

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	Cementor's FIELD TICKET #	209569
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Requested Operator Guidance:

1) Well Name & Number	Lease	Pharaoh	Well No.	5N
2) Well API Number	05-123-48832			
3) Job Date	10/24/20	Time on	16:30	24 hr time
4) Job Type	New Well Surface			
5) Cementing Company	Cementor'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	640	sks (94# equiv)		
f) Cement Volume (dry)	640	cuft (ft^3)		
g) Mix Fluid Type				
Water / Cement	8.5	Gal / sk		
h) Slurry mixed	183.5	BBLs slurry		
i) Additives used	1.50%	CaCl2	3.00%	Bentonite
Total Water Used	307.7	BBLs H2O		
j) Displacement Fluid Vol	128.2	BBLs H2O		
k) Method of Placement				
l) Set Depth	1,715	feet (ft)		
m) Stage tool depth	n/a			
n) Float Collar Depth	1,658	feet (ft)		
o) Designed Top of Cement	n/a	to surface		
p) Centralizer depths				feet (ft)
8) Charts - (pressure, density, pump rate)				
Landed Plug @		900	psi	Final Lift Pressure @ 520 psi
Cement Density (as weighed during job) @		13.9	PPG	
9) Job notes				
a) Plug down	Y/N	Time	19:30	24 hr time
b) Floats held	Y/N			
c) Full Returns	Y/N	Lost Circulation	Y/N	
d) Cement to surface	Y/N	26.0	BBLs to surface	
e) If no returns, top off	-	BBLs		
f) Top off detail				



Centralizer Depths

Well Name: Pharaoh 5N

Surface, Set Depth: 1,714.7ftKB

API 05123488340000		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 1/14/2021 18:30		Rig Release Date 1/19/2021 10:00	
						On Production Date		Abandon Date	

Casing Run Tally

Run #	Ref #	Item Des	OD (in)	Wt (lb/ft)	Grade	Run?	Len (ft)	Centralized?	Ext Jw/ry	Connections	Top (ftKB)	Cum Len (ft)
2	1	Casing Joints	9 5/8	36.00	J-55	Yes	41.49	Yes		LT&C	1,671.4	43.34
7	6	Casing Joints	9 5/8	36.00	J-55	Yes	41.05	Yes		LT&C	1,470.6	244.07
12	11	Casing Joints	9 5/8	36.00	J-55	Yes	38.33	Yes		LT&C	1,274.7	440.01
17	16	Casing Joints	9 5/8	36.00	J-55	Yes	39.95	Yes		LT&C	1,072.5	642.21
22	21	Casing Joints	9 5/8	36.00	J-55	Yes	40.02	Yes		LT&C	872.6	842.13
27	26	Casing Joints	9 5/8	36.00	J-55	Yes	39.22	Yes		LT&C	675.5	1,039.24
32	31	Casing Joints	9 5/8	36.00	J-55	Yes	40.07	Yes		LT&C	475.6	1,239.06
37	36	Casing Joints	9 5/8	36.00	J-55	Yes	39.01	Yes		LT&C	271.7	1,443.05