



Great Western Operating Company, LLC

SURFACE POST JOB REPORT

Raindance FD 20-322HN 05-123-44984
S:30 T:6N R:67W Weld CO

CallSheet #: 1047
Proposal #: 13512



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,

Oscar Medrano

Technical Specialist-II | (307) 996-6222 | Oscar.Medrano@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	1557	25
Casing	Inner	9.625	8.921	36	n/a	0	1557	0

1.2 Equipment / People

Unit Type	Unit	Employee #1	Employee #2	Mileage
Bulk Trailer	E435	Valenzuela, Yannick		120
Bulk Trailer	PPC41309	Montoya, Hector		120
Cement Pump	C156	Nepgen, AJ	Staples, Anthony	120
Light Duty Pickups	8	Boyd, Brian	Snyder, Albert	120

1.3 Timing

Event	Date/Time
Call Out	7/20/2017 01:00
Depart Facility	7/20/2017 02:10
On Location	7/20/2017 03:20
Rig Up Iron	7/20/2017 06:30
Job Started	7/20/2017 08:47
Job Completed	7/20/2017 10:18
Rig Down Iron	7/20/2017 10:45
Depart Location	7/20/2017 12:10

1.4 General Job Information

Metrics	Value
Well Fluid Density	8.33 lb/gal
Well Fluid Type	WBM
Rig Circulation Vol	300 bbls
Rig Circulation Time	1 hours
Calculated Displacement	117 bbls
Actual Displacement	117 bbls
Total Spacer to Surface	20 bbls
Total CMT to Surface	20 bbls
Well Topped Out	No

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	8.33 lb/gal
Well Fluid Density Out of Well	8.33 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 (sk)	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		687.00	169.87	0
1	3	Water	DisplacementFinal	8.33			42.00		116.00	0

1.9 Job Fluid Details

Job	Fluid	Type	Fluid	Product	Function	Conc.	Uom
1	2	Primary	ALTCem S100-22	AC3-10	Cement	100.00	%
1	2	Primary	ALTCem S100-22	ADF-20	Defoamer	0.03	gal/sk



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	Callout	7/20/2017	01:00					
2	Depart Location	7/20/2017	02:20					
3	Arrive On Location	7/20/2017	03:40					
4	STEACS BRIEFING	7/20/2017	06:00					discuss spotting and rig up
5	Rig Up Iron	7/20/2017	06:30					rig up be safe
6	STEACS BRIEFING	7/20/2017	08:00					Discuss job procedure
7	PRESSURE TEST	7/20/2017	08:47	8.33	1	1	3000	Lines tested good
8	Pump Spacer	7/20/2017	00:00	8.33	5	20	100	Pump dyed spacer
9	Pump Tail Cement	7/20/2017	08:57	14.5	6	170.7	360	Mix and pump 687 sks @14.5#/gal of Altcem S100-22 cement 1.39 yield 6.76 water requirement
10	DROP PLUG	7/20/2017	09:39					Used their plug wash on top of plug
11	Pump Displacement	7/20/2017	09:40	8.33	6	20	151	fresh water
12	Pump Displacement	7/20/2017	09:45	8.33	6	40	254	GOOD CIRCULATION
13	Pump Displacement	7/20/2017	09:48	8.33	6	60	433	FRESH WATER
14	Pump Displacement	7/20/2017	09:51	8.33	6	80	600	SPACER TO THE SURFACE 20 BBLS
15	Pump Displacement	7/20/2017	09:53	8.33	6	100	700	CEMENT TO THE SURFACE 20 BBLS
16	Slow Pump Rate	7/20/2017	09:56	8.33	3	110	530	
17	LAND THE PLUG	7/20/2017	10:02	8.33	3	117	1400	PLUG LANDED ON CALCULATED
18	CASING PRESSURE TEST	7/20/2017	10:03	8.33	1	1	2400	PRESSURE UP TO 2500 PSI HOLD FOR 15 MNIUTES
19	Check Floats	7/20/2017	10:18					FLOAT IS HOLDING
20	STEACS BRIEFING	7/20/2017	10:30					
21	Rig Down Iron	7/20/2017	10:45					USE TEAM WORK AND CUATION
22	MOVE OFF LOCATION	7/20/2017	11:20					
23	AFTER ACTION REVIEW	7/20/2017	12:30					REVIEW THE WHOLE JOB
24	STAACS JOURNEY	7/20/2017	13:00					JPOURNEY MANAGEMENT
25	Depart Location	7/20/2017	13:10					

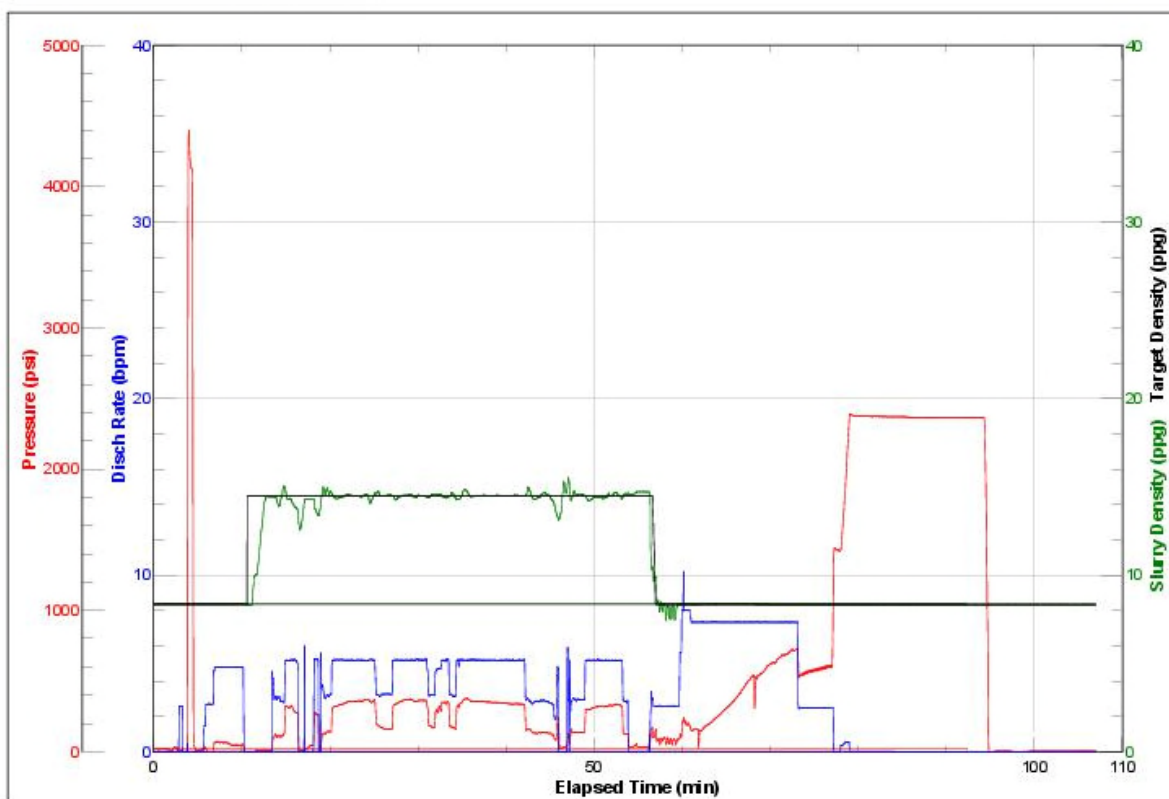
3 Water Analysis

Metrics	Value	Recommended
Water Source	None	
Temperature	75 °F	50-80 °F
pH Level	7	5.5-8.5
Chlorides	0 mg/L	0-3000 mg/L
Total Alkalinity	120	0-1000
Total Hardness	125 mg/L	0-500 mg/L
Carbonates	140 mg/L	0-100 mg/L
Sulfates	<200 mg/L	0-1500 mg/L
Potassium	250 mg/L	0-3000 mg/L
Iron	0.3 mg/L	0-300 mg/L

4 Pump Diagrams



JobMaster Program Version 4.02C1
Job Number: 1047
Customer: Great Western
Well Name: Raindance FD 20-322 HN



BJ Services

Job Start: Thursday, July 20, 2017