

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

P.O. BOX 336220 • GREELEY, CO 80633 • (970) 353-7299 • FAX (970) 353-7712

COGCC Operator Guidance **RULE #308.A.B(2)A.ii**



CLIENT: PDC Energy	Cementer's FIELD TICKET #	300463-D
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**Requested Operator Guidance:**

Well Name & Number	Lease	Hen	Well No.	09N
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Well API Number	05-123-51789
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Job Date	6/17/23	Time on	21:40	6/17/23	24 hr time
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Job Type	New Well Surface
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Cementing Company	Cementer's Well Service, Inc	Contact	Nate Kvamme - 303-324-4296
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Ambient conditions	rain	62	temp deg F
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Slurry Description	
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a) Purpose	Surface - 9 5/8" 36# CSG, 13 1/2" hole
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b) Cement Class	Type I / II
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c) Cement Yield	1.61	cuft / sk
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d) Cement Density	13.9	PPG
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e) Number of sks	748	sks (94# equiv)
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f) Mix Fluid Type	
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Water / Cement	8.5	Gal / sk
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g) Slurry mixed	214.3	BBLs slurry
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h) Additives used	1.50% CaCl2	3.00% Bentonite
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Total Water Used	308.9	BBLs H2O
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i) Displacement Fluid Vol	127.5	BBLs H2O
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j) Method of Placement	
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k) Set Depth	1,690	feet (ft)
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l) Stage tool depth	n/a
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m) Float Collar Depth	1,650	feet (ft)
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n) Designed Top of Cement	n/a	to surface
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o) Centralizer depths	-	feet (ft)
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**Charts - (pressure, density, pump rate)**

Landed Plug @	1,605	psi	Final Lift Pressure @	500	psi
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Cement Density (as weighed during job) @	13.9	PPG
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**Job notes**

a) Plug down	<input checked="" type="radio"/> Y / <input type="radio"/> N	Time	23:54	24 hr time
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b) Floats held	<input checked="" type="radio"/> Y / <input type="radio"/> N	6/17/23
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c) Full Returns	<input checked="" type="radio"/> Y / <input type="radio"/> N	Lost Circulation	<input checked="" type="radio"/> Y / <input type="radio"/> N
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d) Cement to surface	<input checked="" type="radio"/> Y / <input type="radio"/> N	31.0	BBLs to surface
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e) If no returns, top off	n/a	BBLs
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f) Top off detail	
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g) Additional Detail	0
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PDC Energy

## Surface Casing Pressure Test - Cement Job Graph

### COMPANY DETAILS

Date	6/17/23	API #	05-123-51789	Well No.	09N
County	Weld	State	CO	Lease	Hen

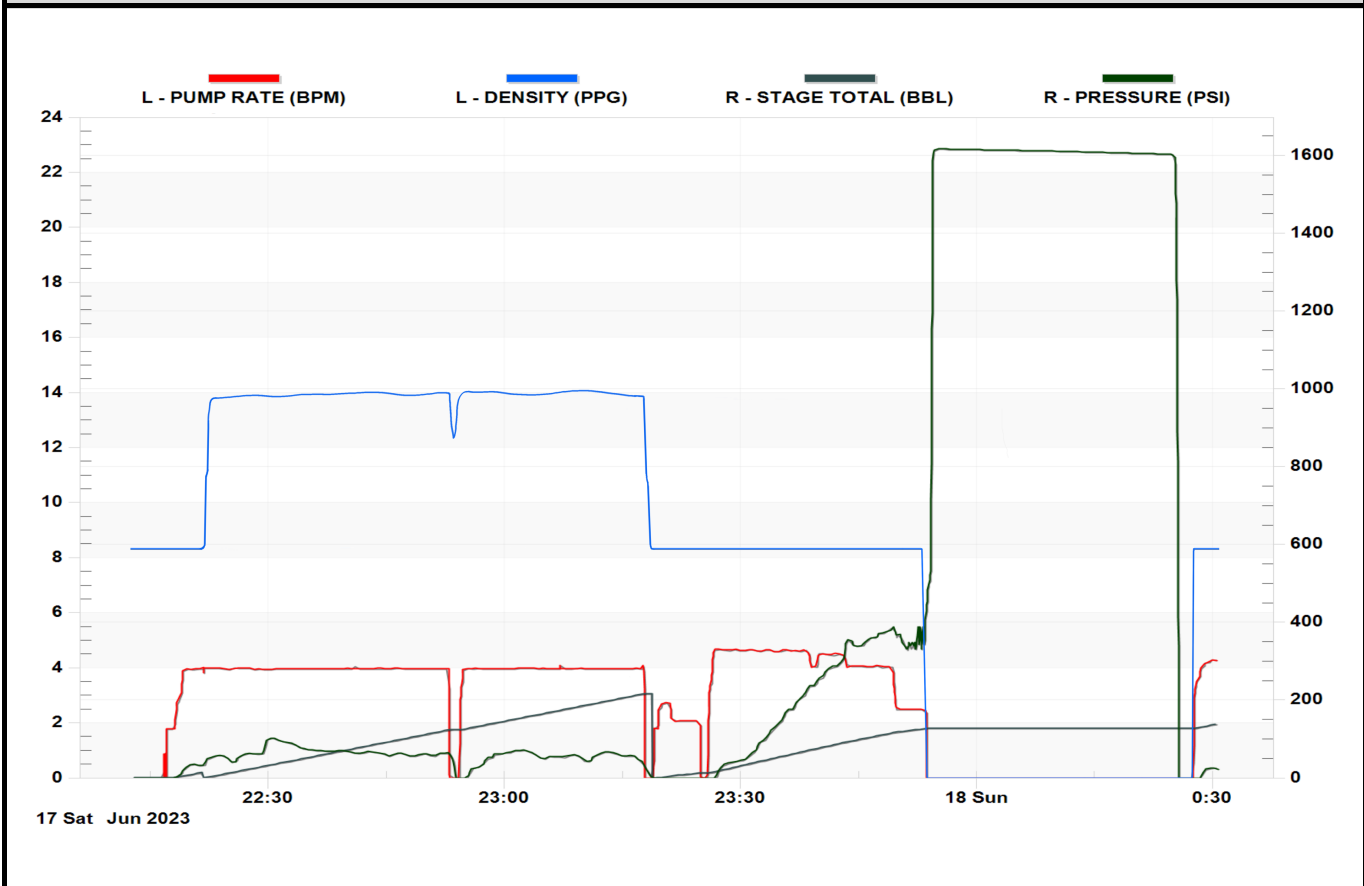
Client PDC Energy

Contact / email

### JOB DETAILS

TIME ON	21:40	6/17/23	Depth	1,700	ft.	Pressure Test @	1,605	psi
START TIME	22:12	6/17/23	Bottom of Surface	1,690	ft.	10 min	1,612	psi
END TIME	0:30	6/18/23	Plug Landed @	1,650	ft.	20 min	1,610	psi
			Plug Landed @	23:54	24 hr	30 min	1,605	psi

### SUMMARY GRAPH





# Centralizer Depths

Well Name: Hen 09N

Surface, Set Depth: 1,705.2ftKB

API 05123517890000		Surface Legal Location SWNE 8 4N 64W		Field Name Wattenberg		State CO		Well Configuration Type Horizontal	
Ground Elevation (ft) 4,779.00	Original KB Elevation (ft) 4,807.50	KB-Ground Distance (ft) 28.50	Spud Date 8/30/2023 03:30	Rig Release Date 9/1/2023 22:00	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	40.30	Yes		LT&C	1,663.5	41.75
4	2	Casing joints	9 5/8	36.00	J-55	Yes	40.48	Yes		LT&C	1,621.7	83.53
5	3	Casing joints	9 5/8	36.00	J-55	Yes	40.38	Yes		LT&C	1,581.3	123.91
9	7	Casing joints	9 5/8	36.00	J-55	Yes	40.58	Yes		LT&C	1,418.0	287.22
13	11	Casing joints	9 5/8	36.00	J-55	Yes	40.58	Yes		LT&C	1,254.4	450.78
17	15	Casing joints	9 5/8	36.00	J-55	Yes	40.45	Yes		LT&C	1,091.0	614.16
21	19	Casing joints	9 5/8	36.00	J-55	Yes	40.45	Yes		LT&C	929.1	776.08
25	23	Casing joints	9 5/8	36.00	J-55	Yes	40.00	Yes		LT&C	767.1	938.10
29	27	Casing joints	9 5/8	36.00	J-55	Yes	41.00	Yes		LT&C	603.5	1,101.74
33	31	Casing joints	9 5/8	36.00	J-55	Yes	41.02	Yes		LT&C	441.7	1,263.46
37	35	Casing joints	9 5/8	36.00	J-55	Yes	40.50	Yes		LT&C	280.9	1,424.32
41	39	Casing joints	9 5/8	36.00	J-55	Yes	40.54	Yes		LT&C	117.7	1,587.46
42	40	Casing joints	9 5/8	36.00	J-55	Yes	41.25	Yes		LT&C	76.5	1,628.71