Fam. 31/0 4 (lune 1990)

UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT

FORM APPROVED Budget Bureau No. 1004-0135 Expires: March 31, 1993

5. Lease Designation and Serial No.

SUNDRY NOTICES AND REPORTS ON WELLS Do not use this form for proposals to drill or to deepen or reentry to a different reservoir. SF 079294 Use "APPLICATION FOR PERMIT—" For such proposals 7. If unit or CA. Agreement Designation SUBMIT IN TRIPLICATE San Juan 28-7 Type of Well 8 Well Name and No. Oil Well Gas Well Other 226E Name of Operator 9. API Well No CONOCO INC. 30-039-26176 Address and Telephone 10. Field and Pool, or Exploratory Area 10 DESTA DRIVE, SUITE 649W, MIDLAND, TEXAS Mesaverde/Basin Dakota Location of Well (Footage, Sec., T. R. M. or Survey Description) 11. County or Parish State 1500' FNL & 2400' FWL Rio Arriba, New Mexico Sec. 36, T28N, R7W CHECK APPROPRIATE BOX(s) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA TYPE OF SUBMISSION TYPE OF ACTION Notice of Intent Abandonment Change of Plans Recompletion New Construction Subsequent Report Plugging Back Non-Routine Fracturing Casing Repair Water Shut-Off Altering Casing Conversion to Injection Final Abandonment Notice Other change in casing Dispose Water Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work Conoco Inc. proposes to make changes in casing as reflected in the attached revised well plan outline.

14.	I hereby certify that the foregoing is true and porrect Signed A Ann Amalon	La Ann Johnson Cu Duament, Anglest	Santanah 9, 1000
		Title Jo Ann Johnson - Sr. Property Analyst	Date September 8, 1999
15.	(This space for Federal or State office use)	1 - 1	OPP .
	Approved by Conditions of approval WAAYNE TOWNSEND	Title H. J. C.	Date
	1811.6 G. C.		

TVD		FORMATION		TYPE OF			FRAC	FORMATION		
IN		TOPS &	DRILLING	FORMATION	HOLE	CASING	GRAD.	PRESSURE		
1000	MD	TYPE	PROBLEMS	EVALUATION	SIZE	SIZE AND DEPTH	psi/ft	PSI	MUD WT & TYPE	DAY
					12-1/4*	:		NORMAL .	SPUD MUD 8.4 - 8.8#	
:					j					
					12-1/4*	9-5/8" 32.3# H-40 STC @ 500"				
					8-3/4"				GEL/WATER: 8.4 - 8.8#	
,										
									MAINTAIN MW AS LOW AS POSSIBLE	
1	\vdash									
Ì										
2	-									
	F								İ	
Į	\vdash	OJAM @ 2423' KRLD 20 2552'	POSSIBLE WATERFLOW						GEL/POLYMER; 8.6 - 9.0# CONTROL FLUID LOSS	
1		_	POSSIBLE GAS FLOW			POSSIBLE DV TOOL 2800		432 PSI	PRIOR TO CJAM (10-12 CC)	
		FRLD @ 2829	POSSIBLE GAS PLOW			rossible by loce — —		432 731	(101200)	
3			POSSIBLE LOST RETURNS							
1		PCCF @ 3227	POSSIBLE DIFFERENTIAL					360 PSI	i	
1		FEANS \$ 3288.	STICKING	ļ					<u> </u>	į
		-								
	=									
4	├ —	CHRA @ 4184*						400 PSI		
	=									
1		}	1			!		}		
1									1	
١.	F	1	PROBABLE LOST RETURNS			{	0.5	457 PSI		
1 -	` 	MENF @ 5025'	IF FLUID IN HOLE			1				
1		PTLK @ 5452"	1							
1			PROBABLE LOST RETURNS			1	١.	}		1
1		<u></u>				POSSIBLE DV TOOL 9850	1			
1.	.—	MNCS & S858	PROBABLE LOST RETURNS			- 1000 JOSE			İ	
1		<u> </u>		FORMATION COMPENSATED			ļ			
	\vdash	1		DENSITY OR			Į.			i !
1		CUP @ 6638	PROBABLE LOST RETURNS	LITHOOENSITY W GAMMA RAY &		1	1			1
				CALIPER	Ī			1		1
1 ,	,	1		COMPENSATED						
		GRHN @ 7383*	POSSIBLE WATERFLOW	NEUTRON LOG						
		GRRS @ 7442 PAGU @ 7599*	POSSIBLE OVERPRESSURE	INDUCTION RESISTIVITY W/	1	4-1/2" 10.5# J-55 STC @ 7734" CEMENT TO SURFACE	0.5	713 PSI		1 1
		LLWOO ER LOAR	NT OCC. DANGER	GAMMA RAY & SP	8-3/4*	(POSSIBLE 2 OR 3 STAGE)		BHT = 175 deg F	<u> </u>	16
	F	T.D. @ 7854*								
	·]								
	F-	-								
		NOTE: PERMIT TO \$134"			[

DATE

PREPARED:

08/17/99

Ricky Joyce/Brett Thompson DRILLING ENGINEER

APPROVALS: M.

2:23 PM

DRILLING MGR.

PRIMARY CEMENTING PROPOSAL

SURFACE & 3 STAGE LONGSTRING

Conoco

San Juan 28-7 Unit #226E

Well Location

Field : San Juan Unit

County: Rio Arriba

State : Nm

Country: USA

Prepared for

: Brett Thompson

Service Point : FARMINGTON, NM

Ricky Joyce

Business Phone : 505-325-5096

Date Prepared :

8/20/99

FAX No. : 505-327-0317

Prepared by Phone

: Duane Gonzalez

(281) 293-4538

FAX

(281) 293-4424

E-Mail address

: dgonzalez@houston.dowell.sib.com



Conoco San Juan 28-7 Unit #228E Rio Arriba County, Nm Page 2

Well Data: 9 5/8 in. Surface

< Surface

 Depth
 500 ft.

 Casing Size
 9 5/8 in., 32.3 lbs./ft.

 Open Hole Diameter
 12 1/4 in.

 BHST
 100 °F

 BHCT
 80.0 °F

 Total Excess
 100 %

 Tail Excess
 100 %

Mud Wt./Type: 8.4 ppg Fresh Wtr. Based

Calculations:

Volume Factors:

Casing x Open Hole Casing (Internal)

0.3132 cu.ft./ft

0.4411 cu.ft./ft

Top of Cement

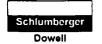
Surface

Cement System:

Open Hole Fill
Casing Shoe Cement

 $(500 \times 0.3132 \times 2.) / 1.19 = 262$ sks. $(40 \times 0.4411) / 1.19 = 15$ sks. Total Tail Cement = 277 sks.

< T.D. - 500 ft.



Conoco San Juan 28-7 Unit #228E Rio Arriba County, Nm Page 3

Cementing Systems

Spacer System: 20 bbls.

Fresh Water

Cement System: 275 sks.

Class B + 2% S1 + 0.25 pps D29

Mix Weight

15.6 PPG

Yield Mix Water 1.19 cu.ft./sk. 5.19 gal./sk.

Fluid Loss

800 cc/30 minutes

Thickening Time Comp. Strength

0.125 hours:minutes

ip. Strengtn :

: 1,000 psi in 12 hrs.

Notice:

Performance parameters for cement systems recommended are typically taken from existing laboratory data. In some cases, data axist which duplicate the recommended systems and job environment, but when those data do not exist, extrapolations are made from data which most closely metch the anticipated conditions. Sufficient lead-time should always be allowed, so that pilot samples/field blends can be run to verify system performance parameters, before actually pumping the job.



Conoco San Juan 28-7 Unit #226E Rio Arriba County, Nm Page 5

Well Data: 4 1/2 in. Production - Stage 1

<	Surface

Depth 7.834 ft.

Casing Size 4 1/2 in., 11.6 lbs./ft.

Open Hole Diameter 8 3/4 in.
Previous Csg. Depth 500 ft.

Previous Csg. Size 9 5/8 in., 32.3 lbs./ft.

 BHST
 175 °F

 BHCT
 130.9 °F

 Total Excess
 35 %

 Lead Excess (calculated O.H.)
 35.0 %

 Tail Excess
 35 %

 Stage Collar Depth
 5,850 ft.

< Previous Csg. 500 ft.

Mud Wt./Type: 8.6 ppg Fresh Wtr. Based

Calculations:

Volume Factors:

Casing x Open Hole 0.3071 cu.ft./ft
Casing x Previous Casing 0.3307 cu.ft./ft
Casing (Internal) 0.0874 cu.ft./ft

 Top of Lead
 5,850 ft.

 Top of Tail
 7,234 ft.

Lead System:

Total Lead Fill

 $(1,384 \times 0.3071 \times 1.35) / 2.86 = 201 \text{ sks.}$

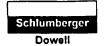
< Top of Cmt./DV Tool 5,850 ft.

Tail System:

Top of Lead 7,234 ft. Open Hole Fill
Casing Shoe Cement

(600 x 0.3071 x 1.35) / 1.45 = 171 sks. (80 x 0.0874) / 1.45 = 5 sks. Total Tail Cement = 176 sks.

< T.D. - 7,834 ft.



Conoco San Juan 28-7 Unit #226E Rio Arriba County, Nm Page 6

Cementing Systems

Spacer System: 20 bbls.

CW-100 Chemical Wash

Lead System: 200 sks.

Class B + 3% D79 + 0.1% D46 + 0.25 pps D29

 Mix Weight
 :
 11.4 PPG

 Yield
 :
 2.86 cu.ft./sk.

 Mix Water
 :
 17.64 gal./sk.

Fluid Loss : 700 cc/30 minutes
Thickening Time : 5:00 hours:minutes
Comp. Strength : 600 psi in 24 hrs.

Tail System: 175 sks.

50:50 Poz:Class B + 2% D20 + 0.5% D60 + 0.2% D65 + 0.1% D46 + 0.25 pps D29

 Mix Weight
 :
 12.8 PPG

 Yield
 :
 1.45 cu.ft./sk.

 Mix Water
 :
 7.15 gal./sk.

Fluid Loss : 350 cc/30 minutes
Thickening Time : 4:30 hours:minutes
Comp. Strength : 500 psi in 24 hrs.

Notice:

Performance parameters for cement systems recommended are typically taken from existing laboratory data. In some cases, data exist which duplicate the recommended systems and job environment, but when those data do not exist, extrapolations are made from data which most closely match the anticipated conditions. Sufficient lead-time should always be allowed, so that pilot samples/field blends can be run to verify system performance parameters, before actually pumping the job.



Conoca San Juan 28-7 Unit #226E Rio Arriba County, Nm Page 7

Well Data: 4 1/2 in. Production - Stage 2

< Surface	Depth	7 834 ft

Casing Size 4 1/2 in., 11.6 lbs./ft. Open Hole Diameter 8 3/4 in.

Previous Csq. Depth 500 ft.

Previous Csg. Size 9 5/8 in., 32.3 lbs./ft.

BHST 175 °F BHCT 118.0 °F Total Excess 35 % Tail Excess 35 % Stage Collar Depth 5,850 ft.

Mud Wt./Type: 8.6 ppg Fresh Wtr. Based < Previous Csg. 500 ft.

Calculations:

Volume Factors:

Casing x Open Hole 0.3071 cu.ft./ft Casing x Previous Casing 0.3307 cu.ft./ft

Casing (Internal)

0.0874 cu.ft./ft

Top of Cement

2.800 ft.

Cement System:

Open Hole Fill Casing Shoe Cement $(3,050 \times 0.3071 \times 1.35) / 1.45 = 872 \text{ sks}.$

 $(40 \times 0.0874) / 1.45 = 2 \text{ sks}.$

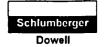
Total Tail Cement = 874 sks.

< Stage Collar (DV) 5,850 ft.

< Top of Cmt.

2,800 ft.

< T.D. - 7,834 ft.



Conoco San Juan 28-7 Unit #226E Rio Arriba County, Nm

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Cementing Systems

Spacer System: 20 bbls.

CW-100 Chemical Wash

Cement System: 875 sks.

50:50 Poz:Class B + 2% D20 + 0.5% D60 + 0.2% D65 + 0.1% D46 + 0.25 pps D29

Mix Weight

12.8 PPG

Yield

1.45 cu.ft./sk.

Mix Water

7.15 gal./sk.

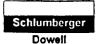
Fluid Loss Thickening Time 350 cc/30 minutes 4:30 hours:minutes

Comp. Strength

500 psi in 24 hrs.

Notice:

Performance parameters for cement systems recommended are typically taken from existing laboratory data. In some cases, data exist which duplicate the recommended systems and job environment, but when those data do not exist, extrapolations are made from data which most closely match the anticipated conditions. Sufficient lead-time should always be allowed, so that pilot samples/field blends can be run to verify system performance parameters, before actually pumping the job.



Conoco San Juan 28-7 Unit #226E Rio Arriba County, Nm Page 9

Well Data: 4 1/2 in. Production - Stage 3

< Surface	Depth	7,834	ft.
	Casing Size	4 1/2	in., 11.6 lbs./ft.
	Open Hole Diameter	8 3/4	in.
	Previous Csg. Depth	500	ft.
	Previous Csg. Size	9 5/8	in., 32.3 lbs./ft.
	BHST	128	°F
	ВНСТ	95.8	°F
	Total Excess	35	%
	Lead Excess (calculated O.H.)	35.0	%
	Tail Excess	35	%
	Stage Collar Depth	2,800	ft.

< Previous Csg. 500 ft.

< Top of Tail

1,800 ft.

Mud Wt./Type: 8.6 ppg Fresh Wtr. Based

Calculations:

Vo	lume	Factors:	

Casing x Open Hole 0.3071 cu.ft./ft
Casing x Previous Casing 0.3307 cu.ft./ft
Casing (Internal) 0.0874 cu.ft./ft

Top of Lead Top of Tail

Surface 1,800 ft.

Lead System:

< Stage Collar (DV-2) 2,800 ft. Open Hole Fill Previous Casing Fill

(1,300 x 0.3071 x 1.35) / 2.86 = 188 sks. (500 x 0.3307) / 2.86 = 58 sks. Total Lead Cement = 246 sks.

< Stage Collar (DV-1) 5,850 ft.

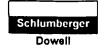
Tail System:

Open Hole Fill

Casing Shoe Cement

(1,000 x 0.3071 x 1.35) / 1.45 = 286 sks. (40 x 0.0874) / 1.45 = 2 sks. Total Tail Cement = 288 sks.

< T.D. - 7,834 ft.



Conoco San Juan 28-7 Unit #226E Rio Arriba County, Nm

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Cementing Systems

Spacer System: 20 bbls.

CW-100 Chemical Wash

Lead System: 245 sks.

Class B + 3% D79 + 0.1% D46 + 0.25 pps D29

Mix Weight

11.4 PPG

Yield

2.86 cu.ft./sk.

Mix Water

17.64 gal./sk.

Fluid Loss Thickening Time

700 cc/30 minutes 5:00 hours:minutes

Comp. Strength

600 psi in 24 hrs.

Tail System: 290 sks.

50:50 Poz:Class B + 2% D20 + 0.5% D60 + 0.2% D65 + 0.1% D46 + 0.25 pps D29

Mix Weight

12.8 PPG

Yield

1.45 cu.ft./sk.

rieia

7.15 gal./sk.

Mix Water Fluid Loss

350 cc/30 minutes

Thickening Time

4:30 hours:minutes

Comp. Strength

500 psi in 24 hrs.

Notice:

Performance parameters for cement systems recommended are typically taken from existing laboratory data. In some cases, data exist which duplicate the recommended systems and job environment, but when those data do not exist, extrapolations are made from data which most closely match the anticipated conditions. Sufficient lead-time should always be allowed, so that paot samples/field blends can be run to verify system performance parameters, before actually pumping the job.