

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

Cementor's
FIELD TICKET #

300353-D

Requested Operator Guidance:

Well Name & Number	Lease	Stugart	Well No.	23N
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Well API Number	05-123-51257
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Job Date	7/24/2022	Time on	6:45	24 hr time
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Job Type	New Well Surface
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Cementing Company	Cementor's Well Service, Inc	Contact	Nate Kvamme - 303-324-4296
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Ambient conditions	clear	72	temp deg F
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Slurry Description

a) Purpose	Surface - 9 5/8" 36# CSG, 13 1/2" hole
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b) Cement Class	ASTM C150 Type 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	847 sks (94# equiv)
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f) Mix Fluid Type

Water / Cement	8.5 Gal / sk
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g) Slurry mixed	242.6 BBLs slurry
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h) Additives used	1.5% CaCl2	3.0% Bentonite
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Total Water Used	331.0 BBLs H2O
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i) Displacement Fluid Vol	129.6 BBLs H2O
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j) Method of Placement

k) Set Depth	1,719 feet (ft)
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l) Stage tool depth	n/a
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m) Float Collar Depth	1,677 feet (ft)
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n) Designed Top of Cement	n/a to surface
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o) Centralizer depths	0 feet (ft)
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Charts - (pressure, density, pump rate)

Landed Plug @	1663 psi	Final Lift Pressure @	280 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	10:09	24 hr time
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b) Floats held	<input checked="" type="radio"/> Y <input type="radio"/> N	7/24/2022
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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	40.0 BBLs to surface
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e) If no returns, top off	n/a BBLs
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f) Top off detail

g) Additional Detail

Cementer's Well Service, Inc.

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PDC Energy

Surface Cement Job Graph & Casing Pressure Test

COMPANY DETAILS

Date	7/24/2022	API #	05-123-51257	Well No.	23N
County	Weld	State	CO	Lease	Stugart

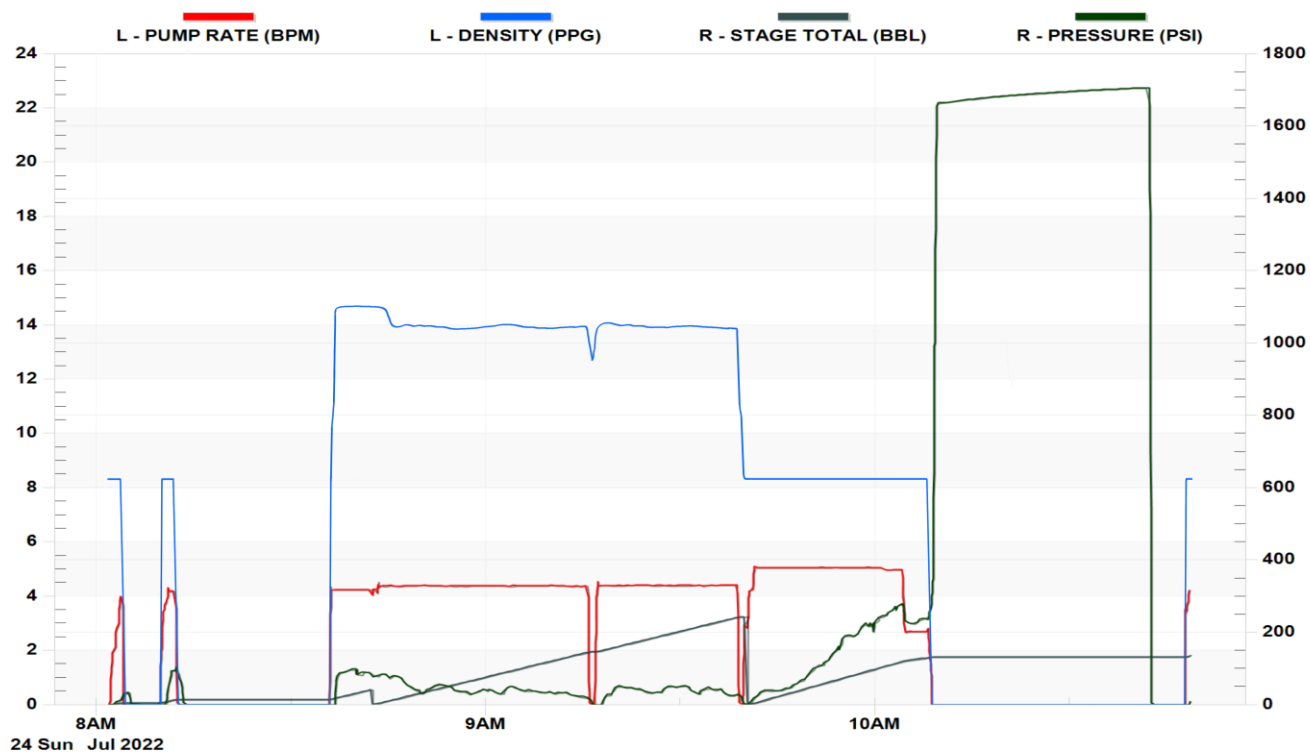
Client PDC Energy

Contact / email

JOB DETAILS

TIME ON	6:45	24 hr	Depth	1,729	ft.	Pressure Test @	1,663	psi
START TIME	8:01	7/24/22	Bottom of Surface	1,719	ft.	10 min	1,681	psi
END TIME	10:48	7/24/22	Plug Landed @	1,677	ft.	20 min	1,695	psi
			Plug Landed @	10:09	24 hr	30 min	1,704	psi

SUMMARY GRAPH





Centralizer Depths

Well Name: STUGART 23N

Surface, Set Depth: 1,718.8ftKB

API 05123512570000		Surface Legal Location SENW 20 5N 66W		Field Name Wattenberg		State CO		Well Configuration Type Horizontal	
Ground Elevation (ft) 4,885.00	Original KB Elevation (ft) 4,898.00	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 Jwlry	Connections	Top (ftKB)	Cum Len (ft)
2		Casing joints	9 5/8	36.00	J-55	Yes	41.35	Yes		LT&C	1,675.6	43.20
3		Casing joints	9 5/8	36.00	J-55	Yes	41.38	Yes		LT&C	1,634.2	84.58
4		Casing joints	9 5/8	36.00	J-55	Yes	41.40	Yes		LT&C	1,592.8	125.98
8		Casing joints	9 5/8	36.00	J-55	Yes	41.40	Yes		LT&C	1,427.3	291.51
12		Casing joints	9 5/8	36.00	J-55	Yes	41.38	Yes		LT&C	1,262.8	456.05
16		Casing joints	9 5/8	36.00	J-55	Yes	41.40	Yes		LT&C	1,097.9	620.86
20		Casing joints	9 5/8	36.00	J-55	Yes	41.36	Yes		LT&C	932.4	786.36
24		Casing joints	9 5/8	36.00	J-55	Yes	41.35	Yes		LT&C	767.0	951.85
28		Casing joints	9 5/8	36.00	J-55	Yes	41.37	Yes		LT&C	601.2	1,117.58
32		Casing joints	9 5/8	36.00	J-55	Yes	41.47	Yes		LT&C	435.6	1,283.25
36		Casing joints	9 5/8	36.00	J-55	Yes	41.38	Yes		LT&C	270.1	1,448.75