

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

5. LEASE DESIGNATION AND SERIAL NO.

NMNM
SF 021125

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME

24038

8. FARM OR LEASE NAME, WELL NO.

Jackson #2G

9. API WELL NO.

30045 31099

10. FIELD AND POOL OR WILDCAT

Basin Dakota

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

I Sec. 18, T31N, R12W

12. COUNTY OR PARISH

San Juan

13. STATE

NM

17. NO. OF ACRES ASSIGNED TO THIS WELL

E/2 320 acres

20. ROTARY OR CABLE TOOLS

Rotary

22. APPROX. DATE WORK WILL START*

June 2002

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. TYPE OF WORK

DRILL ☒DEEPEN ☐

1b. TYPE OF WELL

OIL ☐
WELL☒

OTHER

SINGLE ☒
ZONEMULTIPLE ☐
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 2500' FSL and 785' FEL

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)

785'

16. NO. OF ACRES IN LEASE

320+

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

800'

19. PROPOSED DEPTH

7000'

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

5916' GR

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 ₂
8-3/4"	7"	20# J-55	4080' +/-	1087 cu. ft. lead & 139 cu. ft. tail
6-1/4"	4-1/2"	11.6#, N-80	7000' +/-	337 cu. ft. lead & 196 cu. ft. tail

DRILLING OPERATIONS AUTHORIZED ARE
SUBJECT TO COMPLIANCE WITH ATTACHED
"GENERAL REQUIREMENTS".Cordillera Energy, Inc. proposes to drill a vertical well to develop the Basin Dakota formations at
the above described location in accordance with the attached drilling and surface use plans.This action is subject to technical and
procedural review pursuant to 43 CFR 3165.3
and appeal pursuant to 43 CFR 3165.4

This location has been archaeologically surveyed by La Plata Archeological Service. Copies of their report have been submitted directly to your office. Nelson Consulting performed a T&E survey 5/15/02. 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 4/25/02.

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

Paul C. Thompson

TITLE Paul Thompson, Agent

DATE

5/16/02

(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

David J. Mankiewicz

TITLE

DATE

AUG - 7 2002

*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.

NMOC

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

*API Number 30-045-31099		*Pool Code 71599	*Pool Name BASIN DAKOTA
*Property Code 24038	*Property Name JACKSON		*Well Number 2G
*GRID No. 173252	*Operator Name CORDILLERA ENERGY, INC.		*Elevation 5916'

¹⁰ Surface Location


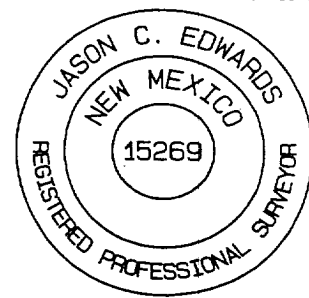
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
I	18	31N	12W		2500	SOUTH	785	EAST	SAN JUAN

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

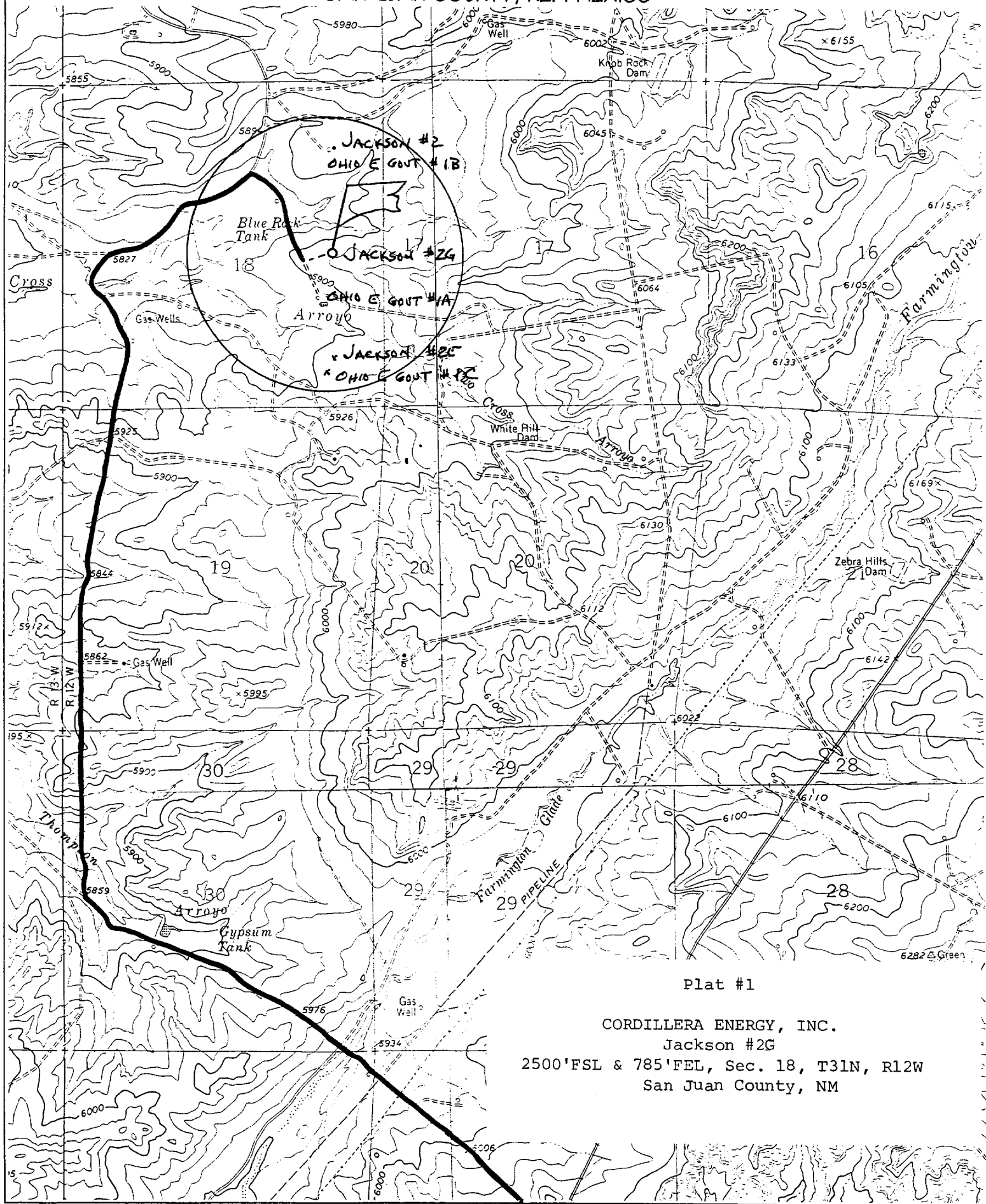
¹² Dedicated Acres 320.0 Acres - (E/2)	¹³ Joint or Infill Y	¹⁴ Consolidation Code	¹⁵ Order No.
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NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED
OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

¹⁶ 1260.60' LOT 1	1320.66'	2640.66'	<div></div>	¹⁷ OPERATOR CERTIFICATION I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief <i>Paul C. Thompson</i> Signature Paul C. Thompson Printed Name Agent Title 5/17/02 Date
5258.88'	LOT 2			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: MARCH 27, 2002 Signature and Seal of Professional Surveyor <div></div> <i>JASON C. EDWARDS</i> Certificate Number 15269
LOT 3		5287.92'		
LOT 4	1284.36'	1316.70'		2500'
		2633.40'		

CORDILLERA ENERGY, INC. JACKSON #2G

**2500' FSL & 785' FEL, SECTION 18, T31N, R12W, N.M.P.M.
SAN JUAN COUNTY, NEW MEXICO**



Plat #1

CORDILLERA ENERGY, INC.

Jackson #2G

2500' FSL & 785' FEL, Sec. 18, T31N, R12W
San Juan County, NM

CORDILLERA ENERGY, INC.
OPERATIONS PLAN
Jackson #2G

I. Location: 2500 FSL & 785' FEL
Sec 18 T31N R12W
San Juan County, NM

Date: May 16, 2002

Field: Basin DK
Surface: BLM
Minerals: SF 021125

Elev: GL 5916'

II. Geology: Surface formation _ Nacimiento

<u>A. Formation Tops</u>	<u>Depths</u>
Ojo Alamo	420'
Fruitland	1765'
Pictured Cliffs	2110'
Cliff House	3870'
Menefee	4070'
Point Lookout	4655'
Dakota	6785'
Total Depth	7000'

Estimated depths of anticipated water, oil, gas, and other mineral bearing formations which are expected to be encountered:

Water and gas - 3870'; gas - 2110', 4070', 4655', 6785'.

B. Logging Program: Induction/GR and density logs at TD.

C. No over pressured zones are expected in this well. No H₂S zones will be penetrated in this well. Max. BHP = 2500 psig.

III. Drilling

A. Contractor: Key Energy

B. Mud Program:

The surface hole will be drilled with a fresh water mud.

The intermediate hole will be drilled with a fresh water polymer mud. The weighting material will be drill solids or if conditions dictate, barite. The maximum mud weight expected is 8.5 ppg.

The production hole will be drilled with air or air/mist.

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"	4080'	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'.

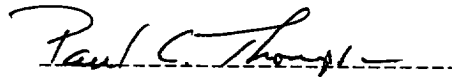
c) Production Casing: 4-1/2" whirler type cement nosed guide shoe and a float collar on top of the bottom joint.

V. Cementing:

Surface casing: 9-5/8" - Use 140 sx (165 cu. ft.) of Cl "B" with 2% 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 520 sx (1087 cu.ft) of Type III 65/35 poz with 8% gel, 1% 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% CaCl_2 , 1/4#/sk. Celloflake. (Yield = 1.39 cu. ft./sk; slurry weight = 14.5 PPG). Total cement volume is 1226 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 170 sx (337 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 533 cu.ft. (70% excess to circulate 100' above the intermediate casing shoe).


Paul C. Thompson, P.E.