

# 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 #	210164
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## Requested Operator Guidance:

1) Well Name & Number	Lease	Elkhead	Well No.	14N
2) Well API Number	05-1234-8486-0000			
3) Job Date	8/17/20	Time on	11:45	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	520	sks (94# equiv)		
f) Cement Volume (dry)	520	cuft (ft^3)		
g) Mix Fluid Type				
Water / Cement	8.5	Gal / sk		
h) Slurry mixed	149.1	BBLs slurry		
i) Additives used	1.50%	CaCl2		
	3.00%	Bentonite		
j) Displacement Fluid Vol	128	BBLs H2O		
k) Method of Placement				
l) Set Depth	1,698	feet (ft)		
m) Stage tool depth	n/a			
n) Float Collar Depth	1,657	feet (ft)		
o) Designed Top of Cement	n/a	to surface		
p) Centralizer depths	82 / 286 / 489 / 694 / 897 / 1,100 / 1,306 / 1,512 feet (ft)			
8) Charts - (pressure, density, pump rate)				
Landed Plug @	700	psi	Final Lift Pressure @	500 psi
Cement Density (as weighed during job) @	14.1	PPG		
9) Job notes				
a) Plug down	<input checked="" type="radio"/> Y / <input type="radio"/> N	Time	14:00	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	25	BBLs to surface	
e) If no returns, top off	BBLs			
f) Top off detail				