

		<h1>Job Summary</h1>		Ticket Number <b>TN# BCO-1902-0136</b>		Ticket Date <b>2/28/2019</b>	
COUNTY		COMPANY		API Number			
<b>Weld</b>		<b>PDC ENERGY</b>		<b>05-123-47810</b>			
WELL NAME		RIG		JOB TYPE			
<b>Popham 13N</b>		<b>Ensign 161</b>		<b>Production Casing</b>			
SURFACE WELL LOCATION		CJES Field Supervisor		CUSTOMER REP			
<b>40.33703 -104.53751</b>		<b>Jeff Kopp</b>		<b>Brady Sharp</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

1	Size (in)	TMD From (ft)	TMD to (ft)	TVD From (Ft)	TVD to (Ft)
	8.5	12177	1632		
2	Size (in)	TMD From (ft)	TMD to (ft)	TVD From (Ft)	TVD to (Ft)

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		1632	0		
Type	Size (in)	Weight (lb/ft)	Grade	TMD From (ft)	TMD to (ft)	TVD From (Ft)	TVD to (Ft)
Production	5.5	20		12177	0	6697	0
Type	Size (in)	Weight (lb/ft)	Grade	TMD From (ft)	TMD to (ft)	TVD From (Ft)	TVD to (Ft)

CEMENT DATA							
<b>Stage 1:</b>		From Depth (ft):		1632	To Depth (ft):		4656
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):		4656	To Depth (ft):		12177
Type: <b>Tail</b>		Volume (sacks):		995	Volume (bbls):		216
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:		150 bbls of	Weighted Spacer	Calculated Displacement (bbl):		269	Stage 1
		bbls of		Actual Displacement (bbl):		269	Stage 2
		bbls of					
Total Preflush/Spacer Volume (bbl):		150		Plug Bump (Y/N):		y	Bump Pressure (psi):
Total Slurry Volume (bbl):		406		Lost Returns (Y/N):		n	(if Y, when)
Total Fluid Pumped		556					
Returns to Surface:		Cement	0 bbls				
Job Notes (fluids pumped / procedures / tools / etc.): <div>Job pumped per customers request. Job went well. 11bbls of weighted spacer back to surface.</div>							
<div>Thank You For Using</div> <div>CJES O-TEX Cementing</div>							
Customer Representative Signature: _____							

## Cement Job Log



Customer:	PDC ENERGY		Date:	2/27/2019		Serv. Supervisor:			Jeff Kopp		
Cust. Rep.:	Brady Sharp		Ticket #:	BCO-1902-0136		Serv. Center			Brighton - 3021		
Lease:	Popham 13N		API Well #:	05-123-47810		County:	Weld		State:	CO	
Well Type:	Oil		Rig:	Ensign 161		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											
0											
150 bbls ppg Weighted Spacer - 150 bbls		+10.0 PPB CJ890+222.16 PPB CJ300+1.0 PPB CJ209+0.5 PPB CJX157011+8.1 PPB CJ801				12.5				150.00	
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+1.0 GPS CJ550L+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			995	14.5		1.22	5.41	215.44	128
Displacement										270.34	
50 % CJ914+50 % CJ010-74+2.0 % CJ020											
Displacement Chemicals:											

## Cement Job Log



Customer:	PDC ENERGY				Date: 2/27/2019				Serv. Supervisor: Jeff Kopp			
Cust. Rep.:	Brady Sharp				Ticket #: BCO-1902-0136				Serv. Center Brighton - 3021			
Lease:	Popham 13N				API Well #: 05-123-47810				County: Weld		State: CO	
Well Type:	Oil				Rig: Ensign 161				Type of Job: Production Casing			
OPEN HOLE DATA				TUBULAR DATA								
8.5 in O.H. (1655 to 12182ft)				5.5 in 20# (0 to 12177ft)		SIZE WEIGHT	THREAD	DEPTH (ft)	GRADE	ID (in)	BURST (psi)	COLLAPSE (psi)
PREVIOUS CASING DATA				PERFORATED INTERVAL DATA				CASING EQUIPMENT DEPTHS				
9 5/8 in 36# (0 to 1655ft)				TOP		BTM	SPF	SIZE	SHOE	FLOAT	STAGE	ACP
									12137			
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					
4:30 PM						0	ARRIVE ON LOCATION					
4:32 PM						0	PRE JOB SAFETY MEETING					
4:40 PM						0	SPOT EQUIPMENT					
5:00 PM						0	RIG UP IRON AND HOSES/MIX LATEX					
6:45 PM						0	WAIT ON RIG TO CIRCULATE					
8:45 PM						0	SAFETY MEETING					
9:07 PM	3.5	350			3	3	FILL LINES					
9:11 PM		5218				3	PRESSURE TEST					
9:16 PM	5.5	400			150	153	WEIGHTED SPACER					
9:51 PM	5	369			6	159	MIX AND PUMP 25SXS @14PPG 1.37Y 6.0WR					
9:53 PM	6	760			184	343	MIX AND PUMP 75SXS @14PPG 1.37Y 6.0WR					
10:22 PM	8	1019			216	559	MIX AND PUMP 99SXS @14.5PPG 1.22Y 5.41WR					
10:55 PM						559	SHUT DOWN					
10:56 PM						559	BLOW DOWN IRON					
11:00 PM						559	WASH UP PUMPS					
11:11 PM						559	DROP PLUG					
11:12 PM	8	2169			269	828	DISPLACE					
11:47 PM		2698				828	BUMP PLUG					
11:51 PM		3619				828	BURST DISK					
11:52 PM	4	2176			5	833	FRESH					
11:53 PM							CHECK FLOATS					
12:00 AM							RIG OUT					
1:00 AM							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	2990	Yes	4500					
							<div style="text-align: center;">Jeff Kopp</div> <div style="display: flex; justify-content: space-between;"> <span>Service Supervisor</span> <span>Date</span> </div>					