



Great Western Operating Company, LLC

SURFACE POST JOB REPORT

Marcus LD 11-370HC 05-123-44042
S:34 T:1N R:67W Weld CO

CallSheet #: 630
Proposal #: 13046



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



Table of Contents

1 Job Details & Summary 3

 1.1 Geometry 3

 1.2 Equipment / People 3

 1.3 Timing 3

 1.4 General Job Information 3

 1.5 Job Details 3

 1.6 Job Details (cont.) 3

 1.7 Circulation 3

 1.8 Job Execution Information 4

 1.9 Job Fluid Details 4

2 Job Logs 5

3 Water Analysis 6

4 Pump Diagrams 6

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	508	Cornett, Jesse	200
Bulk Trailer	509	Jimenez, Edgar	200
Cement Pump	105	Cook, John	200
Cement Pump	103		
Light Duty Pickups	3	Boyd, Brian	200
Cement Chemical	402		

1.3 Timing

Event	Date/Time
Call Out	3/14/2017 14:30
Depart Facility	3/14/2017 15:00
On Location	3/14/2017 17:30
Rig Up Iron	3/14/2017 17:45
Job Started	3/14/2017 20:40
Job Completed	3/15/2017 00:20
Rig Down Iron	3/15/2017 00:30
Depart Location	3/15/2017 01:00

1.4 General Job Information

Metrics	Value
Well Fluid Density	9 lb/gal
Well Fluid Type	WBM
Rig Circulation Vol	100 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	28 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	9 lb/gal
Well Fluid Density Out of Well	9 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	10	0	10

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	3/14/2017	14:30					Customer requested crew on location at 20:00
2	Depart Shop	3/14/2017	15:00					Crew departs location
3	Arrive On Location	3/14/2017	17:30					Crew arrives on location and meet with customer and get numbers
4	Safety Meeting	3/14/2017	17:40					Safety meeting with crew over spotting equipment and rig up iron
5	Rig Up Iron	3/14/2017	17:45					Rig up iron and hoses
6	Waiting	3/14/2017	18:30					Waiting on rig to run casing
7	Rig Lands Casing	3/14/2017	20:15					Rig lands casing and recirculates well
8	Safety Meeting	3/14/2017	20:30					Meeting with BJ crew, company man and rig crew over job and hazards
9	Fill Lines	3/14/2017	20:40	8.33	2	3	30	Fill pump and lines
10	Pressure Test	3/14/2017	20:42	8.33	0.5	0.5	3500	Pressure test iron and cement head to 3500 PSI
11	Pump Spacer	3/14/2017	20:44	8.33	2	20	120	Pump 20 bbls of spacer with red dye
12	Pump Cement	3/14/2017	20:52	14.5	6	188	350	Pump 188 bbls of primary cement at 14.5 PPG (761sks, 14.50 PPG, 1.39 Yield, 6.76 Gals/sks)
13	Shut Down	3/14/2017	21:32					Shut down pumping
14	Drop Plug	3/14/2017	21:35					Drop top plug and verify went down with company man
15	Pump Displacement	3/14/2017	21:36	8.33	7	128	500	Pump 128 bbls of fresh water at 7 bpm
16	Cement To Surface	3/14/2017	21:55	14.5	7	100	730	28 bbls of cement to surface
17	Slow Rate	3/14/2017	21:59	8.33	2.5	120	950	120 bbls away slow rate to 2.5 bpm
18	Land Plug	3/15/2017	00:02				1400	Land plug FCP 950 PSI and bump to 1450 PSI
19	Casing Test	3/15/2017	00:05	8.33	0.5	0.5	2400	Pressure casing up to 2400 PSI and hold for 15 mins
20	Safety Meeting	3/15/2017	00:20					Safety meeting with crew on rigging down iron
21	Rig Down Iron	3/15/2017	00:25					Rig down iron
22	Depart Location	3/15/2017	01:00					Crew departs from location

3 Water Analysis

Metrics	Value	Recommended
Water Source	Upright Rig Tank	
Temperature	68 °F	50-80 °F
pH Level	7	5.5-8.5
Chlorides	0 mg/L	0-3000 mg/L
Total Alkalinity	80	0-1000
Total Hardness	70 mg/L	0-500 mg/L
Carbonates	140 mg/L	0-100 mg/L
Sulfates	<200 mg/L	0-1500 mg/L
Potassium	450 mg/L	0-3000 mg/L
Iron	0 mg/L	0-300 mg/L

4 Pump Diagrams

