

State of New Mexico  
Energy, Minerals and Natural Resources Department

**Susana Martinez**  
Governor

**David Martin**  
Cabinet Secretary

**Brett F. Woods, Ph.D.**  
Deputy Cabinet Secretary

**David R. Catanach, Division Director**  
Oil Conservation Division



New Mexico Oil Conservation Division approval and conditions  
listed below are made in accordance with OCD Rule 19.15.7.11  
and are in addition to the actions approved by BLM on the  
following 3160-4 or 3160-5 form.

Operator Signature Date: 8/19/15

Well information:

API WELL #	Well Name	Well #	Operator Name	Type	Stat	County	Surf_Owner	UL	Sec	Twp	N/S	Rng	W/E
30-045-30013-00-00	SUNRAY E	002B	BURLINGTON RESOURCES OIL & GAS COMPANY LP	G	A	San Juan	F	E	9	30	N	10	W

Application Type:

- ☐ P&A    ☐ Drilling/Casing Change    ☐ Location Change  
☒ **Recomplete/DHC** (For hydraulic fracturing operations review EPA Underground injection control Guidance #84)  
☐ Other:

Conditions of Approval:

Perform a pressure test between the Dakota perforations and Mesa Verde perforations to ensure the communication was due to a faulty packer and not a casing issue.

NMOCD Approved by Signature

8/31/15  
Date

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

FORM APPROVED  
OMB No. 1004-0137  
Expires: July 31, 2010

**SUNDRY NOTICES AND REPORTS ON WELLS**  
*Do not use this form for proposals to drill or to re-enter an abandoned well. Use Form 3160-3 (APD) for such proposals.*

**SUBMIT IN TRIPLICATE - Other instructions on page 2.**

1. Type of Well

☐ Oil Well

☒ Gas Well

☐ Other

2. Name of Operator

**Burlington Resources Oil & Gas Company LP**

3a. Address

**PO Box 4289, Farmington, NM 87499**

3b. Phone No. (include area code)

**(505) 326-9700**

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)

**UL E (SWNW), 1450' FNL & 790' FWL, SEC. 9, T30N, R10W**

5. Lease Serial No.

**SF-077730**

6. If Indian, Allottee or Tribe Name

7. If Unit of CA/Agreement, Name and/or No.

8. Well Name and No.

**SUNRAY E 2B**

9. API Well No.

**30-045-30013**

10. Field and Pool or Exploratory Area

**BASIN DK / BLANCO MV**

11. Country or Parish, State

**San Juan**

**New Mexico**

**12. CHECK THE APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT OR OTHER DATA**

TYPE OF SUBMISSION	TYPE OF ACTION			
<input checked="" type="checkbox"/> Notice of Intent	<input type="checkbox"/> Acidize	<input type="checkbox"/> Deepen	<input type="checkbox"/> Production (Start/Resume)	<input type="checkbox"/> Water Shut-Off
<input type="checkbox"/> Subsequent Report	<input type="checkbox"/> Alter Casing	<input type="checkbox"/> Fracture Treat	<input type="checkbox"/> Reclamation	<input type="checkbox"/> Well Integrity
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Casing Repair	<input type="checkbox"/> New Construction	<input type="checkbox"/> Recomplete	<input checked="" type="checkbox"/> Other
	<input type="checkbox"/> Change Plans	<input type="checkbox"/> Plug and Abandon	<input type="checkbox"/> Temporarily Abandon	<b>REMOVE PACKER</b>
	<input type="checkbox"/> Convert to Injection	<input type="checkbox"/> Plug Back	<input type="checkbox"/> Water Disposal	<b>AND COMMINGLE</b>

13. Describe Proposed or Completed Operation: Clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof.

If the proposal is to deepen directionally or recompleat horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports must be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompleat in a new interval, a Form 3160-4 must be filed once Testing has been completed. Final Abandonment Notices must be filed only after all requirements, including reclamation, have been completed and the operator has determined that the site is ready for final inspection.)

Burlington Resources requests permission to remove the packer on the subject well and commingle the MV and DK zones. See attached procedure and current wellbore schematic. DHC approval will be requested from the OCD and approval will be received before the work begins.

**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**

**OIL CONS. DIV DIST. 3**

**AUG 28 2015**

14. I hereby certify that the foregoing is true and correct. Name (Printed/Typed)

**Patsy Clugston**

**Staff Regulatory Technician**

Title

Signature

*Patsy Clugston*

Date

**8/19/2015**

**THIS SPACE FOR FEDERAL OR STATE OFFICE USE**

Approved by

*Abdelgadir Elmadani*

Title

*PE*

Date

*8/24/15*

Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

Office

*FFO*

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make 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 representations as to any matter within its jurisdiction.



**ConocoPhillips**  
**SUNRAY E 2B**  
**WO - Commingles**

Lat 36° 49' 45.588" N

Long 107° 53' 39.876" W

**PROCEDURE**

Before RU, run slickline to check for and remove any downhole equipment. If an obstruction is found and cannot be recovered, set a locking 3-slip-stop above the obstruction in the tubing.

1. Hold pre-job safety meeting. Comply with all NMOCD, BLM, and COP safety and environmental regulations. Test rig anchors prior to moving in rig.
2. MIRU workover rig. Check casing, tubing, and bradenhead pressures and record them in WellView. **If there is pressure on the BH, contact Wells Engineer.**
3. Remove existing piping on casing valve. RU blow lines from casing valves and begin blowing down casing pressure. Kill well down casing (MV) and long string (DK) with 2% KCl water as necessary. Ensure well is dead or on vacuum.
4. ND wellhead and NU BOPE with annular, offset spool, and double rams for 2-3/8" tubing. Pressure and function test BOP to 250 psi low and 1,000 psi over SICP high to a maximum of 2,000 psi held and charted for 10 minutes per COP Well Control Manual. PU and remove split hanger or seal sleeve on short string (MV).
5. TOOH and LD 1-1/2" IJ short string per pertinent data sheet. Note any bad joints and record findings in WellView. **Make note of corrosion, scale, or paraffin and save a sample to give to CIC/engineering for further analysis.**
6. Ensure barriers are holding. ND annular, remove offset spool and NU annular on double preventer. Function test BOP. PU and remove tubing hanger.
7. TOOH and LD 1-1/2" EUE long string per pertinent data sheet. Note any bad joints and record findings in WellView. **Make note of corrosion, scale, or paraffin and save a sample to give to CIC/engineering for further analysis.**
8. PU packer plucker and 6 3-1/2" drill collars on 2-3/8" tubing and RIH to Model D packer at 5728'. Sting into and mill packer. TOOH and LD drill collars, packer plucker, and packer. **If possible, evaluate MV water production.**
9. PU 4-3/4" string mill and bit and CO to PBTD at 7,639' using the air package. TOOH, LD mill and bit. If unable to CO to PBTD, contact Wells Engineer to inform how much fill was left and confirm/adjust landing depth.
10. TIH with tubing using Tubing Drift Procedure (detail below).

Tubing Wt./Grade: 4.7#, J-55  
Tubing Drift ID: 1.901"  
  
Land Tubing At: 7,530'  
KB: 15'

Tubing and BHA Description	
1	2-3/8" Expendable Check
1	2-3/8" (1.78" ID) F-Nipple
1	2-3/8" Tubing Joint
1	2-3/8" Pup Joint (2' or 4')
+/- 238	2-3/8" Tubing Joints
As Needed	2-3/8" Pup Joints
1	2-3/8" Tubing Joint

11. Ensure barriers are holding. ND BOPE, NU Wellhead. Pressure test tubing slowly with an air package as follows: pump 3 bbl. pad, drop steel ball, pressure tubing up to 500 psi, and bypass air. Monitor pressure for 15 min., then complete the operation by pumping off the expendable check. Note in WellView the pressure in which the check pumped off. Purge air as necessary. Notify the MSO that the well is ready to be turned over to Production Operations. RDMO.

## **Tubing Drift Procedure**

### **PROCEDURE**

1. Set flow control in tubing. With air, on location, use expendable check. With no air on location, use wire line plug.
2. RU drift tool to a minimum 70' line. Drift tool will have an OD of at least the API drift specification of the drift diameter of the tubing to be drifted, and will be at least 15" long. The tool will not weigh more than 10# and will have an ID bore the length of the tool, so fluids may be pumped through the tool if it becomes stuck.
3. Drop the tool into the tubing string and retrieve it after every 2 joints of tubing ran in hole. If any resistance to the tool movement is noticed, going in or out, that joint will be replaced.

NOTE: All equipment must be kept clean and free of debris. The drift tool will be measured with calipers before each job, to ensure the OD is the correct size for the tubing being checked. The maximum allowable wear of the tool is 0.003".



## Schematic - Current

## SUNRAY E #2B

District NORTH	Field Name BLANCO MESAVERDE (PRORATED GAS)	API / UWI 3004530013	County SAN JUAN	State/Province NEW MEXICO
Original Spud Date 4/28/2000	Surface Legal Location 009-030N-010W-E	East/West Distance (ft) 790.00	East/West Reference FWL	North/South Distance (ft) 1,450.00
		North/South Reference FNL		

## VERTICAL - Original Hole, 8/4/2015 10:46:26 AM

MD (ftKB)	Vertical schematic (actual)	Formation Tops
56.8	Casing; Surface; 11 3/4 in; 42.00 lb/ft; H40; 14.9 ftKB; 225.7 ftKB	
225.7	Surface Casing Cement; 15.0-225.7; 4/29/2000	
1,628.9		Tubing; 1.90 in; 2.75 lb/ft; J-55; 15.0 ftKB; 5,516.4 ftKB
2,410.1		Tubing; 1.90 in; 2.90 lb/ft; J-55; 15.0 ftKB; 5,728.0 ftKB
3,107.9		OJO ALAMO KIRTLAND FRUITLAND PICTURED CLIFFS LEWIS
3,175.9	Casing; Intermediate1; 8 5/8 in; 32.00 lb/ft; J55; 15.0 ftKB; 3,218.7 ftKB	
3,217.2	Intermediate Casing Cement; 15.0- 3,218.7; 5/2/2000	
3,227.0		
3,768.1		PERF - LEWIS UPPER; 3,788.0- 4,272.0; 6/22/2000
4,272.0		PERF - MENELEE; 4,573.0-5,111.0; 6/21/2000
4,467.6		PERF - POINT LOOKOUT / MENELEE LOWER; 5,175.0- 5,527.0; 6/20/2000
4,573.2		CLIFF HOUSE
4,956.0	Cement Squeeze; 4,573.0-4,956.0; 10/8/2000	Perf Sub; 1.90 in; 5,516.4 ftKB; 5,522.4 ftKB
5,174.9		Bull Plug; 1.90 in; 5,522.4 ftKB; 5,532.4 ftKB
5,516.4		MENELEE
5,526.9		Packer (Model D Seal Assembly); 4.83 in; 5,728.0 ftKB; 5,733.0 ftKB
5,649.9		POINT LOOKOUT
5,732.9		Tubing; 1.90 in; 2.90 lb/ft; J-55; 5,733.0 ftKB; 7,536.6 ftKB
7,226.0		PERF - DAKOTA; 7,329.0-7,344.0; 6/20/2000
7,290.0		MANCOS
7,329.1		TAG DISPOSABLE; 7,329.0- 7,344.0; 6/20/2000
7,421.9		TAG, DISPOSABLE; 7,422.0- 7,439.0; 6/20/2000
7,470.1		GALLUP GREENHORN GRANEROS
7,482.9		DIDNT FIRE/ GROUNDED; 7,422.0- 7,439.0; 6/20/2000
7,511.2		PERF - DAKOTA; 7,470.0-7,473.0; 6/20/2000
7,521.0		PERF - DAKOTA; 7,483.0-7,487.0; 6/20/2000
7,536.7		PERF - DAKOTA; 7,511.0-7,513.0; 6/20/2000
7,539.0		TAG (DISPOSABLE); 7,521.0- 7,523.0; 6/20/2000
7,569.6		F Nipple; 1.90 in; 7,536.6 ftKB; 7,537.4 ftKB
7,574.1		PERF - DAKOTA; 7,539.0-7,541.0; 6/20/2000
7,585.0		Tubing; 1.90 in; 2.90 lb/ft; J-55; 7,537.4 ftKB; 7,569.7 ftKB
7,638.8		Expendable Check; 1.90 in; 7,569.7 ftKB; 7,570.0 ftKB
7,639.8		PERF - DAKOTA; 7,574.0-7,576.0; 6/20/2000
7,660.1		PERF - DAKOTA; 7,585.0-7,594.0; 6/20/2000
	PBTD; 7,639.0	
	Casing; Production1; 5 1/2 in; 15.60 lb/ft; K55; 15.0 ftKB; 7,641.0 ftKB	
	Production Casing Cement; 3,200.0- 7,641.0; 5/6/2000	
	Auto cement plug; 7,639.0-7,641.0; 5/6/2000	
	Display Cement Fill; 7,641.0- 7,660.0; 6/9/2000	