



Service Order #: 75341C

Date: 24-May-18

Well Name	Location	County	St	API#		
SCHROEDER 23-33		WELD	CO	05-123-27282		
Formation	Cement Via	Type Of Service	Well Type	Age	AFE#	PO#
	TUBING	PLUG	GAS	REWORK	425777931	

Customer: NOBLE ENERGY, INC.

Remarks: *CICR @ 2374 - Cut Csg @ 1089*
 Plug 1: 5.5 bbls / 20 sks (6642 - 6288)
 Plug 2: 11.3 bbls / 55 sks (4066 - 3337)
 Plug 3: 33.8 bbls / 165 sks
 Length: 2374 - Ann: 1863 / 4 1/2: 2345
 Plug 4: 79 bbls / 386 sks (1139 - 0)

Customer Rep: CHRIS MATHIAS

PH:

WELLBORE DATA				
Type	Size	Weight	Depth	Volume
Surface Casing:	8.625	24.0	877.0	
Production Casing:	4.500	11.6	7,032.0	
Intermediate:				
Drill Pipe:				
Tubing:	2.375	4.7	6,642.0	

Type	Size	Depth (Top)	Depth (Bot)	Volume
Liner:				
Open Hole:	9.000	877.0	1,089.0	

OTHER DATA		
BHT	Max PSI	Total Depth
	2,000	6,642.0

Packer or Retainer Type / Depth:

Perf Depths:	#	Total
2,474.0	4	

TIME	PUMP RATES		DENSITY	PRESS	STG TOT	TOTAL	REMARKS
	WATER (gpm)	PUMP (bpm)	(lb/gal)	(psi)	(bbls)	(bbls)	
11:40	0	0.1	6.88	3,849		0.2	PSI TEST LINES
11:42	0	0.3	6.88	0		0.0	ESTABLISH CIRCULATION
11:44	0	1.9	6.88	418		4.2	SHUT DOWN - CIRCULATION ESTABLISHED
11:46	0	0.0	6.90	0		4.3	BEGIN BATCHING UP CEMENT TO 15.8 PPG
11:51	0	0.0	15.91	0		4.3	PUMP CEMENT
11:55	0	2.0	16.20	138		5.6	END CEMENT - DISPLACE CEMENT WITH H2O
12:07	0	1.2	6.88	63		24.0	SHTU DOWN - END PLUG 1
12:08	283	0.0	6.88	0		24.0	RIG PULL UP TO 4066'
12:50	0	0.0	6.88	0		0.0	ESTABLISH CIRCULATION
12:55	0	1.7	6.88	175		10.0	SHUT DOWN - CIRCULATION ESTABLISHED
12:58	0	0.0	6.94	0		0.0	BEGIN BATCHING UP CEMENT TO 16.8 PPG
13:07	0	0.2	15.94	0		0.0	PUMP CEMENT
13:14	0	1.8	16.03	19		11.4	END CEMENT - DISPLACE CEMENT WITH H2O
13:20	0	0.7	6.88	12		12.4	SHUT DOWN - END PLUG 2
13:24	0	0.0	6.88	0		12.7	- END DAY 1 (5/22/2018) -
8:11	0	0.0	6.88	12		0.0	- BEGIN DAY 2 (5/23/2018) -
8:12	0	0.1	6.88	4,002		0.0	PSI TEST LINES
8:19	0	0.0	6.88	12		0.0	ESTABLISH INJECTION RATE
8:22	0	2.0	6.88	1,207		2.8	INJ RATE ESTABLISHED - PUMP MUD FLUSH
8:23	0	2.0	8.36	1,221		2.9	BEGIN BATCHING UP CEMENT TO 15.8 PPG
8:27	0	2.0	15.58	1,230		10.1	END MUD FLUSH - PUMP H2O SPACER
8:29	0	2.0	15.93	1,228		5.1	END SPACER - PUMP CEMENT
8:47	0	2.0	16.05	604		34.8	END CEMENT - DISPLACE CEMENT WITH H2O
8:51	0	1.6	8.38	804		7.8	SHUT DOWN - RIG STING OUT OF CICR

Customer Acknowledgement:

Service Rating:

- ☐ Satisfactory
☐ Unsatisfactory

Cementer:

CORY THAUT

PRODUCTS USED

Plug 1: Thermal Blend
 *Density: 15.8 ppg / Yield 1.53
 Plugs 2 - 4: Class G (neat)
 *Density: 15.8 ppg / Yield: 1.15



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8:53	0	0.0	8.38	0	0.0	DISPLACE TO BALANCE CEMENT ON TOP CICR
8:57	0	0.0	8.38	0	0.8	SHUT DOWN - END PLUG 2
8:59	0	0.0	8.38	6	0.8	- END DAY 2 (5/23/2018) -
11:26	0	0.0	6.88	0	0.0	- BEGIN DAY 3 (5/24/2018) -
11:26	0	0.1	6.88	2,519	0.1	PSI TEST LINES
11:29	0	0.2	6.88	0	0.0	ESTABLISH CIRCULATION
11:31	0	2.0	6.88	59	3.0	CIRCULATION ESTABLISHED - PUMP MUD FLUSH
11:36	3	2.0	6.88	100	10.0	END MUD FLUSH - PUMP H2O SPACER
11:37	0	2.0	7.17	82	1.8	BEGIN BATCHING UP CEMENT TO 15.8 PPG
11:41	49	2.0	15.83	119	10.0	END SPACER - PUMP CEMENT
12:17	0	1.2	15.92	8	75.0	SHUT DOWN - RIG POOH
12:51	0	0.0	15.70	0	0.0	TOP OFF WELL
13:11	0	0.4	16.01	0	4.0	SHUT DOWN - END JOB

Summary

Max Fl. Rate	Avg Fl. Rate	Max Psi	Avg Psi
2.0	0.6	4,002	275

Customer Acknowledgement:

Service Rating:

- ☐ Satisfactory
☐ Unsatisfactory

Cementer:

CORY THAUT

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