

**UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT**

Sundry Notices and Reports on Wells

2007 JUN 15 PM 2:41

GAS

RECEIVED
BLM
210 FARMINGTON NM

2. Name of Operator

CONOCOPHILLIPS

3. Address & Phone No. of Operator

PO Box 4289, Farmington, NM 87499 (505) 326-9700

4. Location of Well, Footage, Sec., T, R, M

Unit G (SWNE), 2458' FNL & 1972' FEL, Sec. 9, 29N, R5W, NMPM5. Lease Number
NMSF-080179
Tribe Name

7. Unit Agreement Name

San Juan 29-5 Unit

8. Well Name & Number

SJ 29-5 Unit #61B

9. API Well No.

30-039-30254

10. Field and Pool

Blanco Mesaverde

11. County and State

Rio Arriba Co., NM

12. CHECK APPROPRIATE BOX TO INDICATE NATURE OF NOTICE, REPORT, OTHER DATA

Type of Submission

☒ Notice of Intent☐ Subsequent Report☐ Final Abandonment

Type of Action

☐ Abandonment☐ Recompletion☐ Plugging☐ Casing Repair☐ Altering Casing☒ Change of Plans☐ New Construction☐ Non-Routine Fracturing☐ Water Shut off☐ Conversion to Injection☒ Other - drilling plans

13. Describe Proposed or Completed Operations

Conocophillips is proposing changes to our drilling plan. We are proposing to complete the well with two strings of casing instead of three. There will be a 12-1/4" hole w/9-5/8" casing set @ 320'. The 2nd string will be 8-3/4" hole w/4-1/2" casing set @ 6278'. The production cement will be cemented with 1 stage foam design. (If we run into trouble we will run 7" casing as previously proposed, but call and receive verbal approval first). See Halliburton cement plan attached.

Hole size	casing size	setting depth	cement volume
12-1/4"	9-5/8"	320'	94 sx (26.4 bbl)
8-3/4"	4-1/2"	6278'	Lead - 1096 sx (421 bbls) Tail 345 sx (89 bbls)

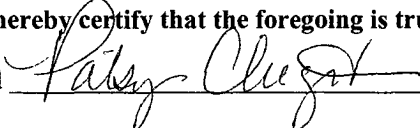
RCVD JUN18'07
OIL CONS. DIV.
DIST. 3

Mote will be presetting the casing 6/14/07.

6/12/07 Verbal approval given by Jim Lovato to set the surface casing @ 320' and use of the 12-1/4" hole instead of 13-1/2" since Mote will be setting the surface casing on 6/14/07.

14. I hereby certify that the foregoing is true and correct.

Signed



Patsy Clugston

Title Regulatory SpecialistDate 6/14/07

(This space for Federal or State Office use)

APPROVED BY Original Signed: Stephen Mason Title _____Date JUN 18 2007

CONDITION OF APPROVAL, if any:

Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction

NMOCD 

Executive Summary

Cementing Best Practices

1. Cement quality and weight: You must choose a cement slurry that is designed to solve the problems specific to each casing string.
2. Waiting time: You must hold the cement slurry in place and under pressure until it reaches its' initial set without disturbing it. A cement slurry is a time-dependent liquid and must be allowed to undergo a hydration reaction to produce a competent cement sheath. A fresh cement slurry can be worked (thickening or pump time) as long as it is in a plastic state and before going through its' transition phase. If the cement slurry is not allowed to transition without being disturbed, it may be subjected to changes in density, dilution, settling, water separation, and gas cutting that may lead to a lack of zonal isolation and possible bridging in the annulus.
3. Pipe movement: Pipe movement may be one of the single most influential factors in mud removal. Reciprocation and/or rotation mechanically breaks up gelled mud and changes the flow patterns in the annulus to improve displacement efficiency.
4. Mud properties (for cementing):
Rheology:
Plastic Viscosity (PV) < 15 centipoise (cp)
Yield Point (YP) < 10 lb/100 ft²
These properties should be reviewed with the Mud Engineer, Drilling Engineer, and Company Representative(s) to ensure no hole problems are created.
Gel Strength:
The 10-second/10-minute gel strength values should be such that the 10-second and 10-minute readings are close together or flat (i.e., 5/6). The 30-minute reading should be less than 20 lb/100 ft². Sufficient shear stress may not be achieved on a primary cement job to remove mud left in the hole if the mud were to develop more than 25 lb/100 ft² of gel strength.
Fluid Loss:
Decreasing the filtrate loss into a permeable zone enhances the creation of a thin, competent filter cake. A thin, competent filter cake created by a low fluid loss mud system is desirable over a thick, partially gelled filter cake. A mud system created with a low fluid loss will be more easily displaced. The fluid loss value should be < 15 cc's (ideal would be 5 cc's).
5. Circulation: Prior to cementing circulate full hole volume twice, or until well conditioned mud is being returned to the surface. There should be no cutting in the mud returns. An annular velocity of 260 feet per minute is optimum (SPE/IADC 18617), if possible.
6. Flow rate: Turbulent flow is the most desirable flow regime for mud removal. If turbulence cannot be achieved pump at as high a flow rate that can practically and safely be used to create the maximum flow energy. The highest mud removal is achieved when the maximum flow energy is obtained.
7. Pipe Centralization: The Cement will take the path of least resistance, therefore proper centralization is important to help prevent the casing from contacting the borehole wall. A minimum standoff of 70% should be targeted for optimum displacement efficiency.
8. Rat hole: A weighted viscous pill placed in the rat hole prior to cementing will minimize the risk of higher density cement mixing with lower density mud when the well is static.
9. Top and Bottom plugs: A top and bottom plug are recommended to be run on all primary casing jobs. The bottom plug should be run after the spacer and ahead of the first cement slurry.
10. Spacers and flushes: Spacers and/or flushes should be used to prevent contamination between the cement slurry and the drilling fluid. They are also used to clean the wellbore and aid with bonding. To determine the volume, either a minimum of 10 minutes contact time or 1000 ft. of annular fill, whichever is greater, is recommended.

Job Information

Foamed Production Casing

29-5 #61B

9 5/8 Surface Casing	0 - 320 ft (MD)
Outer Diameter	9.625 in
Inner Diameter	9.001 in
Linear Weight	32.30 lbm/ft
8 3/4 Open Hole	320 - 6300 ft (MD)
Inner Diameter	8.750 in
Job Excess	50 %
4 1/2 Production Casing	0 - 6300 ft (MD)
Outer Diameter	4.500 in
Inner Diameter	4.052 in
Linear Weight	10.50 lbm/ft
Mud Weight	9 lbm/gal
BHCT	120 degF

Calculations**Foamed Production Casing**

Spacer:

$$\begin{aligned}\text{Total Spacer} &= 56.15 \text{ ft}^3 \\ &= 10.00 \text{ bbl}\end{aligned}$$

Spacer:

$$\begin{aligned}\text{Total Spacer} &= 112.29 \text{ ft}^3 \\ &= 20.00 \text{ bbl}\end{aligned}$$

Spacer:

$$\begin{aligned}\text{Total Spacer} &= 56.15 \text{ ft}^3 \\ &= 10.00 \text{ bbl}\end{aligned}$$

Cement : (5220.00 ft fill)

$$320.00 \text{ ft} * 0.3314 \text{ ft}^3/\text{ft} * 0 \% = 106.06 \text{ ft}^3$$

$$4900.00 \text{ ft} * 0.3071 \text{ ft}^3/\text{ft} * 50 \% = 2257.46 \text{ ft}^3$$

$$\text{Total Lead Cement} = 2363.52 \text{ ft}^3$$

$$= 420.96 \text{ bbl}$$

$$\text{Sacks of Cement} = 1096 \text{ sks}$$

Cement : (1080.00 ft fill)

$$1080.00 \text{ ft} * 0.3071 \text{ ft}^3/\text{ft} * 50 \% = 497.56 \text{ ft}^3$$

$$\text{Tail Cement} = 497.56 \text{ ft}^3$$

$$= 88.62 \text{ bbl}$$

Shoe Joint Volume: (42.00 ft fill)

$$42.00 \text{ ft} * 0.0896 \text{ ft}^3/\text{ft} = 3.76 \text{ ft}^3$$

$$= 0.67 \text{ bbl}$$

$$\text{Tail plus shoe joint} = 501.32 \text{ ft}^3$$

$$= 89.29 \text{ bbl}$$

$$\text{Total Tail} = 345 \text{ sks}$$

Total Pipe Capacity:

$$6300.00 \text{ ft} * 0.0896 \text{ ft}^3/\text{ft} = 564.17 \text{ ft}^3$$

$$= 100.48 \text{ bbl}$$

Displacement Volume to Shoe Joint:

$$\text{Capacity of Pipe} - \text{Shoe Joint} = 100.48 \text{ bbl} - 0.67 \text{ bbl}$$

$$= 99.81 \text{ bbl}$$

Job Recommendation**Foamed Production Casing**

Fluid Instructions

Fluid 1: Water Based Spacer
Water

Fluid Density: 8.33 lbm/gal
Fluid Volume: 10 bbl

Fluid 2: Water Based Spacer
SUPER FLUSH 101

Fluid Density: 10 lbm/gal
Fluid Volume: 20 bbl

Fluid 3: Water Based Spacer
Water

Fluid Density: 8.33 lbm/gal
Fluid Volume: 10 bbl

Fluid 4: Lead Cement

50/50 Poz Standard

0.2 % Versaset (Thixotropic Additive)
0.1 % HALAD-766 (Fluid Loss Control)
1 % ZONESEAL 4000 (Foamer)

Fluid Weight 13 lbm/gal
Slurry Yield: 1.45 ft³/sk
Total Mixing Fluid: 6.68 Gal/sk
Top of Fluid: 0 ft
Calculated Fill: 5220 ft
Volume: 420.96 bbl
Calculated Sacks: 1096.23 sks
Proposed Sacks: 1100 sks

Fluid 5: Tail Cement

50/50 Poz Standard

0.2 % CFR-3 (Dispersant)
0.1 % HR-5 (Retarder)
0.8 % Halad(R)-9 (Low Fluid Loss Control)
5 lbm/sk Pheno Seal - Blend (Lost Circulation Additive)

Fluid Weight 13 lbm/gal
Slurry Yield: 1.45 ft³/sk
Total Mixing Fluid: 6.53 Gal/sk
Top of Fluid: 5220 ft
Calculated Fill: 1080 ft
Volume: 89.29 bbl
Calculated Sacks: 344.79 sks
Proposed Sacks: 350 sks

Fluid 6: Water Based Spacer
Displacement

Fluid Density: 8.33 lbm/gal
Fluid Volume: 99.81 bbl

Job Procedure

Foamed Production Casing

Detailed Pumping Schedule

Fluid #	Fluid Type	Fluid Name	Surface Density lbm/gal	Estimated Avg Rate bbl/min	Downhole Volume
1	Spacer	Water	8.3		10 bbl
2	Spacer	SUPER FLUSH 101	10.0		20 bbl
3	Spacer	Water	8.3		10 bbl
4	Cement	Foamed Lead Cement	13.0		1100 sks
5	Cement	Tail Cement	13.0		350 sks
6	Spacer	Displacement	8.3		99.81 bbl

Foam Output Parameter Summary:

Fluid #	Fluid Name	Unfoamed Liquid Volume	Beginning Density lbm/gal	Ending Density lbm/gal	Beginning Rate scf/bbl	Ending Rate scf/bbl
Stage 1						
4	Foamed Lead Cement	283.11bbl	9.0	9.0	5.0	439.9

Foam Design Specifications:

Foam Calculation Method: Constant Density
 Backpressure: 14.70 psig
 Bottom Hole Circulating Temp: 120 degF
 Mud Outlet Temperature: 100 degF

Calculated Gas = 61711.6 scf
 Additional Gas = 20000 scf
 Total Gas = 81711.6 scf