Form 3160-3 FORM APPROVED (July 1992) (Other instructions on OMB NO. 1004-0136 UNITED STATES reverse side) Expires February 28, 1995 DEPARTMENT OF THE INTERIOR S. LEASE DSIGNATION AND SERIAL NO BUREAU OF LAND MANAGEMENT -SF NN 078194 APPLICATION FOR PERMIT TO DRILL OR DEEPEN 6 IF INDIAN, ALLOTTEE OR TRIBE NAME Ia. TYPE OF WORK DRILL 🛛 DEEPEN 7 UNIT AGRREEMENT NAME b. TYPE OF WELL Ludwick LS OIL WELL MULTIPLE RINGLE OTHER 8. FARM OR LEASE NAME WELL NO 2. NAME OF OPERATOR Conoco Inc. 9. API WEL!, NO 30-045 8. ADDRESS AND TELEPHONE NO -30/ 10 Desta Dr. Ste 430E, Midland, Tx. 79705-4500 10. PIELD AND POOL, OR WILDCAT 4 LOCATION OF WELL (Report location clearly and in accordance with any Skite requirement At surface Blanco Mesa Verde MAR 2000 1285' FNL & 2270 FEL 11. SEC, T., R., M., OR BLK.

AND SURVEY OR AREA At proposed prod. zone Sec. 31, T30N, R10W 1285' FNL & 2270' FEL OLCONLON 14. DISTANCE IN MILES AND DIRECTION FROM NEAEST TOWN OR POST OFICE 12 COUNTY OR PARISH 13. STATE San Juan NM 5. DISTANCE FROM PROPOSED® 16 NO OF ACRES IN LEASE LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drig, unit line, if Any)
DISTANCE FROM PROPOSED LOCATION* NO. OF ACRES ASSIGNED TO THIS WELL. - 24 5 314,52 19. PROPOSED DEPTH 20. ROTARY OR CABLE TOOLS TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT. 5580 Rotary 21. ELEVATIONS (Show whether DF, RT, GR, etc.) 22. APPROX, DATE WORK WILL START 6061 3/1/00 23 PROPOSED CASING AND CEMENTING PROGRAM SIZE OF HOLE GRADE, SIZE OF CASING WEIGHT PER POOT SETTING DEPTH QUANTITY OF CEMENT 12-1/4" WC-50, 9-5/8" 32.5# 2501 145 sxs, circ. 8-3/4" WC-50, 7" 20# 2025 250 sxs, circ. 6-1/4" WC-50, 4-1/2" 10.5# 5280' 360 sxs, tol @ 1825' It is proposed to drill a vertical wellbore to the Blanco Mesaverde Pool. An NOS was filed 10/11/99. The well will be drilled and equipped according to the following additional attachments: 1. Well Location & Acreage Dedication Plat (C-102). 2. Proposed Well Plan Outline. This action is cubject to technical and 3. Cementing Plan. procedural raylew parausat to 43 CFR 3185.3 4. Blowout Preventer Hookup. and appeal pursuant to 43 CFR 3165.4. 5. Surface Use Plan with Production Facility layout. 6. Temporary Pipeline Tie Specifications. DOUGHAS GLERATURES AUTHORIZED ARE This application includes ROW's for the well pad, cathodic protection and pipeline. TOWN TO COMPLIANCE WITH ATTACHED "GENERAL REQUIFEMENTS" IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM; If proposal is to deepen give data on present productive zone and proposed new productive zone. If proposal is to drill or deepen directionally, give pertinent data on subsurface locations and measured and true vertical depths. Give blowout preventer program, if any, Jo Ann Johnsonn nson Sr. Property Analyst 2/4/00 DATE (This space for Federal or State office USE) PERMIT NO APPROVAL DATE Application approval does not warrant or certify that 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 /s/ Charlie Beecham MAR 20 2000 MACO APPROVED BY DATE

*See Instructions On Reverse Side

Title 18 U.S.C. Section 1001, makes 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 any matter within its lurisdiction.

OKCTF

O:strict I PO 80x 1980, Hobbs, NM 88241-1980

State of New Mexico Energy, Minerals & Natural Resources Department

Form C-10 Revised February 21, 195 Instructions on bac Submit to Appropriate District Offic

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

OIL CONSERVATION DIVISION PO Box 2088

State Lease - 4 Copis Fee Lease - 3 Copie

AMENDED REPOR

District III 1000 Rio Brazos Rd. Aztec, NM 87410 Santa Fe, NM 87504-2088 Oistrict IV PO Box 2088, Santa Fe, NM 87504-2088 WELL LOCATION AND ACREAGE DEDICATION PLAT API Number Pool Code Pool Name 30045 72319 BLANCO MESAVERDE Property Code Property Name Well Number LUDWICK LS 22398 BC. 'OGRID No. *Operator Name 'Elevation 005073 CONOCO, INC. 6061 ¹⁰ Surface Location LL or lot no. Section Township Lot Ion rest from the North/South line Feet from the East/West line В 31 **30N** 10W 1285 NORTH 2270 EAST SAN JUAN 11 Bottom Hole Location If Different From Surface UL or lot no. Section Fast from the North/South line Feet from the East/West 11/14 Dedicated Acres Joint or Infill " Corsolidation Code ¹⁵ Order No. 314.52 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 1212.42 1303.50 OPERATOR CERTIFICATION 2507.00 hereby certify that the information contained herein is the and complete to the best of my knowledge and belief 285 LOT 8 LOT LOT 6 LOT 2270' 2618. Signature Mike L. Mankin Printed Name LOT LOT 11 LOT 12 Right-of-Way Agent Title 64 1.31-44 Date Θ SURVEYOR CERTIFICATION I hereby contify that the well location shown on this plat also plotted from field notes of actual surveys made by so or under my supervision, and that the same is that ord connect to the best of my belief. LOT 16 LOT 15 LOT 14 LOT 13 OCTOBER 15. 2507.00 1999 LOT 17 LOT 18 LOT 19 LOT 20 1156.32 1284.36 2644.62 Certificate Number 6857

Form 3160-3 (July 1992)

UNITED STATES DEPARTMENT OF THE INTERIOR

(Other instructions on reverse side)

FORM APPROVED OMB NO. 1004-0136 Expires February 28, 1995

	5. LEASE DSIGNATION AND SERIAL NO								
	NM 078194								
APPL	6 IF INDIAN, ALLOTTEE OR TRIBE NAMI								
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D) b. TYPE OF WELL	RILL 🛛		7 UNIT AGRREEMENT NAME						
	GAS WELL OTHER	'U: 🗀	Ludwick LS						
2. NAME OF OPERATOR		8. FARM OR LEASE NAME WELL NO							
	8C								
a. Address and telephone N	9. API WELL NO								
10 Desta	10 5151 5								
4 LOCATION OF WEI At surface	10. FIELD AND POOL, O								
		1285' FNL	'0' FEL		Blanco Mesa Verde				
At proposed prod. zo		1285' FNL	& 227	0' FEL.		Sec, T., R., M., OR BLK. AND SURVEY OR AREA Sec. 31, T30N, R10W			
14. DISTANCE IN MILES	AND DIRECTION FROM NEA	EST TOWN OR PO	ST OFIC	E*	·				
						12 COUNTY OR PARISH	13. STATE		
5. DISTANCE FROM PROP	OSED*		16 NO	OF ACRES IN LEASE	San Juan	NM			
LOCATION TO NEARES PROPERTY OR LEASE (Also to nearest dr					TO T	O OF ACRES ASSIGNED O THIS WELL			
TO NEAREST WELL O	POSED LOCATION*		19. PR	OPOSED DEPTH	20 POT : 1	320			
OR APPLIED FOR, ON TE	IIS LEASE, FT,		5580'			ROTARY OR CABLE TOOLS			
21. ELEVATIONS (Show wi	nether DF, RT, GR, etc)		L	3300	L	Rotary 22. APPROX. DATE WORK WILL START*			
23		6061'				3/1/00			
23		PROPOSED CASI	NG ANI	CEMENTING PROGRAM		3/1/00	<u> </u>		
SIZE OF HOLE	GRADE, SIZE OF CASING	WEIGHT PER FO		SETTING DEPTH	, T — — —				
12-1/4"	WC-50, 9-5/8"	32.5#		250'	<u> </u>	QUANTITY OF CEMENT			
8-3/4"	WC-50, 7"	20#		2025'		145 sxs, circ.			
6-1/4"	WC-50, 4-1/2"	10.5#				250 sxs, circ.			
It is proposed to drill	a vertical wellbore to the		1.5	5280'	<u> </u>	360 sxs, tol @ 182	5'		
equipped according to the following additional attachments: 1. Well Location & Acreage Dedication Plat (C-102). 2. Proposed Well Plan Outline. 3. Cementing Plan. 4. Blowout Preventer Hookup. 5. Surface Use Plan with Production Facility layout. 6. Temporary Pipeline Tie Specifications.									
N ABOVE SPACE DESCR	RIBE PROPOSED PROGRAM	A: If proposal is to deep and measured and tro	pen give o		ne and propos or program, if a	ed new productive zone. If pr any.	oposal is to drill or		
SIGNED	Unn John	ion TITL		roperty Analyst		<u> </u>	4/00		
(This space for Fede	eral or State office use)					DATE2/2	., 00		
*	ŕ								
PERMIT NO				APPROVAL DATE					
Application approval does n	ot warrant or certify that the applic	cant holds legal or equi	itabie title	to those righs in the subject least	se which would	d entitle the applicant to	-		
CONDITIONS OF APPROVAL	, IF ANY:			5.12 a.io subject leas	TITICI WOUL	a confidence the applicant to conduc	ct operations there		
ADDRIVATOR									
ACCROVED BY		TITLE				DATE			

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

District II PO Drawer DD, 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			ACREAGE	DED]	ICAT	ION PL	_AT		
'API Number					Pool Code				Pool Name				
'Property Code						J J J J J J J J J J J J J J J J J J J							-11 Numb
22398						LUDWICK LS				*Well Number 8C			
'OGRID No.						*Operator Name						• E	levation
005073						CONOCO, INC.					6061		
U or lot no. Section Township Range Lot Ido Feet from the Liver (S. 4.1)													
	B	31	Township 30N	Range 10W	Lot Idn	Feet from the 1285	North/South line		Feet from the		East/West line		County
L					llala I	L			2270		EAST		SAN JUAN
Ü	or lat no.	Section	Township	Ottom Range	Hole L	_ocation	f Different North/South line			M Surf	ace East/We	cui	County
											5 5557 716.	ac Tine	Locality
-	12 Dedicated Acres 13 Joint or Infil		fill ¹⁴ Conso	¹⁴ Consolidation Code ¹⁵ Order		0.				:	• , .		
	20 E/2						-1.5	 -					
NC) ALLOW	ABLE W	ILL BE A OR A	SSIGNED NON-ST) TO THI ANDARD	IS COMPLET UNIT HAS E	ION UNTIL . BEEN APPROV	ALL /ED E	INTE	RESTS H HE DIVIS	AVE BE		ISOL IDATED
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	LOT 8		l		285'					I hereby cert true and comp			contained herein is cnowledge and belief
				LOT 7		LOT 6	LOT 5						
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61	LOT 9								ì	Signature		- F~	
CJ								-	Mike				
L		LOT 10		OT 11	LOT 12			Printed N		May Agont			
					20. 11					Right-of-Way Title			Jent
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		i	5 LOT 15	J	1				Oil	18 SURVE		ERTIF	FICATION
		ļ							IJ	was plotted fro or under my su correct to the	om field note pervision, and best of my	es of actual d that the s	shown on this plat surveys made by me same is true and
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1	1156.32' 1284.36			1.36		264	' 4.62'			<u>Cértificat</u>	e Numb	HOPESS	6857
					- 1 Sec. 16	2044.02							001/

Directions from the intersection of State Hwy 173 & US Hwy 550 in Aztec, NM to Conoco, Inc. Ludwick LS #8C

1285' FNL & 2270' FEL, Section 31, T30N, R10W, N.M.P.M., San Juan County, NM.

From the Intersection of State Hwy 173 & US Hwy 550 in Aztec, NM, travel (South-easterly) on State Hwy 173 for 4.2 miles to State Hwy 575;

Go right (South-easterly) on State Hwy 575 for 100' to fork in road;

Go right (South-westerly) for 0.1 miles to fork in road;

Go left (South-westerly) for 1.3 miles to 4-way intersection;

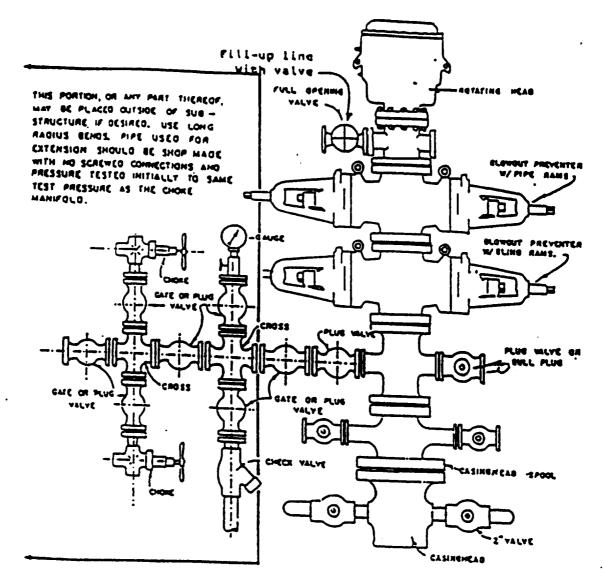
Go straight (Southerly) for 0.3 miles to fork in road;

Go left (South-easterly) for 0.4 miles to fork in road;

Go right (South-westerly) for 0.8 miles to fork in road;

Go right (South-westerly) for 0.2 miles to fork in road;

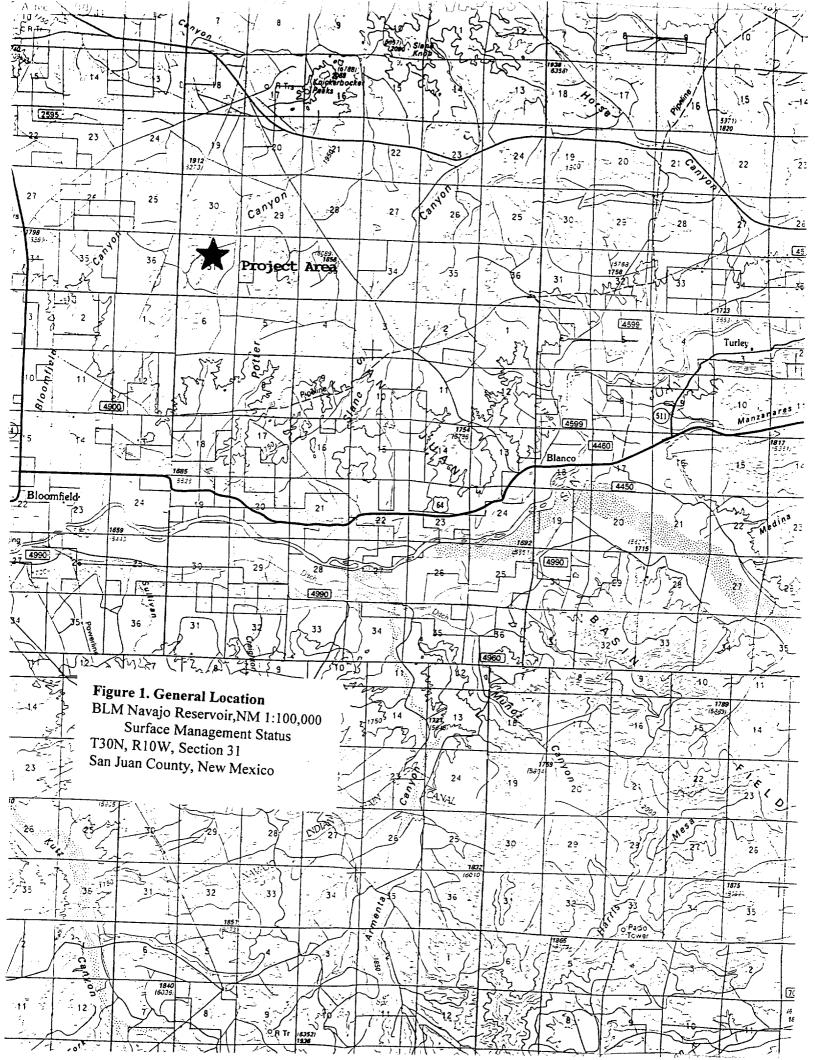
Go straight (South-westerly) for 0.4 miles to staked location on left-hand side of road.



BLOWOUT PREVENTER HOOKUP

Drilling contractors used in the San Juan Basing supply 3000 psi equipment, but cannot provide annular preventors because of substructure 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 deletion of the annular preventor and fulfills your requirements (note diagram No. 1). In addition, the following equipment will comprise the 2000 psi system:

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



CONOCO, INC. LUDWICK LS #8C 1285' FNL & 2270' FEL, SECTION 31, T30N, RIOW, N.M.P.M. SAN JUAN COUNTY, NEW MEXICO

