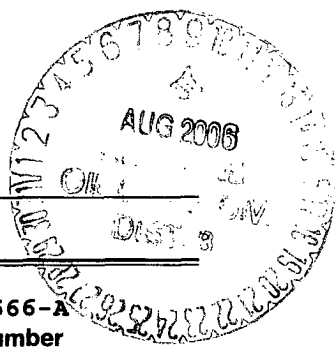


UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT



APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

2006 AUG 2 AM 8 05

RECEIVED
070 FARMINGTON NM

1a. Type of Work
DRILL

5. Lease Number
NMSF-078566-A
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
Howell
9. Well Number
#100

4. Location of Well
Unit N (SESW), 1040' FSL, 1630' FWL

10. Field, Pool, Wildcat
Basin Fruitland Coal/ Blanco
Pictured Cliffs, South

Latitude 36° 36.8357'N
Longitude 107° 40.2714'W

Lot 2 N

11. Sec., Twn, Rge, Mer. (NMPM)
Sec. 34, T28N, R8W

API # 30-045- 33876

14. Distance in Miles from Nearest Town
13.5 miles to Blanco, NM

12. County
San Juan
13. State
NM

15. Distance from Proposed Location to Nearest Property or Lease Line
1040'

16. Acres in Lease

17. Acres Assigned to Well
301.04 S2 FC/ 149.60 SW4 PC

18. Distance from Proposed Location to Nearest Well, Drig, Compl, or Applied for on this Lease
52'- Howell #3

19. Proposed Depth
2324'

20. Rotary or Cable Tools
Rotary

21. Elevations (DF, FT, GR, Etc.)
5814' GL

22. Approx. Date Work will Start

23. Proposed Casing and Cementing Program
See Operations Plan attached

24. Authorized by: Amanda Sanchez
Regulatory Analyst

8-1-06
Date

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.

This action is subject to technical and
procedural review pursuant to 43 CFR 3165.3
and appeal pursuant to 43 CFR 3165.4

NMOC

DRILLING OPERATIONS AUTHORIZED ARE
SUBJECT TO COMPLIANCE WITH ATTACHED
"GENERAL REQUIREMENTS".

Δ

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.

30-045-

33876

5. Indicate Type of Lease

STATE ☒FEE ☐

6. State Oil & Gas Lease No.

SF-078566-A

7. Lease Name or Unit Agreement Name

Howell

8. Well Number

100

9. OGRID Number

14538

10. Pool name or Wildcat

Basin Fruitland / Blanco Pictured Cliffs South

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 N : 1040' feet from the South line and 1630' feet from the West line
Section 34 Township 28N Rng 8W NMPM County San Juan

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

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

>200

<1000

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

SUBSEQUENT REPORT OF:

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

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, 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 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

Regulatory Analyst

DATE

7/11/2006

Type or print name

Amanda Sanchez

E-mail address:

asanchez@br-inc.com

Telephone No.

505-326-9700

For State Use Only

DEPUTY OIL & GAS INSPECTOR, DIST. 40

APPROVED BY

TITLE

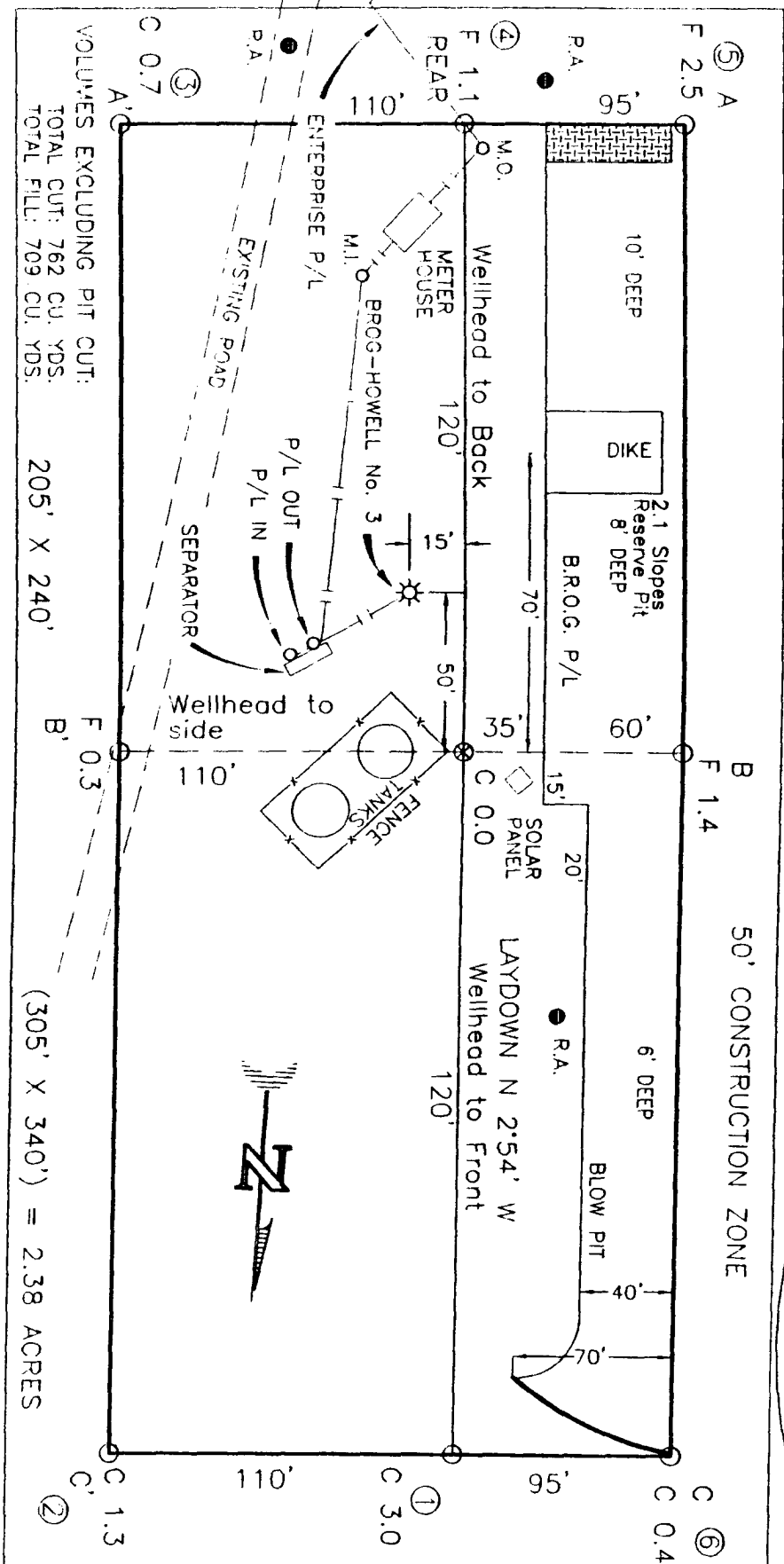
DATE

AUG 09 2006

Conditions of Approval (if any):

HOWELL No. 100, 1040 FSL 1630 FWL
SECTION 34, T-28-N, R-8-W, N.M.P.M., SAN JUAN COUNTY, NEW MEXICO
GROUND ELEVATION: 5814, DATE: MAY 25, 2006

NAD 83
LAT. = 36.61394° N.
LONG. = 107.67180° W.
NAD 27
LAT. = 36°36.8357' N.
LONG. = 107°40.2714' W.



(305' X 340') = 2.38 ACRES

RESERVE PIT DIKE: TO BE 8' ABOVE DEEP SIDE (OVERFLOW - 3' WIDE AND 1' ABOVE SHALLOW SIDE).
BLOW PIT: OVERFLOW PIPE HALFWAY BETWEEN TOP AND BOTTOM AND TO EXTEND OVER PLASTIC LINER AND INTO BLOW PIT.

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

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 15058 • Farmington, NM 87401

Phone (505) 326-1772 • Fax (505) 326-6019

NEW MEXICO L.S. 14831

DRAWN BY: G.V
 APPR: BR540

CADFILE: BR640_PUB
DATE: 06/03/06

HOWELL No. 100, 1040 FSL 1630 FWL

GROUND ELEVATION: 5814, DATE: MAY 25, 2006

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.

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.

NAD 27
LAT. = 36°36.8357' N
LONG. = 107°40.2714' W



Daggett Enterprises, Inc.

Surveying and Oil Field Services

P. O. Box 1509A • Farmington, NM 87401
Phone (505) 326-1772 • Fax (505) 326-6019

NEW MEXICO L.S. 14831

DRUMM BR. G.V
ROW#: BR640

CA011E: BP640-CTB
DATE: 05/09/05

OPERATIONS PLAN

Well Name: Howell #100
 Location: Unit N (SESW), 1040' FSL & 1630' FWL, Section 34, T28N, R8W
 San Juan County, New Mexico
 Latitude 36° 36.8357' N Longitude 107° 40.2714' W
 Formation: Basin Fruitland Coal/ Blanco Pictured Cliffs
 Elevation: 5814' GR

Formation:	Top	Bottom	Contents
Ojo Alamo	1194'	1322'	aquifer
Kirtland	1322'	1868'	gas
T/Fruitland	1868''	2124'	gas
Pictured Cliffs	2124'		
Total Depth	2324'		

Logging Program: None

Mud Program:	Interval	Type	Weight	Vis.	Fluid Loss
	0- 200'	Spud/Air/Air Mist	8.4-8.9	40-50	no control
	200-2324'	Non-dispersed	8.4-9.5	30-60	no control

Casing Program:	Hole Size	Depth Interval	Csg.Size	Wt.
Grade				
8 3/4"		0 - 200'	7"	20.0#
J-55				
6 1/4"		0 - 2324'	4 1/2"	10.5#
J/K-55				

Tubing Program:			
	0 - 2324'	2 3/8"	4.7#
J-55			

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

4 1/2" production casing - float shoe and float collar on bottom.
 Centralizers run every third joint above shoe to the base of the Ojo Alamo @ 1322'. Two turbolizing type centralizers - one below and one into the base of the Ojo Alamo @ 1322'. 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" x 11" 2000 psi xmas tree assembly.

Cementing:

7" surface casing Pre-Set Drilled - Cement with Type I, II cement with 20% flyash mixed at 14.5 ppg, 1.28 cu ft per sack yield. (Bring cement to surface). Wait on cement for 24 hours for pre-set holes before pressure testing or drilling out from under surface.

7" surface casing - Cement with 70 sx Type III cement with 0.25 pps Celloflake, 3% CaCl. (90 cu ft of slurry @ 1.28 yield). 200% excess, bring cement to surface. Wait on cement for 8 hrs for conventionally set holes before pressure testing or drilling out from under surface.
WOC until cement establishes 250 psi compressive strength prior to NU of BOPE.

4 1/2" production casing - Cement with 108 sx (230 cu ft of slurry @ 2.13 yield) Premium Lite with 3% calcium chloride, 5 pps LCM-1, and 1/4#/sack celloflake, 0.4% FL-52, & 0.4% SMS. Tail with 90 sacks (124 cu ft of slurry @ 1.38 yield) Type III cmt with 1% calcium chloride, 1/4#/sack Celloflake and 0.2% FL-52. Total of 354 cf - 50% excess to circulate to surface.

BOP and tests:

Surface to TD - 11" 2000 psi (minimum double gate BOP stack (Reference Figure #1 and #2). Prior to drilling out surface casing, test rams to 600 psi/30 min. ~~BOPE~~

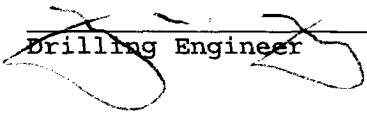
Completion - 6" 2000 psi (minimum) double gate BOP stack (Reference Figure #2). Prior to completion operations, test rams and casing to 1500 psi/30 min.

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

Pipe rams will be actuated at 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.

Additional information:

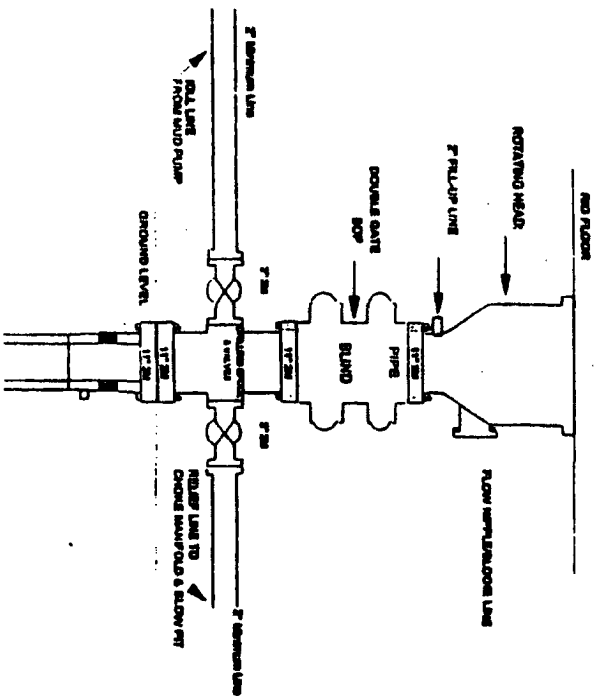
- * The Fruitland Coal and Pictured Cliffs formation will be completed.
- * Anticipated pore pressure for the Fruitland Coal is 600 - 700 psi.
- * This gas is dedicated.
- * The south half of section 34 is dedicated to the FC and the southwest quarter of section 34 is dedicated to PC.
- * New casing will be utilized.
- * Pipe movement (either rotation or reciprocation) will be done if hole conditions permit.


Drilling Engineer

8/1/06
Date

Burlington Resources

Drilling Rig 2000 psi System



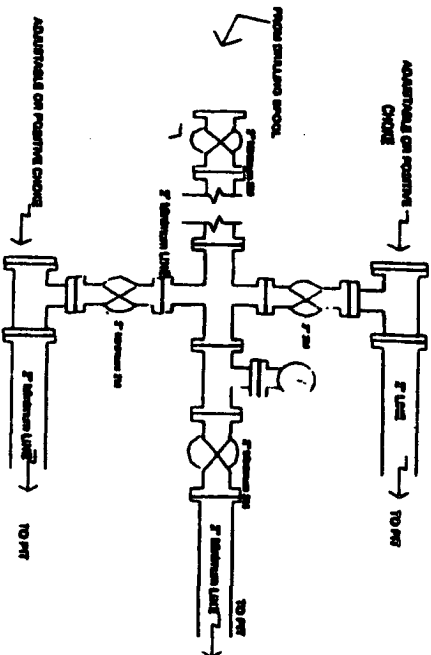
BOP Installation from Surface Casing Point to Total Depth, 17\"/>

Figure #1

4-20-01

BURLINGTON RESOURCES

Drilling Rig Chocho Manifold Configuration 2000 psi System



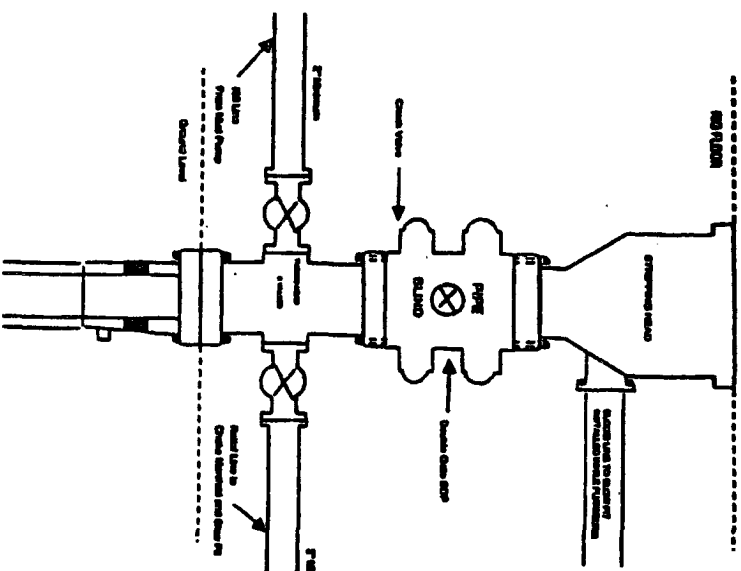
Chocho manifold Installation from Surface Casing Point to Total Depth, 2,000psi working pressure equipment with two chochos.

Figure #3

4-20-01

BURLINGTON RESOURCES

Completion/Workover Rig BOP Configuration 2,000 psi System



Minimum BOP Installation for all Completion/Workover Operations, 7-1/16\"/>

Figure #2