

District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 S. 1st Street, 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

Form C-101
Revised March 17, 1999

Oil Conservation Division
1220 S. St. Francis Dr.
Santa Fe, NM 87505

Submit to appropriate District Office
State Lease - 6 Copies
Fee Lease - 5 Copies

☐ AMENDED REPORT

APPLICATION FOR PERMIT TO DRILL, RE-ENTER, DEEPEN, PLUGBACK, OR ADD A ZONE

¹ Operator Name and Address ConocoPhillips Company P.O. Box 2197, Houston, TX 77252		² OGRID Number 217817
⁴ Property Code 31328	⁵ Property Name San Juan 31-6 Unit	³ API Number 30-035-27321
		⁶ Well No. 215A

⁷ Surface Location									
UL or lot no.	Section	Township	Range	Lot. Idn	Feet from the	North/South Line	Feet from the	East/West line	County
E	36	31N	6W		1330	North	1205	West	Rio Arriba

⁸ Proposed 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									
⁹ Proposed Pool 1 Basin Fruitland Coal - 71629					¹⁰ Proposed Pool 2				

¹¹ Work Type Code N	¹² Well Type Code G	¹³ Cable/Rotary R	¹⁴ Lease Type Code S (E-347-41)	¹⁵ Ground Level Elevation 6436' GL
¹⁶ Multiple N	¹⁷ Proposed Depth 3236'	¹⁸ Formation Fruitland Coal	¹⁹ Contractor Key	²⁰ Spud Date May 2003

²¹ Proposed Casing and Cement Program					
Hole Size	Casing Size	Casing weight/foot	Setting Depth	Sacks of Cement	Estimated TOC
12-1/4"	9-5/8"	32.3#, H-40	200'	106.6 sx	surface
8-3/4"	7"	20#, J/K-55	3071'	436.4 sx	surface
6-1/4"	5-1/2"	15.5#, J/K-55	3051' - 3236'		(see drilling program)

²² Describe the proposed program. If this application is to DEEPEN or PLUG BACK, give the data on the present productive zone and proposed new productive zone. Describe the blowout prevention program, if any. Use additional sheets if necessary.
See attached for BOP and cathodic protection details, drilling program, topo maps and geological tops.

²³ I hereby certify that the information given above is true and complete to the best of my knowledge and belief.

Signature: *Patsy Clugston*
Printed name: Patsy Clugston

Title: SHEAR Administrative Assistant

Date: 2-20-03

Phone:

OIL CONSERVATION DIVISION

Approved by: *[Signature]*

Title: DEPUTY UL & GAS INSPECTOR, DIST. #1

Approval Date: FEB 21 2003

Expiration Date: FEB 21 2004

Conditions of Approval:

Attached ☐

DISTRICT I
P.O. Box 1980, Hobbs, N.M. 88241-1980

DISTRICT II
811 South First, Artesia, N.M. 88210

DISTRICT III
1000 Rio Brazos Rd., Aztec, N.M. 87410

DISTRICT IV
2040 South Pacheco, Santa Fe, NM 87504-2088

State of New Mexico
Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION

P.O. 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

*API Number 30-039-27321		*Pool Code 71629	*Pool Name Basin Fruitland Coal
*Property Code 31328	*Property Name SAN JUAN 31-6 UNIT		*Well Number 215A
*GRID No. 217817	*Operator Name CONOCOPHILLIPS COMPANY		*Elevation 6436

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
E	36	31N	6W		1330	NORTH	1205	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									

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

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>18</p> <p>N89°57'W E-347-40</p> <p>4494.6'</p> <p>1</p> <p>1330'</p> <p>1205'</p> <p>E-347-41 80.0 acres</p> <p>5280.0'</p> <p>Section 36</p> <p>E-347-46</p> <p>10°3'E</p> <p>West</p> <p>4505.16'</p> <p>2</p> <p>3</p> <p>4</p> <p>North</p>	<h4>¹⁷ OPERATOR CERTIFICATION</h4> <p>I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.</p> <p><i>Patsy Clugston</i></p> <p>Signature <u>Patsy Clugston</u> Printed Name SHEAR Administrative Asst. Title 2-20-03 Date</p>
	<h4>¹⁸ SURVEYOR CERTIFICATION</h4> <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>10/22/02</p> <p>Date of Survey</p> <p>Signature and Seal of Professional Surveyor:</p>

PHILLIPS PETROLEUM COMPANY

WELL NAME: San Juan 31=6 Unit #215A

DRILLING PROGNOSIS

1. Location of Proposed Well: Unit E, 1330' FNL 7 1205' FWL
Section 36, T31N, R6W
2. Unprepared Ground Elevation: @ 6436'
3. The geological name of the surface formation is San Jose.
4. Type of drilling tools will be rotary.
5. Proposed drilling depth is 3236'.
6. The estimated tops of important geologic markers are as follows:

<u>Nacimiento - 1251'</u>	<u>Base Coal Interval - 3236'</u>
<u>Ojo Alamo - 2491'</u>	<u>Pictured Cliffs Tongue- 3241'</u>
<u>Kirtland - 2621'</u>	<u>Picture Cliffs - 3416'</u>
<u>Fruitland - 2936'</u>	<u>Interm. Casing - 3071'</u>
<u>Top of Coal - 3091'</u>	<u>T. D. - 3236'</u>
7. The estimated depths at which anticipated water, oil, gas or other mineral bearing formations are expected to be encountered are as follows:

Water:	<u>Ojo Alamo - 2491' - 2621'</u>
Oil:	<u>none</u>
Gas:	<u>Fruitland Coal - 3091' - 3416'</u>
Gas & Water:	<u>Fruitland Coal - 3091' - 3416'</u>
8. The proposed casing program is as follows:

Surface String: 9-5/8", 32.3#, H-40 @ 200' *
Intermediate String: 7", 20#, J/K-55 @ 3071'
Production Liner: 5-1/2", 15.5# J/K-55 @ 3051' - 3236' (see details below)

* The surface casing will be set at a minimum of 200', but could be set deeper if required to maintain hole stability.
9. Cement Program:

Surface String: 106.6 sx 50/50 POZ Standard with 3% bwoc CaCl₂ + 0.5 lbs/sx Flocele + 2% Bentonite + 5 lbs/sx Glisonite + 0.2% CFR-3 mixed at 13.5 ppg with a 1.34 ft³/sx yield.

9. Cement program: (continued from Page 1)

Intermediate String:

Lead Cement: 343.9 sx Standard with 3% Econolite + 10 lbs/sx Gilsonite + 0.5 lbs/sx Flocele + mixed at 11.4 ppg with a yield of 2.91 ft³/sx

Tail: 92.5 sx – 50/50 Poz Standard with 0.25 lbs/sx Flocele + 5 lbs/sx Gilsonite + 2% Bentonite and 2% CaCl₂ mixed at 13.5 ppg with a 1.33 ft³/sx yield.

Note: ConocoPhillips Company continually works to improve the cement slurries on our wells. Our Cementing Service Companies are currently trying to improve what we are using now and before we would use a new cement program it would have to have stronger properties than we are currently using.

Centralizer Program:

Surface: Total four (4) - 10' above shoe and top of 2nd, 3rd, & 4th jts.

Intermediate: Total seven (7) - 10' above shoe and top of 1st, 2nd, 4th, 6th, 8th, & 1st jt. into shoe.

Turbulators: Total three (3) - one at 1st jt below Ojo Alamo and next 2 jts up.

Liner :

- If the coal is cleated a 5 ½" 15.5# liner will be run in the open hole without being cemented.
- If the coal is NOT cleated, a 4-1/2" 11.6# liner will be run & cemented. The well will then be completed by fracture stimulation. The top of the liner will be set approx. 200' into the 7" casing and be set @ TD and be cement in place as follows:

Lead Cement: Approx. 150% excess - Standard with 3% Econolite + 10 lbs/sx Gilsonite + 0.5 lbs/sx Flocele + mixed at 11.4 ppg with a yield of 2.91 ft³/sx

Tail: 50/50 Poz Standard with 0.25 lbs/sx Flocele + 5 lbs/sx Gilsonite + 2% Bentonite and 2% CaCl₂ mixed at 13.5 ppg with a 1.33 ft³/sx yield.

10. The minimum specifications for pressure control equipment which are to be used, a schematic diagram thereof showing sizes, pressure ratings (or) API series and the testing procedure and testing frequency are enclosed within the APD packet.

San Juan 31-6 #215A

SURFACE CASING :

Drill Bit Diameter	12.25 "	
Casing Outside Diameter	9.625 "	8.989
Casing Weight	32.3 ppf	
Casing Grade	H-40	
Shoe Depth	200 '	40 '
Cement Yield	1.34 cuft/sk	
Excess Cement	100 %	

Casing Capacity	0.0785 bbl/ft	0.4407 cuft/ft
Hole / Casing Annulus Capacity	0.0558 bbl/ft	0.3132 cuft/ft

Cement Required 106.6 sx

SHOE 200 ', 9.625 ", 32.3 ppf, H-40

INTERMEDIATE CASING :

Drill Bit Diameter	8.75 "	
Casing Outside Diameter	7 "	6.455
Casing Weight	20 ppf	
Casing Grade	J-55	
Shoe Depth	3071 '	
Lead Cement Yield	2.91 cuft/sk	
Lead Cement Excess	150 %	
Tail Cement Length	300 '	45 '
Tail Cement Yield	1.33 cuft/sk	
Tail Cement Excess	150 %	

Casing Capacity	0.0405 bbl/ft	0.2272 cuft/ft
Casing / Casing Annulus Capacity	0.0309 bbl/ft	0.1734 cuft/ft
Hole / Casing Annulus Capacity	0.0268 bbl/ft	0.1503 cuft/ft

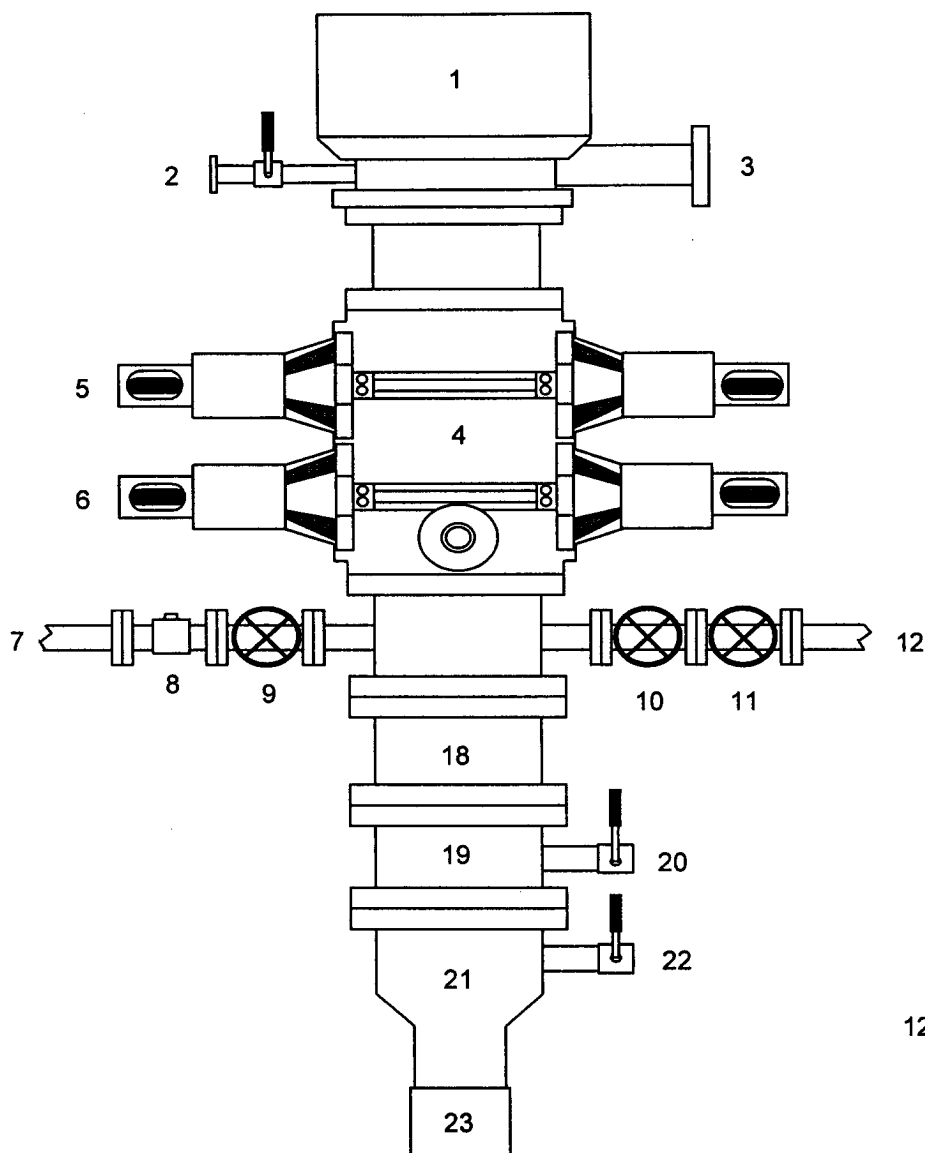
Lead Cement Required 343.9 sx
Tail Cement Required 92.5 sx

LINER TOP 3051 '

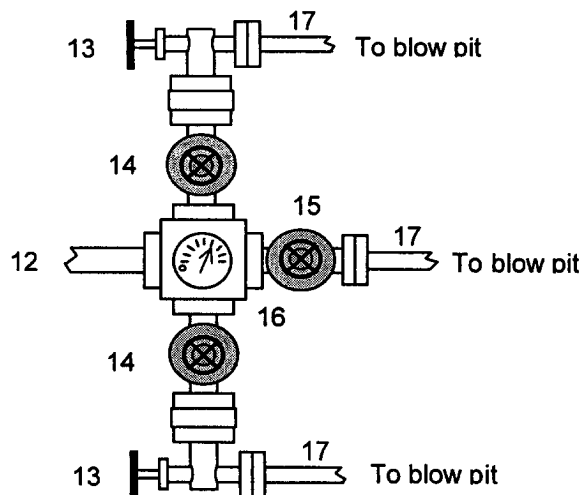
SHOE 3071 ', 7 ", 20 ppf, J-55

LINER BOTTOM 3236 '

BLOWOUT PREVENTER HOOKUP



1. Rotating Head
2. Fill-up Line & valve
3. Flowline
4. Blowout Preventer (3000 psi)
5. Pipe Rams
6. Blind Rams
7. Kill Line
8. Kill Line Check Valve
9. Kill Line Valve
10. Inner Choke Line Valve (3")
11. Outer Choke Line Valve (3")
12. Choke Line (3")
13. Variable Choke
14. Choke Line Valve (2")
15. Panic Line Valve (3")
16. Choke Manifold Pressure Gauge
17. Choke Line (2")
18. Spacer Spool
19. Casing Spool "B" Section
20. Casing Spool "B" Section 2" Valve
21. Casing Head "A" Section
22. Casing Head "A" Section 2" Valve
23. 9 5/8" Casing Collar



Drilling contractors used in the San Juan Basin 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. The above diagram of the BOP system 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.

In addition to the equipment in the above diagram the following equipment will comprise the BOP system:

1. Upper Kelly cock Valve with handle
2. Stab-in TIW valve for all drillstrings in use

The BOPs will be pressure tested according to Onshore Order #2III, A1 and 30% Safety factor.

**San Juan 31-6 Unit #215A
E-347-41; Unit E, 1330' FNL & 1205' FWL
Section 36, T31N, R6W; Rio Arriba County, NM**

Cathodic Protection

Phillips proposes to drill a cathodic protection deep well groundbed for the subject well. Will drill a 6-7/8" hole to an anticipated minimum depth of 300' (maximum depth of 500'). Cement plugs will not be used unless more than one water zone is encountered. Prior drilling history for the area indicates only one zone to that depth. If more than one water zone is encountered, notification will be made and details of cement and casing will be provided.

All drilling activity will remain on existing well pad and a Farmington based company will be doing the drilling for Phillips.