

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

RCVD JUN 10 '11
OIL CONS. DIV.
DIST. 3

1a. Type of Work DRILL	BLM'S APPROVAL OR ACCEPTANCE OF THIS ACTION DOES NOT RELIEVE THE LESSEE AND OPERATOR FROM OBTAINING ANY OTHER AUTHORIZATION REQUIRED FOR OPERATIONS ON FEDERAL AND INDIAN LANDS	5. Lease Number SF-078385A Unit Reporting Number
1b. Type of Well GAS		6. If Indian, All. or Tribe
2. Operator BURLINGTON RESOURCES Oil & Gas Company, LP		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 1B
4. Location of Well Surface: Unit F (SENW), 2492' FNL & 1329' FWL Surface: Latitude: 36.797436° N (NAD83) Longitude: 107.649548° W		10. Field, Pool, Wildcat Blanco MV / Basin DK 11. Sec., Twn, Rge, Mer. (NMPM) Sec. 23, T30N, R8W API # 30-045-3 5276
14. Distance in Miles from Nearest Town 24.4 miles from Bloomfield, NM	12. County San Juan	13. State NM
15. Distance from Proposed Location to Nearest Property or Lease Line 1329'		
16. Acres in Lease 1280.00 acres	17. Acres Assigned to Well 320.00 acres W/2	
18. Distance from Proposed Location to Nearest Well, Drlg, Compl, or Applied for on this Lease 738' from Howell L 300 (FC)		
19. Proposed Depth 7547'	20. Rotary or Cable Tools Rotary	
21. Elevations (DF, FT, GR, Etc.) 6148' GL	22. Approx. Date Work will Start	
23. Proposed Casing and Cementing Program See Operations Plan attached		
24. Authorized by: <u>Dollie L. Busse</u> Dollie L. Busse (Staff Regulatory Tech)	<u>April 6, 2011</u> Date	

PERMIT NO.

APPROVAL DATE

APPROVED BY

TITLE

DATE

Archaeological Report attached

A gas recovery unit may or may not be used on this location.

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.

Example Master Plan Type 3

Bond Numbers NMB-000015 and NMB-000089

NOTIFY AZTEC OCD 24 HRS.
PRIOR TO CASING & CEMENT

NMOCD

JUN 22 2011

PC

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

Certificate Number: NM 11393

PROJECT PROPOSAL - New Drill / Sidetrack

San Juan Business Unit

HOWELL 1B

DEVELOPMENT

Lease:		AFE #: WAN.CDR.9342				AFE \$: 0.00	
Field Name: SAN JUAN		Rig: Aztec Rig 673		State: NM	County: SAN JUAN		API #:
Geologist:		Phone:		Geophysicist:		Phone:	
Geoscientist:		Phone:		Prod. Engineer:		Phone:	
Res. Engineer:		Phone:		Proj. Field Lead:		Phone:	
Primary Objective (Zones):							
Zone	Zone Name						
FRR	BASIN DAKOTA (PRORATED GAS)						
RON	BLANCO MESAVERDE (PRORATED GAS)						
Location: Surface Datum Code: NAD 27 Straight Hole:							
Latitude: 36.797431		Longitude: -107.648937		X:	Y:	Section: 23	Range: 008W
Footage X: 1329 FWL		Footage Y: 2492 FNL		Elevation: 6148 (FT)	Township: 030N		
Tolerance:							
Location Type: Year Round		Start Date (Est.): 1/1/2012		Completion Date:		Date In Operation:	
Formation Data: Assume KB = 6163 Units = FT							
Formation Call & Casing Points	Depth (TVD in Ft)	SS (Ft)	MD (Ft)	Depletion (Yes/No)	BHP (PSIG)	BHT	Remarks
Surface Casing	200	5963		<input type="checkbox"/>			12-1/4 hole. 200' 9 5/8" 32.3 ppf, H-40, STC casing. Cement with 119 cuft. Circulate cement to surface.
NACIMIENTO	457	5706		<input type="checkbox"/>			
OJO ALAMO	1847	4316		<input type="checkbox"/>			
KIRTLAND	2029	4134		<input type="checkbox"/>			
FRUITLAND	2495	3668		<input type="checkbox"/>			Possible Gas
PICTURED CLIFFS	2988	3175		<input type="checkbox"/>			
LEWIS	3125	3038		<input type="checkbox"/>			
Intermediate Casing	3225	2938		<input type="checkbox"/>		119	8 3/4" Hole. 7", 23 ppf, J-55, LTC Casing. Cement with 727 cuft. Circulate cement to surface.
HUERFANITO BENTONITE	3673	2490		<input type="checkbox"/>			
CHACRA	4022	2141		<input type="checkbox"/>			Est. Top Perf - 4024 (2139)
UPPER CLIFF HOUSE	4606	1557		<input type="checkbox"/>			Gas; Cliffhouse is dry
MASSIVE CLIFF HOUSE	4727	1436		<input type="checkbox"/>	232		Gas
MENEFEE	4833	1330		<input type="checkbox"/>			
POINT LOOKOUT	5211	952		<input type="checkbox"/>			
MANCOS	5530	633		<input type="checkbox"/>			
UPPER GALLUP	6481	-318		<input type="checkbox"/>			
GREENHORN	7213	-1050		<input type="checkbox"/>			
GRANEROS	7269	-1106		<input type="checkbox"/>			
TWO WELLS	7333	-1170		<input type="checkbox"/>	3349		Gas
PAGUATE	7407	-1244		<input type="checkbox"/>			
UPPER CUBERO	7427	-1264		<input type="checkbox"/>			
LOWER CUBERO	7456	-1293		<input type="checkbox"/>			Est. Btm Perf - 7527 (- 1364) based on offset wells
ENCINAL	7517	-1354		<input type="checkbox"/>			TD - 30' below T/ENCN
Total Depth	7547	-1384		<input type="checkbox"/>		208	6-1/4" hole, 4-1/2" 10.5/11.6 ppf, J-55, STC/LTC casing. Cement w/ 588 cuft. Circulate cement a minimum of 100' inside the previous casing string.

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San Juan Business Unit

HOWELL 1B

DEVELOPMENT

Reference Wells:		
Reference Type	Well Name	Comments
Production	France 1	30N 8W 23 NW SE SE
Production	Lorraine Gas Com 1	30N 8W 26 SE NW NW
Production	Gartner Gas Com B 1S	30N 8W 26 SE NW NW

Logging Program:

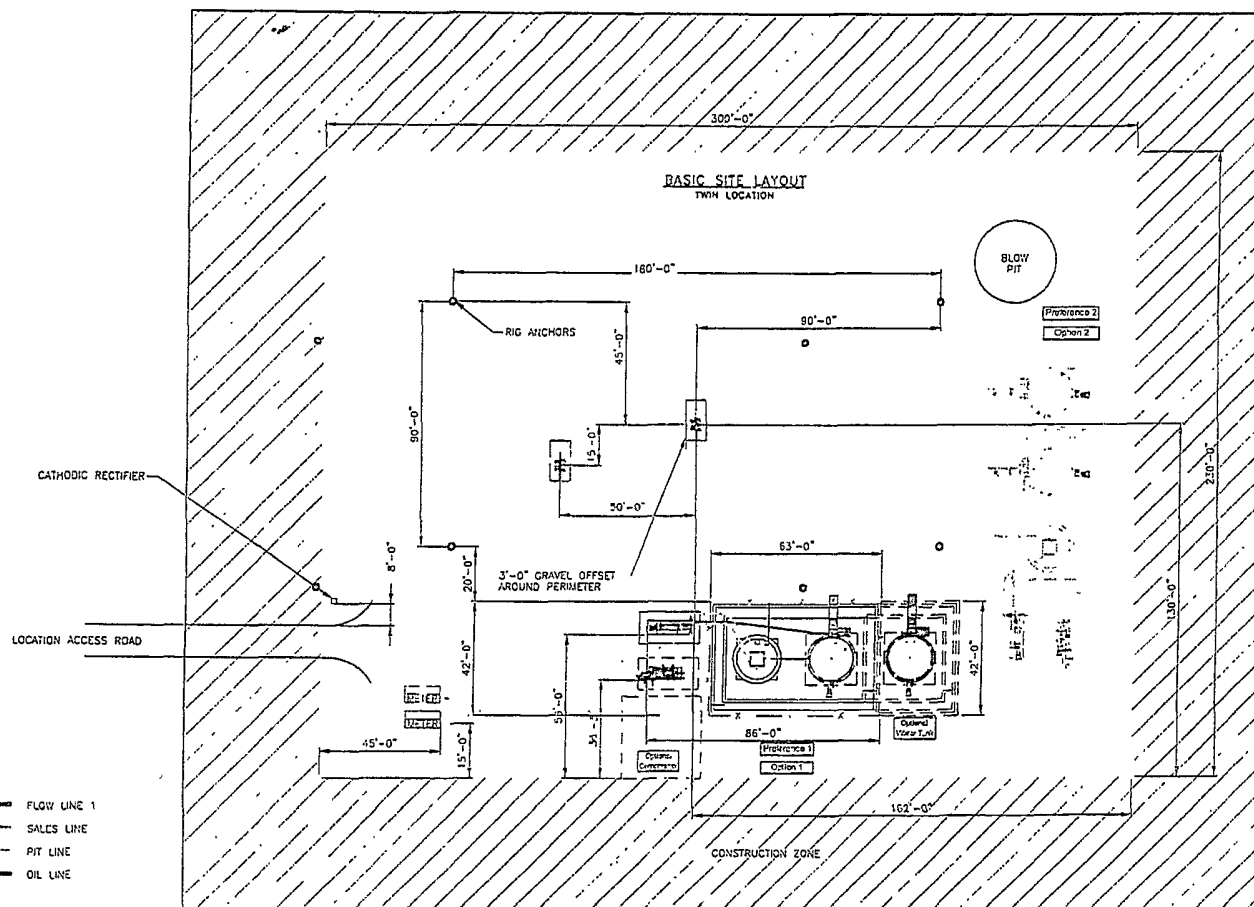
Intermediate Logs: ☐ Log only if show ☐ GR/ILD ☐ Triple Combo

TD Logs: ☐ Triple Combo ☐ Dipmeter ☐ RFT ☐ Sonic ☐ VSP ☐ TDT ☒ Other

Cased Hole GR / CBL

Mudlog from 100' above top of GLLP to TD - mudlogger will call TD.

Additional Information:					
Log Type	Stage	From (Ft)	To (Ft)	Tool Type/Name	Remarks



SEE SHEET J & K FOR PIPING DETAILS
ALL UNDERGROUND PIPE IS TO BE BURIED 1' MIN. OR 3'-0" TOP

SHEET 1 OF 5

ENGINEERING REVIEW										REFERENCE DRAWINGS		CONOCOPHILLIPS			HIGH PRESSURE 3 PHASE		
DESCRIPTION	DATE	BY	CHK'D	ENG	SEC	PRJ	DISCIPLINE	REVIEW	DATE	NO	DESCRIPTION	San Juan Business Unit			FACILITY DIAGRAM- SITE LAYOUT		
							PROCESS								CLIENT NAME SCALE/TITLE DRAWN BY HP3PHASC-REV1		
							MECHANICAL										
							Piping										
							ELECTRICAL										
							I & C										
							CIVIL/STRUCTURAL					SAN JUAN BUSINESS UNIT			HP3PHASC-REV1		
							TRUCK								1 OF 5		

Path: \\phillips\ndm\regulatory\San Juan Location Site Layout.dwg, 06/28/2007 - 00:22pm

BURLINGTON RESOURCES OIL & GAS COMPANY LP
HOWELL 1B
2492' FNL, 1329' FWL
SECTION 23, T-30-N, R-8-W, N.M.P.M.,
SAN JUAN COUNTY, NEW MEXICO
NAD 83 LAT.: 36.797436°N, LONG.: 107.649548°W
ELEV.: 6148 NAVD88
NO NEW ACCESS

FROM BLOOMFIELD, NEW MEXICO:

- GO 11.7 MI. EAST ON HWY. 64. TURN LEFT ON HWY. 511 AND HEAD NORTH TOWARDS NAVAJO DAM.
- GO 8.0 MI. NORTH ON HWY. 511 TO NAVAJO DAM. TURN AROUND AT SPILLWAY AND HEAD SOUTH ON HWY. 539.
- GO 2.7 MI SOUTH ON HWY. 539. TURN RIGHT (WEST) ON DIRT ROAD.
- GO 0.8 MI. WEST. TURN LEFT AT ROAD INTERSECTION.
- GO 1.2 MI. WEST AND THEN NORTH. JUST PAST THE PIPE LINES CROSSING THE ROAD, ENTER THE STAKED WELL PAD. THE WELL FLAG IS 90 FEET RIGHT (EAST) OF ROAD.