

		<h1>Job Summary</h1>		Ticket Number TN# BCO-1812-0112		Ticket Date 12/29/2018	
COUNTY		COMPANY		API Number			
Weld		PDC ENERGY		05-123-46838			
WELL NAME		RIG		JOB TYPE			
Lory 9N		Ensign 158		Production Casing			
SURFACE WELL LOCATION		CJES Field Supervisor		CUSTOMER REP			
40.26297 104.6668		Israel Davila		Jeremy Stolz			
EMPLOYEES							
Cori White		Allen Anzai					
James MacFarland		Cory Williams					
Chad Brantley							
WELL PROFILE							
Max Treating Pressure (psi):		4500		Bottom Hole Static Temperature (°F):			
Bottom Hole Circulating Temperature (°F):				Well Type:		oil	

Open Hole

	Size (in)	TMD From (ft)	TMD to (ft)	TVD From (Ft)	TVD to (Ft)
1	8.5	1677	17228		
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	9.625	36		0	1677		
Production	5.5	20		0	17227		

CEMENT DATA							
Stage 1:		From Depth (ft):		2500	To Depth (ft):		7000
Type: Latex Lead		Volume (sacks):		780	Volume (bbls):		190
Cement & Additives:				Density (ppg)	Yield (ft³/sk)	Water Req.	
Lead Cement				14	1.37	4.71	
Stage 2:		From Depth (ft):		7000	To Depth (ft):		17228
Type: Tail Cement		Volume (sacks):		1940	Volume (bbls):		421
Cement & Additives:				Density (ppg)	Yield (ft³/sk)	Water Req.	
Tail Cement				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:		6 bbls of	Fresh Water	Calculated Displacement (bbl):		382	Stage 1
		100 bbls of	Weighted Spacer	Actual Displacement (bbl):		382	Stage 2
Total Preflush/Spacer Volume (bbl):		106		Plug Bump (Y/N):		Y	Bump Pressure (psi):
Total Slurry Volume (bbl):		611		Lost Returns (Y/N):		N	(if Y, when)
Total Fluid Pumped		1106					
Returns to Surface:				bbls			
Job Notes (fluids pumped / procedures / tools / etc.): <div> Pumped 100 bbls weighted spacer. Pumped 780 sks latex lead cement @14#, 1.37 yield from 2500' to 7000' (first 6 bbls non-latex). Pumped 1940 sks@14.5, 1.22 yield from 7000' to 17228'. Displaced 182 bbls to land plug. Floats held, 2bbls back to pump. </div>							

Customer Representative Signature: _____		Thank You For Using CJES O-TEX Cementing
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Cement Job Log

C&J ENERGY SERVICES														
Customer: PDC ENERGY				Date: 12/29/2018				Serv. Supervisor: Israel Davila						
Cust. Rep.: Jeremy Stolz				Ticket #: BCO-1812-0112				Serv. Center Brighton - 3021						
Lease: Lory 9N				API Well #: 05-123-46838				County: Weld		State: CO				
Well Type: Oil				Rig: Ensign 158				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 (bbbls)	Mix Water (bbbls)
20 bbls diesel													20.00	
100 bbls Weighted Spacer - 100 bbls of 12.5ppg		+221.47 PPB CJ300+1.0 PPB CJ209+0.5 PPB CJ776+11.57 PPB CJ801+0.5 GPB CJFCPC25+2.0 GPB CJ885							12.5				100.00	
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						1940	14.5		1.22	5.41	420.05	250
Displacement													381.75	
65 % CJ914+35 % CJ010-74+0.3 % CJ704+0.15 % CJ210K+0.5 % CJ511														
Displacement Chemicals:														
OPEN HOLE DATA		TUBULAR DATA												
8.5" O.H. (1677 - 17228 ft)		5.5" 20# (0 - 17227)		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 1,677 ft)		TOP		BTM		SPF	SIZE		SHOE	FLOAT	STAGE	ACP		
WELL FLUID		DISPLACEMENT FLUID				DIFF PRESS (psi)	CSG LIFT (psi)	MAX PRESS (psi)					WATER ON LOC (bbl)	
TYPE	DENSITY	VOLUME	TYPE	DENSITY										
Mud	10.5 ppg	382 bbl	H2O	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							
9:00 PM						0	Arrive on location							
9:15 AM						0	Tailgate meeting							
11:30 AM						0	Spot Equipment/Rig in							
5:30 AM						0	JSA/Safety meeting							
6:03 AM	4	330				6	6 Fill lines							
6:10 AM						6	Pressure test iron to 5000psi							
6:20 AM	6	500			100	106	Pump weighted spacer @ 12.5							
6:45 AM	5.5	300			190	296	Pump latex lead @ 14#, 1.37 yield from 2500' to 7000'(First 6 bbls nonlatex)							
7:23 AM	8	500			421	717	Pump tail cement from 7000' to 17228'							
8:28 AM		0				717	Shut down/Wash pump/Lines/Load plug							
8:40 AM	7.5	2300			382	1099	Displace plug (slow down to 5 bbls/min last 20)							
9:44 AM		2700				1099	Bump Plug							
9:49 AM	2	4200			2	1101	Burst open wet shoe sub							
9:50 AM	4	2400			5	1106	Displace shoe track							
9:51 AM		1800					Shut down							
9:53 AM		0					Check Floats/Floats held/2 bbls back							
10:00 AM							Rig out							
11:00 AM							Depart location							
Left Yard	12/28/18 8:30 PM		Left Loc.		12/29/18 11:00 AM		Start Pump		12/29/18 5:30 AM					
Arrived Loc.	12/28/18 9:00 PM		Returned Yd.		12/29/18 12:00 PM		End Pump		12/29/18 10:00 AM					
B														