



# Great Western Operating Company, LLC

## Production Post-Job Report

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Marcus LD 11-380HNX (API: 05-123-45388)

S:34 T:1N R:67W Weld, CO

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# Great Western Operating Company, LLC



Great Western Operating Company, LLC | 1801 Broadway, Suite 500 | Denver, CO 80202



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

Sincerely,  
Karl Griesser  
Field Engineer I | (713) 829-7498 | [karl.griesser@bjsservices.com](mailto:karl.griesser@bjsservices.com)

Field Office 1716 East Allison Rd., Cheyenne WY, 82007  
Phone: (307) 638-5585

Sales Office 999 18th St. Suite 1200 Denver, CO 80202  
Phone: (281) 408-2361



# Cementing Treatment



<b>Start Date</b>	10/31/2017	<b>Well</b>	Marcus LD 11-380HNX
<b>End Date</b>	10/31/2017	<b>County</b>	WELD
<b>Client</b>	GREAT WESTERN OPERATING COMPANY, LLC	<b>State/Province</b>	CO
<b>Client Field Rep</b>	Dusty Weatherford	<b>API</b>	05-123-45388
<b>Service Supervisor</b>	Andrew Chambers	<b>Type of Job</b>	Long String
<b>Field Ticket No.</b>	1578		
<b>District</b>	Cheyenne, WY		

## WELL GEOMETRY

Type	ID (in)	OD (in)	Wt. (lb/ft)	MD (ft)	TVD (ft)	Excess(%)
Previous Casing	8.92	9.63	36.00	1,738.00	1,738.00	
Open Hole	8.50			7,000.00	7,000.00	10.00
Open Hole	8.50			17,665.00	7,677.00	5.00
Casing	4.89	5.50	17.00	17,665.00	7,677.00	

**Shoe Length (ft):** 42

## HARDWARE

<b>Bottom Plug Used?</b>	No
<b>Top Plug Used?</b>	No
<b>Centralizers Used</b>	No
<b>Landing Collar Depth (ft)</b>	17,656

## CIRCULATION PRIOR TO JOB

<b>Circulation Prior to Job</b>	YES	<b>Solids Present at End of Circulation</b>	No
<b>Circulation Time (min)</b>	90	<b>Flare Prior to/during the Cement Job</b>	No
<b>Circulation Rate (bpm)</b>	8	<b>Gas Present</b>	No
<b>Circulation Volume (bbls)</b>	721		
<b>Lost Circulation Prior to Cement Job</b>	No		

# Cementing Treatment



## BJ FLUID DETAILS

Fluid Type	Fluid Name	Density (ppg)	Yield (Cu Ft/sk)	H2O Req. (gals/sk)	Vol (sk)	Vol (Cu Ft)	Vol (bbls)
Spacer / Pre Flush / Flush	CD Sapcer	11.5000					50.0000
Lead Slurry	P100-X2	14.0000	1.5272	7.74	1,175	1,794.0000	319.4000
Tail Slurry	P50-X1	14.0000	1.3344	6.42	1,942	2,592.0000	461.5000
Displacement 1	MMCR Water	8.3337				0.0000	20.0000
Displacement 2	3% KCL Water	8.3300				0.0000	260.0000
Displacement Final	Water	8.3300				0.0000	131.7000

Fluid Type	Fluid Name	Component	Concentration	UOM
Spacer / Pre Flush / Flush	CD Sapcer	SAND, S-8, Silica Flour, 200 Mesh	213.49	PPB
Spacer / Pre Flush / Flush	CD Sapcer	ASF-80	0.50	GPB
Spacer / Pre Flush / Flush	CD Sapcer	AVS-10	0.90	PPB
Spacer / Pre Flush / Flush	CD Sapcer	AR-31	0.58	PPB
Spacer / Pre Flush / Flush	CD Sapcer	ASF-20	0.50	GPB
Lead Slurry	P100-X2	FLUID LOSS, FL-66	0.50	BWOB
Lead Slurry	P100-X2	CEMENT, ASTM TYPE III	100.00	PCT
Lead Slurry	P100-X2	SPECIAL ADDITIVE, MPA-300	0.10	BWOB
Lead Slurry	P100-X2	BONDING AGENT, BA-59	0.40	BWOB
Lead Slurry	P100-X2	RETARDER, HIGH TEMP, R-31 (BJS Only)	0.17	BWOB
Lead Slurry	P100-X2	FP-25, Dry Foam Preventer (BJS Only)	0.30	BWOB
Tail Slurry	P50-X1	AFA-10	50.00	PCT
Tail Slurry	P50-X1	GELLANT WATER, GW-86	0.10	BWOB
Tail Slurry	P50-X1	EXTENDER, BENTONITE	1.00	BWOB
Tail Slurry	P50-X1	FP-25, Dry Foam Preventer (BJS Only)	0.30	BWOB
Tail Slurry	P50-X1	CEMENT, CLASS G	50.00	PCT
Tail Slurry	P50-X1	FLUID LOSS, FL-66	0.20	BWOB

# Cementing Treatment



Tail Slurry	P50-X1	AR-20	0.12	BWOB
Displacement 1	MMCR Water	AR-61	0.10	GPB

## TREATMENT SUMMARY

Fluid	Rate (bpm)	Fluid Vol. (bbls)
CD Sapper	0.00	50.00
P100-X2	0.00	319.40
P50-X1	0.00	461.50
MMCR Water	0.00	20.00
3% KCL Water	0.00	260.00
Water	0.00	131.70

## DISPLACEMENT AND END OF JOB SUMMARY

Displaced By	BJ Services	Top Out Cement Spotted	No
Calculated Displacement Volume (bbls)	409.9	Lost Circulation During Cement Job	No
Actual Displacement Volume (bbls)	419.9		
Did Float Hold?	Yes		
Bump Plug	No		
Were Returned Planned at Surface	No		
Cement returns During Job	49 BBLS		

## CEMENT PLUG

Bottom of Cement Plug?	No	Wiper Balls Used?	No
Plug Catcher	No		



Customer Name Great Western  
Well Name Marcus LD  
Job Type Long String

District Cheyenne  
Supervisor Andrew Chambers  
Engineer

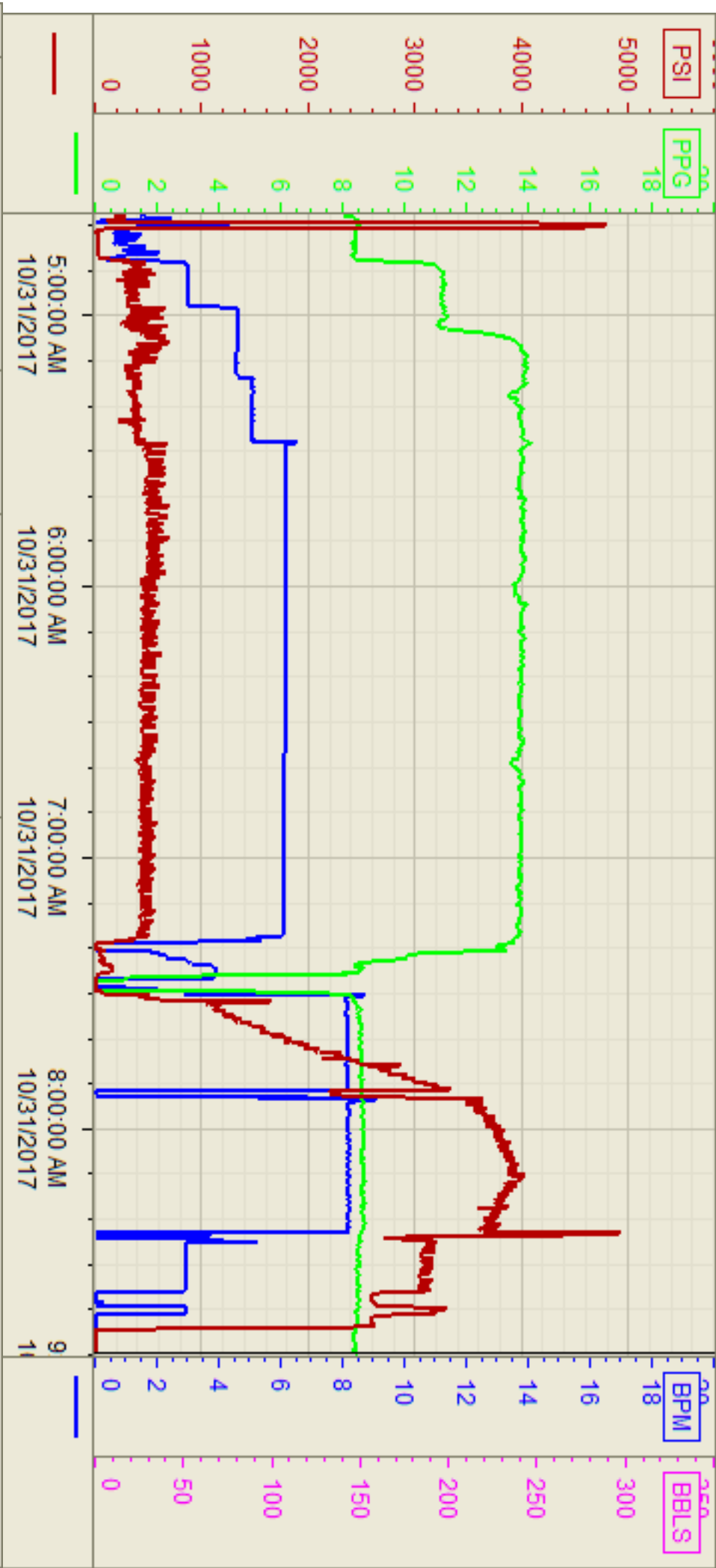
Start Date/Time	Category	Event	Event ID	Density (lb/gal)	Pump Rate (bpm)	Pump Vol (bbls)	Pipe Pressure (psi)	Comments
10/30/17/20:30	Mobilization	Callout	1					BJ CREW CALLED OUT ON LOCATION AT 22:30
10/30/2017,22:15	Mobilization	Arrive on Location	2					BJ CREW ARRIVES ON LOCATION. MET WITH CUSTOMER REP WENT OVER WHERE TO SPOT EQUIPMENT AND JOB DETAILS
10/30/2017/22:45	Operational	Safety Meeting	3					DISCUSSED HAZARDS OF RIGGING UP IRON
10/31/2017/12:15	Operational	Rig Up	4					BJ CREW RIGS UP LOCATION
10/31/2017 0:00	Operational	Safety Meeting	5					CONDUCTED STEACS with crew and rig crew
10/31/2017/4:46	Operational	Pressure Test	6	8.33	1	2	5000	TESTED LINES TO 5000
10/31/2017 4:54/AM	Operational	Pump Spacer	7	11.5	5	50	300	PUMPED 50/BBL PACER
10/31/2017/5:11	Operational	Pump Lead Cement	8	14	6	319	500	PUMPED 1175/SKS,319/BBL OF 14/LB,1.52YLD,7.72GAL/SK OF LEAD CEMENT
10/31/2017 6:06	Operational	Pump Tail Cement	9	14	6	460.8	450	PUMPED 1942/SKS,460.8/BBL,14/LB,1.33YLD,6.40GAL/SK OF TAIL CEMENT
10/31/2017 7:25	Operational	Clean Pumps and Lines	10					WASHED PUMPS AND LINES
10/31/2017 7:34	Operational	Drop Top Plug	11					TOP PLUG LEFT CEMENTING HEAD
10/31/2017 7:35	Operational	Pump Displacement	12	8.33	8	409		PUMPED 409.9 BBL OF DISPLACEMENT,FIRST 20 WITH AR61 AND REST KCL WATER
10/31/2017 8:15	Operational	Other (See comments)	13	8.33	3	390	3100	SLOW RATE TO 3BBL/MIN TO BUMP
10/31/2017/8:23	Operational	Spacer Back to Surface	14	11.5	8	290	3400	50 BBL OF SPACER TO SURFACE
10/31/2017/8:30	Operational	Cement Back to Surface	15	14	8	340	3600	49 BBL CEMENT TO SURFACE
10/31/2017/8:43	Operational	Other (See comments)	16	8.33		419		PLUG DID NOT LAND PUMPED 10 BBL OVER PER CUSTOMER
/8:5010/31/2017	Operational	Check Floats	17					FLOATS HELD 2.5 BBL BACK
10/31/20179:20	Operational	Safety Meeting	18					DISCUSSED HAZARDS OF RIGGING DOWN IRON
10/31/2017 0:00	Operational	Rig Down	19					BJ CREW RIGS DOWN LOCATION
10/31/2017 10:15	Operational	Other (See comments)	20					RIG DOWN COMPLETED SAFELY
10/31/2017/10:45	Operational	Safety Meeting	21					DISCUSSED HAZARDS OF DRIVING
10/31/2017/11:00	Operational	Other (See comments)	22					BJ CREW DEPARTS LOCATION

Customer: GREAT WESTERN  
Well Number: 11-380HNX  
Lease Info: MARCUS LD



Print Date/Time

10/31/2017 9:16:28 AM



Name	Y value	X value/time stamp	Tag name Y
PS - Press (PSI)	-4.31	10/31/2017 8:49:45 AM i.	CementenPS_DISCHARGE_PRESS_DIAL
DH - Density (PPG)	8.43	10/31/2017 8:49:41 AM	CementenDENSITY2_ACTUAL_RATE
Combined Rate (BPM)	0.00 i.	10/31/2017 8:49:45 AM i.	CementenFlow_Combined

Source: Control1 9:16:23 AM