



Great Western Operating Company, LLC

SURFACE POST JOB REPORT

Marcus LD 11-373HN 05-123-44053
S:34 T:1N R:67W Weld CO

CallSheet #: 620
Proposal #: 13038



SURFACE Post Job Report

Attention: Mr. Matt Mount | (303) 398-0373 | mmount@gwogco.com
Great Western Operating Company, LLC
1801 Broadway, Suite 500 | Denver, CO 80202

Dear Mr. Mount,

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,

Zen Keith

Technical Specialist-II | (307) 757-7178 | Zen.Keith@bjservices.com

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

Sales Office 475 17th St. Suite 460 Denver Co., 80202
Phone: (303) 296-1158



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1 Job Details & Summary

1.1 Geometry

Type	Function	OD (in)	ID (in)	Weight (lb/ft)	Thread	Top (ft)	Bottom (ft)	Excess (%)
Open Hole	Outer	n/a	13.5	n/a	n/a	0	1701	25
Casing	Inner	9.625	8.921	36	n/a	0	1701	0

1.2 Equipment / People

Unit Type	Unit	Employee #1	Mileage
Bulk Trailer	509	Scott, Matthew	168
Bulk Trailer	506	Pena, James	168
Cement Chemical	402		168
Light Duty Pickups	4	Dewit, Eric	168

1.3 Timing

Event	Date/Time
Call Out	3/11/2017 15:30
Depart Facility	3/11/2017 16:30
On Location	3/11/2017 19:00
Rig Up Iron	3/11/2017 19:30
Job Started	3/11/2017 22:58
Job Completed	3/12/2017 00:40
Rig Down Iron	3/12/2017 01:00
Depart Location	3/12/2017 02:00

1.4 General Job Information

Metrics	Value
Well Fluid Density	8.4 lb/gal
Well Fluid Type	Water
Rig Circulation Vol	150 bbls
Rig Circulation Time	0.5 hours
Calculated Displacement	128 bbls
Actual Displacement	128 bbls
Total Spacer to Surface	20 bbls
Total CMT to Surface	23 bbls
Well Topped Out	No
Top Out Volume	0 bbls

1.5 Job Details

Metrics	Value
Flare Prior to Job	No
Flare During Job	No
Flare at End of Job	No
Well Full Prior to Job	Yes
Well Fluid Density Into Well	8.4 lb/gal
Well Fluid Density Out of Well	8.4 lb/gal

1.6 Job Details (cont.)

Metrics	Value
BHCT	88 °F
BHST	109 °F

1.7 Circulation

Lost Circulation Experienced
No



1.8 Job Execution Information

Job	Fluid	Product	Function	Density (lb/gal)	Yield (ft ³ /sk)	Water Rq. (gal/sk)	Water Rq. (gal/bbl)	Volume (sks)	Volume (bbl)	Top (ft)
1	1	Water	Flush	8.33			42.00		20.00	0
1	2	ALTCem S100-22	Primary	14.50	1.39	6.76		761.00	188.17	0
1	3	Water	DisplacementFinal	8.33			42.00		129.00	0

1.9 Job Fluid Details

Job	Fluid	Type	Fluid	Product	Function	Conc.	Uom	Start (gal)	End (gal)	Used (gal)
1	2	Primary	ALTCem S100-22	AC3-10	Cement	100.00	%			
1	2	Primary	ALTCem S100-22	ADF-20	Defoamer	0.03	gal/sk	5	0	5

2 Job Logs

Line	Event	Date (MM/DD/YY)	Time (HH:MM)	Density (lb/gal)	Pump Rate (bpm)	Pump Volume (bbls)	Pipe Pressure (psi)	Comment
1	Call out	3/11/2017	15:30					Customer calls with RTS of 20:30
2	Leave yard	3/11/2017	16:30					Leave yard
3	Arrive on location	3/11/2017	19:00					Arrive on location
4	Spot trucks	3/11/2017	19:20					Spot trucks
5	Safety meeting	3/11/2017	19:25					Pre-rig up safety meeting
6	Rig up	3/11/2017	19:30					Rig up bulk, water, and high pressure lines
7	waiting	3/11/2017	20:30					Waiting on rig to finish running casing
8	Rig up	3/11/2017	22:30					Rig up head
9	Safety meeting	3/11/2017	22:40					Pre-job safety meeting with rig crew and company man
10	Load lines	3/11/2017	22:58	8.34	2	2	25	Load pumps and lines with fresh water
11	Pressure test	3/11/2017	23:00	8.34	0	0	3540	Pressure test pumps and lines with fresh water
12	Pump spacer	3/11/2017	23:05	8.34	3.9	20	113	Pump fresh water + Dye spacer
13	Pump cement	3/11/2017	23:14	14.5	5.3	188	173	Pump 760 sacks of cement @14.5 ppg (188 bbls)
14	Shut down	3/11/2017	23:54	14.5	0	0	0	Shut down
15	Release plug	3/11/2017	23:56					Release top wiper plug
16	Displacement	3/12/2017	00:00	8.34	7	0	215	Send plug start fresh water + Biocide displacement
17	Displacement	3/12/2017	00:10	8.34	7	50	449	Fresh water + Biocide displacement
18	Cement to surface	3/12/2017	00:17	8.34	7	105	825	Good cement to surface
19	Drop rate	3/12/2017	00:20	8.34	2.4	115	736	Good cement to surface
20	Land plug	3/12/2017	00:25	8.34	0	128	800	Land plug @800 psi, bump up to 1364
21	Casing test	3/12/2017	00:26	8.34	0	0	2409	Start casing test
22	Check floats	3/12/2017	00:41	8.34				Ending pressure on casing test was 2437, Check floats (floats held) 1 bbl back
23	Safety meeting	3/12/2017	01:00					Pre-rig down safety meeting
24	Rig down	3/12/2017	01:05					Rig down
25	Leave location	3/12/2017	02:00					Bulk trucks head back to the yard to get loaded for the next job

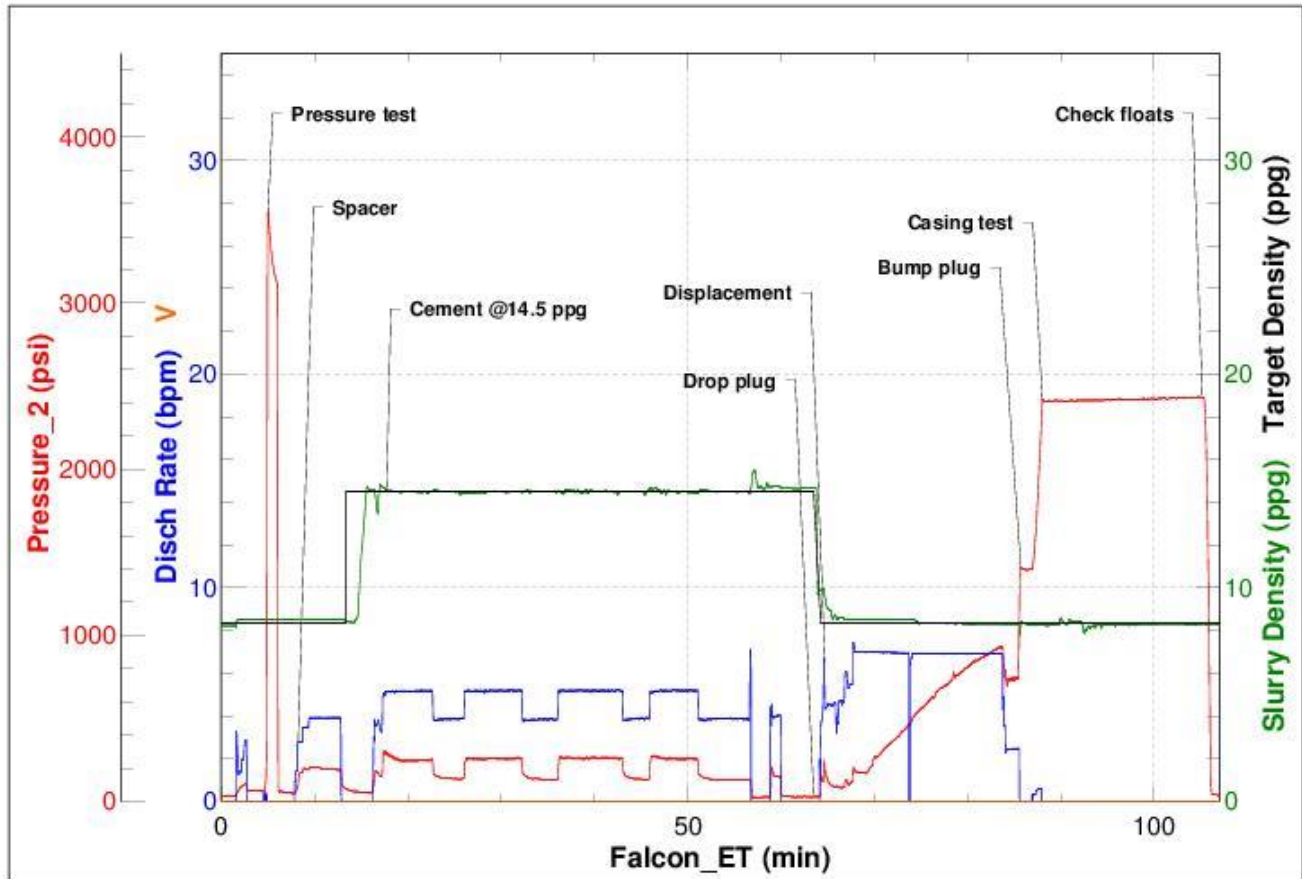


3 Water Analysis

Metrics	Value	Recommended
Water Source	Upright Rig Tank	
Temperature	55 °F	50-80 °F
pH Level	7	5.5-8.5
Chlorides	0 mg/L	0-3000 mg/L
Total Alkalinity	0	0-1000
Total Hardness	0 mg/L	0-500 mg/L
Carbonates	0 mg/L	0-100 mg/L
Sulfates	0 mg/L	0-1500 mg/L
Potassium	0 mg/L	0-3000 mg/L
Iron	0 mg/L	0-300 mg/L

4 Pump Diagrams

Job Number: 620
Customer: Great Western
Well Name: Marcus LD 11-373 HN



Job Start: Saturday, March 11, 2017