

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. Type of Work
DRILL

1b. Type of Well
GAS

2. Operator
BURLINGTON
RESOURCES Oil & Gas Company, LP

3. Address & Phone No. of Operator
PO Box 4289, Farmington, NM 87499
(505) 326-9700

4. Location of Well
Surface - Unit O (SWSE), 735' FSL & 1445' FEL
Est. BH - Unit I (NESE), 1880' FSL & 320' FEL

Surface - Latitude 36° 42.3687'N
Surface - Longitude 107° 34.2991'W
Est. BH - Latitude - 36.42.5564'N
Est. BH - Longitude - 107.34.0684'N

5. Lease Number
NMSF-078424
Unit Reporting Number

6. If Indian, All. or Tribe

7. Unit Agreement Name
San Juan 29-7 Unit

8. Farm or Lease Name

9. Well Number
#50M

10. Field, Pool, Wildcat
Basin DK / Blanco MV

11. Sec., Twn, Rge, Mer. (NMPM)
O Sec. 21, T29N, R07W
API # 30-039-29796

12. County
Rio Arriba

13. State
NM

14. Distance in Miles from Nearest Town

15. Distance from Proposed Location to Nearest Property or Lease Line
735'

16. Acres in Lease

17. Acres Assigned to Well
E/2 - MV/DK - 320 acres

18. Distance from Proposed Location to Nearest Well, Drlg, Compl, or Applied for on this Lease
Twinning with the 29-7 Unit #50A

19. Proposed Depth
8030' TVD - 8346' TMD

20. Rotary or Cable Tools
Rotary

21. Elevations (DF, FT, GR, Etc.)
6792' GL

22. Approx. Date Work will Start

23. Proposed Casing and Cementing Program
See Operations Plan attached

24. Authorized by: Patricia Cluskey
Sr. Regulatory Specialist

Date 2/6/06

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.

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

HOLD C194 FOR Directional Survey

RECEIVED

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

Form C-102
Revised June 10, 2003

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

2006 FEB 7 6 09 26

RECEIVED

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

*API Number 30-039 - 29796		*Pool Code 72319 / 71599	*Pool Name Blanco Mesaverde / Basin Dakota
*Property Code 7465	*Property Name SAN JUAN 29-7 UNIT		*Well Number 50M
*OGRID No. 14538	*Operator Name BURLINGTON RESOURCES OIL & GAS COMPANY LP		*Elevation 6792

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
O	21	29-N	7-W		735	SOUTH	1445	EAST	RIO ARRIBA

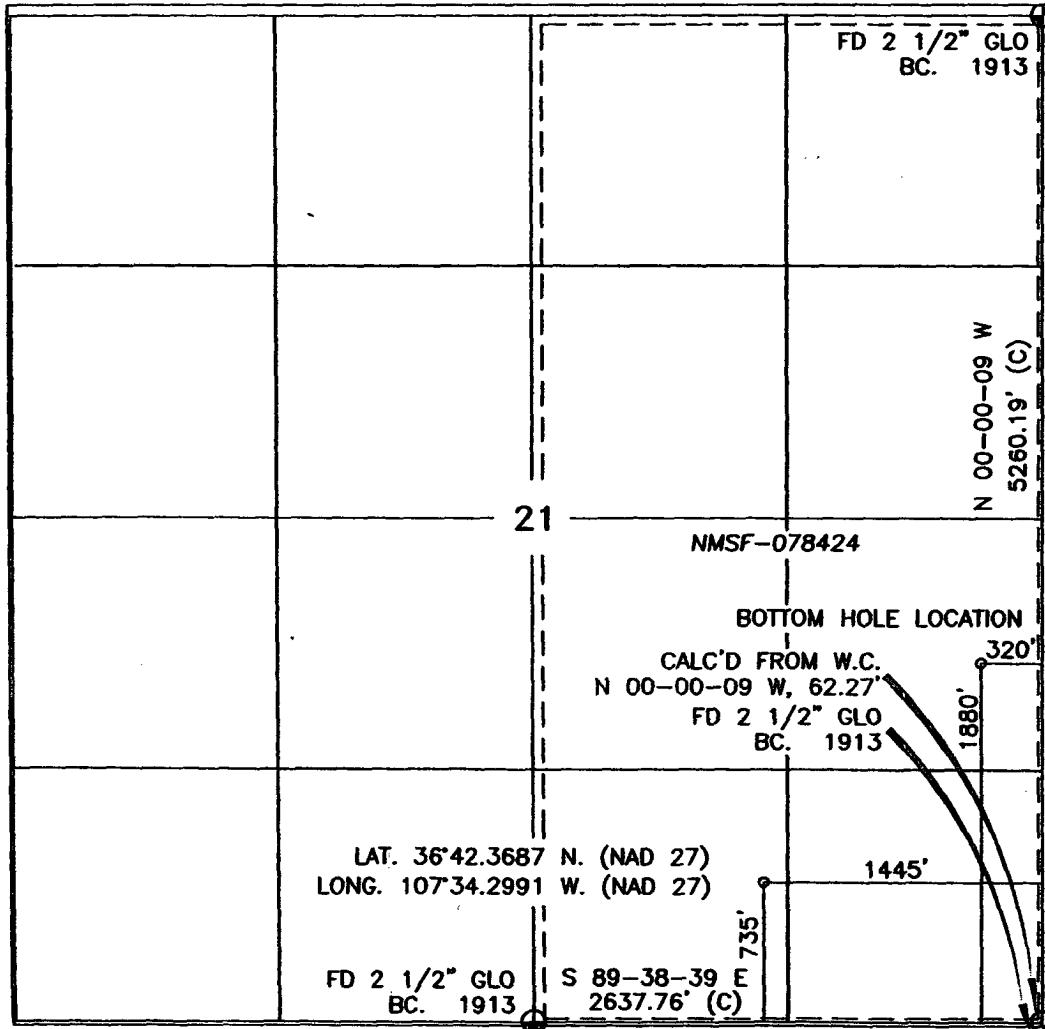
¹¹ Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
I	21	29-N	7-W		1880	SOUTH	320	EAST	RIO ARRIBA

*Dedicated Acres MV/DK 320 ac E2	*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.

JANUARY 19 2006
Date of Survey
Signature and Seal of Professional Surveyor:

[Signature]
Professional Land Surveyor
8894
Certificate Number

State of New Mexico

Energy, Minerals and Natural Resources

OIL CONSERVATION DIVISION

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

Form C-103

May 27, 2004

SUNDRY 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 O : 735 feet from the South line and 1445 feet from the East line
Section 21 Township 29N, Range 7W NMPM County Rio Arriba

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

6792' GL

Pit or Below-grade Tank Application

☐ or Closure ☐

Pit type

New Drill

Depth to Groundwater

>100'

Distance from nearest fresh water well

>1000'

Distance from nearest surface water

>1000'

Pit Liner Thickness:

n/a

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, Unlined:

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 and vent/flare pit will be an unlined 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 unlined, 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 office.

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

TITLE

Sr. Regulatory Specialist

DATE

1/25/2006

Type or print name

Patsy Clugston

E-mail address:

pclugston@br-inc.com

Telephone No.

505-326-9518

For State Use Only

APPROVED BY

TITLE

DEPUTY OIL & GAS INSPECTOR, DIST. IV

DATE

APR 03 2006

Conditions of Approval (if any):

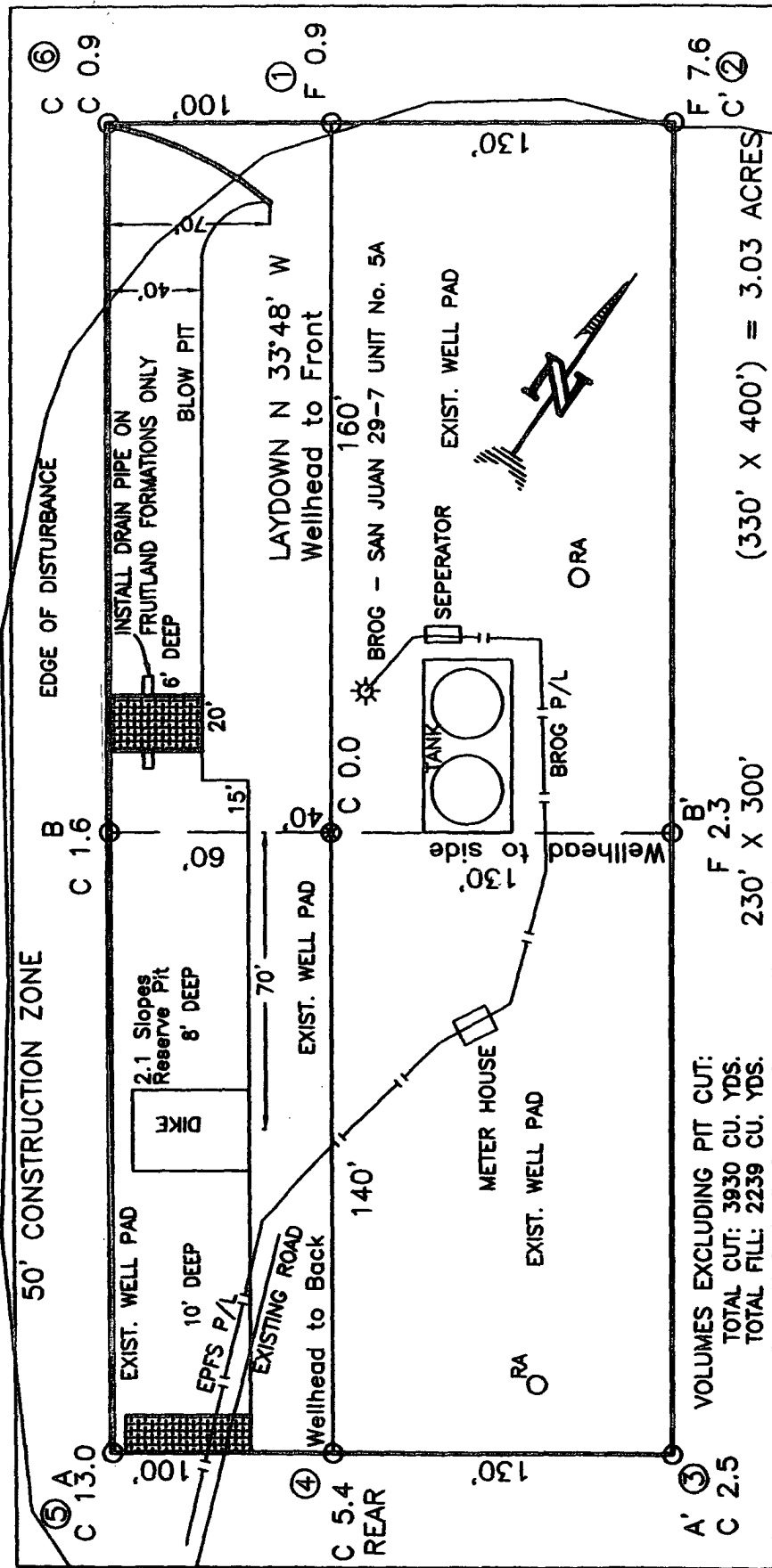
BURLINGTON RESOURCES OIL & GAS COMPANY LP

SAN JUAN 29-7 UNIT No. 50M, 735 FSL 1445 FEL

SECTION 21, T-29-N, R-7-W, N.M.P.M., RIO ARriba COUNTY, NEW MEXICO

GROUND ELEVATION: 6792, DATE: JANUARY 10, 2006

LATITUDE: 36°42.3687' N (NAD 27) LONGITUDE: 107°34.2991' 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.

Daggett Enterprises, Inc.
 Surveying and Oil Field Services
 P. O. Box 15068 • Farmington, NM 87401
 Phone (505) 398-1772 • Fax (505) 398-6919
 NEW MEXICO L.S.# 8894
 Surveyor at Large
 License # 55675
 Date 06/28/06

BURLINGTON RESOURCES OIL & GAS COMPANY LP

SAN JUAN 29-7 UNIT No. 50M, 735 FSL 1445 FEL

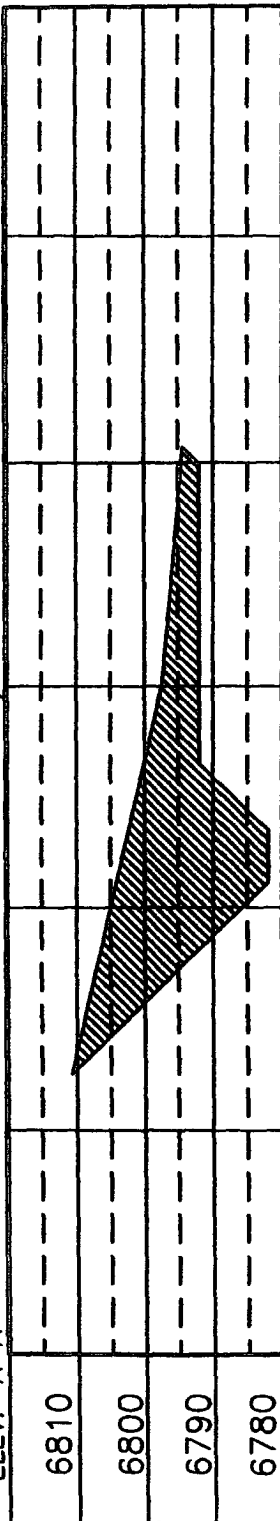
SECTION 21, T-29-N, R-7-W, N.M.P.M., RIO ARriba COUNTY, NEW MEXICO

GROUND ELEVATION: 6792, DATE: JANUARY 10, 2006

LATITUDE: 36°42.3637' N (NAD 27) LONGITUDE: 107°34.2991' W (NAD 27)

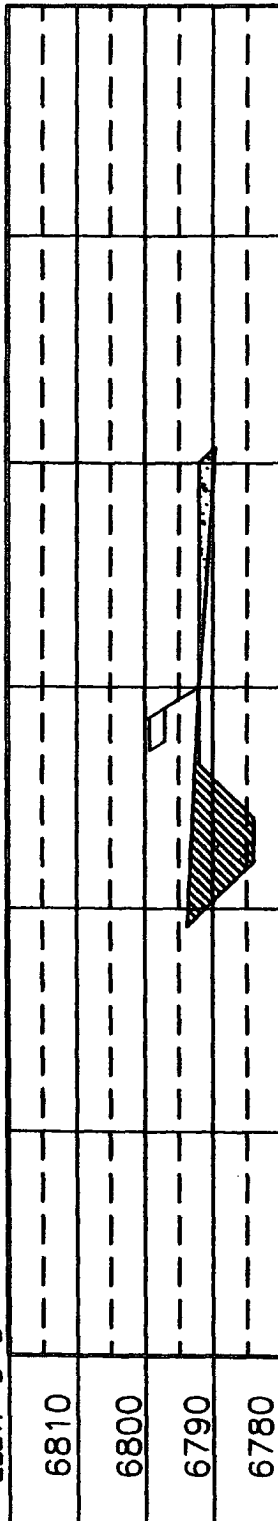
ELEV. A-A'

C/L



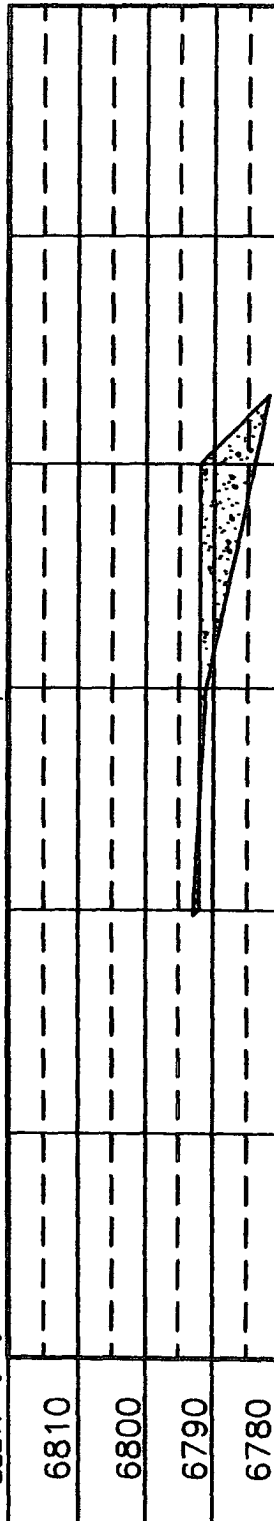
ELEV. B-B'

C/L



ELEV. C-C'

C/L



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.

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Daggett Enterprises, Inc.
Surveying and Oil Field Services
P. O. Box 15088 • Farmington, NJ 07401
Phone (908) 326-1772 • Fax (908) 326-6019
NEW MEXICO U.S. 8894

DATE	REVISION	BY
01/10/06	1	AS
01/10/06	2	AS
01/10/06	3	AS
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01/10/06	99	AS
01/10/06	100	AS

SAN JUAN 29-7 UNIT #50M OPERATIONS PLAN

Well Name: San Juan 29-7 Unit #50M

Location Rio Arriba County, New Mexico
Surface: 735' FSL, 1445' FEL, Section 21, T-29-N, R-7-W
Latitude 36° 42.3687'N, Longitude 107° 34.2991'W
Bottom Hole: 1880' FSL, 320' FEL, Section 21, T-29-N, R-7-W
Latitude 36° 42.5564'N, Longitude 107° 35.0684'W

Formation Blanco Mesa Verde/Basin Dakota
Elevation 6792' GL

<u>Formation Tops</u>	<u>Top (TVD)</u>	<u>Top (TMD)</u>	<u>Contents</u>
Surface	San Jose		
Ojo Alamo	2681'	2851'	aquifer
Kirtland	2781'	2560'	gas
Fruitland	3346'	3576'	gas
Pictured Cliffs	3586'	3837'	gas
Lewis	3754'	4020'	gas
Huerfanito Bentonite	4286'	4596'	gas
Chacra	4541'	4856'	gas
Intermediate set point: 150' into Chacra			
Massive Cliff House	5306'	5622'	gas
Menefee	5391'	5707'	gas
Massive Point Lookout	5748'	6064'	gas
Mancos	6196'	6512'	gas
Gallup	7004'	7320'	gas
Greenhorn	7718'	8034'	gas
Graneros	7779'	8095'	gas
Two Wells	7824'	8140'	gas
Upper Cubero	7937'	8253'	gas
Lower Cubero	7963'	8279'	gas
Encinal	8030'	8346'	
TD	8030'		

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- 5007'	Non-dispersed	8.4-9.0	30-60	less than 8
5007'- 8346'	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 44.55 degrees. The end of the build will be at a TVD of 970', a TMD of 986', a reach of 118', and an angle of 23.43 degrees. This angle and azimuth will be held to a TVD of 4121', a TMD of 4421', and a reach of 1484'. 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 4691', a TMD of 5007', a reach of 1602', 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 8346' (TVD of 8030'). 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' - 5007'	7"	23#	L-80
6 1/4"	5007' - 8346'	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' - 8346'	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 **1005 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 **325 ft³ (156 sks)** Premium Lite HS FM + 0.25pps Cello-Flake, 0.3% CD-32, 6.25pps LCM-1, 1% FL-52 (1.98 sks/ft³).

460 ft³; 227 sks ⇒ 30% excess

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 ^{BOPE} double gate BOP stack (Reference Figure #1).

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

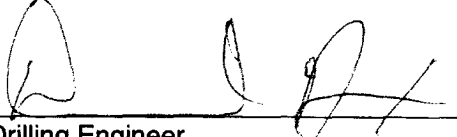
Surface to Total Depth - choke manifold (Reference Figure #2).

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 east half of section 21 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

1126100
Date



Scientific Drilling
Directional Drilling Operations

Field: Rio Arriba, NM
Site: SEC 21-T29N-R7W
Well: SAN JUAN 29-7 #50M
Wellpath: OH
Plan: Plan #2

BURLINGTON™
RESOURCES

SECTION DETAILS

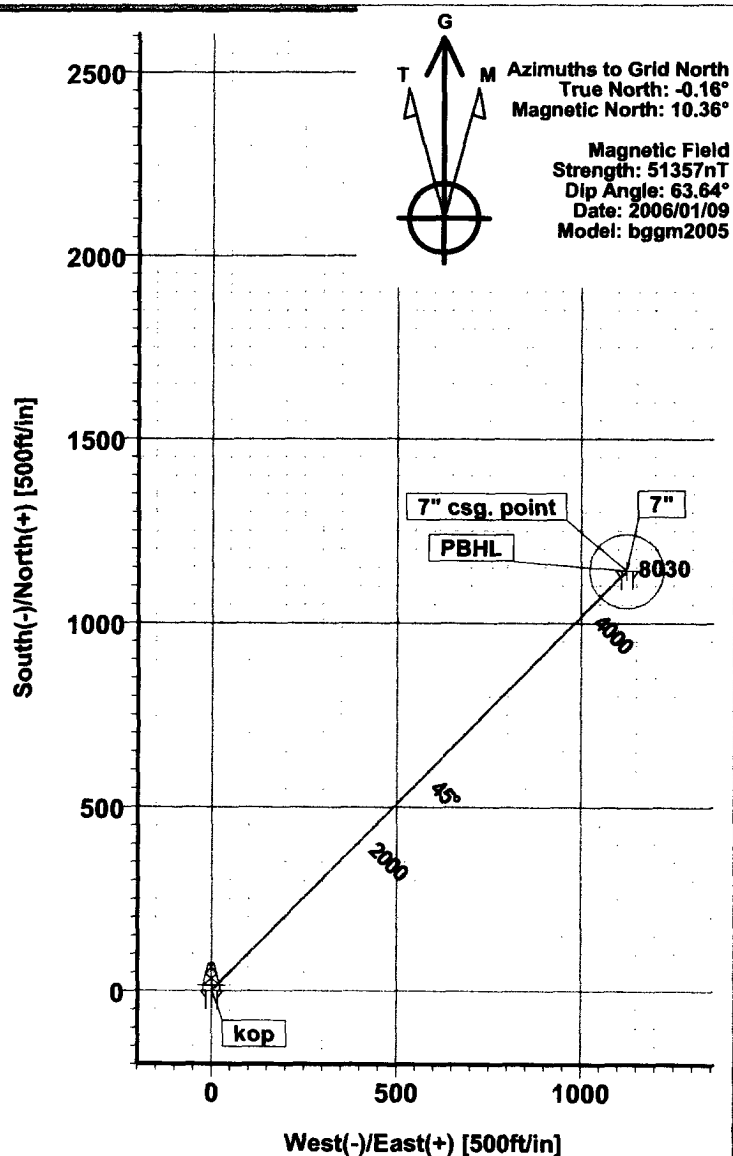
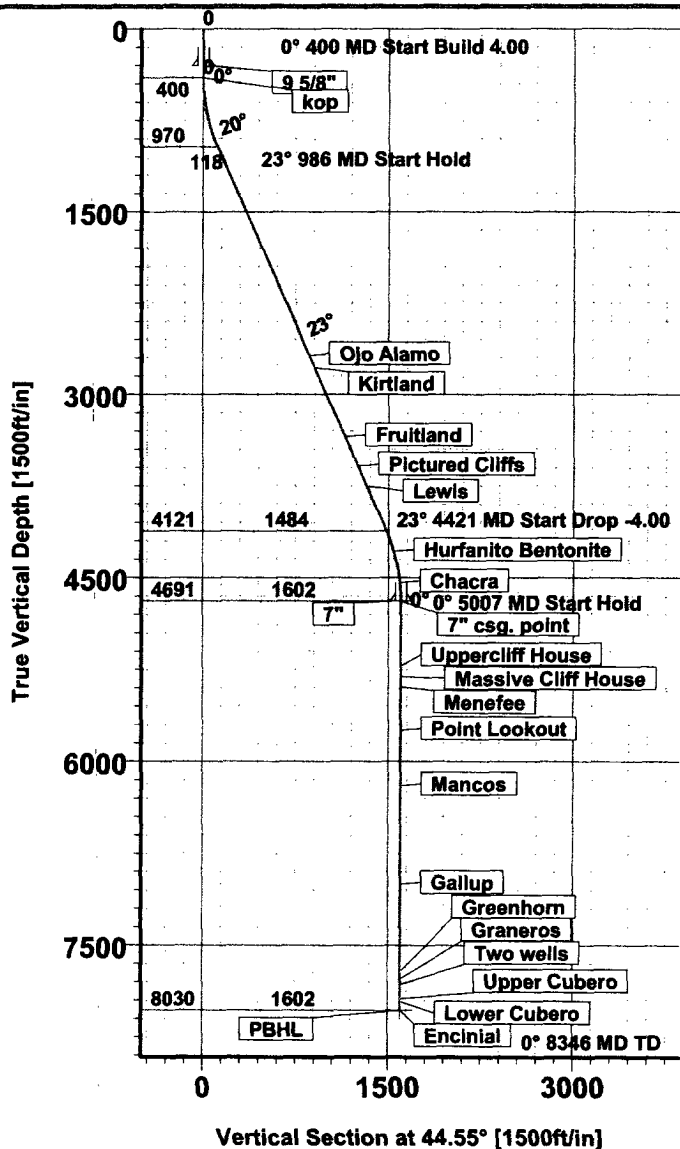
Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
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2	400.00	0.00	0.00	400.00	0.00	0.00	0.00	0.00	0.00	
3	985.79	23.43	44.55	969.59	84.18	82.86	4.00	0.00	118.12	
4	4420.87	23.43	44.55	4121.41	1057.65	1041.10	0.00	0.00	1484.09	
5	5006.65	0.00	0.00	4691.00	1141.83	1123.96	4.00	180.00	1602.21	7" csg. point
6	8345.65	0.00	0.00	8030.00	1141.83	1123.96	0.00	0.00	1602.21	PBHL

WELL DETAILS

Name	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
SAN JUAN 29-7 #50M	-3278.88	7594.05	2076396.120	576708.050	36°42'22.122N	107°34'17.947W	N/A

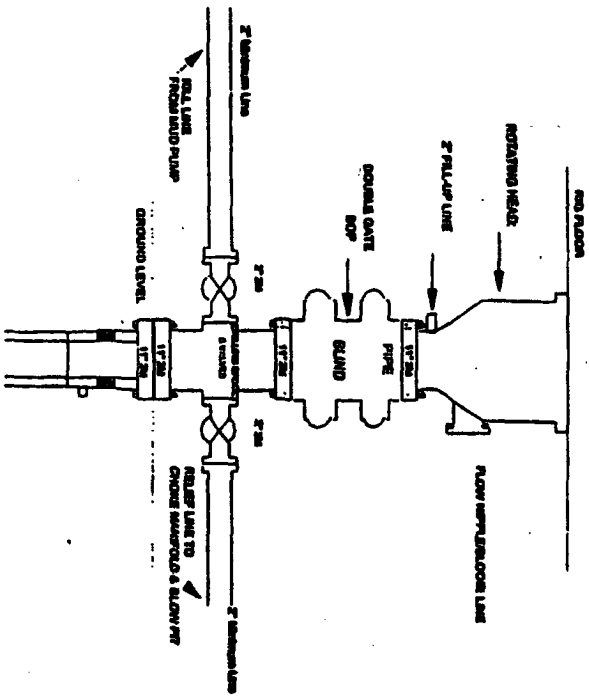
TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Shape
7" csg. point	4691.00	1141.83	1123.96	2077537.950	577832.010	Point
PBHL	8030.00	1141.83	1123.96	2077537.950	577832.010	Circle (Radius: 100)



Burlington Resources

Drilling Rig 2000 psi System



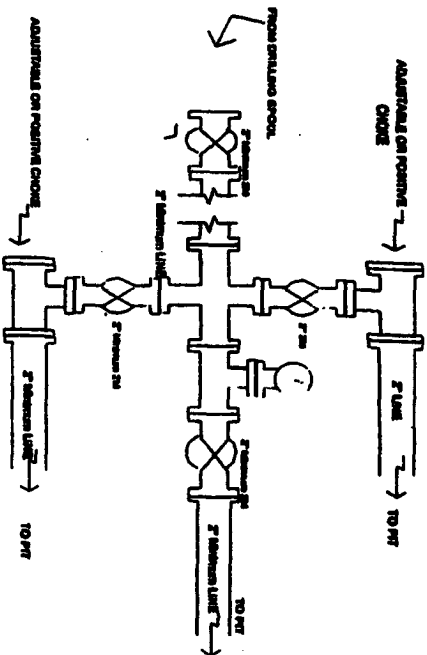
BCP installation from Surface Casing Point to Total Depth, 11" Bore 40" Material, 2000 psi working pressure double gate BOP to be equipped with blind rams and pipe rams. A 600 psi rating based on top of ram prevention. All BOP equipment is 2,000 psi working pressure.

Figure #1

4-20-01

BURLINGTON RESOURCES

Drilling Rig Choke Manifold Configuration 2000 psi System



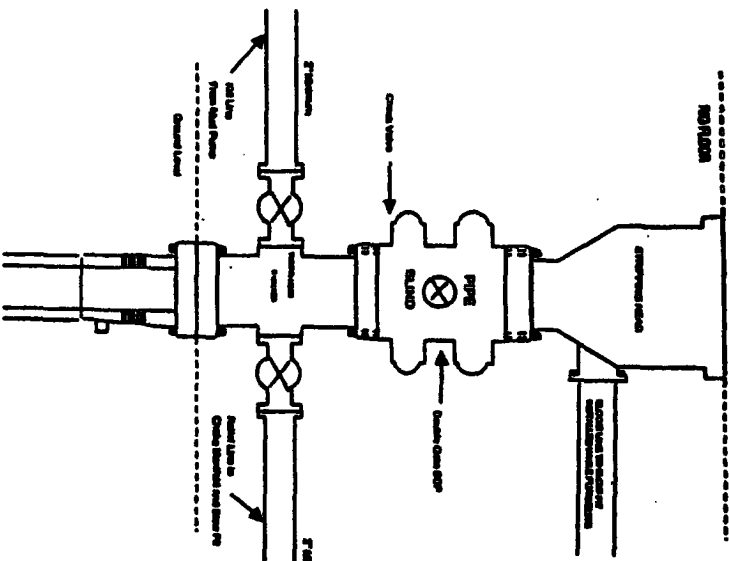
Choke manifold installation from Surface Casing Point to Total Depth, 2,000psi working pressure equipment with two chokes.

Figure #3

4-20-01

BURLINGTON RESOURCES

Completion/Workover Rig BOP Configuration 2000 psi System



Minimum BOP installation for all Completion/Workover Operations, 7-1/16" bore, 2000 psi minimum working pressure double gate BOP to be equipped with blind and pipe rams. A strapping head to be installed on the top of the BOP. All BOP equipment to 2000 psi working pressure or greater including 600 psi strapping head.

Figure #2