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# **Great Western Operating Company LLC LONG STRING POST JOB REPORT**

Reeman DE 33-074HC 05-123-51588  
S:16 T:8N R:66W Weld CO

CallSheet #: 77297  
Proposal #: 53416



### LONG STRING Post Job Report

**Attention:** Great Western Operating Company LLC  
Great Western Operating Company LLC  
1001 17TH STREET, SUITE 2000 | DENVER, CO 80202

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Great Western Operating Company LLC,

Thank you for the opportunity to provide cementing services on this well. American Cementing strives to achieve complete customer satisfaction. If you have any questions regarding the services or data provided, please contact American Cementing at any time.

Sincerely,

**Jason Creel**

Field Engineer | (307) 256-0306 | [jason.creel@americacementing.com](mailto:jason.creel@americacementing.com)

**Field Office**      1716 E Allison Rd, Cheyenne, WY 82007  
Phone: (307) 414-0049

## Job Details & Summary

### Geometry

Type	Function	OD (in)	ID (in)	Weight (lb/ft)	Top (ft)	Bottom (ft)	Excess (%)
Casing	Outer	9.625	8.921	36	0	2035	0
Open Hole	Outer	n/a	8.5	n/a	2035	7519	0
Open Hole	Outer	n/a	8.5	n/a	7519	19927	5
Casing	Inner	5.5	4.778	20	0	19927	0

### Equipment / People

Unit Type	Unit
Field Storage Silo	FSS(CTS)-463
Field Storage Silo	FSS(CTS)-134
Field Storage Silo	FSS(CTS)-454
Field Storage Silo	FSS(CTS)-465
Cement Pump Float	CPF-184
Cement Pump Float	CPF-183
Cement Utility Float	CUF(FIF)-163
Cement Utility Float	CUF(FIF)-161
Cement Trailer Float	CTF-003

### Timing

Event	Date/Time
Call Out	6/21/2021 09:00
Depart Facility	6/21/2021 11:00
On Location	6/21/2021 13:30
Rig Up Iron	6/21/2021 14:10
Job Started	6/21/2021 23:48
Job Completed	6/22/2021 02:06
Rig Down Iron	6/22/2021 02:10
Depart Location	6/22/2021 03:45

## General Job Information

Metrics	Value
Well Fluid Density	10.5 lb/gal
Well Fluid Type	SOBM
Rig Circulation Vol	1530 bbls
Rig Circulation Time	2.5 hours
Calculated Displacement	442 bbls
Actual Displacement	442 bbls
Total Spacer to Surface	82 bbls
Total CMT to Surface	0 bbls

## Casing Equipment

Type	Description	Qty	MD	TVD
Centralizers		136		
Landing/Float Collar	5.5"		19,922	7,519
Float Shoe	5.5"		19,927	7,520

### • Casing Equipment-Centralizer Depths

Production Centralizer Depths:, 1998.15, 2043.4, 2088.67, 2133.66, 2178.9, 2224.15, 2269.41, 2314.68, 2495.59, 2540.83, 2586.07, 2631.26, 2676.51, 2721.69, 2766.88, 2812.09, 2857.28, 2902.48, 2947.73, 2992.91, 3038.11, 3083.29, 3128.51, 3173.39, 3218.56, 3263.73, 3308.98, 3354.15, 3399.34, 3444.27, 3489.49, 3534.73, 3579.99, 3625.23, 3670.44, 3715.34, 3760.53, 3805.71, 3850.9, 3896.15, 3941.4, 3986.58, 4031.77, 4076.67, 4121.66, 4166.89, 4211.88, 4256.82, 4302.07, 4347.27, 4392.45, 4437.68, 4482.94, 4528.18, 4573.39, 4618.64, 4663.88, 4709.14, 4754.09, 4799.35, 4844.6, 4889.84, 4935.04, 4980.3, 5025.52, 5070.77, 5115.97, 5161.24, 5206.42, 5249.63, 5292.86, 5338.12, 5383.34, 5428.54, 5473.52, 5518.41, 5561.8, 5607.05, 5651.9, 5696.77, 5741.98, 5787.21, 5832.43, 5877.62, 5922.82, 5966.22, 6011.4, 6056.25, 6101.48, 6146.66, 6191.87, 6237.09, 6282.28, 6327.17, 6372.41, 6417.26, 6462.53, 6507.73, 6552.94, 6598.14, 6643.34, 6688.54, 6733.72, 6778.9, 6823.71, 6868.91, 6914.1, 6959.32, 7004.49, 7049.69, 7094.94, 7140.12, 7185.38, 7241.97, 7287.23, 7332.42, 7377.66, 7422.85, 7468.09, 7513.32, 7558.58, 7603.77, 7648.96, 7694.23, 7739.42, 7784.61, 7829.84, 7875.07, 7920.26, 7965.41, 8010.65, 8055.88, 8101.07, 8146.31, 8191.54, 8266.98

## Job Details

Metrics	Value
Flare Prior to Job	Yes
Flare Prior to Job	850 units
Flare During Job	No
Flare at End of Job	No
Well Full Prior to Job	Yes
Well Fluid Density Into Well	10.5 lb/gal
Well Fluid Density Out of Well	10.5 lb/gal

## Job Details (cont.)

Metrics	Value
BHCT	190 °F
BHST	210 °F
Ambient Temperature	58 °F

## Circulation

Lost Circulation Experienced
No

## Job Execution Information

Fluid	Product	Function	Density (lb/gal)	Yield (ft <sup>3</sup> /sk)	Water Rq. (gal/sk)	Water Rq. (gal/bbl)	Volume (sks)	Volume (bbl)	Volume (cuft)	Designed Top (ft)
1	WBM Spacer	Spacer	11.50			41.20		160.00		0
2	Fresh Water	Spacer	8.34			42.00		60.00		1533
3	ACem P50.6.02C	Tail	14.50	1.48	6.66		2670.00	704.28	3951.60	3500
4	Retarded Water	Displacement	8.34			41.90		20.00		18918
5	3% KCL with Chems	DisplacementFinal	8.34			42.00		422.00		0

## Job Fluid Details

Fluid	Type	Fluid	Product	Function	Conc.	Uom
1	Flush	WBM Spacer	Surfactant, S-801c	Surfactant	0.80	gal/bbl
3	Tail	ACem P50.6.02C	CLASS G	Cement	50.00	%
3	Tail	ACem P50.6.02C	FLY ASH (ROCKIES)	Extender	50.00	%
3	Tail	ACem P50.6.02C	EC-2	BondEnhancer	3.00	%BWOB
3	Tail	ACem P50.6.02C	FL-24	FluidLoss	0.30	%BWOB
3	Tail	ACem P50.6.02C	FL-66	FluidLoss	0.30	%BWOB
3	Tail	ACem P50.6.02C	FP-24	Defoamer	0.30	%BWOB
3	Tail	ACem P50.6.02C	GW-86	Viscosifier	0.05	%BWOB
3	Tail	ACem P50.6.02C	S-8	StrengthRetrogression	20.00	%BWOB
3	Tail	ACem P50.6.02C	SR-20	Retarder	0.05	%BWOB
3	Tail	ACem P50.6.02C	STATIC FREE	Other	0.01	lb/sk
4	Displacement	Retarded Water	SR-61L	Retarder	0.10	gal/bbl

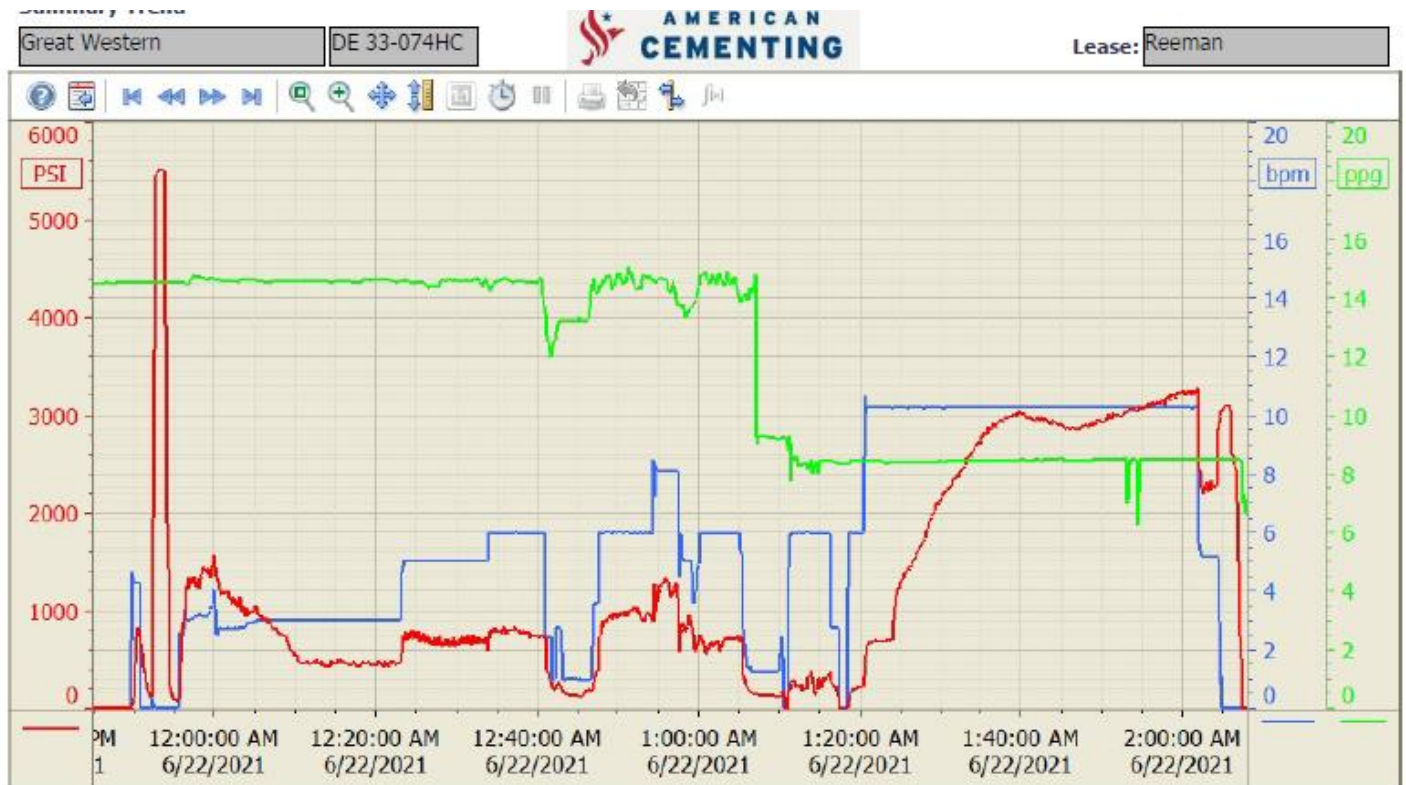
## Job Logs

Line	Event	Date (MM/DD/YY)	Time (HH:MM)	Density (lb/gal)	Pump Rate (bpm)	Cumulative Pump Volume (bbls)	Pipe Pressure (psi)	Comment
1	Call Out	6/21/2021	09:00					Customer requested crew for 16:00 ONL
2	Depart Shop	6/21/2021	11:00					Crew has journey mangement and depart from shop
3	Arrive On Location	6/21/2021	13:30					Crew arrives on location and meet with customer
4	Safety Meeting	6/21/2021	14:00					AC crew has safety meeting over rigging up iron and hoses
5	Rig Up iron	6/21/2021	14:10					AC crew rigs up iron and hoses
6	Waiting	6/21/2021	15:50					Waiting on rig to finish running casing
7	Safety Meeting	6/21/2021	22:30					Safety meeting with AC crew, rig crew and company man over job and hazards
8	Pump Diesel	6/21/2021	22:55	9	8	40	1000	Rig pumps 40 bbls of diesel ahead
9	Pump Spacer	6/21/2021	23:06	11.5	8	160	936	Rig Pumps 160 bbls of 11.5 PPG Spacer
10	Pump Flush	6/21/2021	23:25	8.33	8	60	536	Rig pumps 60 bbls of fresh water ahead
11	Rig up To Head	6/21/2021	23:32					AC Crew rigs up to cement head
12	Fill Pumps And Lines	6/21/2021	23:48	8.33	6	10.5	800	Pump 10 bbls of fresh water ahead
13	Pressure Test	6/21/2021	23:50	8.33	0.5		5500	Pressure test iron to 5000 PSI
14	Pump Tail Cement	6/21/2021	23:55	14.5	10		1400	Pump 14.5 ppg cement 1.48 yield, 6.66 gal/sack
15	Pump Tail Cement	6/22/2021	00:03	14.5	10	100	1500	100 bbls Into cement
16	Pump Tail Cement	6/22/2021	00:10	14.5	10	200	1470	200 bbls into cement
17	Pump Tail Cement	6/22/2021	00:26	14.5	10	300	1100	300 bbls into cement
18	Pump Tail Cement	6/22/2021	00:32	14.5	10	400	1050	400 bbls into cement
19	Slow Rate	6/22/2021	00:40	14.5	6	440	700	440 bbls slow rate to 6 bpm due to compressor breaking belt and losing air swap to different air source
20	Burst Bottom Plug	6/22/2021	00:41	14.5	6	442	800	442 into cement burst bottom plug 700 PSI to 800 PSI
21	Pump Tail Cement	6/22/2021	00:50	14.5	10	500	1300	500 bbls into cement
22	Pump Tail Cement	6/22/2021	00:55	14.5	10	600	1000	600 bbls into cement
23	Shut Down	6/22/2021	01:10			704.28		Pump total of 704.28 bbls of 14.5 PPG tail cement (2670 sx)
24	Wash Up	6/22/2021	01:11	8.33	7	25	45	Wash pumps and lines and pre load top plug
25	Drop Top Plug	6/22/2021	01:17	8.33				Drop top plug
26	Pump Displacement	6/22/2021	01:17	8.33	10		800	Pump total of 442 bbls of displacement
27	Pump Displacement	6/22/2021	01:28	8.33	10	100	2100	100 bbls into displacement
28	Pump Displacement	6/22/2021	01:38	8.33	10	200	3100	200 bbls into displacement
29	Pump Displacement	6/22/2021	01:48	8.33	10	300	3000	300 bbls into displacement

Line	Event	Date (MM/DD/YY)	Time (HH:MM)	Density (lb/gal)	Pump Rate (bpm)	Cumulative Pump Volume (bbls)	Pipe Pressure (psi)	Comment
30	Spacer To Surface	6/22/2021	01:55	8.33	10	359	3200	359 bbls into displacement got spacer to surface for total of 82 bbls of spacer to surface
31	Pump Displacement	6/22/2021	01:58	8.33	10	400	3400	400 bbls into displacement
32	Slow Rate	6/22/2021	02:00	8.33	5	420	2500	420 bbls into displacement slow rate
33	Land Plug	6/22/2021	02:03	8.33		442	2800	Pump total of 442 bbls of displacement Bump plug to 2800 PSI, FCP of 2300 PSI
34	Check Float	6/22/2021	02:06					Bleed 500 PSI to pump and bleed rest to trip tank got 3.2 bbls to tank and floats holding
35	Safety Meeting	6/22/2021	02:10					AC crew has safety meeting over rigging down iron and hoses
36	Rig Down Iron	6/22/2021	02:15					AC crew rigs down iron and hoses
37	Depart Location	6/22/2021	03:45					Ac crew has journey management and departs location

## Pump Diagrams

Pump 184





Pump 183

Customer: Great Western  
Well Number: DE 33-074HC  
Lease Info: Reeman

Stage	Sacks (sacks)	Water (gal/sack)	Slurry (cu.ft/sack)	Density (ppg)	Total (bbls)	Stage	Sacks (sacks)	Water (gal/sack)	Slurry (cu.ft/sack)	Density (ppg)	Total (bbls)
1	0.0	0.0	0.0	0.0	4000.0	6	0.0	0.0	0.0	0.0	0.0
2	0.0	0.0	0.0	0.0	0.0	7	0.0	0.0	0.0	0.0	0.0
3	0.0	0.0	0.0	0.0	0.0	8	0.0	0.0	0.0	0.0	0.0
4	0.0	0.0	0.0	0.0	0.0	9	0.0	0.0	0.0	0.0	0.0
5	0.0	0.0	0.0	0.0	0.0						

Print Date/Time

6/23/2021 1:38:48 PM

