

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

5. LEASE DESIGNATION AND SERIAL NO.

SF 078244

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME

8. FARM OR LEASE NAME, WELL NO.

Southern Union #1C

9. API WELL NO.

30-045-31069

10. FIELD AND POOL OR WILDCAT

Blanco Mesa Verde/ Basin Dakota

11. SEC., T., R., M., OR BLK.  
AND SURVEY OR AREA

0 Sec. 19, T31N, R12W

12. COUNTY OR PARISH

San Juan

13. STATE

NM

## APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. TYPE OF WORK

DRILL ☒DEEPEN ☐

1b. TYPE OF WELL

OIL  
WELL ☐☒

OTHER

SINGLE  
ZONE ☐MULTIPLE  
ZONE ☒

2. NAME OF OPERATOR

Cordillera Energy, Inc.

3. ADDRESS OF OPERATOR

c/o Walsh Engineering, 7415 E. Main St. Farmington, NM 87402 (505) 327-4892

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.)\*

At Surface 910' FSL and 1855' FEL SWSE

At proposed Prod. Zone

Same

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE\*

6 miles northwest of Aztec, NM

15. DISTANCE FROM PROPOSED\* LOCATION TO NEAREST PROPERTY  
OR LEASE LINE, FT. (Also to nearest drlg. unit line, if any)

910'

16. NO. OF ACRES IN LEASE

320+

17. NO. OF ACRES ASSIGNED TO THIS WELL

S/2 304.48 acres

18. DISTANCE FROM PROPOSED LOCATION\* TO NEAREST WELL,  
DRILLING, COMPLETED, OR APPLIED FOR ON THIS LEASE, FT.

1500'

19. PROPOSED DEPTH

7000'

20. ROTARY OR CABLE TOOLS

Rotary

21. ELEVATIONS (Show whether DF, RT, GR, etc.)

5975' GR

22. APPROX. DATE WORK WILL START\*

May 2002

## 23. PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	GRADE, SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
12-1/4"	9-5/8"	36# J-55	250' +/-	165 cu ft. Cl "B" w/ 2% CaCl <sub>2</sub>
8-3/4"	7"	20# J-55	4240' +/-	1139 cu.ft. lead & 139 cu.ft. tail
6-1/4"	4-1/2"	11.6#, N-80	7000' +/-	307 cu.ft. lead & 196 cu.ft. tail

Cordillera Energy, Inc. proposes to drill a vertical well to develop the Blanco Mesa Verde and Basin Dakota formations at the above described location in accordance with the attached drilling and surface use plans.

This location has been archaeologically surveyed by La Plata Archeological Service. Copies of their report have been submitted directly to your office.

The wellpad, access road, and pipeline will be located on BLM surface land. An on-site inspection was held with the BLM on 3/5/02.

DRILLING OPERATIONS AUTHORIZED ARE  
SUBJECT TO COMPLIANCE WITH ATTACHED  
"GENERAL REQUIREMENTS".

This action is subject to technical and  
procedural review pursuant to 43 CFR 3165.3  
and appeal pursuant to 43 CFR 3165.4

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal is to deepen or plug back, 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.

24.

SIGNED

TITLE Paul Thompson, Agent

DATE

4/13/02

(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:

APPROVED BY

/s/ Mark Kelly

TITLE

ACTING

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 to any matter within its jurisdiction.

WOOD

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

State of New Mexico  
Energy, Minerals & Natural Resources Department

Form C-102  
Revised February 21, 1994

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

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

Instructions on back  
Submit to Appropriate District Office  
State Lease - 4 Copies  
Fee Lease - 3 Copies

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

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

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

<sup>1</sup> API Number <b>30-045-31069</b>	<sup>2</sup> Pool Code 72319 \ 71599	<sup>3</sup> Pool Name BLANCO MESAVERDE \ BASIN DAKOTA
<sup>4</sup> Property Code <b>24076</b>	<sup>5</sup> Property Name SOUTHERN UNION	<sup>6</sup> Well Number 1C
<sup>7</sup> OGRID No. 173252	<sup>8</sup> Operator Name CORDILLERA ENERGY, INC.	<sup>9</sup> Elevation 5975'

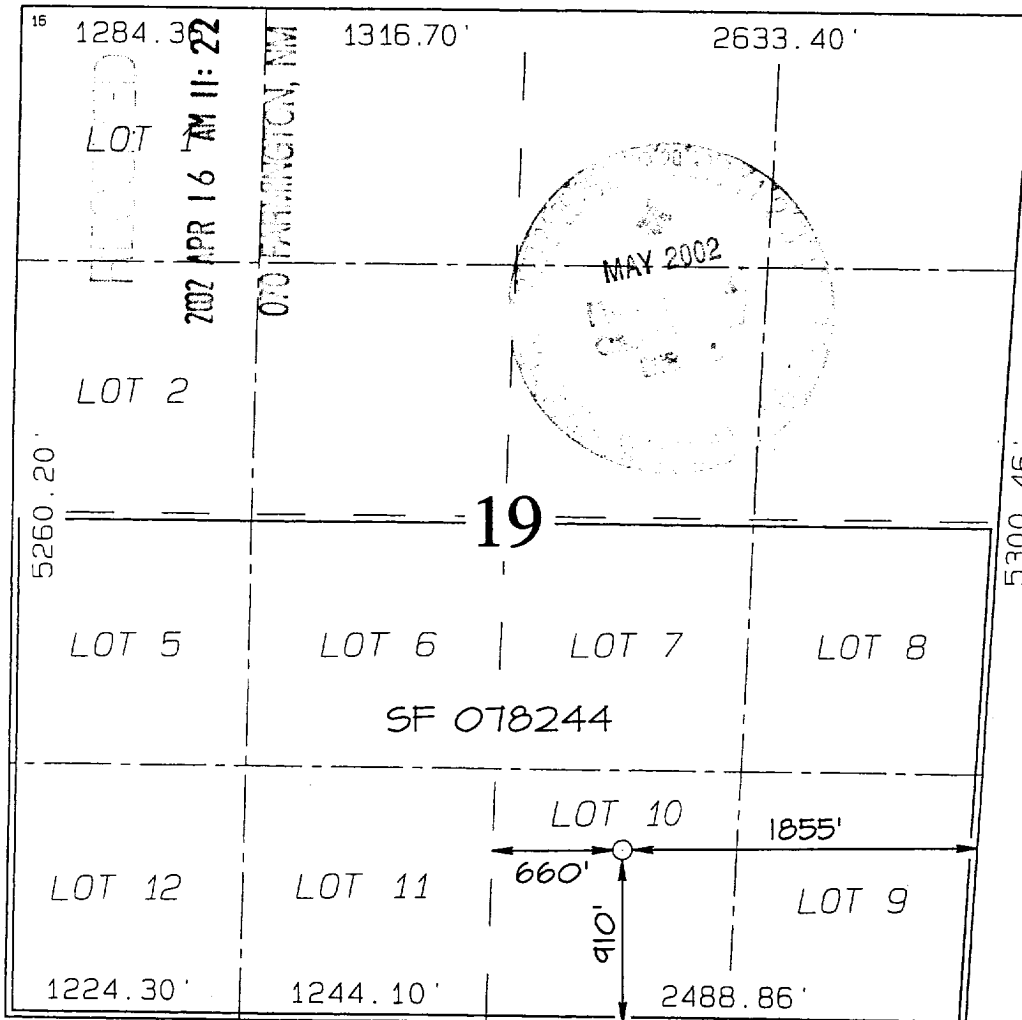
<sup>10</sup> Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
0	19	31N	12W		910	SOUTH	1855	EAST	SAN JUAN

<sup>11</sup> 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
<sup>12</sup> Dedicated Acres 304.48 Acres - (S/2)					<sup>13</sup> Joint or Infill Y	<sup>14</sup> Consolidation Code	<sup>15</sup> 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



<sup>17</sup> OPERATOR CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief

*Paul C. Thompson*  
Signature  
Paul C. Thompson  
Printed Name  
Agent  
Title  
4/15/02  
Date

<sup>18</sup> 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.

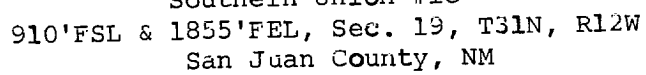
Survey Date: FEBRUARY 4, 2002

Signature and Seal of Professional Surveyor



*JASON C. EDWARDS*  
Certificate Number 15269

SAN JUAN COUNTY, NEW MEXICO



C. Minimum Blowout Control Specifications:

Double ram type 2000 psi working pressure BOP with a rotating head. See the attached Exhibit #1 for details on the BOP equipment. All ram type preventers and related equipment will be hydraulically tested at nipple-up and after any use under pressure to 1000 psi.

The blind rams will be hydraulically activated and checked for operational readiness each time pipe is pulled out of the hole. All checks of the BOP stack and equipment will be noted on the daily drilling report. The BOP equipment will include a kelly cock, floor safety valve, and choke manifold all rated to 2000 psi.

IV. Materials

A. Casing Program:

Hole Size	Depth	Casing Size	Wt. & Grade
12-1/4"	250'	9-5/8"	36# J-55
8-3/4"	4240'	7"	20# J-55
6-1/4"	7000'	4-1/2"	11.6# N-80

B. Float Equipment:

a) Surface Casing: Notched collar on bottom and 3 centralizers on the bottom 3 joints.

b) Intermediate Casing: 7" cement guide shoe and self fill insert float collar. Place float one joint above shoe. Ten centralizers spaced every other joint above shoe and ten turbolizers every other joint from 1500'.

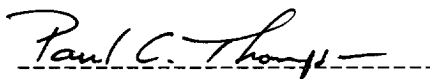
c) Production Casing: 4-1/2" whirler type cement nosed guide shoe and a float collar on top of the bottom joint.

V. Cementing:

**Surface casing: 9-5/8"** - Use 140 sx (165 cu. ft.) of Cl "B" with 2%  $\text{CaCl}_2$  (Yield = 1.18 cu. ft./sk; slurry weight = 15.6 PPG). 100% excess to circulate cement to surface. WOC 12 hours. Pressure test surface casing to 1000 psi for 30 min.

**Intermediate Casing: 7"** - Before cementing circulate hole with at least 1-1/2 hole volumes of mud. Precede cement with 30 bbls of fresh water. **Lead** with 545 x (1139 cu.ft) of Type III 65/35 poz with 8% gel, 1%  $\text{CaCl}_2$ , 1/4#/sk. Celloflake. (Yield = 2.09 cu.ft./sk; slurry weight = 12.1 PPG). **Tail** with 100 sx (139 cu.ft.) of Type III with 1%  $\text{CaCl}_2$ , 1/4#/sk. Celloflake. (Yield = 1.39 cu. ft./sk; slurry weight = 14.5 PPG). Total cement volume is 1278 cu.ft. (100% excess to circulate cement to surface). WOC for 12 hrs. Pressure test the BOP and casing to 1500 psi.

**Production Casing: 4-1/2"** - Blow hole clean. Precede cement with 20 bbls of gel water and 10 bbls of water. **Lead** with 155 sx (307 cu.ft.) of Premium Lite HS with 0.65% FL-52, 0.32% CD-32, 1/4 #/sk celloflake, and 4% phenoseal. (Yield = 1.98 cu.ft./sk; slurry weight = 12.5 PPG). **Tail** with 100 sx (196 cu.ft.) of Premium Lite HS with 0.65% FL-52, and 0.32% CD-32. (Yield = 1.96 cu.ft./sk; slurry weight = 12.5 PPG). Total cement volume is 503 cu.ft. (70% excess to circulate 100' above the intermediate casing shoe).

  
Paul C. Thompson, P.E.