

Job Summary

Ticket Number
TN# **Bco-1810-0016** Ticket Date
10/6/2018

COUNTY	COMPANY	API Number
Weld	PDC ENERGY	05-123-45481
WELL NAME	RIG	JOB TYPE
Wilmoth 5A-214	Ensign 161	Production Casing
SURFACE WELL LOCATION	CJES Field Supervisor	CUSTOMER REP
40.34543 104.57954	Jeff Kopp	John Falton

EMPLOYEES

WELL PROFILE			
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	1,631	13,130		
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		0	1,631		
Type	Size (in)	Weight (lb/ft)	Grade	TMD From (ft)	TMD to (ft)	TVD From (Ft)	TVD to (Ft)
Production	5.5	20		0	13,130		
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):	6,831	To Depth (ft):	2175
Type: Lead	Volume (sacks):	780	Volume (bbls):	190
	Cement & Additives:	Density (ppg)	Yield (ft³/sk)	Water Req.
		14	1.37	6.00

Stage 2:	From Depth (ft):	13130	To Depth (ft):	6831
Type: Tail	Volume (sacks):	1185	Volume (bbls):	257
	Cement & Additives:	Density (ppg)	Yield (ft³/sk)	Water Req.
		14.5	1.22	5.41

Stage 3:	From Depth (ft):		To Depth (ft):	
Type:	Volume (sacks):		Volume (bbls):	
	Cement & Additives:	Density (ppg)	Yield (ft³/sk)	Water Req.

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):	290	Stage 1	Stage 2
	20 bbls of Fresh Water	Actual Displacement (bbl):	290		
	80 bbls of Weighted Spacer				
Total Preflush/Spacer Volume (bbl):	180	Plug Bump (Y/N):	Y	Bump Pressure (psi):	2405
Total Slurry Volume (bbl):	447	Lost Returns (Y/N):	N	(if Y, when)	
Total Fluid Pumped	627				
Returns to Surface:	Cement	0 bbls			



Job Notes (fluids pumped / procedures / tools / etc.):

Job pumped per customers request. Job went well.

Thank You For Using
CJES O-TEX Cementing

Customer Representative Signature:

Cement Job Log

												
Customer: PDC ENERGY				Date: 10/6/2018				Serv. Supervisor: Jeff Kopp				
Cust. Rep.: John Falton				Ticket #: Bco-1810-0016				Serv. Center Brighton - 3021				
Lease: Wilmoth 5A-214				API Well #: 05-123-45481				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)
80 bbls water + 1600 lbs SAPP		+20.0 PPB CJ890									80.00	
20 bbls water											-	
80 bbls ppg Weighted Spacer - 80 bbls of 12.5		+219.63 PPB CJ300+1.0 PPB CJ209+0.5 PPB CJ776+12.46 PPB CJ801					12.5				80.00	
Non Latex Lead		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
Latex Lead		50 % CJ914+50 % CJ010-74 +2.0 % CJ020+0.4 % CJ548+0.3 % CJ240+10.0 % CJ041+0.3 % CJX157011				755	14		1.37	4.71	183.66	85
Tail		65 % CJ914+35 % CJ010-74 +0.3 % CJ704+0.15 % CJ210K+0.5 % CJ511				1185	14.5		1.22	5.41	256.57	153
Displacement											292.96	
50 % CJ914+50 % CJ010-74+2.0 % CJ020+0.4												
Displacement Chemicals:												
OPEN HOLE DATA			TUBULAR DATA									
8.5 in O.H. (1,631 ft to 13,130 ft)			5.5 in 20# (0 to 13,130ft)		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 1,631ft)			TOP		BTM	SPF	SIZE	SHOE	FLOAT	STAGE	ACP	
							13091					
WELL FLUID		DISPLACEMENT FLUID			DIFF PRESS (psi)	CSG LIFT (psi)	MAX PRESS (psi)				WATER ON LOC (bbl)	
TYPE	DENSITY	VOLUME	TYPE	DENSITY								
Mud	10.0 ppg	290 bbl	Water	8.3 ppg			4500				1000	
Time	Rate (bbl/min)	Csg. Press. (psi)	Tbg. Press (psi)	Ann. Press. (psi)	Stg. Vol. (bbl)	Cum. Vol. (bbl)	Stage Details					
3:50 PM							0 ARRIVE ON LOCATION					
3:51 PM							0 WAIT ON CASING RUN					
8:25 AM							0 PRE JOB SAFETY MEETING					
8:30 AM							0 MIX LATEX					
9:30 PM							0 RIG UP					
10:00 PM							0 WAIT ON CIRCULATION FROM RIG					
2:30 AM							0 SAFETY MEETING					
2:55 AM	4	700			6		6 FILL LINES AND DROP PLUG					
2:58 AM		5704					6 PRESSURE TEST					
3:09 AM	6.5	700			80		86 SAPP					
3:20 AM	6.5	920			20	106	FRESH					
3:24 AM	7.2	799			80	186	WEIGHTED SPACER @12.5PPG					
3:39 AM	6	560			6	192	MIX AND PUMP 25SXS @14PPG 1.37Y 5.98WR					
3:40 AM	7	660			184	376	MIX AND PUMP 75SXS @14PPG 1.37Y 6.0WR					
4:07 AM	8	434			257	633	MIX AND PUMP 1185SXS @14.5PPG 1.22Y 5.41WR					
4:43 AM						633	SHUT DOWN					
4:47 AM						633	WASH UP PUMPS AND LINES					
4:58 AM						633	DROP PLUG					
4:59 AM	8	1884			290	923	DISPLACE					
5:41 AM		2405				923	BUMP PLUG					
5:43 AM	2	3700			1.5	924.5	BURST DISK					
5:44 AM	4	1700			5	929.5	FRESH					
5:45 AM							CHECK FLOATS					
5:55 AM							RIG OUT					
Left Yard				Left Loc.			Start Pump					
Arrived Loc.	10/5/18 3:50 PM			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		Yes	0	0	2175	Yes	4500		1			
												
							Service Supervisor					
							Date					