

	PDC ENERGY	YARD CALL	4/19/2019		DISTRICT
	Popham 9N	RTS DATE	4/20/2019		Brighton
		YARD RTN	4/20/2019		
Personnel/Equipment					
Driver	Assignment	Tractor	Trailer	Comments	
Siarhei Dzmitryieu	Service supervisor	131153	449087		
Jimmy Payne	Service supervisor				
Winston V	Operator		445052		
Eddie Melgarejo	Operator		445070		
Jarred Cross	Operator	201400	444002		
Austin Bennett	Operator				
BLEND INFO					
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+1.0 GPS CJ550L+0.2 GPS CJ891	14	1.37	4.71
975	SX	C&J Tail 1-1			
210.44	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				
268.19	bbl				

Job Summary

Ticket Number	Ticket Date
TN# BCO-1904-0074	4/20/2019

COUNTY	COMPANY	API Number
Weld	PDC ENERGY	05-123-47816
WELL NAME	RIG	JOB TYPE
Popham 9N	Ensign 161	Production Casing
SURFACE WELL LOCATION	CJES Field Supervisor	CUSTOMER REP
40.337 -104.53805	Siarhei Dzmitryieu	Chris McMullen

EMPLOYEES		
<i>Jimmy Payne</i>	<i>Jarred Cross</i>	
<i>Winston V</i>	<i>Austin Bennett</i>	
<i>Eddie Melgarejo</i>		

WELL PROFILE			
Max Treating Pressure (psi):	4000	Bottom Hole Static Temperature (°F):	
Bottom Hole Circulating Temperature (°F):		Well Type:	Oil

Open Hole

1	Size (in)	TMD From (ft)	TMD to (ft)	TVD From (Ft)	TVD to (Ft)
	8.5	1666	12138	1666	6700
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	9.625	36	J55	0	1666	0	1666
Type	Size (in)	Weight (lb/ft)	Grade	TMD From (ft)	TMD to (ft)	TVD From (Ft)	TVD to (Ft)
Production	5.5	20	HCP110	0	12138	0	6700
Type	Size (in)	Weight (lb/ft)	Grade	TMD From (ft)	TMD to (ft)	TVD From (Ft)	TVD to (Ft)

CEMENT DATA

Stage 1:	From Depth (ft):	538	To Depth (ft):	2304
Type: Weighted Spacer	Volume (sacks):	135	Volume (bbls):	80
	Density (ppg)	Yield (ft³/sk)	Water Req.	
	Barite + additives	12.5	3.43	21.30

Stage 2:	From Depth (ft):	2304	To Depth (ft):	6901
Type: Lead Cement	Volume (sacks):	780	Volume (bbls):	190
	Cement & Additives:	Density (ppg)	Yield (ft³/sk)	Water Req.
	Class G + additives	14	1.47	4.71

Stage 3:	From Depth (ft):	6961	To Depth (ft):	12138
Type: Tail Cement	Volume (sacks):	975	Volume (bbls):	212
	Cement & Additives:	Density (ppg)	Yield (ft³/sk)	Water Req.
	Class G + additives	14.5	1.22	5.41

Stage 4:	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):	268.5	Stage 1	Stage 2
	80 bbls of Weighted Spacer	Actual Displacement (bbl):	268.5		
Total Preflush/Spacer Volume (bbl):	160	Plug Bump (Y/N):	Y	Bump Pressure (psi):	2609
Total Slurry Volume (bbl):	402	Lost Returns (Y/N):	N	(if Y, when)	
Total Fluid Pumped	837.5				
Returns to Surface:	Cement	0 bbls			

Job Notes (fluids pumped / procedures / tools / etc.): **Pumped 80 bbl of SAPP spacer ,80 bbl of Barite spacer at b12.5/3.43 ,780 sx of lead latex cement slurry at 14/1.37 ,975 sx of tail slurry at 14.5/1.22, shut sown , washed pumps and lines , displaced with 268.5 bbl of fresh water to ETOC of lead cement at 2304 feet per customer request.**

Thank You For Using
CJES O-TEX Cementing

Customer Representative Signature: _____

Cement Job Log



Customer:	PDC ENERGY		Date:	4/19/2019		Serv. Supervisor:	Siarhei Dzmitryieu	
Cust. Rep.:	Chris McMullen		Ticket #:	BCO-1904-0074		Serv. Center	Brighton - 3021	
Lease:	Popham 9N		API Well #:	05-123-47816		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								
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
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
C&J Tail 1-1		65 % CJ914+35 % CJ010-74 +0.3 % CJ704+0.15 % CJ210K+0.5 % CJ511		975	14.5		1.22	5.41
Displacement								268.19
50 % CJ914+50 % CJ010-74+2.0 % CJ020								
Displacement Chemicals:								

Cement Job Log



Customer: PDC ENERGY		Date: 4/19/2019		Serv. Supervisor: Siarhei Dzmitryieu	
Cust. Rep.: Chris McMullen		Ticket #: BCO-1904-0074		Serv. Center Brighton - 3021	
Lease: Popham 9N		API Well #: 05-123-47816		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. (1666-12143')	5.5 in #20 (0-12135')	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 1,666 ft)	TOP	BTM	SPF	SIZE	SHOE	FLOAT	STAGE	ACP	
						12106			

WELL FLUID		DISPLACEMENT FLUID		DIFF PRESS (psi)	CSG LIFT (psi)	MAX PRESS (psi)	WATER ON LOC (bbl)
TYPE	DENSITY	VOLUME	DENSITY				
Mud	10.8 ppg	268.5 bbl	Water	8.3 ppg	1692	4000	750

Time	Rate (bbl/min)	Csg. Press. (psi)	Tbg. Press (psi)	Ann. Press. (psi)	Stg. Vol. (bbl)	Cum. Vol. (bbl)	Stage Details
6:00 PM						0	ARRIVE ON LOCATION
6:15 PM						0	SPOT EQUIPMENT
6:45 PM						0	RIG UP IRON AND HOSES
11:00 PM		7				0	PRE JOB SAFETY MEETING
11:13 PM	1.5	79			3	3	LOAD LINES TO TEST
11:17 PM		5209				3	TEST PUMP AND LINES TO 5000 PSI
11:19 PM	4	297			80	83	START SAPP SPACER
11:33 PM	7	887			80	163	START BARITE WEIGHTED SPACER AT 12.5 /3.43
11:45 PM						163	DROP BOTTOM PLUG
11:46 PM	7	881			6	169	START 25 SX OF LEAD NON LATEX CEMENT SLURRY AT 14/1.37
11:48 PM	7	865			184	353	START 755 SX OF LEAD LATEX SLURRY AT 14/1.37
12:16 AM	7	680			212	565	START 975 SX OF TAIL SLURRY AT 14.5 /1.22
12:47 AM						565	SHUT DOWN WASH PUMPS AND LINES DROP TOP PLUG
1:05 AM	8.5	760			268.5	833.5	START DISPLACEMENT
1:44 AM	0	2609				833.5	BUMPED PLUG SHUT DOWN
1:45 AM	4	3660			4	837.5	OPEN WET SHOE SUB
1:48 AM		1920				837.5	SHUT DOWN WASH PUMPS AND LINES DROP TOP PLUG
1:50 AM							CHECK FLOATS (FLOAT HOLDING , 2 BBL BACK)
1:55 AM							RIG DOWN
2:45 AM							LEAVE LOCATION

Left Yard	4/20/19 4:00 PM		Left Loc.	4/21/19 2:45 AM		Start Pump		4/20/19 11:13 PM		
Arrived Loc.	4/20/19 6:00 PM		Returned Yd.	4/21/19 4:00 AM		End Pump		4:21/19 1:50		
Bumped Plug (psi)	Final Differential (psi)	Floater 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	1692	Yes	0	0	2304	Yes	4000		0	

						Siarhei Dzmitryieu		4/20/2019	
						Service Supervisor		Date	