

# BURLINGTON RESOURCES

MID-CONTINENT DIVISION

June 1, 1998

Mr. Michael E. Stogner  
Energy, Minerals and Natural Resources Dept.  
Oil Conservation Division  
2040 South Pacheco Street  
Santa Fe, New Mexico 87505-5472

Case 1026

RE: Proposed Horizontal Well  
Standard Surface Location  
\*Non-Standard Sub-Surface Bottom Hole Location  
Due to Topographic Limitations

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Burlington Resources Oil & Gas Company, OGRID #26485  
Corral Draw 10 Federal #1  
Corral Draw Wolfcamp Gas Pool, Pool Code 84330  
Surf. Loc.: SE/4 SW/4, UL-N, 800' FSL & 1650' FWL  
Section 9, T25S, R29E, Eddy County, New Mexico  
Lse. #NM 15303

Dear Mr. Stogner:

Burlington Resources Oil & Gas Company desires administrative approval for a non-standard gas producing area/sub-surface bottom hole gas well location for the vertical portion of the wellbore for the proposed horizontal well, pursuant to Division General Rule 104.F and 111.C(2) to be applicable to the Corral Draw Wolfcamp (Gas) Pool for the Corral Draw 10 Federal #1, located at a standard surface location SE/4 SW/4, 800' FSL & 1650' FWL, (Unit N) of Section 10, T25S, R29E, Eddy County, New Mexico. The S/2 of said Section 10, being a standard 320-acre gas spacing and proration unit for this interval is to be dedicated to said well.

Burlington's request for an unorthodox subsurface bottom hole location of SE/4 SW/4, 800' FSL & 1500' FWL, (Unit N) of Section 10, T25S, R29E, Eddy Co., NM, that will allow for potential drilling bit drift to the west due to natural drift tendencies during normal vertical rotary drilling operations. Our options to move the surface location to the east are closed by topographical limitation (i. e. archeological sites. and an existing caliche hill which slopes on the northeast side of the proposed surface well location. Enclosed is the location plat for this proposed well showing the surface location, proposed kick-off point, wolfcamp penetration point and the proposed horizontal bottom hole location at UL-O, 800' FSL, 1650' FEL of said Section 10.

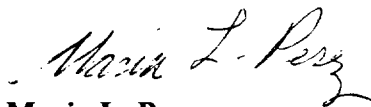
Enclosed is the federal application package for the permit to drill. Burlington Resources is the only affected offsets to the west side of this 320 acre proration unit which is the side which the bottom hole location encroches on.

The applicable drilling window or "producing area" within the Corral Draw Wolfcamp Gas Pool for said wellbore shall include that area within the subject 320-acre spacing and proration unit comprising of the S/2 of said Section 10 that is:

- (a) no closer than 660 feet to the North & South boundary of said 320-acre unit;
- (b) no closer than 1650 feet from the East and West Lines of said Section 10.

Burlington Resources will comply with all provision of Division General Rule 111 applicable in this matter. Please call me if you require additional information on this application.

Sincerely,



**Maria L. Perez**  
**Regulatory Representative**  
**A/C 915-688-6906**

**cc: New Mexico Oil Conservation Division – Artesia**  
**U. S. Bureau of Land Management – Roswell**

(s:mlp1:Corral Draw 10 Fed. #1)

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR DEEPEN

1a. TYPE OF WORK <b>DRILL</b> <input checked="" type="checkbox"/> <b>DEEPEN</b> <input type="checkbox"/>			5. LEASE DESIGNATION AND SERIAL NO. <b>NM15303</b>	
b. TYPE OF WELL OIL WELL <input type="checkbox"/> GAS WELL <input checked="" type="checkbox"/> OTHER <b>HORIZONTAL</b> SINGLE ZONE <input checked="" type="checkbox"/> MULTIPLE ZONE <input type="checkbox"/>			6. IF INDIAN, ALLOTTEE OR TRIBE NAME	
2. NAME OF OPERATOR <b>BURLINGTON RESOURCES OIL &amp; GAS COMPANY</b>			7. UNIT AGREEMENT NAME	
3. ADDRESS AND TELEPHONE NO. <b>P.O. Box 51810 Midland, TX 79710-1810 915-688-6906</b>			8. FARM OR LEASE NAME, WELL NO. <b>CORRAL DRAW 10 #1</b> <b>FEDERAL</b>	
4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements. *) At surface <b>N, 800' FSL &amp; 1650' FWL SURFACE LOC./ N, 600' FSL &amp; 1500' FWL PENetration PT.</b> At proposed prod. zone <b>0. 800' FSL &amp; 1650' FEL BOTTOM HOLE LOCATION</b>			9. API WELL NO.	
6. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE* <b>6 MILES SE FROM LOVING, NM</b>			10. FIELD AND POOL, OR WILDCAT <b>CORRAL DRAW WOLFCAMP GAS</b>	
15. DISTANCE FROM PROPOSED* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drlg. unit line, if any) <b>800'</b>		16. NO. OF ACRES IN LEASE <b>320</b>	11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA <b>10, T25S, R29E</b>	
18. DISTANCE FROM PROPOSED LOCATION* TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT. <b>400' NE-DELAWARE OIL</b>		19. PROPOSED DEPTH <b>13,214' MD</b>	12. COUNTY OR PARISH <b>EDDY</b>	
21. ELEVATIONS (Show whether DF, RT, GR, etc.) <b>3031' GR 11,360' TVD</b>		13. STATE <b>NEW MEX.</b>		
22. APPROX. DATE WORK WILL START* <b>9-10-98</b>				

23. PROPOSED CASING AND CEMENTING PROGRAM				
SIZE OF HOLE	GRADE, SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
17-1/2"	13-3/8" H-40 STC	48#	600'	500 SXS C - CIRC. TO SURFACE
12-1/4"	9-5/8" K-55 LTC	36#	3,060'	1235 SXS C - CIRC. TO SURFACE
8-3/4"	7" P-110 LTC	26#	11,000'	1100 SXS H - TOC 2600'+/-
6-1/8"	4-1/2" P-110 HDL	15.1# LINER	10,700' -TD	100 SXS H AT LINER TOP

HORIZONTAL WELL

REQUESTING AN UNORTHODOX BOTTOM HOLE LOCATION FOR VERTICAL PORTION OF HOLE DUE TO POSSIBLE BIT DRIFT. THE BOTTOM HOLE LOCATION FOR THE HORIZONTAL PORTION OF THE HOLE WILL BE A STANDARD LOCATION.

SEE LOCATION PLAT ATTACHED.

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.

24. SIGNED Mary L. Perez TITLE REGULATORY REPRESENTATIVE DATE 6-1-98  
(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 \_\_\_\_\_ TITLE \_\_\_\_\_ 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.

DISTRICT I  
P. O. Box 1980  
Hobbs, NM 88241-1980

State of New Mexico  
Energy, Minerals, and Natural Resources Department

Form C-102  
Revised 02-10-94  
Instructions on back

DISTRICT II  
P. O. Drawer DD  
Artesia, NM 88211-0719

**OIL CONSERVATION DIVISION**  
P. O. Box 2088  
Santa Fe, New Mexico 87504-2088

Submit to the Appropriate  
District Office  
State Lease - 4 copies  
Fee Lease - 3 copies

☐ AMENDED REPORT

DISTRICT III  
1000 Rio Brazos Rd.  
Aztec, NM 87410

DISTRICT IV  
P. O. Box 2088  
Santa Fe, NM 87507-2088

**WELL LOCATION AND ACREAGE DEDICATION PLAT**

<sup>1</sup> API Number	<sup>2</sup> Pool Code 84330	<sup>3</sup> Pool Name Corral Draw Wolfcamp
<sup>4</sup> Property Code	<sup>5</sup> Property Name Corral Draw 10 Federal	<sup>6</sup> Well Number 1
<sup>7</sup> OGRID No. 26485	<sup>8</sup> Operator Name BURLINGTON RESOURCES OIL & GAS COMPANY	<sup>9</sup> Elevation 3031'

**<sup>10</sup> SURFACE LOCATION**

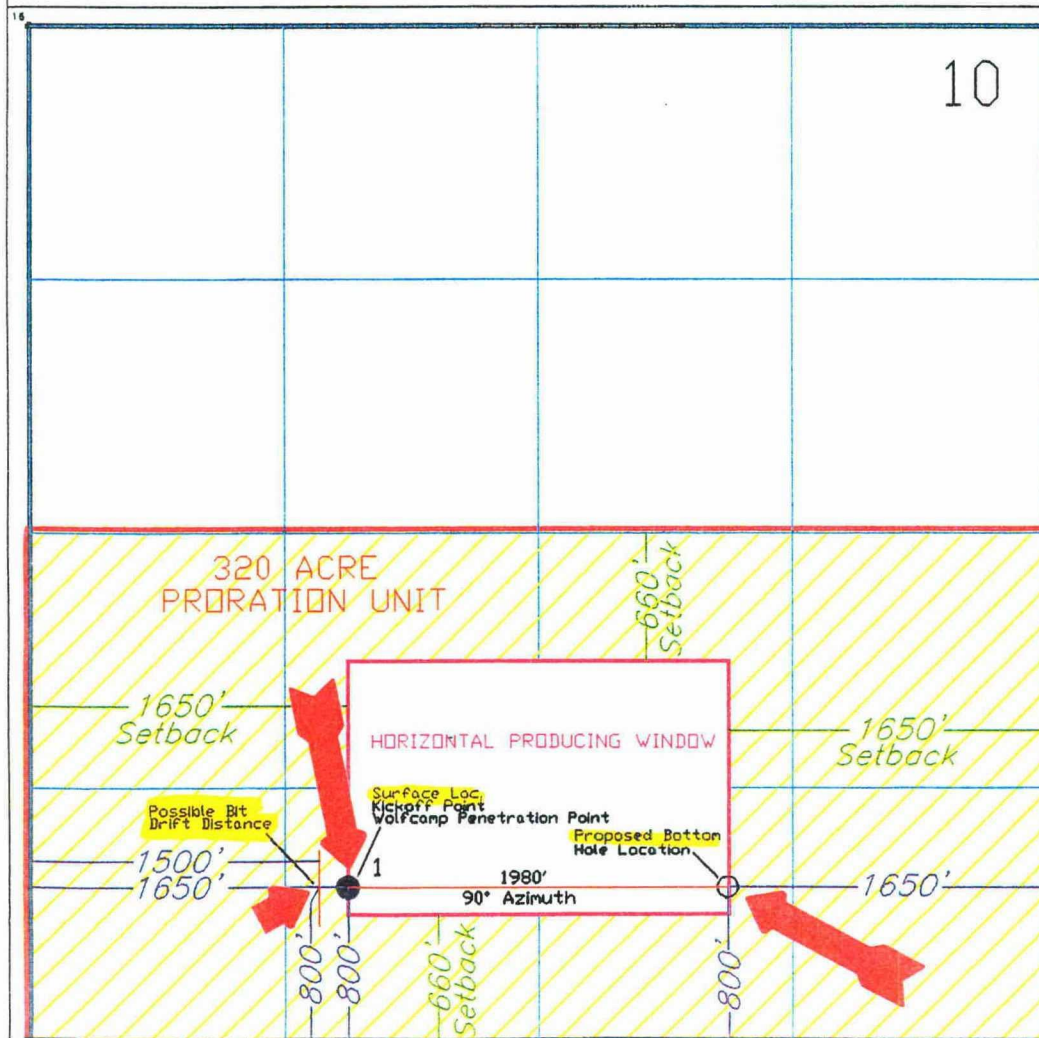
UL or lot no.	Section	Township	Range	Lot Ida	Feet from the	North/South line	Feet from the	East/West line	County
N	10	25 SOUTH	29 EAST, N.M.P.M.		800'	SOUTH	1650'	WEST	EDDY

**<sup>11</sup> BOTTOM HOLE LOCATION IF DIFFERENT FROM SURFACE**

UL or lot no.	Section	Township	Range	Lot Ida	Feet from the	North/South line	Feet from the	East/West line	County
0	10	25S	29E		800	South	1650	East	Eddy

<sup>12</sup> Dedicated Acres 320	<sup>13</sup> Joint or Infill	<sup>14</sup> Consolidation Code	<sup>15</sup> Order No.
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NO ALLOWABLE WELL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION



**OPERATOR CERTIFICATION**

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

Signature  
*Maria L. Perez*  
Printed Name  
Maria L. Perez  
Title  
Regulatory Representative  
Date  
5-13-98

**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  
JANUARY 28, 1998  
Signature and Seal of Professional Surveyor  
*Roger M. Robbins*  
Certificate No.  
ROGER M. ROBBINS P.S. #12128  
JOB #56459 / 23NW / V.H.B.

(s:mlp1:Corral Draw 10 Federal #1.DOC)

<b>OPERATORS NAME:</b>	<b>Burlington Resources Oil &amp; Gas Company</b>
<b>LEASE NAME AND WELL NO.:</b>	<b>Corral Draw 10 Federal #1</b>
<b>LOCATION:</b>	<b>UL-N, 800' FSL &amp; 1650' FWL, Sec. 10, T25S, R29E</b>
<b>FIELD NAME:</b>	<b>Corral Draw Wolfcamp Gas</b>
<b>COUNTY:</b>	<b>Eddy County, New Mexico</b>
<b>LEASE NUMBER:</b>	<b>NM 15303</b>

The following information is to supplement BLM form 3160-3 Application for permit to drill in accordance with Onshore Oil and Gas Order No. 1:

### **9-POINT DRILLING PLAN**

#### **Horizontal Well**

1. Name and estimated tops of important geologic formation/marker horizons.

<u>FORMATION</u>	<u>DEPTH</u>
Rustler	Surface
Salado	1,300'
Castille	2,300'
Delaware	3085'
Bone Springs	6,850'
Wolfcamp	10,260'
Wolfcamp "A"	11,295'

2. Estimated depths at which the top and bottom of formations potentially containing usable water, oil, gas, or prospectively valuable deposits of other minerals are expected to be encountered and the operator's plans for protecting such resources.

Wolfcamp	10,260'
Wolfcamp "A" Limestone	11,295'

#### OTHER ZONES:

Delaware	3,085'
Bone Springs	6,850'

3. The operator's minimum specifications for Blowout Preventer (BOP) and related equipment to be used and schematic diagrams thereof showing sizes, pressure ratings, and the testing procedures and testing frequency. BOP and BOP - related equipment (BOPE) schematics shall include schematics of choke manifold equipment. Accumulator systems and remote controls shall be utilized.

**Surface Csg**

Install 13-3/8" SOW x 13-5/8" 3M psi WP casing head with 36" base plat.

Nipple up 13-5/8" 1500 psi WP annular preventer w/rotating head.

Test the 13-3/8" casing to 500 psi using rig pump and hold for 30 minutes.

**Intermediate Csg**

Install 13-5/8" 3M psi WP x 11" 5M psi WP casing spool. Nipple up 11" 5M x 13-5/8" 5M DSA. NU 13-5/8" 5M psi WP BOP's including annular w/rotating head. (API RP53 Fig 2.C.5 SRRAG). Test ram BOP's and choke manifold to 250 psi and 3,000 psi, test annular BOP to 250 psi and 1,500 psi utilizing a test plug and an independent tester..

**Production Csg**

Install 11" 5M psi x 7-1/16" 10M psi tbg head. Test head to 4,350 psi (70 % x Casing Pc of 6,230) or the wellhead manufacturer's recommendation, whichever is less. NU 7-1/16" 10M psi WP BOP's including annular w/rotating head (API RP53 fig 2.C.9 RSRRAG). Test ram BOP's and choke manifold to 250 psi and 10,000 psi, test annular BOP to 250 psi and 3,500 psi utilizing a test plug and an independent tester.

4. The proposed casing program including size, grade, weights, type of thread and coupling, and the setting depth of each string and its condition (new or acceptably reconditioned). For exploratory wells, or for wells as otherwise specified by the authorized officer, the operator shall include the minimum design factors for tensions, burst, and collapse that are incorporated into the casing design. In cases where tapered casing strings are utilized, the operator shall also include and/or setting depths of each portion.

**CASING:**

17-1/2" hole to 600'. Set 13-3/8", 48#, H-40, STC csg @ 600'

12-1/4" hole to 3060'. Set 9-5/8", 36#, K-55, LTC csg @ 3060'

8-3/4" hole to 11,000'. Set 7", 26#, P-110, LTC, csg @ See Remarks

Note: 7" casing point may vary between 10,250' –11,000' depending on hole conditions. Offset data indicates ability to drill to 11,000' without any mud weight increase (i.e. 9.0 – 10.0 ppm base fluid). Casing needs to be set as close to kick off point as possible to minimize open vertical hole during lateral operations.

6-1/8" Pilot Hole to Vertical Total Depth of 11,450'

Plug Back to Kick-off Point @  $\pm$  11,100'

Target Azimuth = 90 Degrees

Final Inclination = 89 Degrees

Total Vertical Section = 1980'

Total Depth = 13,214' MD, 11,360' TVD

Run 4-1/2" 15.1# P-110 HDL Liner. Hang off in 7" casing with mechanical liner hanger. (Top of liner @ +/- 10,700').

5. The amount and type(s) of cement, including anticipated additives to be used in setting each casing string, shall be described. If stage cementing techniques are to be employed, the setting depth of the stage collars and amount and type of cement, including additives, and preflush amounts to be used in each stage, shall be given. The expected linear fill-up of each cemented string, or each stage when utilizing stage-cementing techniques, shall also be given.

- a.) Surface Hole (17-1/2" X 13 3/8" csg): **Lead** w/300 sxs Class "C" Lite Cmt + 2% CaCl, .25 pps Flocele. **Tail** w/200 sxs Class "C" + 2% CaCl<sub>2</sub>.

(Circulate cement to surface).

- b.) Intermediate Hole (12-1/4" X 9 5/8" csg): **Single Stage**

**Lead** w/800 sxs Class "C" Lite + 2% CaCl<sub>2</sub> + 5 pps Gilsonite & .25 pps Flocele, **Tail** w/435 sxs Class "C", 2% CaCl<sub>2</sub>.

(Circulate cmt to surface).



c.) Production Hole (8-3/4" hole X 7" csg): **Two Stage.**

**First Stage Lead** w/500 sxs Class "H" 50/50 Poz, 2% Gel (Extender), 3 pps Salt (Accelerator), .3% Halad-322 (Fluid Loss), .25 pps Flocele, **Tail** w/100 sxs Class "H", .5% Halad-322 (Fluid Loss), .3% Halad-344 (Fluid Loss)

**Second Stage Lead** w/400 sxs Class "H" Lite, 5 pps Gilsonite, .25 pps Flocele. **Tail** w/100 sxs Class "C" + .4% HALAD-9 (Fluid Loss).

DV Tool @ +/- 7500'. TOC @ 2600' (inside 9-5/8").

d.) Plugback Cement

+/- 150 sxs Class "H" + .75% CFR-3 (Dispersant), .5 pps D-AIR-1(Defoamer) .6% HALAD-9 (Fluid Loss).

e.) Liner top cement

DV Tool/ECP @ +/- 11,100'.

100 sxs Class "H" + .5% Halad-322 (Fluid Loss), .4% Halad-344 (Fluid Loss), .2% HR-5 (Retarder)

6. The anticipated characteristics, additives, use, and testing of drilling mud to be employed, along with the types and quantities of mud products to be maintained, shall be given. When air or gas drilling is proposed, the operator shall submit the following specific information:

**Mud Program:**

0-600': fresh water, gel, and lime system, MW 8.9 - 9.3 ppg.

600'-3060': brine, MW 10.0 - 10.2 ppg

3060'-11,000': cut brine mud MW 9.0 - 9.3 ppg

11,000'-13,214' (6-1/8" Pilot Hole & Lateral Section): weighted water base mud MW 10.0 – 15.0 ppg.

7. The anticipated testing, logging, and coring procedures to be used, including drill stem testing procedures, equipment, and safety measures.

a. DST Program: None Planned

b. Core: None Planned

c. Mud Logging: 2000' to TD



- d. Logs to be run: Halliburton CNL/LDT/DLL/MSFL/GR/CAL/BHC, FMI below 7" Logs to be run in vertical hole only

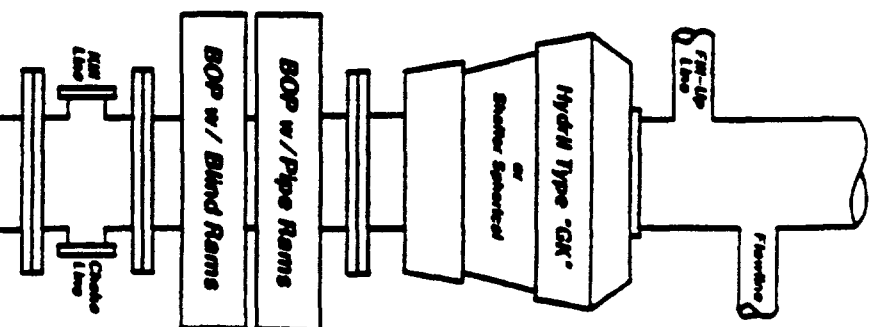
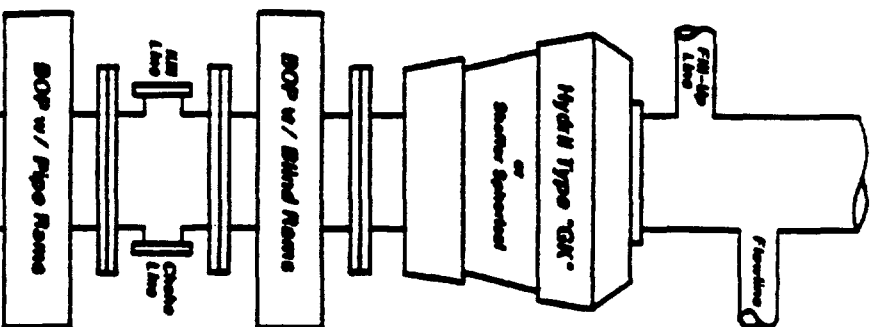
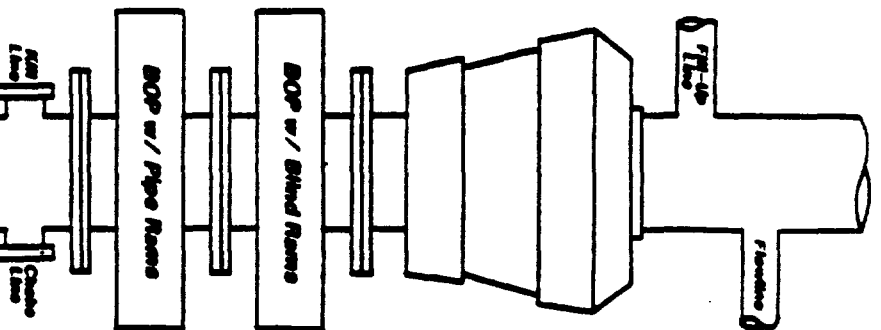
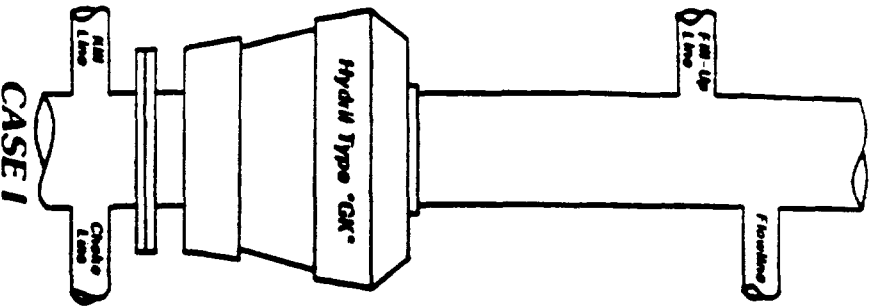
- 8. The expected bottom-hole pressure and any anticipated abnormal pressures, temperatures or potential hazards that are expected to be encountered, such as lost circulation zones and hydrogen sulfide. The operator's plans for mitigating such hazards shall be discussed. Should the potential to encounter hydrogen sulfide exist, the mitigation procedures shall comply with the provisions of Onshore Oil and Gas Order No. 6.

Potential for abnormal pressure exists from the top of the Wolfcamp to TD. Bottom hole pressures at TD is estimated at 7200 psi. Bottom hole temperature 170 F. There is no anticipated Hydrogen Sulfide in this known drilling area. .

- 9. Any other facets of the proposed operation which the operator wishes for BLM to consider in reviewing the application.

Anticipated time expected to do this work is 61 days. (Horizontal Well)

# MINIMUM BLOWOUT PREVENTER REQUIREMENTS



CASE I: 13 5/8" 1500 PSI WP Annular W/Rotating Head To Be Installed On 13 3/8" Csg

CASE II: 11" 5M PSI Double Ram W/ 5M PSI Annular To Be Installed On 9 5/8" Csg.

CASE IV: 7 1/16" 10M PSI Double Ram (Pipe On Top) Above Drilling Spool

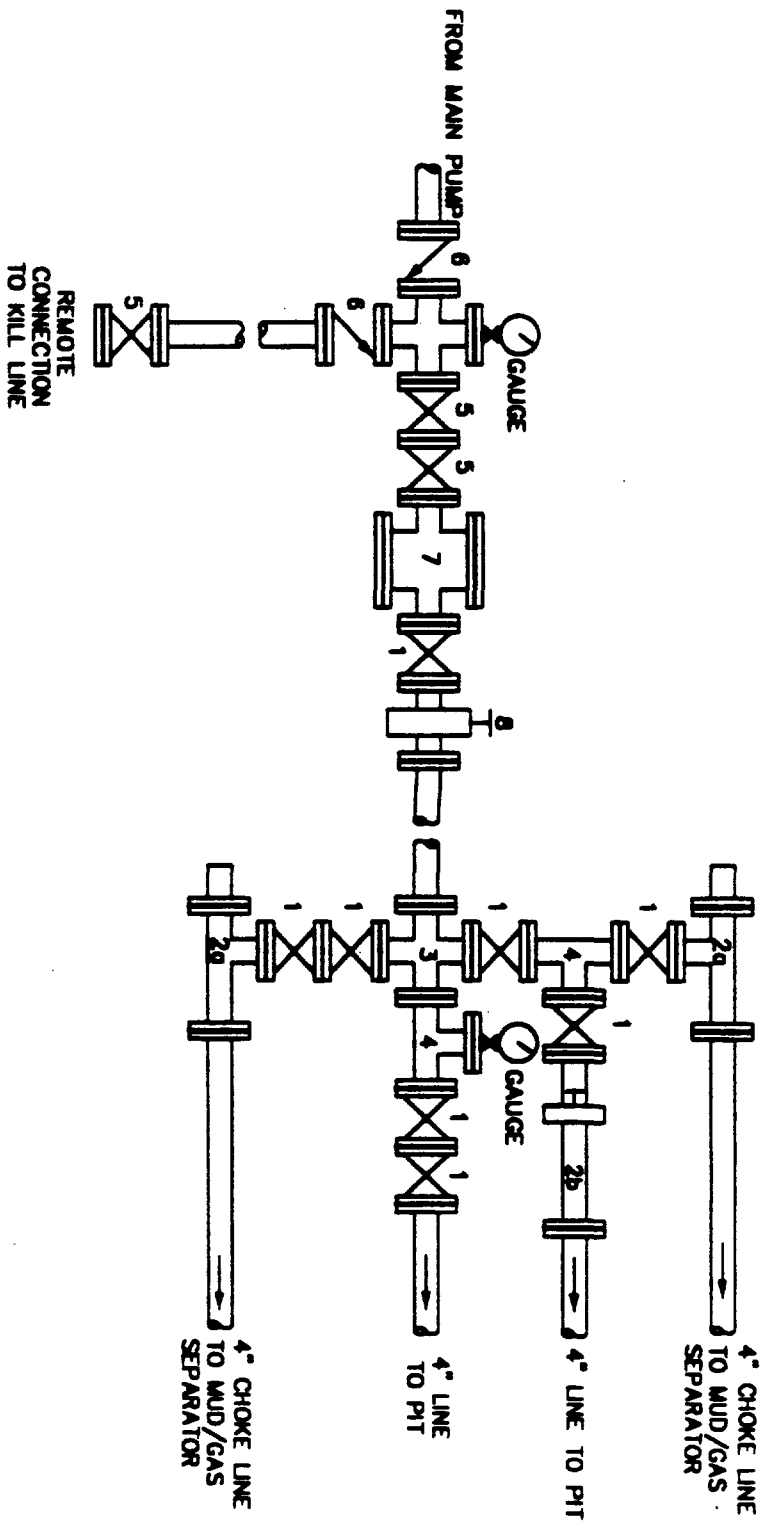
7 1/16" 10M PSI Single Ram Below Drilling Spool

7 1/16" 5M PSI Annular W/Rotating Head

10M PSI Choke Manifold W/Remote Kill Line Connection

All To Be Installed On 7" Csg.

# CHOKE MANIFOLD SCHEMATIC



## LEGEND

1. 4" FLANGED ALL STEEL VALVE MUST BE EITHER CAMERON "F", HALLIBURTON LOW TORQUE, OR SHAFFER FLO-SEAL.
- 2a. 2 9/16" REMOTE OPERATED FLANGED CHOKE, FULL OPENING & EQUIPPED W/HARD TRIM.
- 2b. 2 9/16" MANUAL OPERATED FLANGED CHOKE, FULL OPENING & EQUIPPED W/HARD TRIM.
3. 4" x 4" FLANGED STEEL CROSS.
4. 4" FLANGED STEEL TEE.
5. 2" FLANGED ALL STEEL VALVE (TYPE AS IN #1).
6. 2" FLANGED CHECK VALVE.
7. DRILLING SPOOL W/2" x 4" FLANGED STEEL OUTLET.
8. 4" PRESSURE OPERATED GATE VALVE.

## NOTES

CHOKE MANIFOLD MAY BE LOCATED IN ANY CONVENIENT POSITION. USE ALL STEEL FITTINGS THROUGHOUT. MAKE 90° TURNS WITH BULL PLUGGED TEES ONLY. NO FIELD WELDING WILL BE PERMITTED ON ANY OF THE COMPONENTS OF THE CHOKE MANIFOLD AND RELATED EQUIPMENT UPSTREAM OF THE CHOKES. THE CHOKE SPOOL AND ALL LINES AND FITTINGS MUST BE AT LEAST EQUIVALENT TO THE TEST PRESSURE OF THE PREVENTERS REQUIRED. INDEPENDENT CLOSING CONTROL UNIT WITH CLEARLY MARKED CONTROLS TO BE LOCATED ON DERRICK FLOOR NEAR DRILLER'S POSITION.

## 12-POINT SURFACE USE PLAN OF OPERATIONS

Burlington Resources Oil & Gas Company

Corral Draw 10 Federal #1

N, 800' FSL & 1650' FWL, Sec. 10, T25S, R29E

Corral Draw Wolfcamp Gas Field

Eddy County, New Mexico NM 15303

1. **Existing Roads:** A legible map (USGS topographic, county road, or other such map) labeled and showing the access route to the location, shall be used for locating the proposed well site in relation to a town, village, or other locatable point, such as a highway or county road. All access roads shall be appropriately labeled. Any plans for improvement and/or maintenance of existing roads shall be provided. All roads shall be provided. All roads shall be improved or maintained in a condition the same as or better than before operations. The information provided for use and construction of roads will also be used by BLM for the required Plan of Development for a R/W application as described in Section II C of this Order No. 1.

See Exhibit "A" - topographic land surveyors plat showing existing roads and directions to well site.

2. **Access Roads to be Constructed or Reconstructed:** All permanent and temporary access roads to be constructed or reconstructed in connection with the drilling of the proposed well shall be appropriately identified and submitted on a map or plat. The proposed route to the proposed drill site shall be shown, including distances from the point where the access route exists established roads. All permanent and temporary access roads shall be located and designed to implement the goals of transportation planning and meet applicable standards of the appropriate SMA, and shall be consistent with the needs of the users. Final selection of the route location may be accepted by the SMA as early as the predrill inspection or during approval of the APD.

See Exhibit "A" plat shows 602' of proposed lease road to be constructed..

3. **Location of Existing Wells:** This information shall be submitted on a map or plat, which includes all recorded wells (water, injection, or disposal, producing, or being drilled) within a 1-mile radius of the proposed location.

See Exhibit "B" - portion of land map showing surrounding wells in area.

4. **Location of existing and/or proposed production facilities:** For facilities planned either on or off the well pad, a plat or diagram shall be included showing, to the extent known or anticipated, the location of all production facilities and lines to be installed if the well is successfully completed for production. If new construction is planned, the dimensions of the facility layouts are to be shown. This information for off-pad production facilities may be used by BLM for R/W application information as specified in Section II C of Order No. 1.

Production facilities will be built at location.

5. **Location of Types of Water Supply:** Information concerning water supply, such as rivers, creeks, springs, lakes, ponds, and wells, may be shown by quarter-quarter section on a map or plat, or may be described in writing. The source and transportation method for all water to be used in drilling the proposed well shall be noted if the source is located on Federal or Indian Lands or if water is to be used from a Federal or Indian project. If the water is obtained from other than Federal or Indian lands, the location and transportation method shall be identified. Any access roads crossing Federal or Indian lands that are needed to haul the water shall be described as provided in paragraphs (1) and (2) of this Section. If a water supply well is to be drilled on the lease, the APD shall so state. The authorized officer of BLM may require the filing of a separate APD of a water well.

No available surface or sub-surface fresh water exists in the vicinity of the proposed well. Drilling water will be transported or pumped to the drill site from the nearest commercial source.

6. **Construction Materials:** The operator shall state the character and intended use of all construction material, such as sand, gravel, stone, and soil material. If the materials to be used are Federally owned, the proposed source shall be shown either on a quarter-quarter section on a map or plat, or in a written description.

Caliche will be obtained from well site.

**Methods of Handling Waste Disposal:** A written description of the methods and locations proposed for safe containment and disposal of each type of waste material (e.g. cuttings, garbage, salts, chemicals, sewage, etc.) that results from the drilling and completion of the proposed well shall be provided.

- Drill cuttings - disposed into drilling pits.
- Drill fluids - allowed to evaporate in drill pits until pits dry.
- Produced water during testing - drill pits.
- Produced oil during testing - storage tank until sold.
- Current laws and regulations pertaining to disposal of human waste will be observed.
- Reserve pit will be plastic lined.

- Waste paper, garbage, and junk will be disposed of into a special container on location and removed regularly to an approved landfill site. All waste material will be covered with a screen or lid and contained to prevent scattering by wind.
- All trash and debris will be removed from well site within 30 days after drilling and/or completion operations are finished.

8. **Ancillary Facilities:** All ancillary facilities such as camps and airstrips shall be identified on a map or plat. Information as to location, land area required, and methods to be used in construction shall also be provided.

No Ancillary Facilities are required.

9. **Well Site Layout:** A plat of suitable scale (not less than 1 inch = 50 feet) showing the proposed drill pad, reserve pit location, access road entry points, and its approximate location with respect to topographic features, along with cross section diagrams of the drill pad and the reserve pit showing all cuts and fills and the relation to topography. The plat shall also include the approximate proposed location and orientation of the drilling rig, dikes and ditches to be constructed, and topsoil and/or spoil material stockpiles.

See Exhibit "C". Sketch for the well pad .

10. **Plans for Reclamation of the Surface:** A proposed interim plan for reclamation stabilization of the site and also final reclamation plan shall be provided. The interim portion of the plan shall cover areas of the drillpad not needed for production. The final portion of the plan shall cover final abandonment of the well. The plan shall include, as appropriate, configuration of the reshaped topography, drainage systems, segregation of spoil materials, surface manipulations, redistribution of topsoil, soil treatments, revegetation, and any other practices necessary to reclaim all disturbed areas, including any access roads and pipelines. An estimate of the time for commencement and completion of reclamation operations, including consideration of weather conditions and other local uses of the area, shall be provided.

- After completion of drilling and/or completion of operations, all equipment and other material not needed for operations will be removed. Pits will be filled and locations cleaned of trash and junk to leave well in as aesthetically pleasing a condition as possible.
- Any unguarded pits containing fluids will be fenced until filled.
- After abandonment of well, surface restoration will be in accordance with the Bureau of Land Management Surface Requirements.

11. **Surface Ownership:** The surface ownership (Federal, Indian, State or private) and administration (BLM, FS, BIA, Department of Defense, etc.) at the well location, and of all lands crossed by roads which are to be constructed or upgraded, shall be indicated. Where the surface of the proposed well site is privately owned, the operator shall provide the name, address and telephone number of the surface owner.

Bureau of Land Management  
620 E. Greene Street  
Carlsbad, New Mexico 88220

12. **Other Information:** Type of bond. The operator shall be covered by a bond in its own name as principal, or by a bond in the name of the lessee or sublessee.

Burlington Resources Oil & Gas is covered by a statewide bond.

**Operator's Representatives:**

Field representatives (Responsible for compliance with approved surface use operations plan.)

Burlington Resources Oil & Gas Company  
P.O. Box 837  
Hobbs, NM 88240  
Office: 505-393-5844

Mr. Ed Jackson, Sr. Drilling Foreman  
Artesia, NM  
Home: 505-746-6173  
Mobil: 505-746-7159

Mr. Frank Raybon, Drilling Foreman  
Eunice, NM  
Home: 505-394-2449  
Mobile: 505-369-5367

Jim Kramer, Sr. Staff Drilling Engineer  
P.O. Box 51810  
Midland, TX 79710-1810  
Office: 915-688-6843  
Home: 915-694-2499

Cash Smithwick, Drilling Superintendent  
P.O. Box 51810.  
Midland, TX 79710-1810  
Office: 915-688-9051  
Home: 915-685-7053  
Pager: 915-495-6173



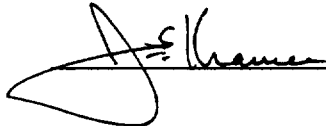
### OPERATORS CERTIFICATION

I hereby certify that I, **Jim Kramer, Senior Staff Drilling Engineer**, under my direct supervision, have inspected the proposed drill site and access route that I am familiar with the conditions that currently exist; that the statements made in the APD package are, to the best of my knowledge, true and correct, and that the work associated with operations proposed herein will be performed by **not yet determined** contractors and subcontractors in conformity with this APD package and the terms and conditions under which it is approved. I also certify responsibility for the operations conducted on that portion of the leased lands associated with this application, with bond coverage being provided under BLM **statewide** bond. This statement is subject to the provisions of 18 U.S.C. 1001 for the filing of a false statement.

DATE: 5-18-98

NAME AND TITLE: Jim Kramer, Senior Staff Drilling Engineer

SIGNATURE:

A handwritten signature in black ink, appearing to read "J. Kramer", is written over a horizontal line.