

Cement Verification Report - Cementer's Well Service, Inc.

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COGCC Operator Guidance

RULE #308.A.B(2)A.ii



CLIENT: PDC - Petroleum Development Corp	Cementer's FIELD TICKET #	209796
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Requested Operator Guidance:

1) Well Name & Number	Lease	Pharaoh	Well No.	1N
2) Well API Number	05-123-48835			
3) Job Date	10/22/20	Time on	2:00	24 hr time
4) Job Type	New Well Surface			
5) Cementing Company	Cementer's Well Service, Inc	Contact	Nate Kvamme - 303-324-4296	
6) Ambient conditions	clear / rain / snow / other		temp deg F	
7) Slurry Description				
a) Purpose	Surface - 9 5/8" CSG, 12 1/4" hole			
b) Cement Class	Type I / II			
c) Cement Yield	1.61	cuft / sk		
d) Cement Density	13.9	PPG		
e) Number of sks	540	sks (94# equiv)		
f) Cement Volume (dry)	540	cuft (ft^3)		
g) Mix Fluid Type				
Water / Cement	8.5	Gal / sk		
h) Slurry mixed	154.8	BBLs slurry		
i) Additives used	1.50%	CaCl2	3.00%	Bentonite
Total Water Used	284.6	BBLs H2O		
j) Displacement Fluid Vol	125.3	BBLs H2O		
k) Method of Placement				
l) Set Depth	1,675	feet (ft)		
m) Stage tool depth	n/a			
n) Float Collar Depth	1,621	feet (ft)		
o) Designed Top of Cement	n/a	to surface		
p) Centralizer depths	0			feet (ft)
8) Charts - (pressure, density, pump rate)				
Landed Plug @	750	psi	Final Lift Pressure @	500 psi
Cement Density (as weighed during job) @	13.9	PPG		
9) Job notes				
a) Plug down	Y/N	Time	4:20	24 hr time
b) Floats held	Y/N			
c) Full Returns	Y/N	Lost Circulation	Y/N	
d) Cement to surface	Y/N	15.0	BBLs to surface	
e) If no returns, top off	BBLs			
f) Top off detail				



Centralizer Depths

Well Name: Pharaoh 1N

Surface, Set Depth: 1,675.2ftKB

API 05123488350000		Surface Legal Location NESE 36 5N 64W		Field Name Wattenberg		State CO		Well Configuration Type Horizontal					
Ground Elevation (ft) 4,593.00		Original KB Elevation (ft) 4,621.00		KB-Ground Distance (ft) 28.00		Spud Date 12/28/2020 08:30		Rig Release Date 1/1/2021 04:00		On Production Date		Abandon Date	

Casing Run Tally

Run #	Ref #	Item Des	OD (in)	Wt (lb/ft)	Grade	Run?	Len (ft)	Centralized?	Ext Jwlry	Connections	Top (ftKB)	Cum Len (ft)
2		Casing Joints	9 5/8	36.00	J-55	Yes	39.59	Yes		LT&C	1,633.8	41.44
8		Casing Joints	9 5/8	36.00	J-55	Yes	40.06	Yes		LT&C	1,393.8	281.37
13		Casing Joints	9 5/8	36.00	J-55	Yes	41.41	Yes		LT&C	1,191.2	483.96
18		Casing Joints	9 5/8	36.00	J-55	Yes	41.15	Yes		LT&C	997.2	678.04
23		Casing Joints	9 5/8	36.00	J-55	Yes	40.45	Yes		LT&C	798.4	876.82
28		Casing Joints	9 5/8	36.00	J-55	Yes	38.71	Yes		LT&C	600.1	1,075.08
33		Casing Joints	9 5/8	36.00	J-55	Yes	39.83	Yes		LT&C	397.3	1,277.90
38		Casing Joints	9 5/8	36.00	J-55	Yes	41.18	Yes		LT&C	193.3	1,481.87