



Great Western Operating Company, LLC

SURFACE POST JOB REPORT

Marcus LD 11-372HN 05-123-44043
S:34 T:1N R:67W Weld CO

CallSheet #: 627
Proposal #: 13044



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	1700	25
Casing	Inner	9.625	8.921	36	n/a	0	1700	0

1.2 Equipment / People

Unit Type	Unit	Employee #1	Mileage
Bulk Trailer	506	Pena, James	168
Bulk Trailer	509	Scott, Matthew	168
Light Duty Pickups	3	Dewit, Eric	168
Cement Chemical	402		168

1.3 Timing

Event	Date/Time
Call Out	3/13/2017 00:00
Depart Facility	3/13/2017 02:30
On Location	3/13/2017 04:00
Rig Up Iron	3/13/2017 04:45
Job Started	3/13/2017 08:52
Job Completed	3/13/2017 10:29
Rig Down Iron	3/13/2017 10:50
Depart Location	3/13/2017 11:50

1.4 General Job Information

Metrics	Value
Well Fluid Density	8.34 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	26 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	Customer call out	3/13/2017	00:00					Customer call with RTS of 6:00
2	Leave yard	3/13/2017	02:30					Bulk trucks leave yard
3	Arrive on location	3/13/2017	04:00					First bulk truck arrives on location (rig pulling drill pipe out of the hole)
4	Safety meeting	3/13/2017	04:05					Pre-rig up safety meeting
5	Rig up	3/13/2017	04:10					Rig up high pressure line, water lines, and bulk truck
6	Waiting	3/13/2017	04:45					Waiting on rig to finish running casing
7	Bulk truck arrives	3/13/2017	07:50					2nd bulk truck arrives on location
8	Rig up	3/13/2017	07:55					Rig up 2nd bulk truck
9	Safety meeting	3/13/2017	08:20					Casing on bottom pre-job safety meeting with rig crew and company man
10	Rig up	3/13/2017	08:30					Rig up head
11	Load lines	3/13/2017	08:52	8.34	1.5	2	50	Load pumps and lines
12	Pressure test	3/13/2017	08:53	8.34	0	0	3539	Pressure test pumps and lines
13	Pump spacer	3/13/2017	08:56	8.34	4.9	20	150	Pump Fresh water + Dye spacer
14	Pump cement	3/13/2017	09:03	14.5	5.5	188	232	Batch, and pump 761 sacks of cement @14.5 ppg
15	Shut down	3/13/2017	09:43	14.5	0	0	0	Shut down
16	Drop plug	3/13/2017	09:46					Drop wiper plug
17	Displacement	3/13/2017	09:49	8.34	7.2	0	154	Send plug start Fresh water + Biocide displacement
18	Displacement	3/13/2017	09:56	8.34	7.2	50	462	Fresh water + Biocide displacement
19	Spacer to surface	3/13/2017	10:02	8.34	7.2	84	781	Spacer back to surface
20	Cement to surface	3/13/2017	10:05	8.34	7.2	102	860	Cement to surface
21	Drop rate	3/13/2017	10:08	8.34	2.4	120	800	Drop pump rate
22	Land plug	3/13/2017	10:10	8.34	2.4	128	800	Land plug @800 psi, bumped up to 1320
23	Casing test	3/13/2017	10:13	8.34	0	0	2405	Start casing test
24	Check floats	3/13/2017	10:29	8.34				Bleed off check floats
25	Safety meeting	3/13/2017	10:45					Pre-rig down safety meeting
26	Rig down	3/13/2017	10:50					Rig everything down
27	Leave location	3/13/2017	11:50					Leave location

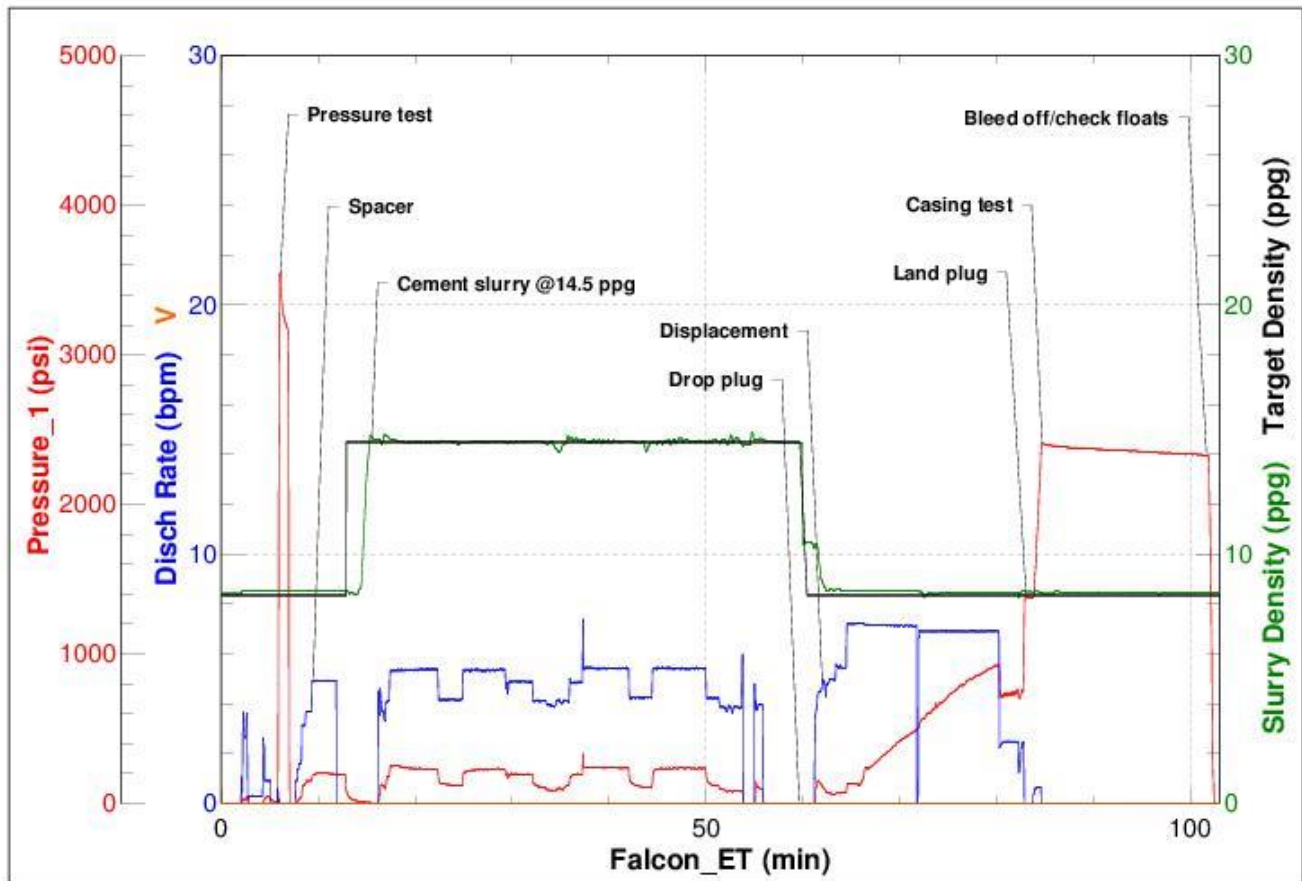


3 Water Analysis

Metrics	Value	Recommended
Water Source	Upright Rig Tank	
Temperature	60 °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: 627
Customer: Great Western
Well Name: Marcus LD 11-372HN



Job Start: Monday, March 13, 2017