

C. HARRADEN/February 14, 2002

Burlington Resources Oil & Gas Co./ McCord B # 100 APD

STIPULATION/CONDITION OF APPROVAL

In order to protect the integrity of the Ojo Alamo aquifer, minimum surface csg. depth of 477' is stipulated as a condition of approval for this APD.

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. Type of Work DRILL	5. Lease Number SF-078213 Unit Reporting Number
1b. Type of Well GAS	6. If Indian, All. or Tribe
2. Operator BURLINGTON RESOURCES Oil & Gas Company	7. Unit Agreement Name
3. Address & Phone No. of Operator PO Box 4289, Farmington, NM 87499 (505) 326-9700	8. Farm or Lease Name McCord B 9. Well Number 100
4. Location of Well 1140' FSL, 1170' FWL Latitude 36° 47.7, Longitude 108° 10.8	10. Field, Pool, Wildcat Fulcher Kutz PC, Basin FC 11. Sec., Twn, Rge, Mer. (NMPM) M Sec. 23, T-30-N, R-13-W API # 30-045-3/000
14. Distance in Miles from Nearest Town 4.4 Miles to Int 30 th St & Pinon Hill Blvd	12. County San Juan 13. State NM
15. Distance from Proposed Location to Nearest Property or Lease Line 1140'	
16. Acres in Lease	17. Acres Assigned to Well SW/4 PC-160, FC-320 W/2
18. Distance from Proposed Location to Nearest Well, Drlg, Compl, or Applied for on this Lease 22'	
19. Proposed Depth 2010	20. Rotary or Cable Tools Rotary
21. Elevations (DF, FT, GR, Etc.) 5770 GR	22. Approx. Date Work will Start
23. Proposed Casing and Cementing Program See Operations Plan attached	
24. Authorized by: <u>[Signature]</u> Regulatory/Compliance Supervisor	Date <u>2-4-02</u>

PERMIT NO. _____

APPROVAL DATE 4/26/02

APPROVED BY /s/ Charlie Beecham

TITLE Acting AFM Minerals

DATE 4/26/02

Archaeological Report to be submitted

Threatened and Endangered Species Report to be submitted

NOTE: This format is issued in lieu of U.S. BLM Form 3160-3

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 presentations as to any matter within its jurisdiction.

DISTRICT I
1625 N. French Dr., Hobbs, N.M. 88240

State of New Mexico
Energy, Minerals & Natural Resources Department

Form C-102
Revised August 15, 2000

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

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

DISTRICT IV
2040 South Pacheco, Santa Fe, NM 87505

OIL CONSERVATION DIVISION

2040 South Pacheco
Santa Fe, NM 87505

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

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-045 <i>3000</i>	² Pool Code 77200/71629	³ Pool Name Fulcher Kutz Pictured Cliffs/Basin Fruitland Coal
⁴ Property Code 7301	⁵ Property Name McCORD B	⁶ Well Number 100
⁷ OGRID No. 14538	⁸ Operator Name BURLINGTON RESOURCES OIL AND GAS, INC.	⁹ Elevation 5770'

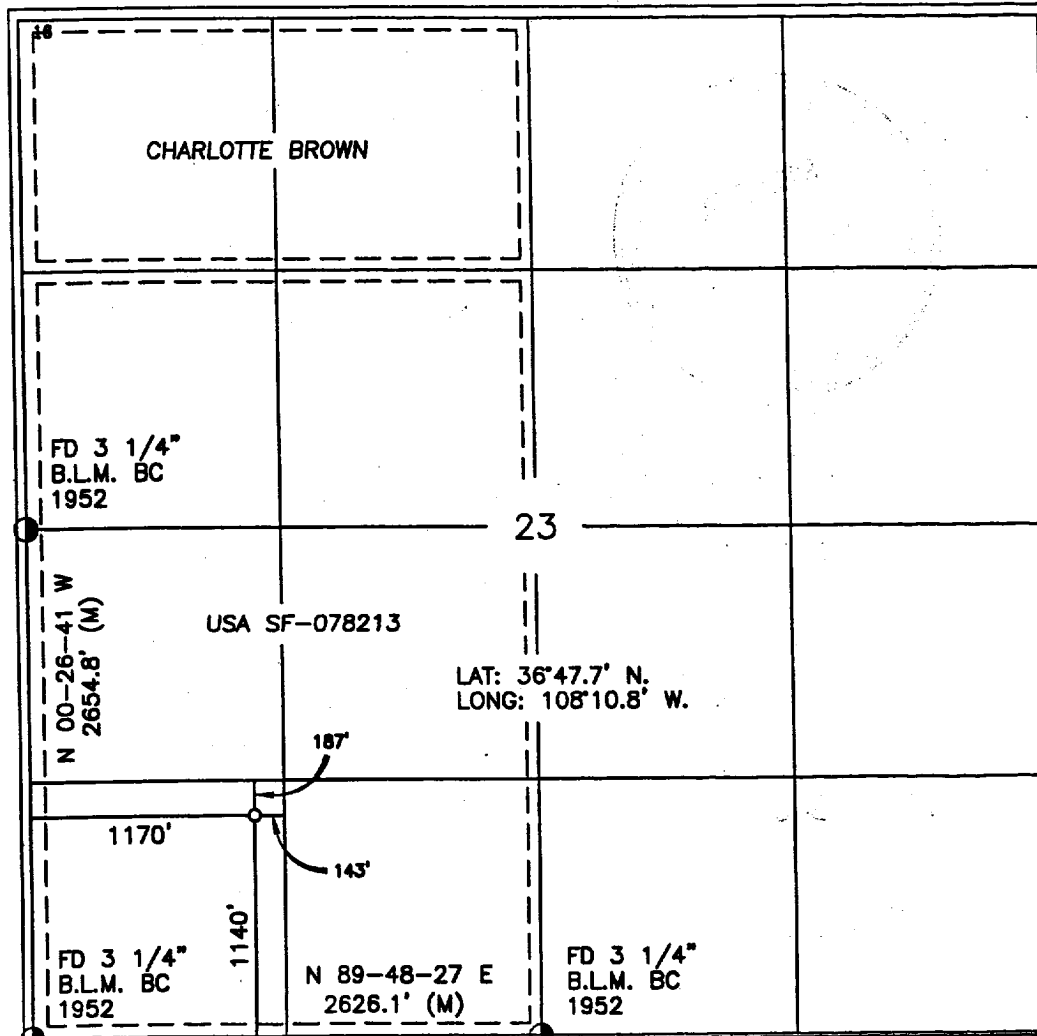
¹⁰ Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
M	23	30-N	13-W		1140'	SOUTH	1170'	WEST	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 PC/SW/160 FC/W/320				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



¹⁷ OPERATOR CERTIFICATION

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

Peggy Cole
Signature
Peggy Cole
Printed Name
Regulatory Supervisor
Title
Date *2-4-02*

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 knowledge and belief.

12-2
Date of Survey
Signature and Seal of Professional Surveyor
8894
Certificate Number

BURLINGTON RESOURCES OIL AND GAS, INC.

McCORD B No. 100

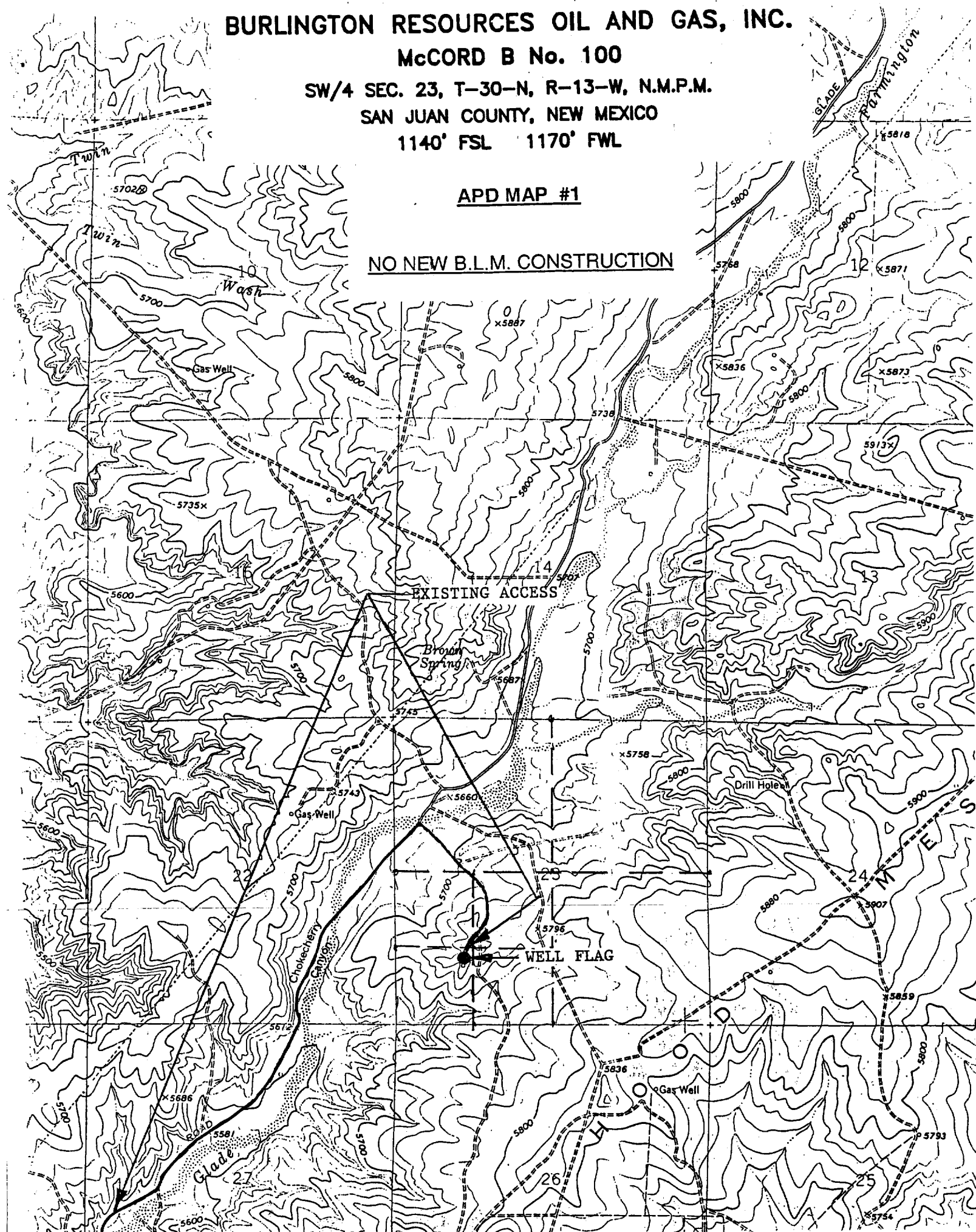
SW/4 SEC. 23, T-30-N, R-13-W, N.M.P.M.

SAN JUAN COUNTY, NEW MEXICO

1140' FSL 1170' FWL

APD MAP #1

NO NEW B.L.M. CONSTRUCTION



OPERATIONS PLAN

Well Name: McCord B 100
Location: 1140' FSL, 1170' FWL, Section 23, T-30-N, R-13-W
San Juan County, New Mexico
Latitude 36° 47.7', Longitude 108° 10.8'
Formation: Basin Fruitland Coal/Fulcher Kutz Pictured Cliffs
Elevation: 5770' GR

Formation:	Top	Bottom	Contents
Surface	San Jose	202'	
Ojo Alamo	202'	432'	aquifer
Kirtland	432'	1512'	gas
Fruitland	1512'	1802'	gas
Pictured Cliffs	1802'	1962'	gas
Lewis Marker	1962'		
Total Depth	2010'		

Logging Program: Cased hole - CBL/GR/CCL TD to surface
Open hole- Array Induction- TD to surface
Neutron-Density- TD to minimum operations depth

Coring Program: None

Mud Program:

Interval	Type	Weight	Vis.	Fluid Loss
0- 120 477'	Spud	8.4-9.0	40-50	no control
120 477'-2010'	FW	8.4-9.0	32-45	no control

Casing Program (as listed, equivalent, or better):

Hole Size	Depth Interval	Csg. Size	Wt.	Grade
9 7/8"	0 - 120 477'	7"	20#	J-55
6 1/4"	0 - 2010'	4 1/2"	10.5#	K-55

Float Equipment: 7" surface casing - saw tooth guide shoe.
Centralizers will be run in accordance with Onshore Order #2.

4 1/2" production casing - float shoe on bottom. Three centralizers run every other joint above shoe. Seven centralizers run every 3rd joint to the base of the Ojo Alamo @ 432'. Two turbolizing type centralizers - one below and one into the base of the Ojo Alamo @ 432'. Standard centralizers thereafter every fourth joint up to the base of the surface pipe.

Wellhead Equipment: 7" x 4 1/2" x 2 3/8" 2000 psi screw on independent wellhead.

Cementing:

7" surface casing - cement with ~~27~~ ^{circulate cement} 37 sx Class A, B Portland Type I, II cement (32 cu.ft. of slurry, bring cement to surface through 3/4" line).
WOC 8 hrs. ~~Test casing to 600 psi for 30 minutes.~~

4 1/2" production casing - Lead w/135 sx Premium Lite cement w/3% calcium chloride, 1/4 pps flocele, 5 pps LCM-1, 0.4% FL-52, and 0.4% SMS. Tail w/90 sx Type III cement w/1% calcium chloride, 1/4 pps flocele, and 0.2% FL-52 (413 cu.ft. of slurry, 100% excess to circulate to surface).

Note: If open hole logs are run, cement volumes will be based on 25% excess over caliper volumes.

BOP and tests:

Surface to TD - 11" 2000 psi (minimum double gate BOP stack (Reference Figure #1)). Prior to drilling out surface casing, test rams to 600 psi/30 min.

Completion - 7 1/16" 2000 psi (minimum) double gate BOP stack (Reference Figure #2). Prior to completion operations, test rams and casing to 2000 psi/15 min.

From surface to TD - choke manifold (Reference Figure #3).

Pipe rams will be actuated to least once each day and blind rams actuated once each trip to test proper functioning. An upper kelly cock valve with handle and drill string safety valves to fit each drill string will be maintained and available on the rig floor.

BOP and tests (If a coiled tubing drilling (CTD) rig is utilized.):

Surface to TD: 7-1/16" 2000 psi (minimum) Torus annular BOP stack (Reference Figure #1b). Prior to drilling out surface casing, test annular BOP to 600psi/30 min.

Completion: 7-1/16" 2000 psi (minimum) double gate BOP stack (Reference Figure #2). Prior to completion operations, test blind rams and casing to 1500 psi for 30 minutes; all pipe rams and casing to 1500 psi for 30 minutes each. **Same as in original APD operations plan.**

From surface to TD: choke manifold (Reference Figure #3). **Same as in original APD operations plan.**

The annular BOP will be actuated to close on drill pipe (coiled tubing) at least once each day and to close on open hole once each trip to test proper functioning.

Additional information:

- * The Fruitland Coal and Pictured Cliffs formations will be completed and commingled.
- * Anticipated pore pressure for the Fruitland Coal and Pictured Cliffs is 500 psi.
- * This gas is dedicated.
- * The west half of Section 23 is dedicated to the Fruitland Coal and the southwest quarter of Section 23 is dedicated to the Pictured Cliffs in this well.

Eric J. Giles
Drilling Engineer

2/5/02
Date