



# Bonanza Creek Energy

## Production Post Job Report

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North Platte Federal 21-24-22HC

S:22 T:5N R:63W Weld CO

Quote #:

| Execution #:

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## Bonanza Creek Energy

Attention: Mr. Joel Dill | (720) 633-5871 | JDill@bonanzacrk.com

Bonanza Creek Energy | 410 17th St Suite 1400 | Denver, CO. 80202

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Dear Mr. Joel Dill,

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,  
Jacob Ojeda  
Field Engineer I | (763) 516-3012 | jacob.ojeda@bjservices.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

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## Cementing Treatment



<b>Start Date</b>	2/19/18	<b>Well</b>	North Platte Federal 21-24-22HC
<b>End Date</b>	2/19/18	<b>County</b>	WELD
<b>Client</b>	BONANZA CREEK ENERGY	<b>State/Province</b>	CO
<b>Client Field Rep</b>	Sam	<b>API</b>	05-123-43502
<b>Service Supervisor</b>	Orlando Fuentes	<b>Rig</b>	Xtreme 19
<b>District</b>	Cheyenne, WY	<b>Type of Job</b>	Long String

### WELL GEOMETRY

Type	ID (in)	OD (in)	Wt. (lb/ft)	MD (ft)	TVD (ft)	Excess(%)
Previous Casing	8.92	9.63	36.00	1,626.00	1,626.00	
Open Hole	8.50			11,330.00	6,650.00	12.50
Casing	4.89	5.50	17.00	9,957.00	6,650.00	

**Shoe Length (ft):** 42

### HARDWARE

<b>Top Plug Used?</b>	Yes	<b>Max Casing Pressure - Rated (psi)</b>	10,640
<b>Top Plug Provided By</b>	Customer	<b>Max Casing Pressure - Operated (psi)</b>	3061
<b>Top Plug Size</b>	5.5	<b>Pipe Movement</b>	No
<b>Centralizers Used</b>	Yes	<b>Job Pumped Through</b>	2" iron
<b>Centralizers Quantity</b>	71	<b>Top Connection Thread</b>	LTC
<b>Centralizers Type</b>	Rigid / Bow	<b>Top Connection Size</b>	5.5
<b>Landing Collar Depth (ft)</b>	9915		

### CIRCULATION PRIOR TO JOB

<b>Well Circulated By</b>	Rig	<b>PV Mud Out</b>	13
<b>Circulation Prior to Job</b>	Yes	<b>YP Mud In</b>	7
<b>Circulation Time (min)</b>	90	<b>YP Mud Out</b>	7
<b>Circulation Rate (bpm)</b>	9	<b>Solids Present at End of Circulation</b>	No
<b>Circulation Volume (bbls)</b>	810	<b>10 sec SGS</b>	7
<b>Lost Circulation Prior to Cement Job</b>	No	<b>10 min SGS</b>	9
<b>Mud Density In (ppg)</b>	8.5	<b>30 min SGS</b>	12
<b>Mud Density Out (ppg)</b>	8.5	<b>Flare Prior to/during the Cement Job</b>	No
<b>PV Mud In</b>	13	<b>Gas Present</b>	No

## Cementing Treatment



### TEMPERATURE

Ambient Temperature (°F)	5	Slurry Cement Temperature (°F)	50
Mix Water Temperature (°F)	60	Flow Line Temperature (°F)	149

### BJ FLUID DETAILS

Fluid Type	Fluid Name	Density (ppg)	Yield (Cu Ft/sk)	H2O Req. (gals/sk)	Planned Top of Fluid (Ft)	Length (Ft)	Vol (sk)	Vol (Cu Ft)	Vol (bbls)
Spacer / Pre Flush / Flush	CD Spacer	11.5000			0.00				40.0000
Lead Slurry	BJCem P100.3.01C	12.5000	2.0754	11.84	0.00	5,000.00	630	1,307.0000	232.6000
Tail Slurry	BJCem P50.6.02C	13.5000	1.4774	7.45	5,000.00	6,309.00	1,105	1,632.0000	290.5000
Displacement 2	Retarded Water	8.3337			10,407.00			0.0000	20.0000
Displacement Final	Displacement Final (Water)	8.3308			0.00			0.0000	210.0000

## Cementing Treatment



Fluid Type	Fluid Name	Component	Concentration	UOM
Spacer / Pre Flush / Flush	CD Spacer	RETARDER, HIGH TEMP, R-31	0.5100	PPB
Spacer / Pre Flush / Flush	CD Spacer	GELLANT WATER, GW-86	0.9000	PPB
Spacer / Pre Flush / Flush	CD Spacer	Spacer Surfactant, SS-247	0.5000	GPB
Spacer / Pre Flush / Flush	CD Spacer	SAND, S-8, Silica Flour, 200 Mesh	208.5300	PPB
Spacer / Pre Flush / Flush	CD Spacer	SPACER SURFACTANT, SS-267	0.5000	GPB
Spacer / Pre Flush / Flush	CD Spacer	EXTENDER, BENTONITE	5.0000	PPB
Lead Slurry	BJCem P100.3.01C	CEMENT, ASTM TYPE III	100.0000	PCT
Lead Slurry	BJCem P100.3.01C	IntegraSeal CELLO	0.1300	LBS/SK
Lead Slurry	BJCem P100.3.01C	BONDING AGENT, BA-60	0.4000	BWOB
Lead Slurry	BJCem P100.3.01C	GELLANT WATER, GW-86	0.0500	BWOB
Lead Slurry	BJCem P100.3.01C	FLUID LOSS, FL-24	0.3000	BWOB
Lead Slurry	BJCem P100.3.01C	Foam Preventer, FP-25	0.3000	BWOB
Lead Slurry	BJCem P100.3.01C	RETARDER, HIGH TEMP, R-31	0.1700	BWOB
Tail Slurry	BJCem P50.6.02C	CEMENT, CLASS G	50.0000	PCT
Tail Slurry	BJCem P50.6.02C	FLUID LOSS, FL-66	0.2000	BWOB
Tail Slurry	BJCem P50.6.02C	Flyash (Rockies)	50.0000	PCT
Tail Slurry	BJCem P50.6.02C	GELLANT WATER, GW-86	0.1000	BWOB
Tail Slurry	BJCem P50.6.02C	EXTENDER, BENTONITE	2.0000	BWOB
Tail Slurry	BJCem P50.6.02C	Foam Preventer, FP-25	0.3000	BWOB
Tail Slurry	BJCem P50.6.02C	AR-20	0.1000	BWOB
Displacement 2	Retarded Water	BIOCIDE, BIOC11139W	0.0100	GPB
Displacement 2	Retarded Water	RETARDER, R-8L	0.5000	GPB
Displacement Final	Displacement Final (Water)	BIOCIDE, BIOC11139W	0.0100	GPB

## Cementing Treatment



### TREATMENT SUMMARY

Time	Fluid	Rate (bpm)	Fluid Vol. (bbls)	Pipe Pressure (psi)
14:05	CD Spacer	4.00	40.00	154
14:15	BJCem P100.3.01C	6.00	232.60	104
14:58	BJCem P50.6.02C	6.00	230.50	117
15:42	Retarded Water	4.00	20.00	100
16:22	Displacement Final (Water)	8.00	210.00	2020

### DISPLACEMENT AND END OF JOB SUMMARY

Displaced By	BJS	Amount of Cement Returned/Reversed	59.5
Calculated Displacement Volume (bbls)	230.02	Method Used to Verify Returns	Visual
Actual Displacement Volume (bbls)	229.5	Amount of Spacer to Surface	40
Did Float Hold?	Yes	Pressure Left on Casing (psi)	0
Bump Plug	Yes	Amount Bled Back After Job	2.5
Bump Plug Pressure (psi)	3061	Total Volume Pumped (bbls)	733.1
Were Returns Planned at Surface	Yes	Top Out Cement Spotted	No
Cement returns During Job	Yes	Lost Circulation During Cement Job	No



Customer Name Bonanza Creek  
 Well Name North Platte Fed 21-24-22  
 Job Type Long String

District Cheyenne  
 Supervisor Orlando Fuentes  
 Engineer \_\_\_\_\_

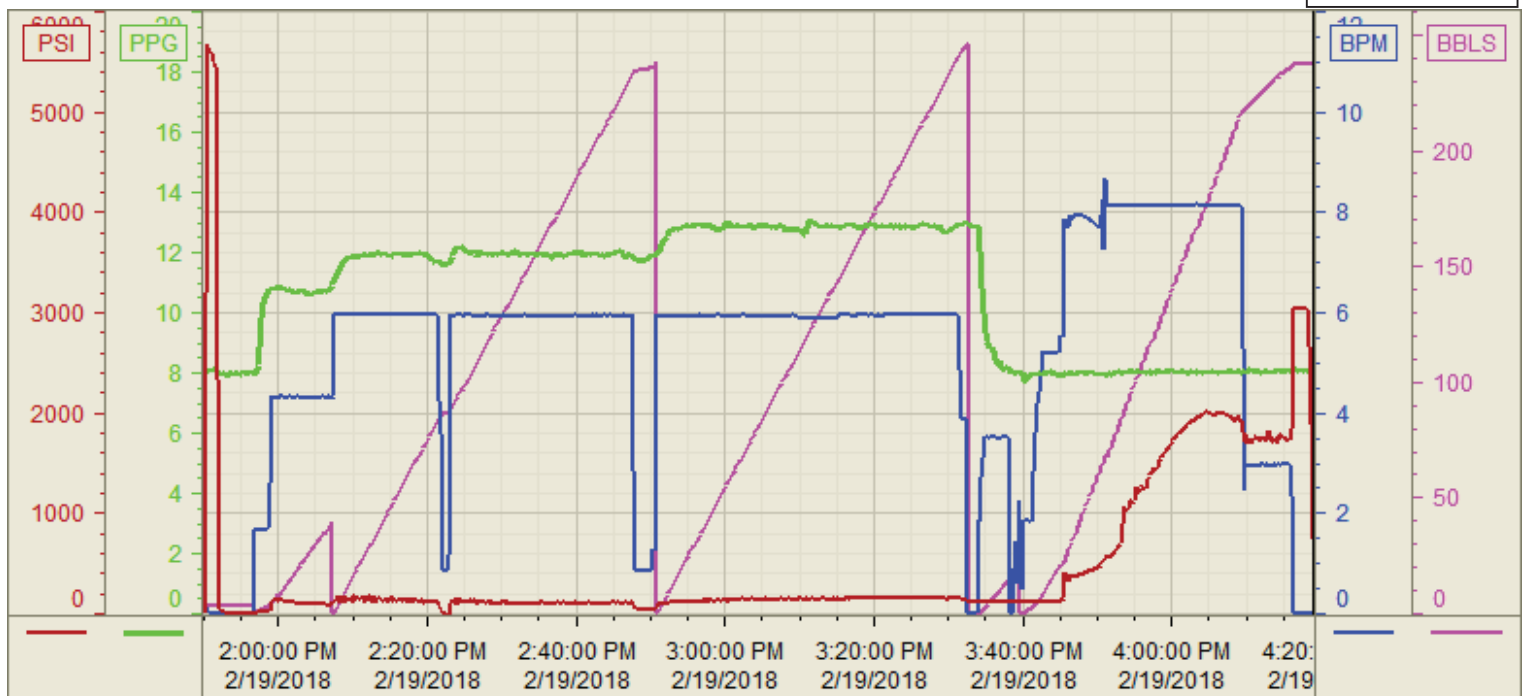
Seq No.	Start Date/Time	Event	Event ID	Density (lb/gal)	Pump Rate (bpm)	Pump Vol (bbls)	Pipe Pressure (psi)	Comments
1	2/15/2018 0:30	Call Out						BJ Services Crew Gets Called Out
2	3:00	Depart Facility						BJ Services Crew Departs Facility Cheyenne Wy
3	5:00	Arrive On Location	48					BJ Services Crew Arrives To Location
4	7:00	Waiting						Waiting On Rig To Run Casing ( Had 1000' Left To Run )
5	12:00	Other						BJ Services Crew Gets Relesed From Well Rig Could Not Get Casing On Bottom Had Still 1000' Left To Run
6	13:00	Depart Location						BJ Services Crew Departs Location.
7	2/19/2018 4:00	Call Out						BJ Services Crew Gets Called Out
8	7:00	Depart Facility						BJ Services Crew Departs Facility Cheyenne Wy
9	9:00	Arrive On Location	48					BJ Services Crew Arrives To Location
10	10:00	Waiting						Waiting On Rig To Run Casing
11	12:00	Pre Rig up Meeting						BJ Services Crew Had A Pre Rig Up Meeting
12	12:30	Rig Up	50					Rig Up Equipment And Iron
13	13:30	Safety Meeting	53					BJ Services Crew Had A Safety Meeting With CoMan And Rig Hands - Went Over Job Procedure
14	13:56	Pressure Test	54				5000	Pressure Test Pump And Lines To 5000 psi
15	14:05	Pump CD Sapcer		11.5	4	40	154	Pumped 40 BBL Of 11.5 PPG CD Spacer At 4 Bpm W/ 154 psi
16	14:15	Pump Lead Cement		12.5	6	232.86	104	Pumped 232.86 BBL ( 630 sks 12.5 ppg 2.0754 yld 11.84 g/sk ) Of Lead Cement At 6 Bpm W/104 psi
17	14:58	Pump Tail Cement		13.5	6	230.49	117	Pumped 230.49 BBL ( 876 sks 13.5 ppg 1.4774 yld 7.45 g/sk ) Of Tail Cement At 6 Bpm w/117 psi
18	15:35	Shut Down						Shut Down Pumping Cement
19	15:37	Wash Pump/Lines						Wash Pump And Lines To Pit
20	15:39	Drop Top Plug	63					Bj Services Drops Top Plug With Tool Hand
21	15:42	Start Displacement		8.33	8		100	Start Pumping Displacement At 8 Bpm W/ 100 psi
22	16:06	Spacer To Surface		8.33	8	130	1718	At 130 BBL Away Into H2o Disp Got Spacer To Surface At 8 Bpm W/1718 psi
23	16:11	Cement To Surface		8.33	8	170	2274	At 170 BBL Away Into H2o Disp Got Cement To Surface At 8 Bpm W/ 2274 psi
24	16:17	Slow Down Rate		8.33	3	210	1809	At 210 BBL Away into Disp Slow Down Rate To 3 Bpm W/ 1809 psi
25	16:22	Land Plug	67	8.33	3	229.5	2020	Landed Plug At 229.5 BBL Away Final Circ Pressure Was 2020 Psi Bumped Plug To 3061 psi
26	16:25	Check Floats						Check Floats Got 2.5 BBL Back
27	16:30	Pre Rig Down Meeting						BJ Services Crew Had A Pre Rig Down Meeting
28	17:30	Rig Down	73					BJ Services Crew Rigs Down Equipment And Iron
29	18:30	Depart Location						BJ Services Crew Departs Location.
30		Other						Cement To Surface - 59.5 BBL
31		Other						Spacer To Surface - 40 BBL
32		Other						Calculated Top Of Tail - 4331.5'

Customer: Bonanza Creek  
Well Number: 21-24-22 HC  
Lease Info: North Platte Federal



Print Date/Time

2/19/2018 4:59:08 PM



	Name	Y value	X value/time stamp	Tag name Y
1	PS - Press (PSI)	1129.2 i.	2/19/2018 4:19:00 PM i.	Cementer\PS_DISCHARGE_PRESS_DIAL
2	DH - Density (PPG)	8.00	2/19/2018 4:19:02 PM	Cementer\DENSITY2_ACTUAL_RATE
3	Combined Rate (BPM)	0.00	2/19/2018 4:19:02 PM	Cementer\Flow_Combined
4	Down Hole Total (BBLs)	237.5	2/19/2018 4:19:02 PM	Cementer\DOWNHOLE_FLOW_TOTAL
5				

Source: Control1 4:58:56 PM