP
San Juan Basin
Maintenance and Operating Plan

In accordance with Rule 19 15 17 the following information describes the operation and maintenance of temporary pits on Burlington Resources Oil & Gas Company, LP (BR) locations This is BR's standard procedure for all temporary pits A separate plan will be submitted for any temporary pit which does not conform to this plan

General Plan

1 BR will operate and maintain a temporary pit to contain liquids and solids and prevent contamination of fresh water and protect public health and environment
2 BR will conserve drilling fluids by transferring liquids to pits ahead of the rigs whenever possible All other drilling fluids will be disposed at Basin Disposal Inc , permit # NM-01-005
3 BR will not discharge or store any hazardous waste in any temporary pit
4 If any pit liner's integrity is compromised, or if any penetration of the liner occurs above the liquid's surface, then BR shall notify the Aztec Division office by phone or email within 48 hours of the discovery and repair the damage or replace the liner
5 If a leak develops below the liquid's level, BR shall remove all liquids above the damaged liner within 48 hours and repair the damage or replace the liner BR shall notify the Aztec Division office by phone or email within 48 hours of the discovery for leaks less than 25 barrels BR shall notify the Aztec Division office as required pursuant to Subsection B of 19 15 3 116 NMAC shall be reported within twenty-four (24) hours of discovery of leaks greater than 25 barrels In addition, immediate verbal notification pursuant to Subsection B, Paragraph (1), and Subparagraph (d) of 19 15 3 116 NMAC shall be reported to the division's Environmental Bureau Chief
6 The liner shall be protected from any fluid force or mechanical damage through the use of mud pit slides, or a manifold system
7 The pit shall be protected from run-off by constructing and maintaining diversion ditches around the location or around the perimeter of the pit in some cases
8 BR shall immediately remove any visible layer of oil from the surface of the temporary pit after cessation of a drilling or workover operation Oil absorbent booms will be utilized to contain and remove oil from the pit's surface An oil absorbent boom will stored on-site until closure of pit
9 Only fluids generated during the drilling or workover process may be discharged into a temporary pit
10 BR will maintain the temporary pit free of miscellaneous solid waste or debris
11 During drilling or workover operations, BR will inspect the temporary pit at least once daily to ensure compliance with this plan Inspections will be logged in the IADC reports BR will file this log with the Aztec Division office upon closure of the pit
12 After drilling or workover operations, BR will inspect the temporary pit weekly so long as liquids remain in the temporary pit A log of the inspections will be stored at BR's office electronically and will be filed with the Aztec Division office upon closure of the pit
13 BR shall maintain at least two feet of freeboard for a temporary pit
14 BR shall remove all free liquids from a temporary pit within 30 days from the date the operator releases the drilling or workover rig
15 BR shall remove all free liquids from a cavitation pit within 48 hours after completing cavitation BR may request additional time to remove liquids from the Aztec Division office if it is not feasible to remove liquids within 48 hours

Burlington Resources Oil & Gas Company, LP
San Juan Basin
Closure Plan

In accordance with Rule 19.15.17.12 NMAC the following information describes the closure requirements of temporary pits on Burlington Resources Oil & Gas Company, LP (BR) locations. This is BR's standard procedure for all temporary pits. A separate plan will be submitted for any temporary pit which does not conform to this plan.

All closure activities will include proper documentation and be available for review upon request and will be submitted to OCD within 60 days of closure of pit closure. Closure report will be filed on C-144 and incorporate the following:

- Details on Capping and Covering, where applicable.
- Plot Plan (Pit Diagram)
- Inspection Reports
- Sampling Results
- C-105
- Copy of Deed Notice will be filed with County Clerk

General Plan:

1. All free standing liquids will be removed at the start of the pit closure process from the pit and disposed of in a division–approved facility or recycle, reuse or reclaim the liquids in a manner that the appropriate division district office approves.
2. The preferred method of closure for all temporary pits will be on-site burial, assuming that all the criteria listed in sub-section (B) of 19.15.17.13 are met.
3. The surface owner shall be notified of BR proposed closure plan using a means that provides proof of notice i.e., certified mail, return receipt requested.
4. Within 6 months of the Rig Off status occurring BR will ensure that temporary pits are closed, re-contoured, and reseeded.
5. Notice of Closure will be given to the Aztec Division office between 72 hours and one week of closure via email, or verbally. The notification of closure will include the following:
    i. Operator's name
    ii. Location by Unit Letter, Section, Township, and Range. Well name and API number.

6. Liner of temporary pit shall be removed above "mud level" after stabilization. Removal of liner will consist of manually or mechanically cutting liner at mud level and removing all remaining liner. Care will be taken to remove "All" of the liner i.e., edges of liner entrenched or buried. All excessive liner will be disposed of at a licensed disposal facility.
7. Pit contents shall be mixed with non-waste containing, earthen material in order to achieve the solidification process. The solidification process will be accomplished using a combination of natural drying and mechanically mixing. Pit contents will be mixed with non-waste, earthen material to a consistency that is deemed a safe and stable. The mixing ratio shall not exceed 3 parts clean soil to 1 part pit contents.
8. A five point composite sample will be taken of the pit using sampling tools and all samples tested per Subsection B of 19.15.17.13(B)(1)(b). In the event that the criteria are not met, all contents will be handled per Subparagraph (a) of Paragraph (1) of Subsection B of 19.15.17.13 i.e., Dig and haul.

Components	Tests Method	Limit (mg/Kg)
Benzene	EPA SW-846 8021B or 8260B	0.2
BTEX	EPA SW-846 8021B or 8260B	50
TPH	EPA SW-846 418.1	2500
GRO/DRO	EPA SW-846 8015M	~~500~~
Chlorides	EPA 300.1	1000 ~~500~~

9 Upon completion of solidification and testing, the pit area will be backfilled with compacted, non-waste containing, earthen material A minimum of four feet of cover shall be achieved and the cover shall include one foot of suitable material to establish vegetation at the site, or the background thickness of topsoil, whichever is greater
10 Re-contouring of location will match fit, shape, line, form and texture of the surrounding Re-shaping will include drainage control, prevent ponding, and prevent erosion Natural drainages will be unimpeded and water bars and/or silt traps will be place in areas where needed to prevent erosion on a large scale Final re-contour shall have a uniform appearance with smooth surface, fitting the natural landscape
11 Notification will be sent to OCD when the reclaimed area is seeded
12 BR shall seed the disturbed areas the first growing season after the operator closes the pit Seeding will be accomplished via drilling on the contour whenever practical or by other division-approved methods BLM or Forest Service stipulated seed mixes will used on federal lands Vegetative cover will equal 70% of the native perennial vegetative cover (un-impacted) consisting of at least three native plant species, including at least one grass, but not including noxious weeds, and maintain that cover through two successive growing seasons Repeat seeding or planting will be continued until successful vegetative growth occurs
13 The temporary pit will be located with a steel marker, no less than four inches in diameter, cemented in a hole three feet deep in the center of the onsite burial upon the abandonment of all the wells on the pad The marker will be flush with the ground to allow access of the active well pad and for safety concerns The marker will include a threaded collar to be used for future abandonment The top of the marker will contain a welded steel 12" square plate that indicates the onsite burial of the temporary pit The plate will be easily removable and a four foot tall riser will be threaded into the top of the collar marker and welded around the base with the operator's information at the time of all wells on the pad are abandoned The operator's information will include the following Operator Name, Lease Name, Well Name and number, Unit Number, Section, Township, Range and an indicator that the marker is an onsite burial location

Tafoya, Crystal

From Tafoya, Crystal
Sent Tuesday, July 01, 2008 7 33 AM
To 'jreidinger@fs fed us'
Cc 'brandon powell@state nm us'
Subject. San Juan 27-4 Unit 52N

Good Morning John,

The requirements of the new OCD pit rule 17 requires notification to the surface owner that we are planning to close the temporary pit on-site at the subject location Please let me know if you have any questions

Thank you,

Crystal L Tafoya
Regulatory Technician
ConocoPhillips Company
San Juan Business Unit
Phone (505) 326-9837
Email Crystal Tafoya@conocophillips com