

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
OMB No. 1004-0136
Expires November 30, 2000

APPLICATION FOR PERMIT TO DRILL OR REENTER

1a. Type of Work: <input checked="" type="checkbox"/> DRILL <input type="checkbox"/> REENTER		5. Lease Serial No. NMSF078640 ✓
1b. Type of Well: <input type="checkbox"/> Oil Well <input checked="" type="checkbox"/> Gas Well <input type="checkbox"/> Other <input type="checkbox"/> Single Zone <input checked="" type="checkbox"/> Multiple Zone		6. If Indian, Allottee or Tribe Name
2. Name of Operator CONOCO INC		7. If Unit or CA Agreement, Name and No.
Contact: VICKI WESTBY E-Mail: Vicki.R.Westby@conoco.com		8. Lease Name and Well No. SAN JUAN 28-7 155F
3a. Address PO BOX 2197, DU 3084 HOUSTON, TX 77252-2197	3b. Phone No. (include area code) Ph: 915.686.5799 Ext: 5799	9. API Well No. 30-039-27037
4. Location of Well (Report location clearly and in accordance with any State requirements. *) At surface NWSW 20' FSL 1980' FSL At proposed prod. zone		10. Field and Pool, or Exploratory BLANCO MESA VERDE Basin Dakota
14. Distance in miles and direction from nearest town or post office*		11. Sec., T., R., M., or Blk. and Survey or Area N Sec 22 T27N R7W Mer NMP
15. Distance from proposed location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any)	16. No. of Acres in Lease OL CONO. DIV. DIST. 3	12. County or Parish RIO ARRIBA
18. Distance from proposed location to nearest well, drilling, completed, applied for, on this lease, ft.	19. Proposed Depth 7600 MD	13. State NM
21. Elevations (Show whether DF, KB, RT, GL, etc.) 6667 GL	22. Approximate date work will start	17. Spacing Unit dedicated to this well 320.00 W/2
23. Estimated duration		20. BLM/BIA Bond No. on file

24. Attachments

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No. 1, shall be attached to this form:

1. Well plat certified by a registered surveyor.
2. A Drilling Plan.
3. A Surface Use Plan (if the location is on National Forest System Lands, the SUPO shall be filed with the appropriate Forest Service Office).
4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above).
5. Operator certification
6. Such other site specific information and/or plans as may be required by the authorized officer.

25. Signature (Electronic Submission)	Name (Printed/Typed) VICKI WESTBY	Date 06/17/2002
Title AUTHORIZED SIGNATURE		
Approved by (Signature) <i>[Signature]</i>	Name (Printed/Typed)	Date 6/20/02
Title AFM	Office FEO	

Application approval does not warrant or certify the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.
Conditions of approval, if any, are attached.

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

ENTERED
ACROSS

Additional Operator Remarks (see next page)

Electronic Submission #12088 verified by the BLM Well Information System
For CONOCO INC, sent to the Farmington
Committed to AFMSS for processing by Lucy Bee on 06/20/2002 (02LXB0964AE)

JUL 22 2002

** REVISED ** REVISED ** REVISED ** REVISED ** REVISED ** REVISED ** REVISED ** REVISED **

District I
PO Box 1980, Hobbs, NM 88241-1980

District II
PO Drawer 00, Artesia, NM 88211-0719

District III
1000 Rio Brazos Rd., Aztec, NM 87410

District IV
PO Box 2088, Santa Fe, NM 87504-2088

State of New Mexico
Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION
PO Box 2088
Santa Fe, NM 87504-2088

Form C-102
Revised February 21, 1994
Instructions on back
Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-039-27037		² Pool Code / 71599		³ Pool Name / BASIN DAKOTA	
⁴ Property Code 016608		⁵ Property Name SAN JUAN 28-7 UNIT			⁶ Well Number 155F
⁷ GRID No. 005073		⁸ Operator Name CONOCO, INC.			⁹ Elevation 6667'

¹⁰ Surface Location

UT or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
N	22	27N	7W		20	SOUTH	1980	WEST	RIO ARriba

¹¹ Bottom Hole Location If Different From Surface

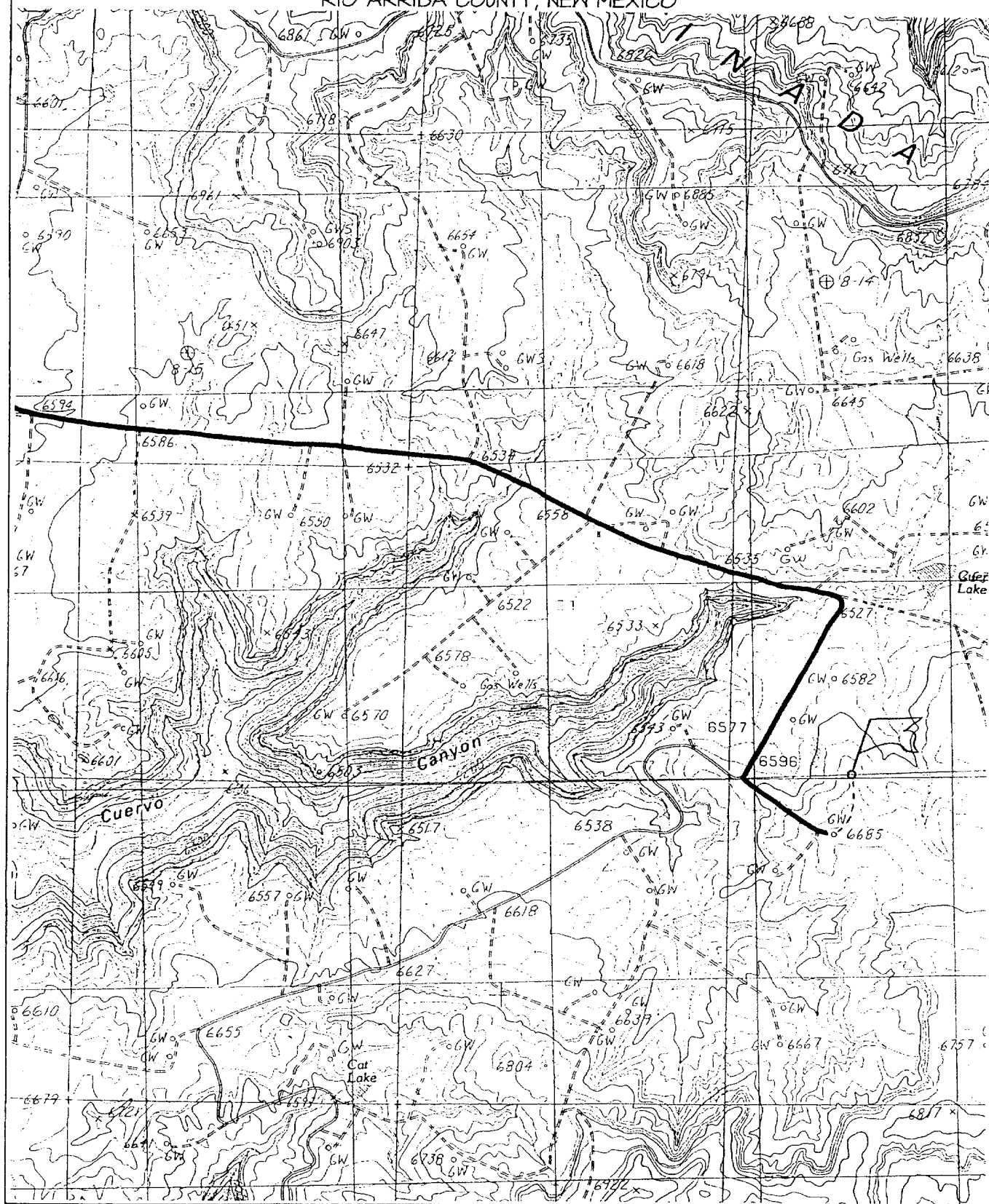
UT or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County

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

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

<p>¹⁶</p> <p>5283.30'</p> <p>1035'</p> <p>1830'</p> <p>155E</p> <p>30-039-26460</p> <p>SF-078640</p> <p>5379.66'</p> <p>22</p> <p>30-039-20430</p> <p>1650'</p> <p>155F</p> <p>1650'</p> <p>1980'</p> <p>5289.24'</p>	<p>¹⁷ OPERATOR CERTIFICATION</p> <p>I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief</p> <p><i>Vicki R. Westby</i></p> <p>Signature</p> <p>Vicki R. Westby</p> <p>Printed Name</p> <p>Sr. Title Analyst</p> <p>Title</p> <p>April 5, 2002</p> <p>Date</p> <p>¹⁸ SURVEYOR CERTIFICATION</p> <p>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.</p> <p>Survey Date: FEBRUARY 26, 2002</p> <p>Signature and Seal of Professional Surveyor</p> <p><i>JASON C. EDWARDS</i></p> <p>Certificate Number 15269</p>
--	---

20' FSL & 1980' FWL, SECTION 22, T27N, R7W, N.M.P.M.
RIO ARriba COUNTY, NEW MEXICO



DRILLING PROGRAM - SAN JUAN 28-7 155F



San Juan Business Unit

Well: SAN JUAN 28-7 155F Area: EAST AFE #s: 4219 AFE \$: 336484.4

Field EAST 28-7 Rig: Key 43 State: NM County Rio Arriba API

Location: Surface

Lat. 36.551875 Long: -107.56423 Footage X: 1980 FWL Footage 20 FSL Sec.: 22 Survey: 27N Abstract: 7W

ERA (Emergency Response Area):

Lat: Long:

Formation Data Ground Level 6667 FT Assume KB 6680 FT *Not Drilled*

Formation Call & Casing Points	Depth (TVD in Ft)	BHP (PSIG)	BHT	Remarks
Surface Casing	200			Severe lost circulation is possible. 9 5/8", 36 ppf, J-55, STC casing. Circulate cement to surface.
OJAM	2255			Possible water flows
KRLD	2405			
FRLD	2795			Possible gas
PCCF	3045			
LEWS	3245			
Intermediate Casing	3345			7", 20 ppf, J-55, STC Casing. Circulate cement to surface.
CHRA	3960			
CLFH	4755			Gas; possibly wet
MENF	4790			Gas
PTLK	5335			Gas
MNCS	5635			
GLLP	6520			
GRHN	7250			Gas possible, highly fractured
TWLS	7340			Gas
CBBO	7470			Gas
Total Depth	7600			4 1/2", 10.5 ppf, J-55, STC casing. Circulate cement a minimum of 100' inside the previous casing string. No open hole logs. Cased hole TDT with GR to surface.

Logging Program :

Intermediate Logs: ☐ Log only if show ☐ GR / ILD ☐ Triple Combo ☐ Other

TD Logs: ☐ Triple Combo ☐ Dipmeter ☐ RFT ☐ Sonic ☐ VSP ☒ TDT ☐ Other

Additional Information:

Comments:

Printed On: 06/14/2002 2:11:38 PM



Well: San Juan 28-7 155F
County: San Juan
Area: East 28-1
Rig: Key Rig 43

Company: Conoco, Inc.
Engineer: Mr. Tom Schaefer
Date: 14-Jun-02

Surface Casing:

83 sx Type III Cement + 2%bwoc Calcium Chloride + 0.25 lbs/sk Cello Flake + 59.2% H₂O = 144 ft³

Slurry Weight:	13.5	ppg
Slurry Yield	1.73	cf/sk
Amount of Mix Water	9.08	gps
Pump Time	4:22	
Compressives		
8 hrs @ 80 F	440	psi
24 hrs @ 80 F	1000	psi
48 hrs @ 80 F	1400	psi

Intermediate Casing:

Slurry 1 423 sx Premium Lite Cement + 2% bwoc Calcium Chloride + 0.25 lbs/sc Cello Flake + 8% bwoc Bentonite + 115.5% H₂O = 943 ft³

Slurry 2 73 sx Type III Cement + 2% bwoc Calcium Chloride + 0.25 lbs/sk Cello Flake + 59.2% H₂O = 103 ft³

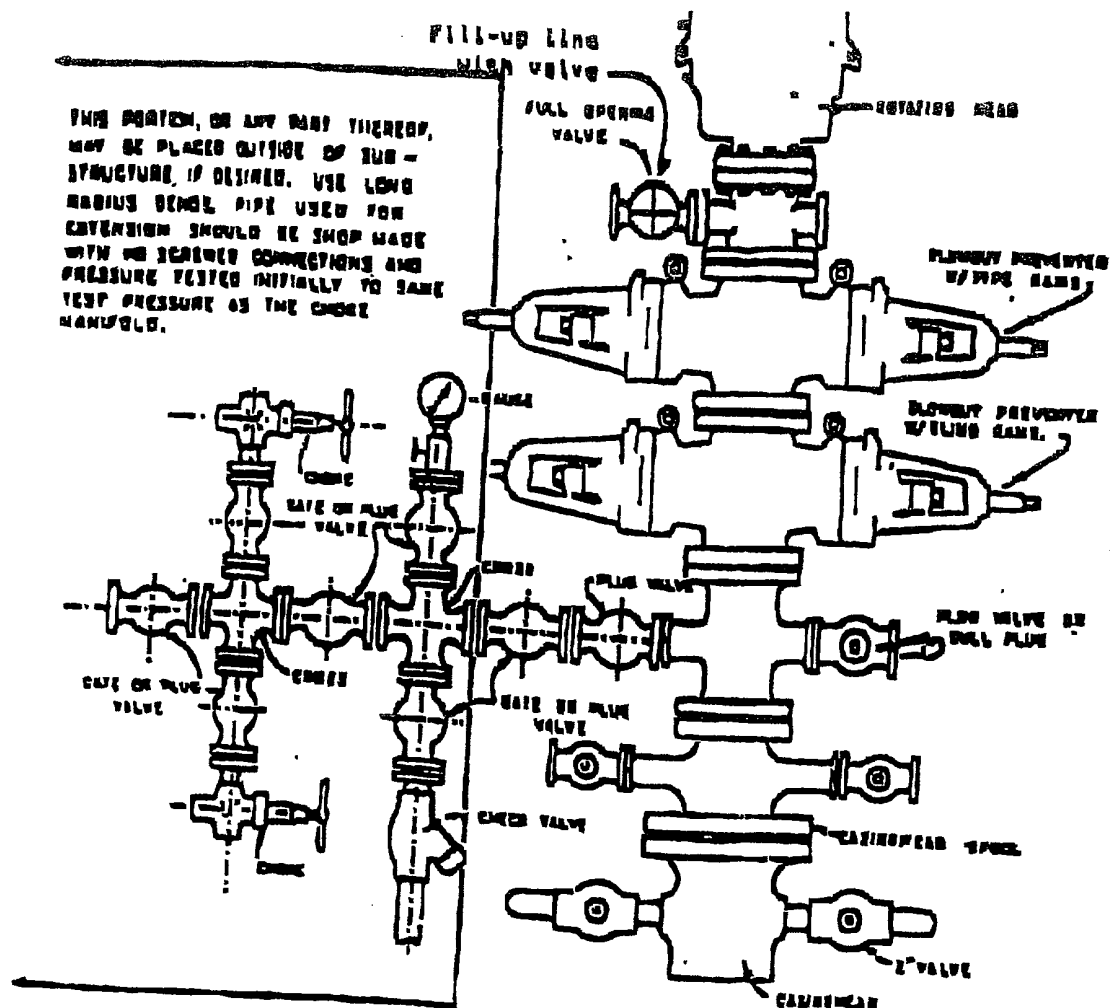
Slurry 1			Slurry 2		
Slurry Weight:	12.1	ppg	Slurry Weight:	14.5	ppg
Slurry Yield	2.23	cf/sk	Slurry Yield	1.41	cf/sk
Amount of Mix Water	12.05	gps	Amount of Mix Water	6.67	gps
Pump Time	3:00		Pump Time	2:15	
Compressives			Compressives		
8 hrs @ 80 F		psi	8 hrs @ 80 F	800	psi
24 hrs @ 80 F	250	psi	24 hrs @ 80 F	2150	psi
48 hrs @ 80 F	525	psi	48 hrs @ 80 F	3625	psi

= 1056 ft³

Production Casing:

336 sx Premium Lite High Strength + 0.25 lbs/sk Cello Flake + .2% bwoc CD-32 + 0.65% bwoc FL-62 + 105.4% H₂O = 679 ft³

Slurry Weight:	12.5	ppg
Slurry Yield	2.02	cf/sk
Amount of Mix Water	11	gps
Pump Time	3:00	
Compressives		
8 hrs @ 140 F		psi
24 hrs @ 140 F	1600	psi
48 hrs @ 140 F	2000	psi



BLOWOUT PREVENTER HOOKUP

Drilling contractors used in the San Juan Basing supply 3000 psi equipment, but cannot provide annular preventors because of sub-structure limitations. Maximum anticipated surface pressures for this well will not exceed the working pressure of the proposed BOP system. Please see the attached BOP diagram details 2000 psi equipment according to Onshore Order No. 2 even though the equipment will test to 3000 psi. The 2000 psi system allows isolation of the annular preventor and fulfills your requirements (note diagram No. 1). In addition, the following equipment will comprise the 3000 psi system:

1. Two rams with one blind and one pipe ram.
2. Kill line (2 inch maximum).
3. One kill line valve.
4. One choke line valve.
5. Two chokes (reference diagram No. 1).
6. Upper kelly cock valve with handle.
7. Safety valve and subs to fit all drill strings in use.
8. Two-inch minimum choke line.
9. Pressure gauge on choke manifold.
10. Fill-up line above the upper most preventor.
11. Rotating head.

Cathodic Protection System Description

Anode Bed Type	Deep Well	
Hole Size	8"	
Hole Depth	200' - 500'	As required to place anodes below moisture and in low resistance strata.
Surface Casing	8" Diam., \geq 20' Length. Cemented In Annular Space	When needed, casing will be installed at an adequate depth to control ground water flow. Casing will extend a minimum of 2' above grade, be surrounded by a concrete pad, and sealed with a PVC cap. Steel casing will be substituted when boulders are encountered.
Vent Pipe	1" Diam. PVC	Vent pipe will extend from bottom of hole, through top of casing cap, and sealed with a 1" perforated PVC cap.
Type Of Anodes	Cast Iron Or Graphite	
Number Of Anodes	8 - 20	Sufficient quantity to achieve a total anode bed resistance of <1 ohm and a design life \geq 20 years.
Anode Bed Backfill	Lorasco SW Calcined Petroleum Coke Breeze	Installed from bottom of hole to 10' above top anode.
Anode Junction Box	8 - 20 Circuit Fiberglass Or Metal	Sealed to prevent insect & rodent intrusion.
Current Splitter Box	2 - 5 Circuit Metal	Sealed to prevent insect & rodent intrusion.
DC / AC Cable	DC: #2, #4, #6, #8 Stranded Copper (One Size Or Any Combination Of) With High Molecular Weight Polyethylene (HMWPE) Insulation. AC: #8 Stranded Copper HMWPE	18" depth in typical situation, 24" depth in roadway, & 36" depth in arroyos and streams. EXCEPTION: If trenching is in extremely hard substratum, depth will be 8 - 12" with cable installed in conduit. Installed above foreign pipelines if 1' clearance is available. If not, installed under foreign pipeline with 1' clearance (AC cable always installed under foreign pipeline in conduit).
Power Source	1) Rectifier 2) Solar Power Unit 3) Thermoelectric Generator	Choice of power source depending on availability of AC & other economic factors.
External Painting	Color to be selected according to BLM specifications.	Paint applied to any surface equipment associated with the CP system which can reasonably be painted.