

UNITED STATES DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. Type of Work DRILL	2006 MAR 3 PM 2 43	5. Lease Number NMSF-079520-A
1b. Type of Well GAS	RECEIVED C/O FARMINGTON NM	Unit Reporting Number NMNM-078411A NMNM-078411B OK
2. Operator BURLINGTON RESOURCES Oil & Gas Company, LP		6. If Indian, All. or Tribe
3. Address & Phone No. of Operator PO Box 4289, Farmington, NM 87499 (505) 326-9700		7. Unit Agreement Name
4. Location of Well Surf - Unit I (NESE), 1600' FSL & 1030' FEL, Est. Bottomhole-Unit E (SENW), 2590' FNL & 50' FWL, SWNW Surface-Latitude 36° 37.7628'N; Longitude 107° 20.4298'W BH-Latitude 36° 37.9418'N; Longitude 107° 20.2086'W		8. Farm or Lease Name San Juan 28-5 Unit Well Number 80N
10. Field, Pool, Wildcat Basin DK / Blanco MV		11. Sec., Twn, Rge, Mer. (NMPM) Surf. Sec. 27, T28N, R05W Est BH - Sec. 26, T28N, R05W API # 30-039-29826
14. Distance in Miles from Nearest Town	12. County Rio Arriba	13. State NM
15. Distance from Proposed Location to Nearest Property or Lease Line 50'		
16. Acres in Lease	17. Acres Assigned to Well MV/DK 320.0 acres N/2	
18. Distance from Proposed Location to Nearest Well, Drig, Compl, or Applied for on this Lease 52' SJ 28-5 Unit #44M		
19. Proposed Depth 8072' TVD	20. Rotary or Cable Tools Rotary	
21. Elevations (DF, FT, GR, Etc.) 6734' GL	22. Approx. Date Work will Start	
23. Proposed Casing and Cementing Program See Operations Plan attached		
24. Authorized by: <u>Patsy Christ</u> Sr. Regulatory Specialist	Date <u>3/3/06</u>	

PERMIT NO.

APPROVAL DATE

APPROVED BY

TITLE

DATE

Archaeological Report attached

Threatened and Endangered Species Report attached

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.

ONLY BUREAU OF LAND MANAGEMENT AUTHORIZED ARE
ALLOWED TO COMPLY WITH ATTACHED
"GENERAL REQUIREMENTS".

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NMOCB

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

DISTRICT II
1301 W. Grand Ave., Artesia, N.M. 88210

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

DISTRICT IV
1220 South St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

2003 MAR 3 PM 2 43

Form C-102

Revised June 10, 2003

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- 29826	*Pool Code 72319 / 71599	*Pool Name Blanco Mesaverde / Basin Dakota
*Property Code 7460	*Property Name SAN JUAN 28-5 UNIT	*Well Number 80N
*OGRID No. 14538	*Operator Name BURLINGTON RESOURCES OIL AND GAS COMPANY LP	*Elevation 6734'

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	27	28-N	5-W		1600'	SOUTH	1030'	EAST	RIO ARRIBA

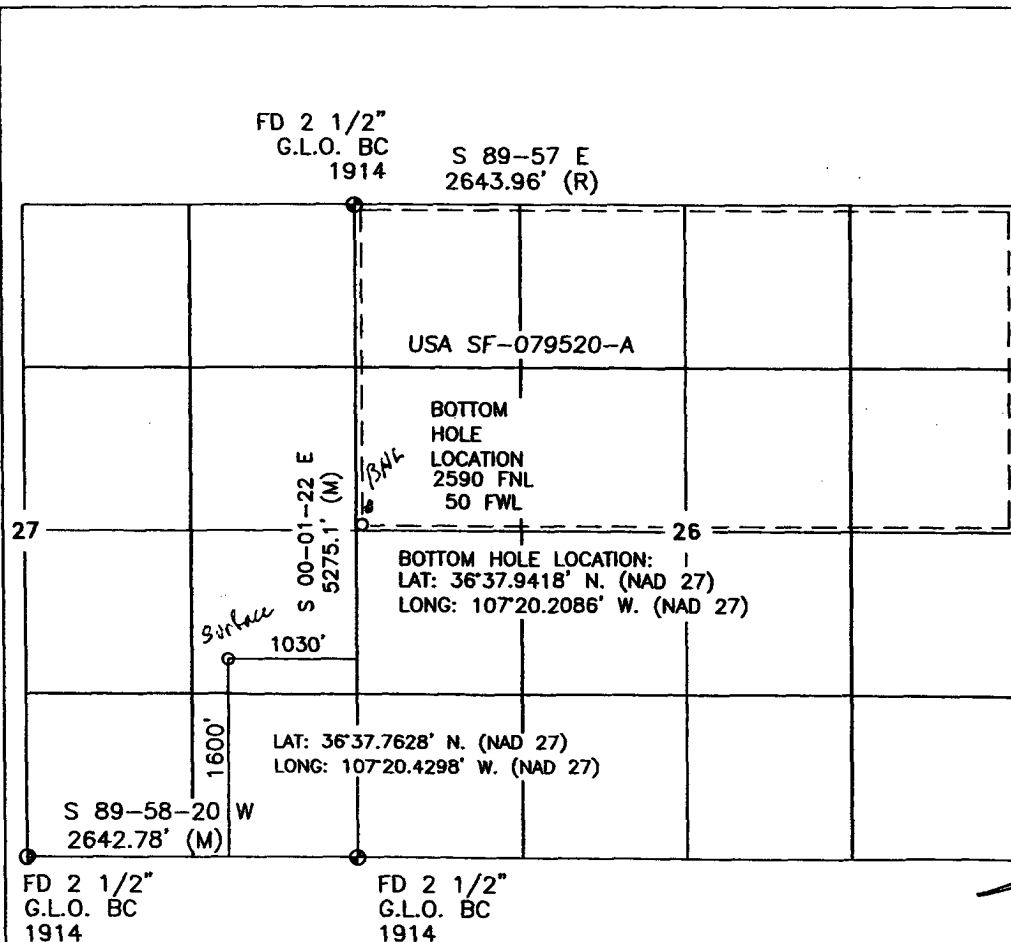
¹¹ Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
E	26	28-N	5-W		2590'	NORTH	50'	WEST	RIO ARRIBA

*Dedicated Acres MV/DB 320 ac N2	*Joint or Infill	*Consolidation Code	*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



17 OPERATOR CERTIFICATION

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

Patsy Clugston
Signature

Patsy Clugston

Printed Name

Sr. Regulatory Specialist

Title

01/24/06

Date

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.

DECEMBER 19, 2005

Date of Survey

Signature

JOHN A. VUKOVICH

Printed Name

14831

REGISTERED PROFESSIONAL SURVEYOR

14831

Certificate Number

Office

Energy, Minerals and Natural Resources

May 27, 2004

District I

1625 N. French Dr., Hobbs, NM 88240

District II

1301 W. Grand Ave., Artesia, NM 88210

District III

1000 Rio Brazos Rd., Aztec, NM 87410

District IV

1220 S. St. Francis Dr., Santa Fe, NM 87505

OIL CONSERVATION DIVISION

1220 South St. Francis Dr.

Santa Fe, NM 87505

WELL API NO.

30-039- 29826

5. Indicate Type of Lease

STATE ☐FEE ☐

6. State Oil & Gas Lease No.

Federal Lease - SF-079520-A

7. Lease Name or Unit Agreement Name

San Juan 28-5 Unit

8. Well Number

80N

9. OGRID Number

14538

10. Pool name or Wildcat

Basin DK / Blanco MV

SUNDY NOTICES AND REPORTS ON WELLS
(DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A
DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH
PROPOSALS.)

1. Type of Well:

Oil Well ☐Gas Well ☒

Other

2. Name of Operator

BURLINGTON RESOURCES OIL & GAS COMPANY LP

3. Address of Operator

3401 E. 30TH STREET, FARMINGTON, NM 87402

4. Well Location

Unit Letter I : 1600' feet from the South line and 1030' feet from the East lineSection 27 Township 28N Rng 5W NMPM County Rio Arriba

11. Elevation (Show whether DR, RKB, RT, GR, etc.)

6734' GL

Pit or Below-grade Tank Application

☐ or Closure ☐Pit type New Drill Depth to Groundwater <50' Distance from nearest fresh water well>1000' Distance from nearest surface water

Pit Liner Thickness:

12

mil

Below-Grade Tank:

Volume

bbls;

Construction Material

12. Check Appropriate Box to Indicate Nature of Notice, Report or Other Data

NOTICE OF INTENTION TO:

PERFORM REMEDIAL WORK ☐TEMPORARILY ABANDON ☐PULL OR ALTER CASING ☐PLUG AND ABANDON ☐CHANGE PLANS ☐MULTIPLE COMPL ☐

OTHER:

New Drill ☒

SUBSEQUENT REPORT OF:

REMEDIAL WORK ☐COMMENCE DRILLING OPNS. ☐CASING/CEMENT JOB ☐ALTERING CASING ☐P AND A ☐OTHER: ☐

13. Describe proposed or completed operations. (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work). SEE RULE 1103. For Multiple Completions: Attach wellbore diagram of proposed completion or recompletion.

New Drill, Lined:

Burlington Resources proposes to construct a new drilling pit and an associated vent/flare pit. Based on Burlington's interpretation of the Ecosphere's risk ranking criteria, the new drilling pit will be a lined pit as detailed in Burlington's Revised Drilling / Workover Pit Construction / Operation Procedures dated November 11, 2004 on file at the NMOCD office. A portion of the vent/flare pit will be designed to manage fluids and that portion will be lined as per the risk ranking criteria. Burlington Resources anticipates closing these pits according to the Drilling / Workover Pit Closure Procedure dated August 2, 2004 on file at the NMOCD

I hereby certify that the information above is true and complete to the best of my knowledge and belief. I further certify that any pit or below-grade tank has been/will be constructed or closed according to NMOCD guidelines ☐, a general permit ☒ or an (attached) alternative OCD-approved plan ☐.

SIGNATURE

Patsy Clugston

TITLE

Sr. Regulatory Specialist

DATE

1/31/2006

Type or print name

Patsy Clugston

E-mail address:

pclugston@br-inc.com

Telephone No.

505-326-9518

For State Use Only

APPROVED BY

[Signature]

TITLE

DEPUTY OIL & GAS INSPECTOR, DIST. *[Signature]*

DATE

MAY 03 2006

Conditions of Approval (if any):

SAN JUAN 28-5 UNIT No. 80N, 1600 FSL 1030 FEL

SECTION 27, T-28-N, R-5-W, N.M.P.M., RIO ARriba COUNTY, NEW MEXICO

GROUND ELEVATION: 6734. DATE: DECEMBER 19, 2005

LATITUDE: 36°37.7628' N (NAD 27)




NOTE: DAGGETT ENTERPRISES, INC. IS NOT LIABLE FOR UNDERGROUND UTILITIES OR PIPELINES. NEW MEXICO ONE CALL TO BE NOTIFIED 48 HOURS PRIOR TO EXCAVATION OR CONSTRUCTION.

NOTE: ESTIMATED VOLUMES CALCULATED BY AVERAGE
END AREA AT CROSS-SECTION SHOWN

NOTE: CONTRACTOR SHOULD CALL ONE-CALL FOR LOCATION OF ANY MARKED OR UNMARKED BURIED PIPELINES OR CABLES ON WELL PAD AND OR ACCESS ROAD AT LEAST TWO (2) WORKING DAYS PRIOR TO CONSTRUCTION.

REVISION:	DATE:	REVISED BY:
RESTAKE LOCATION	01/13/06	B. LEIDY



Daggett Enterprises, Inc.
Surveying and Oil Field Services
 P. O. Box 15068 • Farmington, NM 87401
 Phone (505) 336-1772 • Fax (505) 336-6019
 NEW MEXICO L.S. 14831

DOWN BY: A.G.	COPY: BR471PUB
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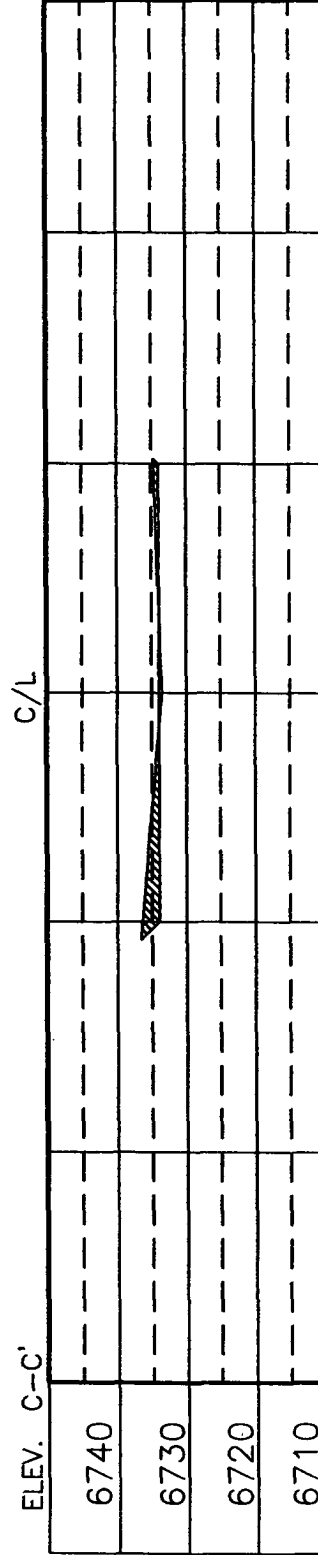
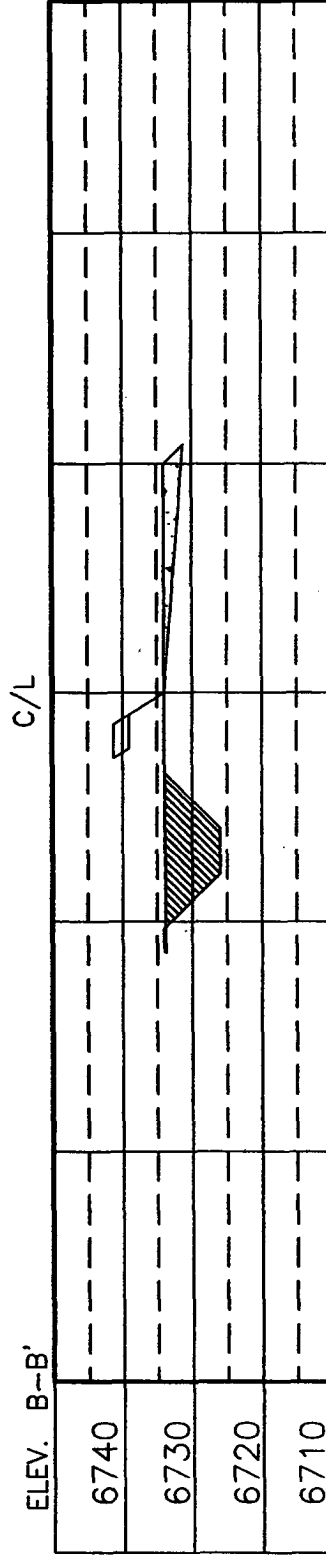
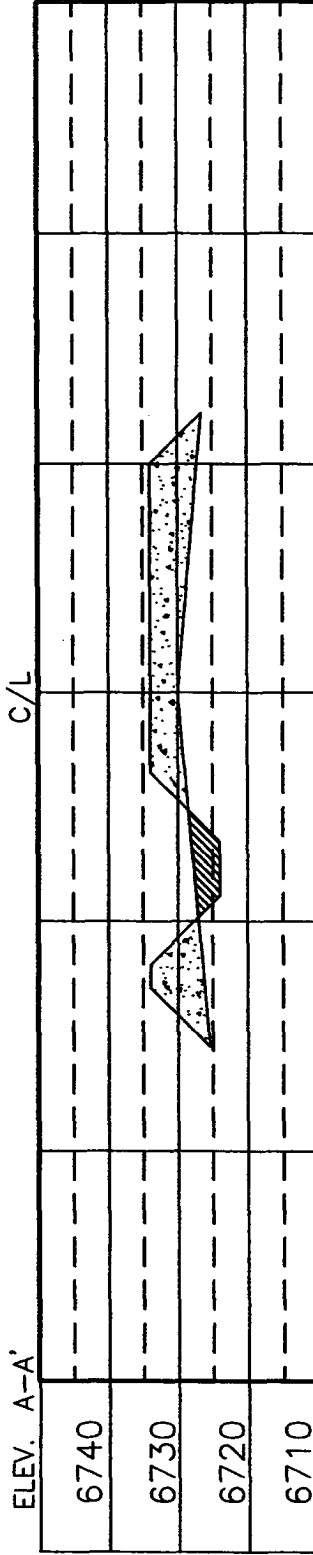
BURLINGTON RESOURCES OIL & GAS COMPANY LP

SAN JUAN 28-5 UNIT No. 80N, 1600 FSL 1030 FEL

SECTION 27, T-28-N, R-5-W, N.M.P.M., RIO ARriba COUNTY, NEW MEXICO

GROUND ELEVATION: 6734, DATE: DECEMBER 19, 2005


LATITUDE: 36°37.7628' N (NAD 27) LONGITUDE: 107°20.4298' W (NAD 27)



NOTE: DAGGETT ENTERPRISES, INC. IS NOT LIABLE FOR UNDERGROUND UTILITIES OR PIPELINES. NEW MEXICO ONE CALL TO BE NOTIFIED 48 HOURS PRIOR TO EXCAVATION OR CONSTRUCTION.

NOTE: CONTRACTOR SHOULD CALL ONE-CALL FOR LOCATION OF ANY MARKED OR UNMARKED BURIED PIPELINES OR CABLES ON WELL PAD AND OR ACCESS ROAD AT LEAST TWO (2) WORKING DAYS PRIOR TO CONSTRUCTION.

REVISION:	DATE:	REVISED BY:
RESTAKE LOCATION	01/13/08	BLEDY



Daggett Enterprises, Inc.
 Surveying and Oil Field Services
 P. O. Box 15068 • Farmington, NM 87401
 Phone (505) 328-1772 • Fax (505) 328-6019
 NEW MEXICO L.S. 14831

DRAWN BY: A.G.	CHECKED BY: BR471CFS
DATE: 11/07/03	

SAN JUAN 28-5 UNIT #80N OPERATIONS PLAN

Well Name: San Juan 28-5 Unit #80N
Location Rio Arriba County, New Mexico
Surface: 1600' FSL, 1030' FEL, Section 27, T-28-N, R-5-W
Latitude 36° 37.7628'N, Longitude 107° 20.4298'W
Bottom Hole: 2590' FNL, 50' FWL, Section 26, T-28-N, R-5-W
Latitude 36° 37.9416'N, Longitude 107° 20.2086'W
Formation Blanco Mesa Verde/Basin Dakota
Elevation 6734' GL

<u>Formation Tops</u>	<u>Top (TVD)</u>	<u>Top (TMD)</u>	<u>Contents</u>
Surface	San Jose		
Ojo Alamo	2973'	3148'	aquifer
Kirtland	3128'	3316'	gas
Fruitland	3368'	3575'	gas
Pictured Cliffs	3605'	3831'	gas
Lewis	3813'	4055'	gas
Huerfanito Bentonite	4218'	4492'	gas
Chacra	4578'	4863'	gas
Intermediate set point: 150' into Chacra			
Upper Cliffhouse	5188'	5474'	gas
Massive Cliff House	5396'	5682'	gas
Menefee	5456'	5742'	gas
Massive Point Lookout	5770'	6056'	gas
Mancos	6278'	6564'	gas
Gallup	7016'	7302'	gas
Greenhorn	7713'	7999'	gas
Graneros	7780'	8066'	gas
Two Wells	7832'	8118'	gas
Upper Cubero	7923'	8209'	gas
Lower Cubero	7976'	8262'	gas
Oak Canyon	8032'	8318'	
Encinal	8051'	8337'	
TD	8072'	8358'	

Logging Program

Cased Hole – CBL-GR- TD to surface
Open Hole - None

Mud Program

<u>Interval (TMD)</u>	<u>Type</u>	<u>Weight</u>	<u>Vis.</u>	<u>Fluid Loss</u>
0- 350'	Spud	8.4-9.0	40-50	no control
350- 5014'	Non-dispersed	8.4-9.0	30-60	less than 8
5014'- 8358'	Air/Air Mist/Nitrogen	n/a	n/a	n/a

Drilling (Reference Plot #1)

Surface Hole

Drill to surface casing point of 350' and set 9 5/8" casing.

Intermediate Hole

Mud drill to kick off point of 400'. At this point the well will be directionally drilled by building 4.0 degrees per 100' with an azimuth of 44.63 degrees. The end of the build will be at a TVD of 940', a TMD of 953', a reach of 106', and an angle of 22.13 degrees. This angle and azimuth will be held to a TVD of 4188', a TMD of 4460', and a reach of 1427'. At this point the well will be drilled with a drop of 4.0 degrees per 100'. The end of the drop will be at a TVD of 4728', a TMD of 5014', a reach of 1532', and an angle of 0.0 degrees. 7" casing will be set at this point.

Production Hole

From the shoe of the intermediate string, the well will be drilled vertically with an air hammer to a TMD of 8358' (TVD of 8072'). 4 1/2" casing will be set at this point.

Materials

Casing program

<u>Hole Size</u>	<u>Interval (TMD)</u>	<u>Csg. Size</u>	<u>Weight</u>	<u>Grade</u>
12 1/4"	0' - 350'	9 5/8"	32.3#	H-40
8 3/4"	350' - 5014'	7"	23#	L-80
6 1/4"	5014' - 8358'	4 1/2"	11.6#	L-80

Tubing Program

<u>Hole Size</u>	<u>Interval (TMD)</u>	<u>Csg. Size</u>	<u>Weight</u>	<u>Grade</u>
2 3/8"	0' - 8358'	2 3/8"	4.7#	J-55

Wellhead Equipment

9 5/8" x 7" X 4 1/2" x 2 3/8" – 11" (2000 psi) wellhead assembly

Cementing:

9 5/8" surface casing conventionally drilled: **200% excess cement to bring cement to surface**

Run **329 ft³ (257 sks)** Type III cement with 3% CaCl₂ and 1/4 pps celloflake (1.28 sks/ft³). Wait on cement appropriate time until cement achieves 250 psi compressive strength at 60° F prior to nipple up of BOPE. Wait on cement for 8 hrs for conventionally set holes before pressure testing or drilling out from under surface.

7" production casing: **50% excess cement to bring cement to surface**

Lead with **1006 ft³ (472 sks)** Premium Lite w/ 3% CaCl₂, 0.25 pps Cello-Flake, 5 pps LCM-1, 0.4% FL-52 and 0.4% SMS (2.13 sks/ft³). Tail with **124 ft³ (90 sks)** Type III cmt. w/ 1% CaCl₂, 0.25 pps Cello-Flake and 0.2% FL-52 (1.38 sks/ft³). If cement does not circulate to surface, a CBL or a temperature survey will be run to determine TOC.

4 1/2" production casing: **30% excess cement to achieve 100' overlap with intermediate casing**

Run **458 ft³ (231 sks)** Premium Lite HS FM + 0.25pps Cello-Flake, 0.3% CD-32, 6.25pps LCM-1, 1% FL-52 (1.98 sks/ft³).

Saw tooth guide shoe on bottom. Bowspring centralizers will be run in accordance with Onshore Order #2.

BOP and Tests:

Surface to production TD – 11", 2000 psi double gate BOP stack (Reference Figure #1).

Prior to drilling out surface casing, test rams and casing to 600 psi for 30 minutes.

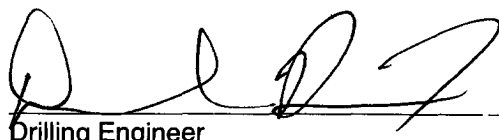
Surface to Total Depth – choke manifold (Reference Figure #2).

Pipe rams will be actuated at least once each day and blind rams will be actuated once each trip to test proper functioning. A Kelly cock valve and drill string safety valves to fit each drill string will be maintained and available on the rig floor.

BOPE tests will be performed using an appropriately sized test plug and test pump and will be recorded using calibrated test gauges and a properly calibrated strip or chart recorder. The test will be recorded in the driller's log and will include a low pressure test requirement of 250 psig held for five minutes and a high pressure test requirement held for ten minutes as described in Onshore Order No. 2 or otherwise noted in the APD. A successful BOPE test using a test plug is considered when no pressure drop occurs over the duration of the test. Test gauges and recorders must be of the proper range and resolution commensurate with the authorized test pressure. Where the intermediate casing strings are used, only one BOPE test will be necessary contingent upon the test being conducted to the highest approved test pressure to which BOPE will be exposed. Casing pressure tests must be held for 30 minutes with no more than 10 percent pressure drop during the duration of the test.

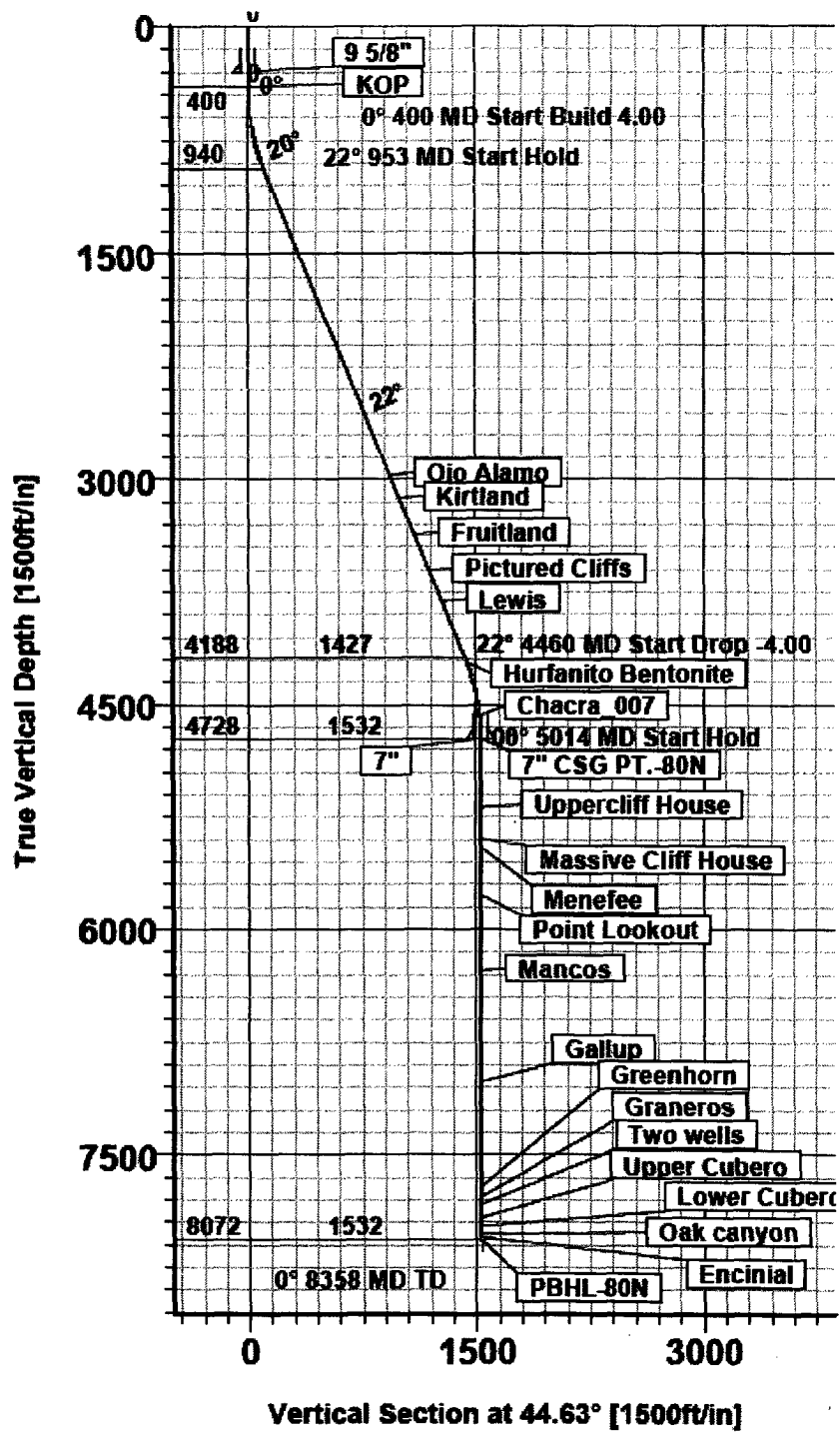
Additional Information:

- This gas is dedicated.
- The North half of section 26 is dedicated to the Mesaverde and Dakota of this well.
- New casing will be utilized.
- Pipe movement (reciprocation) will be done if hole conditions permit.
- No abnormal pressure zones are expected.
- BHP is expected to be 2000 psi.



Drilling Engineer

1/31/05
Date



Plot 1: Directional plan for SJ 28-5 #80N



Scientific Drilling
Directional Drilling Operations

Field: Rio Arriba, NM
Site: Sec 26 T28N R5W
Well: Unit 80N
Wellpath: OH
Plan: Plan #2

BURLINGTON™
RESOURCES

SECTION DETAILS

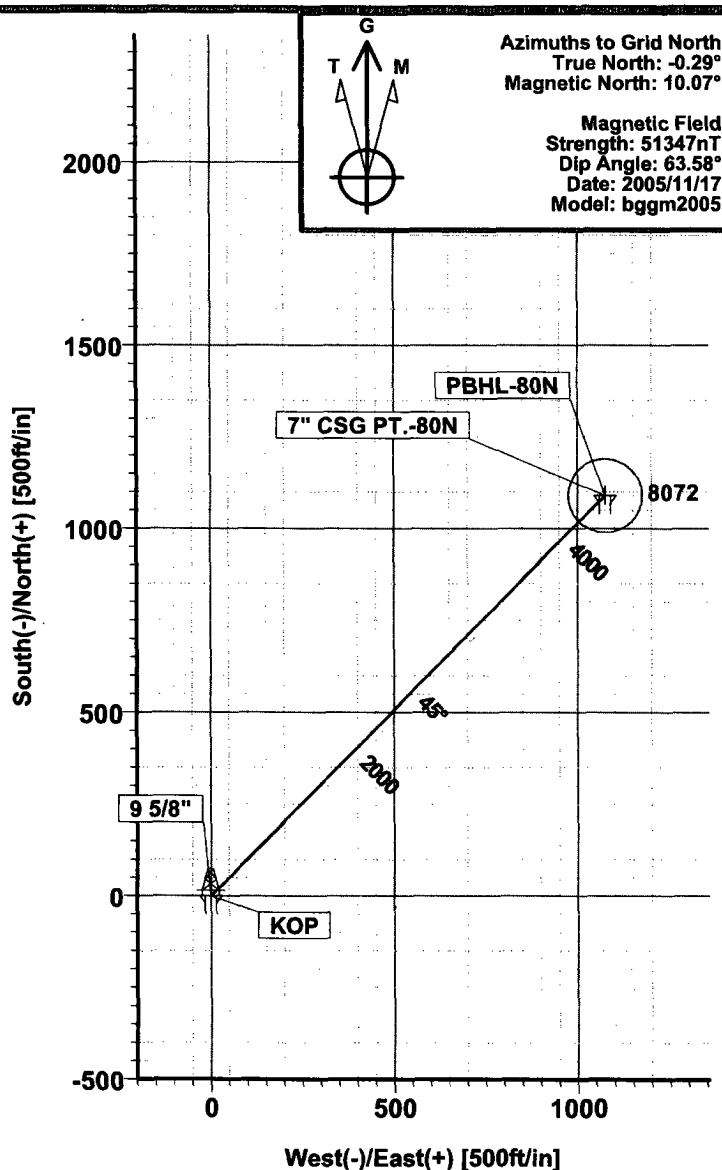
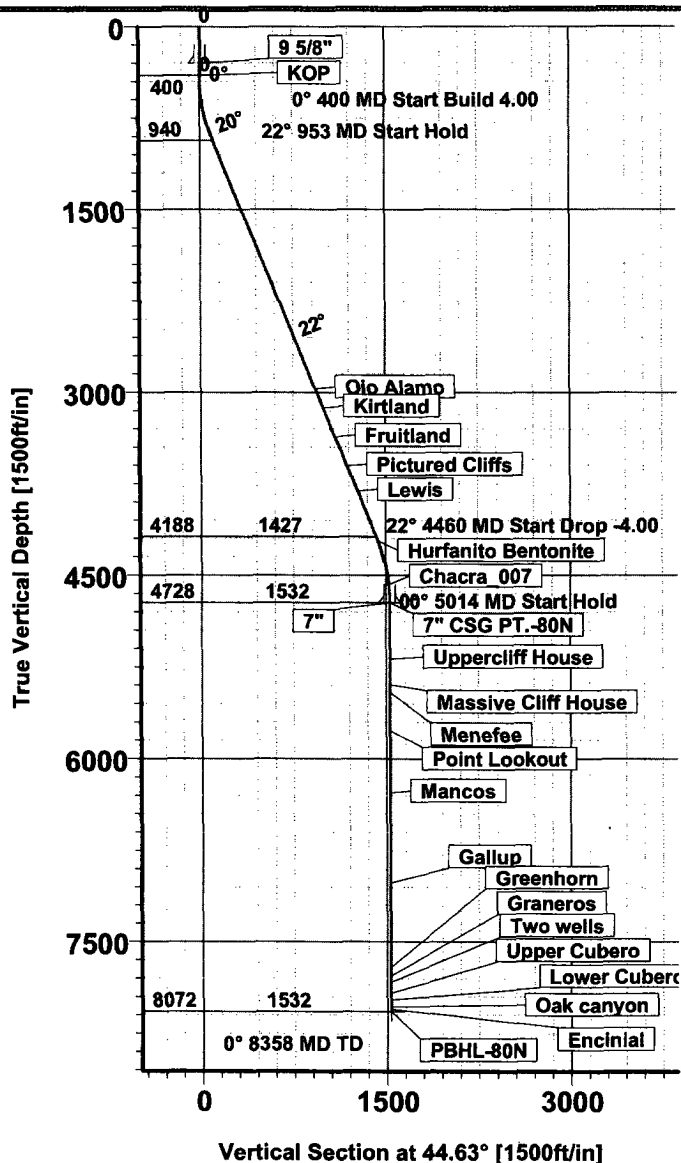
Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
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2	400.00	0.00	0.00	400.00	0.00	0.00	0.00	0.00	0.00	
3	953.20	22.13	44.63	939.55	75.09	74.11	4.00	0.00	105.50	
4	4460.43	22.13	44.63	4188.45	1015.32	1002.15	0.00	0.00	1426.60	
5	5013.63	0.00	0.00	4728.00	1090.41	1076.26	4.00	180.00	1532.10	
6	8357.63	0.00	0.00	8072.00	1090.41	1076.26	0.00	0.00	1532.10	PBHL-80N

WELL DETAILS

Name	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
Unit 80N	992.47	-2029.49	2048717.000	644611.680	36°37'45.768N	107°20'25.789W	N/A

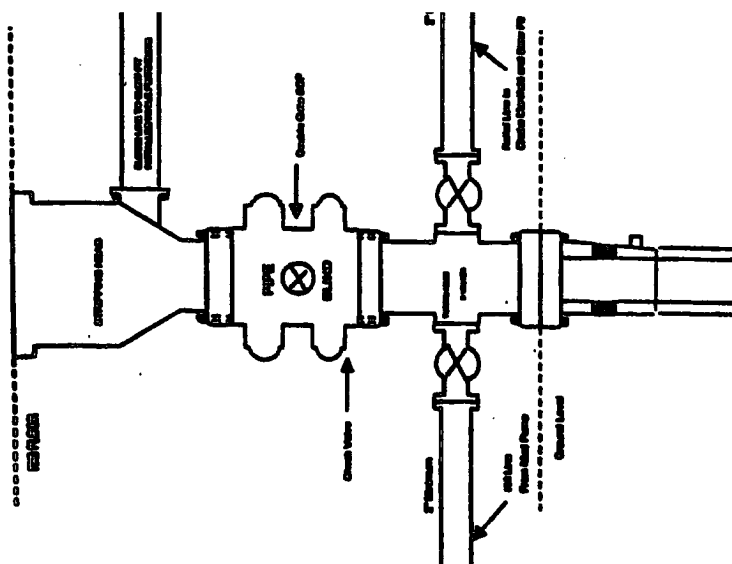
TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Shape
7" CSG PT.-80N	4728.00	1090.41	1076.26	2049807.410	645687.940	Point
PBHL-80N	8072.00	1090.41	1076.26	2049807.410	645687.940	Circle (Radius: 100)



BURLINGTON RESOURCES

**Completion/Workover Rig
BOP Configuration
2,000 psi System**

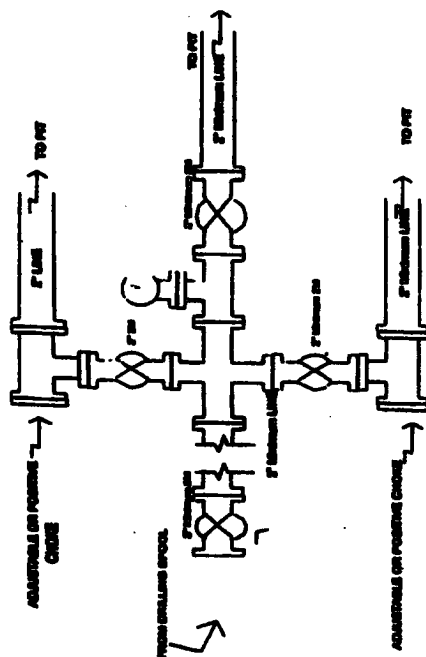


Minimum BOP Installation for all CompacWorkover Operations. 7-1/8" bore, 2000 psi minimum working pressure double gate BOP to be equipped with blind and pipe rams. A stripping head to be installed on the top of the BOP. All stripping equipment to be 2000 psi working pressure or greater including 500 psi stripping head.

Figure 102

BURLINGTON RESOURCES

**Drilling Rig
Choke Manifold Configuration
2000 psi System**

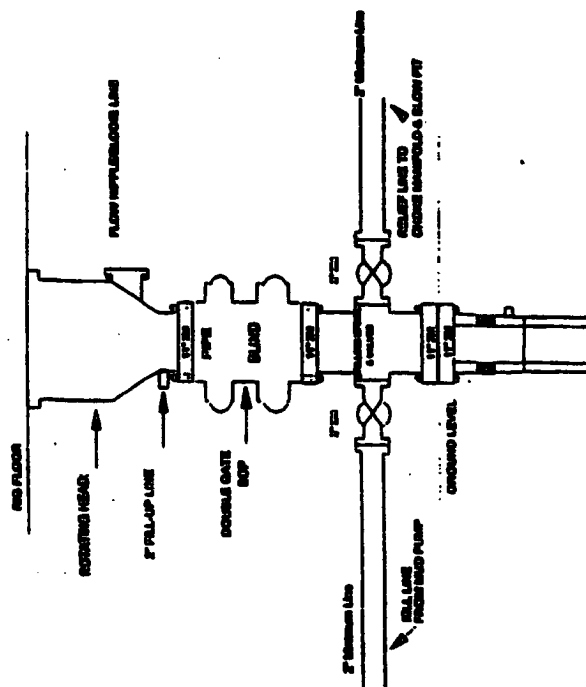


Choke manifold installation from Surface Casing Point to Total Depth. 2,000psi working pressure equipment with two chokes.

Figure 3

Burlington Resources

**Drilling Rig
2000 psi System**



BCP Installation from Surface Casing Point to Total Depth. 11" Bore 14" Nominal. 2000 psi working pressure double gate BCP to be equipped with blind rams and slip rams. A BOP gel coating lined on top of ram preventers. All BOP equipment is 2,000 psi working pressure.

File #