

# 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: Great Western Operating	Cementer's FIELD TICKET #	334033-D
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**Requested Operator Guidance:**

Well Name & Number	Lease	County Line 3107	Well No.	12H
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Well API Number	05-123-51174
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Job Date	8/26/21	Time on	11:30	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	clear / rain / snow / other	82	temp deg F
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Slurry Description	
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a) Purpose	Surface - 9 5/8" 40# 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	810	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	232.2	BBLs slurry
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h) Additives used	1.50% CaCl2	3.00% Bentonite
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Total Water Used	316.5	BBLs H2O
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i) Displacement Fluid Vol	132.6	BBLs H2O
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j) Method of Placement	
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k) Set Depth	1,761	feet (ft)
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l) Stage tool depth	n/a
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m) Float Collar Depth	1,715	feet (ft)
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n) Designed Top of Cement	n/a	to surface	feet (ft)
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o) Centralizer depths	0
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**Charts - (pressure, density, pump rate)**

Landed Plug @	1600	psi	Final Lift Pressure @	425	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	14:14	24 hr time
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b) Floats held	<input checked="" type="radio"/> Y / <input type="radio"/> N		8/26/21
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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	20.0	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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DATE: 8/26/21



## Verdad Resources

Lease: County Line 3107

Well: 12H

API# 05-123-51174

Date & Time On	8/26/21 11:30
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Item	Event	Date	Time (24 hr)	Density (PPG)	Pump Rate (BPM)	Incremental (Line Item) Volume (BBLs)	Cumulative Volume (BBLs)	Pressure (PSI)	Comment
Pre-job	1 Call Out	8/25/21	7:30						Verdad Resources call out w/ 4 hr notice
	2 Leave Yard	8/25/21	10:45						Cementer's leaves yard to travel to location
On Location: Pre-job	3 Arrive On Location	8/25/21	11:30						Arrive on location
	4 Spot Trucks	8/25/21	11:35						Spot trucks on location
	5 Rig Up	8/25/21	11:37						Rig up water & Cementer's Bulk Truck, prep pump and mixing operation
	6 Safety Meeting	8/25/21	11:42						Pre-job safety meeting with IKON12 rig crew, Verdad company man & Cementer's crew
	7 Rig Up	8/25/21	11:47						Rig up cement head w/plug
	8 Fill Lines	8/25/21	11:49	8.34	2.00				Fill lines with up to 5 bbls of fresh water
Initial Job Start	9 Pressure Test	8/25/21	0:00	8.34	-			-	Pressure test pumps and lines
	10 Pump Spacer	8/25/21	18:58	8.34	4.00	20	20	-	Pump dye fresh water @ 20 BBLs
Cementing	11 Pump Cement	8/25/21	19:03	13.90	4.00	232.21	252.21	45	Pump Cement @ 810 SKS
									Type I/II cement with 1.5% CaCl <sub>2</sub> & 3.0% Bentonite @ 1.61 cuft/sk & 13.9 PPG
Displacement	12 Drop Plug	8/25/21	20:04			n/a			Shut down cementing operation & release top plug
	13 Initial Displacement	8/25/21	20:06	8.34	2.00	4.00	256.21	-	Send plug with 4.0 BBLs H <sub>2</sub> O @ 2.0 BPM
	14 Plug Drop Verification	8/25/21	20:10			n/a			Visual verification plug released from head
	15 Displacement	8/25/21	20:12	8.34	5.00	98.57	350.78	80-450	Continued Displacement with total fresh water @ 132.6 BBLs H <sub>2</sub> O
	16 Spacer To Surface	8/25/21	14:04	8.34	5.00	102.57	354.78	385	Identified Spacer, looking for Cement / green water
	17 Cement To Surface	8/25/21	14:07	8.34	5.00	112.57	364.78	390	Identify Cement to surface w/ 20 BBLs back
	18 Drop Rate	8/25/21	14:12	8.34	2.50	122.57	374.78	400	Drop rate to 2.5 BPM for last 10 BBLs of Displacement to land plug
Casing Test	19 Land Plug	8/25/21	14:14	8.34	2.50	132.57	384.78	1,600	Land Plug @ 1,600 PSI
									with final lift pressure @ 425 PSI
Casing Test	20 Casing Test	8/25/21	14:14	n/a	0	0	0	1,600	Start 30 min casing test w/ pressure @ 1,600 PSI
			14:24	n/a	0	0	0	1,603	10 min into casing test, pressure @ 1,603 PSI
			14:34	n/a	0	0	0	1,605	20 min into casing test, pressure @ 1,605 PSI
			14:44	n/a	0	0	0	1,606	30 min into casing test, pressure @ 1,606 PSI
Post Job & Testing	24 Check Floats	8/25/21	14:45	n/a	0	0	0	1.00	BBLs back (.25-1BBL expected)
	25 End Job	8/25/21	14:47						Bleed off pressure, job complete
	26 Safety Meeting	8/25/21	14:49						Pre-rig down safety meeting, wash up equipment
	27 Rig Down	8/25/21	14:52						Rig down Cementer's Equipment, leave location

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Verdad Resources

## Surface Cement Job Graph

### COMPANY DETAILS

Date	8/26/21	API #	05-123-51174	Well No.	12H
County	Weld	State	CO	Lease	County Line 3107

Client Verdad Resources

Contact / email

### JOB DETAILS

TIME ON	11:30	24 hr	Depth	1,775	ft.	Pressure Test @	1,600	psi
START TIME	18:40	8/26/21	Bottom of Surface	1,761	ft.	10 min	1,603	psi
END TIME	21:15	8/26/21	Plug Landed @	1,715	ft.	20 min	1,605	psi
			Plug Landed @	14:14	24 hr	30 min	1,606	psi

### SUMMARY GRAPH

