

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

2006 JAN 19 AM 8 36

1a. Type of Work
DRILL

1b. Type of Well
GAS

2. Operator
BURLINGTON 14538
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 C (NENW), 1250' FNL & 1720' FWL
Est. BH - Unit G 1500' FNL & 2540' FEL.

Surface - Latitude 36° 42.9178'N
Surface - Longitude 107° 35.8112'W
Est. BH - Latitude - 36.42.8758'N
Est. BH - Longitude - 107.35.6028'N

5. Lease Number
NMSF-078424
Unit Reporting Number
CTO FARMINGTON NM

6. If Indian, All. or Tribe

7. Unit Agreement Name
NMNM-07847B-0K NMNM-07847-B
San Juan 29-7 Unit
(7465)

8. Farm or Lease Name

9. Well Number
#49M

10. Field, Pool, Wildcat
Basin DK / Blanco MV
71599 72319

11. Sec., Twn, Rge, Mer. (NMPM)
C Sec. 20, T29N, R07W
API # 30-039- 29763

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
1500'

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
307' from SJ 29-7 #45A

19. Proposed Depth
8105' TVD - 8238' TMD

20. Rotary or Cable Tools
Rotary

21. Elevations (DF, FT, GR, Etc.)
6913' GL

22. Approx. Date Work will Start

23. Proposed Casing and Cementing Program
See Operations Plan attached

24. Authorized by: Patsy Cleger
Sr. Regulatory Specialist Date 1/17/06

PERMIT NO.

APPROVAL DATE

APPROVED BY Juan Lopez

TITLE Acting AFM

DATE 1/26/06

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.

HOLD C104 FOR directional survey

DRILLING OPERATIONS AUTHORIZED AND
PROCEED WITH ATTACHED

This action is subject to compliance with
procedural review prior to a final decision
and approval, subject to the following:

NMOC

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
811 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

2005 JAN 19 AM 8:37
☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number 30-039-29703	Pool Code 72319-71599	Pool Name Blanco Mesaverde/ Basin Dakota
Property Code 7465	Property Name SAN JUAN 29-7 UNIT	Well Number 49M
OGED No. 14538	Operator Name BURLINGTON RESOURCES OIL AND GAS COMPANY LP	Elevation 6913'

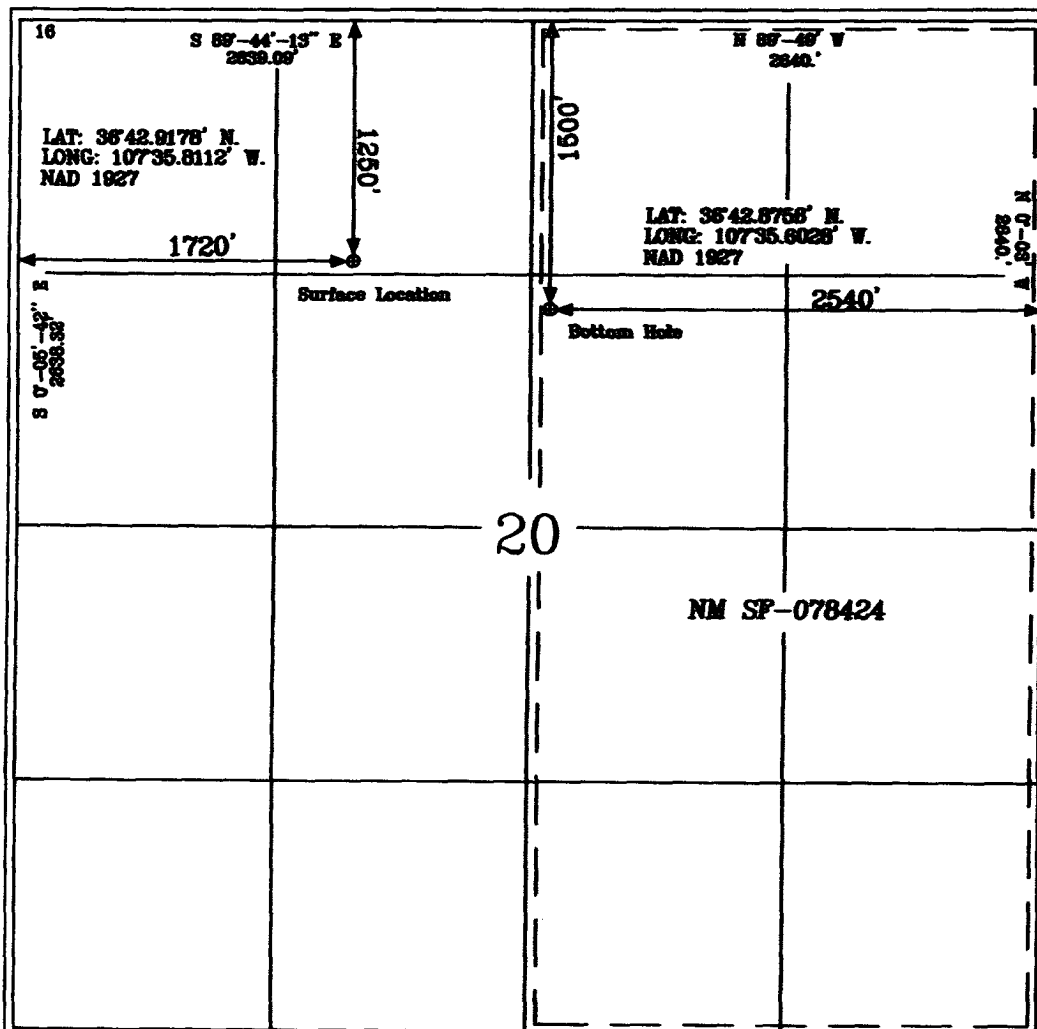
10 Surface Location

UL or lot no.	Section	Township	Range	Lot	Feet from the	North/South line	Feet from the	East/West line	County
C	20	29-N	7-W		1250'	NORTH	1720'	WEST	RIO ARRIBA

11 Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot	Feet from the	North/South line	Feet from the	East/West line	County
G	20	29-N	7-W		1500'	NORTH	2540'	EAST	RIO ARRIBA
Dedicated Acres E2 MV/DK 320		Joint or Infill		Consolidation Code		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.

Patsy Clugston
Signature
Patsy Clugston
Printed Name
Sr. Regulatory Specialist
Title
1-12-06
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.

Date of Survey: 1-12-06
Signature: *Glen W. Russell*
Glen W. Russell
Professional Surveyor
15703
Certificate Number

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.

30-039-29763

5. Indicate Type of Lease

STATE ☐

FEE ☐

6. State Oil & Gas Lease No.

NMSF-078424

7. Lease Name or Unit Agreement Name

San Juan 29-7 Unit

8. Well Number

#49M

9. OGRID Number

14538

10. Pool name or Wildcat

Basin DK / Blanco MV

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 C

: 1250

feet from the

North

line and

1720'

feet from the

West

line

Section 20

Township

29N

Rng

7W

NMPM

County

Rio Arriba

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

6913' 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

bbbs;

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 ☐

SUBSEQUENT REPORT OF:

REMEDIAL WORK ☐

COMMENCE DRILLING OPNS. ☐

CASING/CEMENT JOB ☐

ALTERING CASING ☐

P AND A ☐

OTHER:

New Drill

☒

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

Patsy Clugston

TITLE

Sr. Regulatory Specialist

DATE

1/17/2006

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. 4

DATE

JAN 30 2006

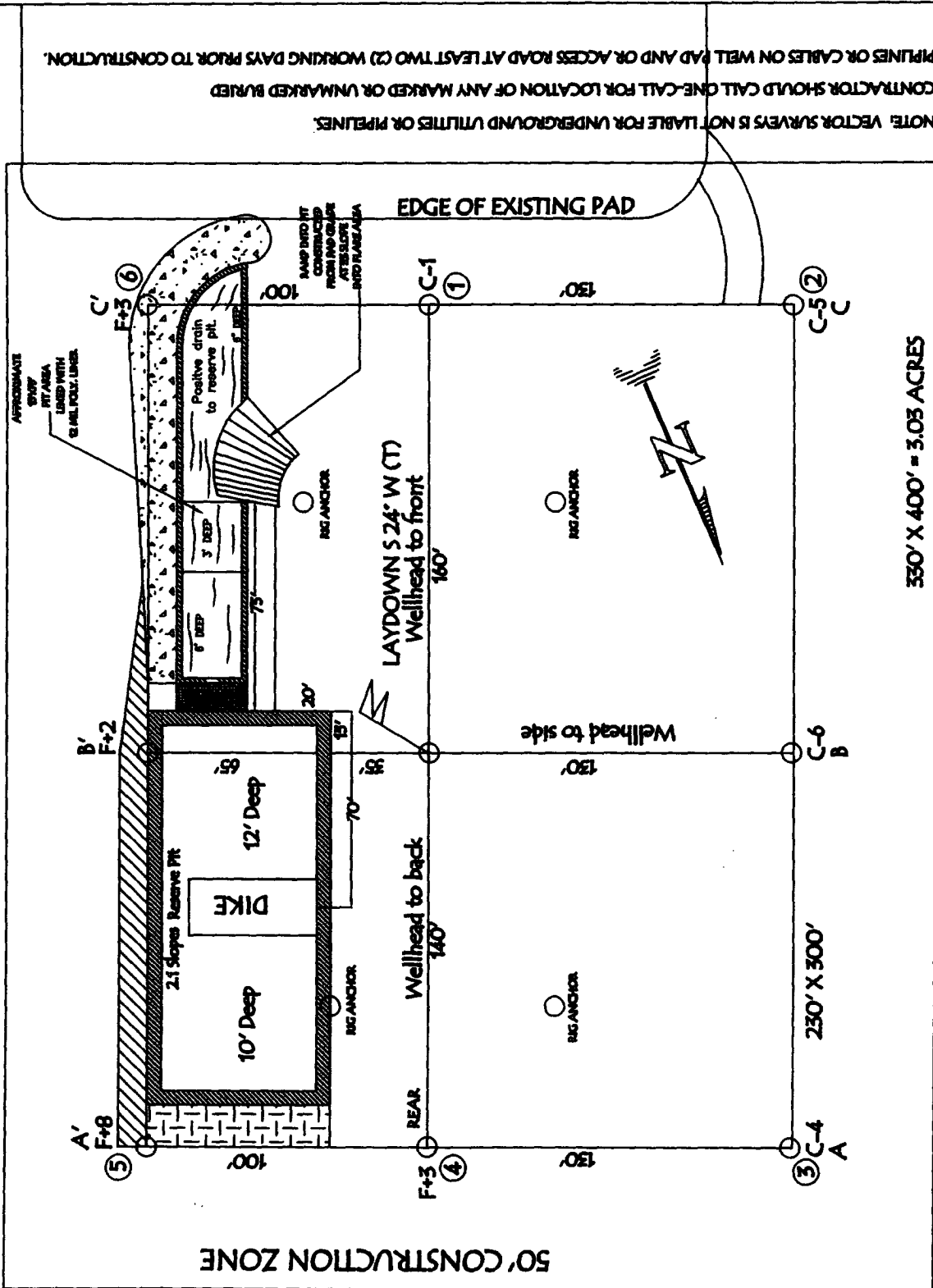
Conditions of Approval (if any):

BURLINGTON RESOURCES OIL & GAS COMPANY LP

SAN JUAN 29-7 UNIT #49M, 1250' FNL & 1720' FWL

SECTION 20, T-29-N, R-7-W, NMPM, RIO ARRIBA COUNTY, NM

GROUND ELEVATION: 6913', DATE: SEPTEMBER 13, 2005

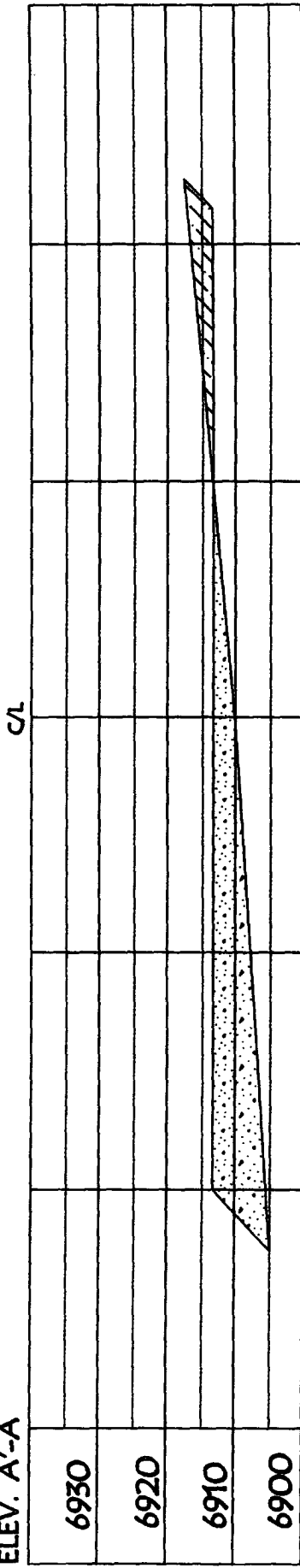


RESERVE PIT DIKE: TO BE 8' ABOVE DEEP SIDE (OVERFLOW - 3' WIDE AND 1' ABOVE SHALLOW SIDE).

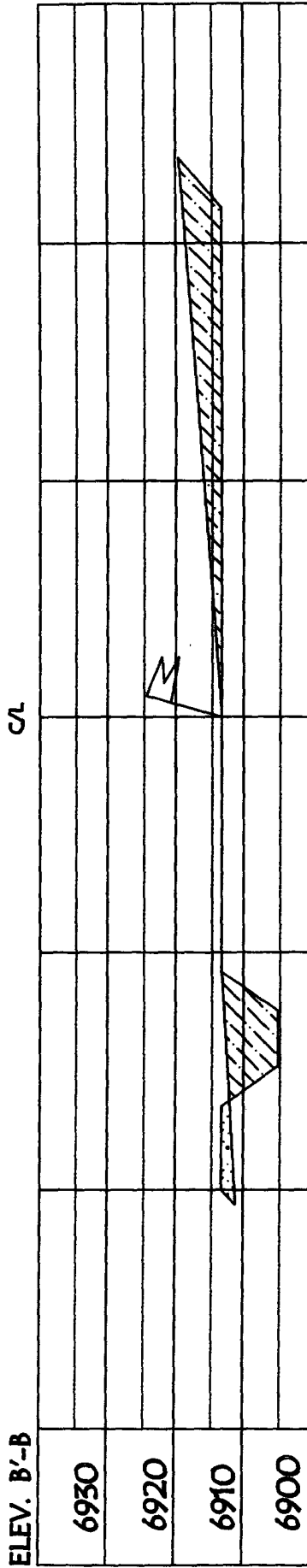
LATITUDE: 36° 42.978' N LONGITUDE: 107° 35.812' W NAD27

BURLINGTON RESOURCES OIL & GAS COMPANY LP
 SAN JUAN 29-7 UNIT #49M, 1250' FNL & 1720' FWL
 SECTION 20, T-29-N, R-7-W, NMPM, RIO ARriba COUNTY, NM
 GROUND ELEVATION: 6913', DATE: SEPTEMBER 13, 2005

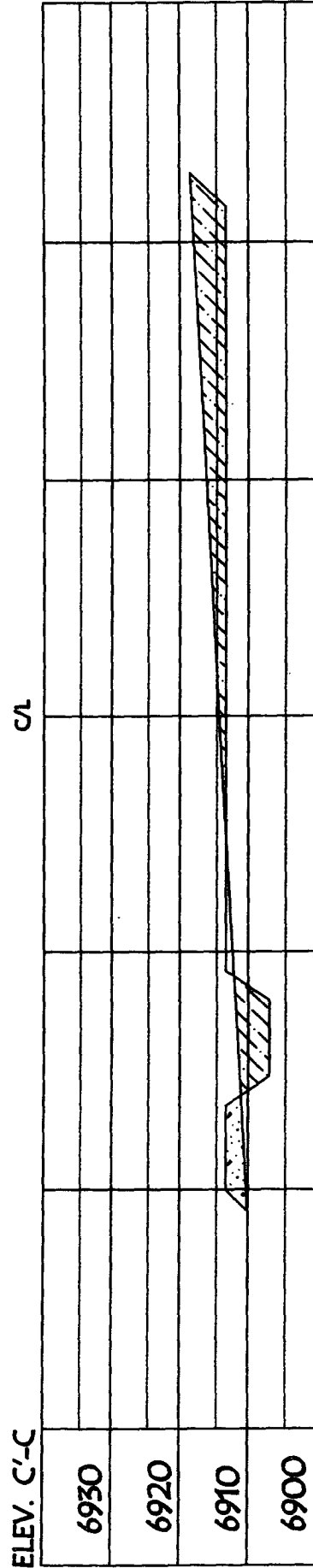
ELEV. A'-A



ELEV. B'-B



ELEV. C'-C



NOTE: VECTOR SURVEYS IS NOT LIABLE FOR UNDERGROUND UTILITIES OR PIPELINES.
 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.

SAN JUAN 29-7 UNIT #49M OPERATIONS PLAN

Well Name: San Juan 29-7 Unit #49M

Location Rio Arriba County, New Mexico
Surface: 1250' FNL, 1720' FWL, Section 20, T-29-N, R-7-W
Latitude 36° 42.9178'N, Longitude 107° 35.8112'W
Bottom Hole: 1500' FNL, 2540' FEL, Section 20, T-29-N, R-7-W
Latitude 36° 42.8756'N, Longitude 107° 35.6028'W

Formation Blanco Mesa Verde/Basin Dakota
Elevation 6901'GL

<u>Formation Tops</u>	<u>Top (TVD)</u>	<u>Top (TMD)</u>	<u>Contents</u>
Surface	San Jose		
Ojo Alamo	2715'	2786'	aquifer
Kirtland	2843'	2919'	gas
Fruitland	3380'	3475'	gas
Pictured Cliffs	3650'	3755'	gas
Lewis	3810'	3920'	gas
Huerfanito Bentonite	4285'	4413'	gas
Chacra	4635'	4768'	gas
Intermediate set point: 150' into Chacra			
Massive Cliff House	5374'	5507'	gas
Menefee	5480'	5613'	gas
Massive Point Lookout	5828'	5961'	gas
Mancos	6278'	6411'	gas
Gallup	7085'	7218'	gas
Greenhorn	7805'	7938'	gas
Graneros	7858'	7991'	gas
Two Wells	7904'	8037'	gas
Upper Cubero	8016'	8149'	gas
Lower Cubero	8041'	8174'	gas
Encinal	8105'	8238'	
TD	8105'		

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- 4918'	Non-dispersed	8.4-9.0	30-60	less than 8
4918'- 8238'	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 3.0 degrees per 100' with an azimuth of 103.79 degrees. The end of the build will be at a TVD of 899', a TMD of 905', a reach of 66', and an angle of 15.14 degrees. This angle and azimuth will be held to a TVD of 4286', a TMD of 4414', and a reach of 983'. At this point the well will be drilled with a drop of 3.0 degrees per 100'. The end of the drop will be at a TVD of 4785', a TMD of 4918', a reach of 1049', 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 8238' (TVD of 8105'). 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' - 4918'	7"	23#	L-80
6 1/4"	4918' - 8238'	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' - 8238'	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 **985 ft³ (462 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 **455 ft³ (230 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 or bottom. Bowspring centralizers will be run in accordance with Onshore Order #2.

BOP and Tests:

Surface to production TC - 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.

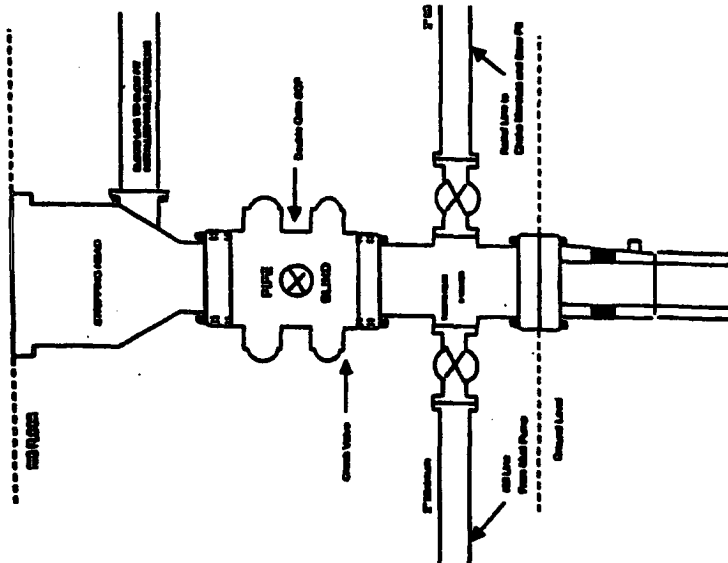
Additional Information:

- This gas is dedicated.
- The East half of section 20 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 _____ Date 1/26/06

BURLINGTON RESOURCES

Completion/Workover Rig
BOP Configuration
2,000 psi System

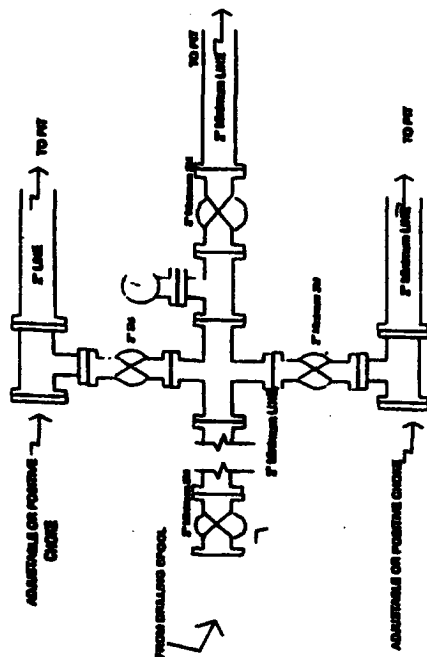


Minimum BOP installation for all Completion/Workover Operations. 7-1/16" bore, 2000 psi minimum working pressure double gate BOP to be equipped with blind and pipe rams. A stripping head to be installed on the top of the BOP. All BOP equipment is 2000 psi working pressure or greater excluding 500 psi stripping head.

Figure #2

BURLINGTON RESOURCES

Drilling Rig
Choke Manifold Configuration
2000 psi System

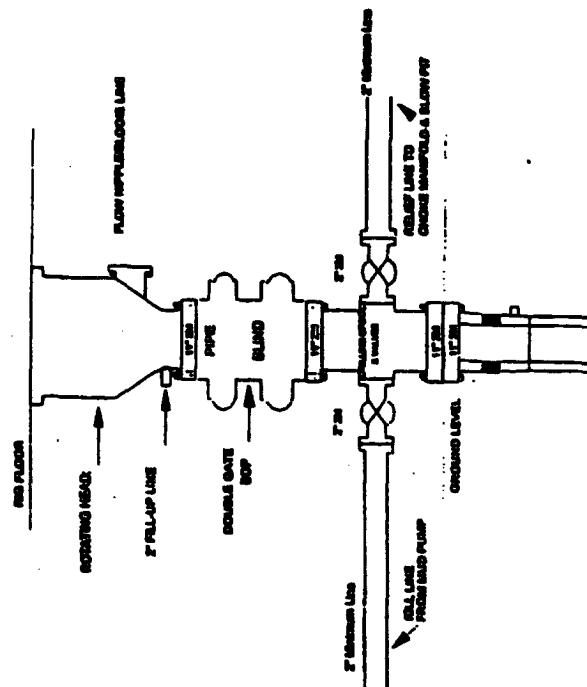


Choke manifold installation from Surface Casing Point to Total Depth. 2,000psi working pressure equipment with two chokes.

Figure #3

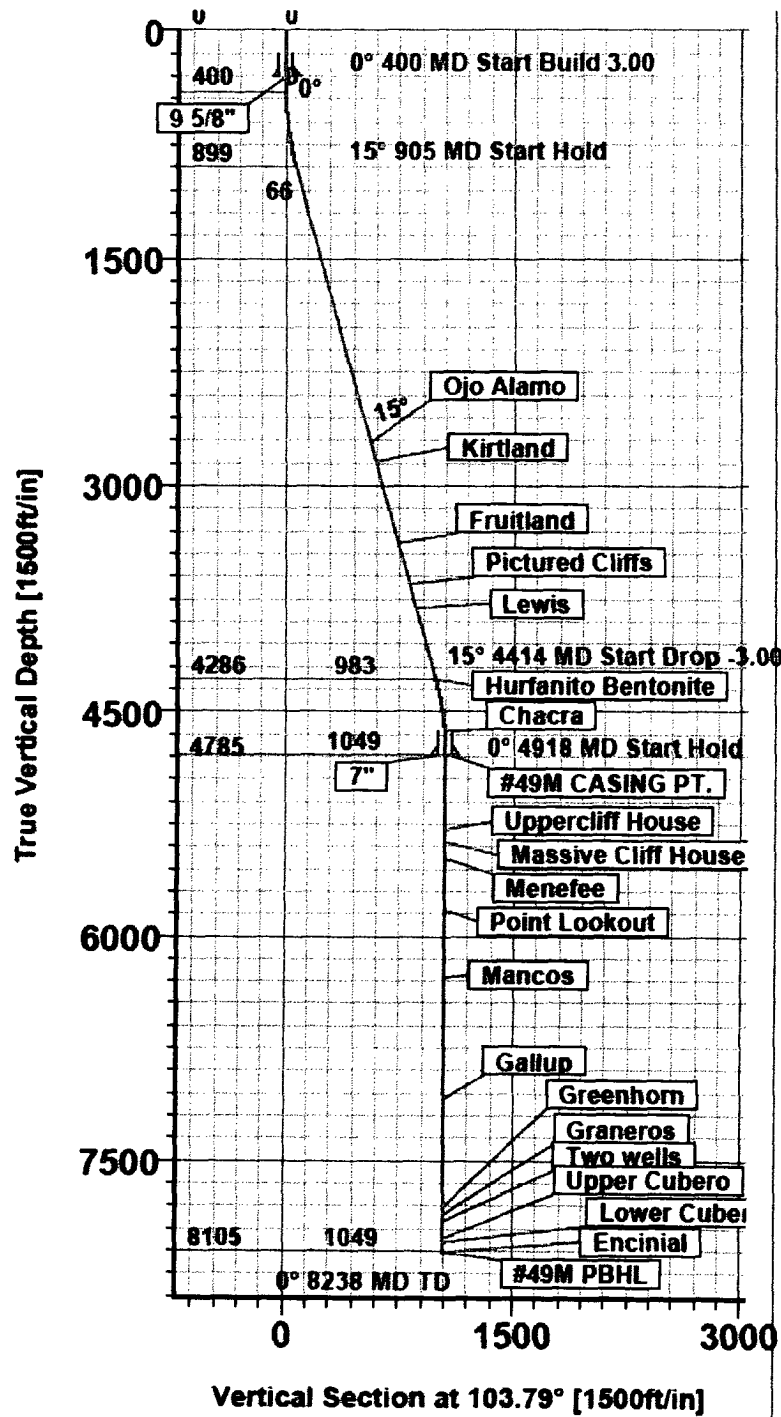
Burlington Resources

Drilling Rig
2000 psi System



BOP Installation from Surface Casing Point to Total Depth. 11" Bore BOP. Minimum 2000 psi working pressure double gate BOP to be equipped with blind and pipe rams. All BOP equipment is 2,000 psi working pressure or greater.

Figure #1



Plot 1: Directional plan for SJ 29-7 49M 1