

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 #	300131-D
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Requested Operator Guidance:

1) Well Name & Number	Lease	Sanford	Well No.	02N
2) Well API Number	05-123-49932-00			
3) Job Date	2/10/21	Time on	11:30	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	555	sks (94# equiv)		
f) Cement Volume (dry)	555	cuft (ft^3)		
g) Mix Fluid Type				
Water / Cement	8.5	Gal / sk		
h) Slurry mixed	159.1	BBLs slurry		
i) Additives used	1.50%	CaCl2		
	3.00%	Bentonite		
j) Displacement Fluid Vol	136.1	BBLs H2O		
k) Method of Placement				
l) Set Depth	1,803	feet (ft)		
m) Stage tool depth	n/a			
n) Float Collar Depth	1,761	feet (ft)		
o) Designed Top of Cement	n/a	to surface		
p) Centralizer depths	1739, 1656, 1532, 1366, 1201, 1035, 869, 703, 538, 372, 207, 41 feet (ft)			
8) Charts - (pressure, density, pump rate)				
Landed Plug @	950	psi	Final Lift Pressure @	600 psi
Cement Density (as weighed during job) @	13.9	PPG		
9) Job notes				
a) Plug down	<input checked="" type="radio"/> Y / <input type="radio"/> N	Time	13:30	24 hr time
b) Floats held	<input checked="" type="radio"/> Y / <input type="radio"/> N			
c) Full Returns	<input checked="" type="radio"/> Y / <input type="radio"/> N	Lost Circulation	<input checked="" type="radio"/> Y / <input type="radio"/> N	
d) Cement to surface	<input checked="" type="radio"/> Y / <input type="radio"/> N	22.0	BBLs to surface	
e) If no returns, top off	BBLs			
f) Top off detail				



Centralizer Depths

Well Name: SANFORD 02N

Surface, Set Depth: 1,802.8ftKB

API 05123499320000		Surface Legal Location NENW 29-5N-66W		Field Name Wattenberg		State CO		Well Configuration Type Horizontal	
Ground Elevation (ft) 4,905.00	Original KB Elevation (ft) 4,918.00	KB-Ground Distance (ft) 13.00		Spud Date	Rig Release Date	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		Casing Joints	9 5/8	36.00	J-55	Yes	41.44	Yes		LT&C	1,759.5	43.29
6		Casing Joints	9 5/8	36.00	J-55	Yes	41.43	Yes		LT&C	1,593.8	209.04
10		Casing Joints	9 5/8	36.00	J-55	Yes	41.43	Yes		LT&C	1,428.5	374.26
14		Casing Joints	9 5/8	36.00	J-55	Yes	41.43	Yes		LT&C	1,262.8	540.00
18		Casing Joints	9 5/8	36.00	J-55	Yes	41.45	Yes		LT&C	1,097.1	705.69
22		Casing Joints	9 5/8	36.00	J-55	Yes	41.44	Yes		LT&C	931.3	871.46
26		Casing Joints	9 5/8	36.00	J-55	Yes	41.45	Yes		LT&C	765.6	1,037.21
30		Casing Joints	9 5/8	36.00	J-55	Yes	41.46	Yes		LT&C	599.8	1,202.96
34		Casing Joints	9 5/8	36.00	J-55	Yes	41.44	Yes		LT&C	434.1	1,368.73
38		Casing Joints	9 5/8	36.00	J-55	Yes	41.43	Yes		LT&C	268.3	1,534.48
41		Casing Joints	9 5/8	36.00	J-55	Yes	41.44	Yes		LT&C	144.0	1,658.79
43		Casing Joints	9 5/8	36.00	J-55	Yes	41.43	Yes		LT&C	61.1	1,741.67