
 <small>ON_1-BCO_190526080852-JLPJob 1.xlsm</small>	<b>PDC ENERGY</b>	YARD CALL	6/4/2019		<b>DISTRICT</b> <b>Brighton</b>	
	Red Cloud ON	RTS DATE	6/4/2019			
			YARD RTN	6/4/2019		

<b>CUSTOMER INFORMATION</b>		<b>WELL INFORMATION</b>		<b>WELL DATA</b>		<b>TUBULAR DATA</b>	
Customer Name	PDC ENERGY	API #:	05-123-49445	Casing Size	9.625	Size	Grade
Customer #:	1000700	Field Name:	Wattenberg	Depth	1678	Weight	Depth
AFE #:		Well Name:	Red Cloud ON	TVD	6,700 ft	Casing	
Cust Rep on Loc:				MD	17,185 ft	5.5 in 20# (0 to 17159ft)	
Cust Phone #:		Well Type:	Oil	OH		<b>CEMENTING PLUG</b>	
Order Placed By:		Formation:	Production	OH Depth		Qty	Size
Phone #:		Rig Contractor:	Ensign	BHST	200°F	Type	Material
Proposed Job Amt:	\$105,974.45	Rig Name/Num.:	Ensign 152	BHCT	180°F		
<b>JOB INFORMATION</b>		Rig Phone:		Est. BHST/BHCT		200°F / 180°F (0) (2.99°F/100ft)	
Ticket #:	BCO-1906-0013	County:	Weld	MD / TVD	17,185 ft / 6,700 ft	<b>TOP CONNECTION</b>	
PO #:		State:	CO	Mud Weight & Type	10#, Water Based	Size	Type
Order Taken By:	Laeger	Latitude:	40.34448	Open Hole	8.5 in O.H. (1678 to 17159ft)	Thread	
Order Date:	6/2/2019	Longitude:	-104			<b>JOB TYPE</b>	
CJES Acct. Manager:	Cody Michel	Township:	SENE 1 4N64W	Previous Casing	9.625 in. 36# (0 to 1,678 ft)	Production Casing	
CJES Engineer	Cody Michel	Quote Number:	1-BCO_190526080852				

<b>COMMENTS</b>	
<b>SPECIAL JOB INSTRUCTIONS</b>	
5 1/2 head bowl swage , 1600 # sapp, Latex , 200# Sugar	
<b>DIRECTIONS TO WELL</b>	
Cr 50 & Cr 61 S 3/10 , W into	
Police Department	
<b>Emergency Contacts</b>	
Police Department	Greeley, Co
Police Department	
Fire Department	
Designated Emergency Vehicle	131152
Vehicle Location:	
MSDS on Dash of Emergency Vehicle? (y/n)	Y
Muster Area #1	Lease entrance
Muster Area #2	Wind depending
Cell Phone Service on location? (y/n)	
If not, nearest working phone	
<b>Iron Tracking</b>	
Taken Out	
Returned	
Iron Type	Taken By
	Date Out
	Time Out
	Returned By
	Date In
	Time In

<div>C&amp;J ENERGY SERVICES</div> <div>0N_1-8CO_190526080852-ILPjob 1.xlsm</div>	PDC ENERGY	YARD CALL	6/4/2019		DISTRICT	
	Red Cloud 0N	RTS DATE	6/4/2019		Brighton	
		YARD RTN	6/4/2019			
Personnel/Equipment						
Driver	Assignment		Tractor	Trailer	Comments	
Jeff K			131152	449088		
Ryan P				445047		
Kevin P				transport		
Winston			201400			
John C				445033		
BLEND INFO						
0N_1-8CO_190526080852-ILPjob 1.xlsm>Main						
Amount	Units	System/Additives		Density (ppg)	Yield (cuft/sk)	Water Req. (gal/sk)
0	sx	0				
0.00						
0.00	sx	80 bbls water + 1600 lbs SAPP				
80.00	bbl	+20.0 PPB CJ890				
0	sx	80 bbls ppg Weighted Spacer - 80 bbls of 12.5 ppg Weighted Spacer: 66.3 bbl Fresh Water + 17570 lbs Barite + 80 lbs Citric Acid + 997 lbs MS Spacer + 40 lbs X-Air				
80.00	bbl	+219.63 PPB CJ300+1.0 PPB CJ209+0.5 PPB CJX157011+12.46 PPB CJ801		12.5		
25	sx	C&J Non Latex Lead 1-1				
0.00		50 % CJ914+50 % CJ010-74 +2.0 % CJ020+0.4 % CJ548+0.3 % CJ240+10.0 % CJ041+0.3 % CJX157011		14	1.37	5.98
755	sx	C&J Latex Lead 1-1				
183.60	bbl	50 % CJ914+50 % CJ010-74 +2.0 % CJ020+0.4 % CJ548+0.3 % CJ240+10.0 % CJ041+0.3 % CJX157011+0.2 GPS CJ891		14	1.37	4.71
1925	sx	C&J Tail 1-1				
416.48	bbl	65 % CJ914+35 % CJ010-74 +0.3 % CJ704+0.15 % CJ210K+0.5 % CJ511		14.5	1.22	5.41
0	sx	Displacement				
0	sx					
0	sx					
380.18	bbl					

		<h1>Job Summary</h1>		Ticket Number <b>TN# BCO-1906-0013</b>		Ticket Date <b>6/4/2019</b>	
COUNTY		COMPANY		API Number			
<b>Weld</b>		<b>PDC ENERGY</b>		<b>05-123-49445</b>			
WELL NAME		RIG		JOB TYPE			
<b>Red Cloud 0N</b>		<b>Ensign 152</b>		<b>Production Casing</b>			
SURFACE WELL LOCATION		CJES Field Supervisor		CUSTOMER REP			
<b>40.34448 -104.49179</b>		<b>Jeff Kopp</b>		<b>Brandon</b>			
EMPLOYEES							
<b>WELL PROFILE</b>							
Max Treating Pressure (psi):		4500		Bottom Hole Static Temperature (°F):			
Bottom Hole Circulating Temperature (°F):				Well Type:			

Open Hole

	Size (in)	TMD From (ft)	TMD to (ft)	TVD From (Ft)	TVD to (Ft)
1	8.5	1678	17159		
2					

Casing/Tubing/Drill Pipe

Type	Size (in)	Weight (lb/ft)	Grade	TMD From (ft)	TMD to (ft)	TVD From (Ft)	TVD to (Ft)
Surface	9 5/8	36		0	1678		
Production	5.5	20		0	17159		

CEMENT DATA							
<b>Stage 1:</b>		From Depth (ft):		2819	To Depth (ft):		7000
Type: <b>Lead</b>		Volume (sacks):		780	Volume (bbls):		190
Cement & Additives:				Density (ppg)	Yield (ft³/sk)	Water Req.	
				14	1.37	6.00	
<b>Stage 2:</b>		From Depth (ft):		7000	To Depth (ft):		17159
Type: <b>Tail</b>		Volume (sacks):		1925	Volume (bbls):		418
Cement & Additives:				Density (ppg)	Yield (ft³/sk)	Water Req.	
				14.5	1.22	5.41	
<b>Stage 3:</b>		From Depth (ft):			To Depth (ft):		
Type:		Volume (sacks):			Volume (bbls):		
Cement & Additives:				Density (ppg)	Yield (ft³/sk)	Water Req.	
<b>Stage 4:</b>		From Depth (ft):			To Depth (ft):		
Type:		Volume (sacks):			Volume (bbls):		
Cement & Additives:				Density (ppg)	Yield (ft³/sk)	Water Req.	

SUMMARY							
Preflushes:		80 bbls of	SAPP	Calculated Displacement (bbl):		380	Stage 1
		80 bbls of	Weighted Spacer	Actual Displacement (bbl):		380	Stage 2
Total Preflush/Spacer Volume (bbl):		160		Plug Bump (Y/N):		Y	Bump Pressure (psi):
Total Slurry Volume (bbl):		608		Lost Returns (Y/N):		N	(if Y, when)
Total Fluid Pumped		768					
Returns to Surface:		Preflush		35 bbls			
Job Notes (fluids pumped / procedures / tools / etc.): <div>Job pumped per customers request. Job went well.</div>							
<div>Thank You For Using</div> <div>CJES O-TEX Cementing</div>							
Customer Representative Signature: _____							

## Cement Job Log



Customer:	PDC ENERGY		Date:	6/4/2019		Serv. Supervisor:	Jeff Kopp				
Cust. Rep.:	Brandon		Ticket #:	BCO-1906-0013		Serv. Center	Brighton - 3021				
Lease:	Red Cloud 0N		API Well #:	05-123-49445		County:	Weld	State:	CO		
Well Type:	Oil		Rig:	Ensign 152		Type of Job:	Production Casing				
Materials Furnished by C&J ENERGY SERVICES											
Plugs		Casing Hardware			Physical Slurry Properties						
					Sacks of Cement	Fluid Dens (lb/gal)	Excess	Yield (cuft/sk)	Mix Water (gal/sk)	Fluid Volume (bbls)	Mix Water (bbls)
0											
80 bbls water + 1600 lbs SAPP		+20.0 PPB CJ890								80.00	
80 bbls ppg Weighted Spacer - 80 bbls of		+219.63 PPB CJ300+1.0 PPB CJ209+0.5 PPB CJX157011+12.46 PPB CJ801				12.5				80.00	
C&J Non Latex Lead 1-1		50 % CJ914+50 % CJ010-74 +2.0 % CJ020+0.4 % CJ548+0.3 % CJ240+10.0 % CJ041+0.3 % CJX157011			25	14		1.37	5.98	6.08	4
C&J Latex Lead 1-1		50 % CJ914+50 % CJ010-74 +2.0 % CJ020+0.4 % CJ548+0.3 % CJ240+10.0 % CJ041+0.3 % CJX157011+0.2 GPS CJ891			755	14		1.37	4.71	183.66	85
C&J Tail 1-1		65 % CJ914+35 % CJ010-74 +0.3 % CJ704+0.15 % CJ210K+0.5 % CJ511			1925	14.5		1.22	5.41	416.80	248
Displacement										380.18	
50 % CJ914+50 % CJ010-74+2.0 % CJ020											
Displacement Chemicals:											

## Cement Job Log



Customer:	PDC ENERGY				Date: 6/4/2019				Serv. Supervisor: Jeff Kopp			
Cust. Rep.:	Brandon				Ticket #: BCO-1906-0013				Serv. Center Brighton - 3021			
Lease:	Red Cloud 0N				API Well #: 05-123-49445				County: Weld		State: CO	
Well Type:	Oil				Rig: Ensign 152				Type of Job: Production Casing			
OPEN HOLE DATA				TUBULAR DATA								
8.5 in O.H. (1678 to 17159ft)				5.5 in 20# (0 to 17159ft)		SIZE WEIGHT	THREAD	DEPTH (ft)	GRADE	ID (in)	BURST (psi)	COLLAPSE (psi)
PREVIOUS CASING DATA				PERFORATED INTERVAL DATA				CASING EQUIPMENT DEPTHS				
9.625 in. 36# (0 to 1,678 ft)				TOP		BTM	SPF	SIZE	SHOE	FLOAT	STAGE	ACP
									17125			
WELL FLUID		DISPLACEMENT FLUID			DIFF PRESS (psi)	CSG LIFT (psi)	MAX PRESS (psi)				WATER ON LOC (bbl)	
TYPE	DENSITY	VOLUME	TYPE	DENSITY								
							4500				1000	
Time	Rate (bbl/min)	Csg. Press. (psi)	Tbg. Press. (psi)	Ann. Press. (psi)	Stg. Vol. (bbl)	Cum. Vol. (bbl)	Stage Details					
3:36 AM						0	ARRIVE ON LOCATION					
3:40 AM						0	PRE JOB SAFETY MEETING					
3:45 AM						0	SPOT EQUIPMENT					
4:00 AM						0	RIG UP IRON AND HOSES					
5:01 AM						0	WAIT ON RIG TO CIRCULATE					
6:30 AM						0	SAFETY MEETING					
7:07 AM	2	300			3	3	FILL LINES					
7:11 AM		5825				3	PRESSURE TEST					
7:16 AM	6	800			80	83	SAPP					
7:29 AM	6	650			80	163	WEIGHTED SPACER @12.5PPG					
7:42 AM						163	SHUT DOWN					
7:55 AM						163	DROP PLUG					
7:56 AM	6	835			6	169	PUMP 25SXS @14PPG 1.37Y 6.0WR					
7:58 AM	7.3	990			184	353	PUMP 75SXS @14PPG 1.37Y 6.0WR					
8:31 AM	6	495			418	771	PUMP 1925SXS @14.5PPG 1.22Y 5.41WR					
9:50 AM						771	SHUT DOWN					
9:52 AM						771	WASH UP PUMPS AND LINES					
10:00 AM						771	DROP PLUG					
10:01 AM	7.3	1736			380	1151	DISPLACE					
11:10 AM		2300				1151	BUMP PLUG					
11:15 AM	2	3650			1.5	1152.5	BURST DISK					
11:17 AM	4	1736			5	1157.5	FRESH					
11:19 AM							CHECK FLOATS					
11:20 AM							RIG OUT/LEAVE LOCATION					
Left Yard			Left Loc.		Start Pump							
Arrived Loc.			Returned Yd.		End Pump							
Bumped Plug (psi)	Final Differential (psi)	Floats Held (Y/N)	PSI Left on Casing	Cement to Surface (bbl)	Top of Cement (ft)	Full Circ. During Job (Y/N)	Max Pump Pressure (psi)	Casing Rotation	Standby Charged(hrs)	Casing Reciprocation		
		Yes	0	0	2819	Yes	4500		0			
							<div>Jeff Kopp</div> <div>Service Supervisor</div>					
							<div>Date</div>					