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# Bonanza Creek Energy

## PRODUCTION POST JOB REPORT

North Platte O24-K21-23HNB 05-123-44443  
S:22 T:6N R:67W Weld CO



CallSheet #: 1549  
Proposal #: 13919



**PRODUCTION Post Job Report**

**Attention:** Mr. Dan Stone | (303) 999-6840 | dstone@bonanzacrk.com  
Bonanza Creek Energy  
730 17th Street, Suite 610 | Denver, CO 80202

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Dear Mr. Stone,

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,

**Jason Creel**

Field Engineer | (307) 256-0306 | Jason.Creel@BJSERVICES.COM

**Field Office**      1716 East Allison Rd., Cheyenne, WY 82007  
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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 (%)
Casing	Outer	9.625	8.921	36	n/a	0	1601	0
Casing	Inner	5.5	4.892	17	n/a	0	11150	0
Open Hole	Outer	n/a	8.5	n/a	n/a	1601	11150	10

### 1.2 Equipment / People

Unit Type	Unit	Employee #1	Employee #2	Mileage
Bulk Trailer	PPC41309	Borst, David		170
Silo	675			
Silo	193			
Cement Pump	102	Vasquez, Mike		170
Light Duty Pickups	7	Cook, John	Chambers, Andrew	170
Light Duty Pickups	53			170

### 1.3 Timing

Event	Date/Time
Call Out	10/15/2017 20:00
Depart Facility	10/15/2017 22:15
On Location	10/16/2017 00:00
Rig Up Iron	10/16/2017 00:15
Job Started	10/16/2017 06:39
Job Completed	10/16/2017 10:10
Rig Down Iron	10/16/2017 10:30
Depart Location	10/16/2017 12:00

### 1.4 General Job Information

Metrics	Value
Well Fluid Density	9.4 lb/gal
Well Fluid Type	OBM
Rig Circulation Vol	900 bbls
Rig Circulation Time	1.5 hours
Calculated Displacement	257.8 bbls
Actual Displacement	257.8 bbls
Total Spacer to Surface	40 bbls
Total CMT to Surface	40 bbls

### 1.5 Well Fluid Details

Metrics	Value
Plastic Viscosity	21
Yield Point	12
10 sec. SGS	6
10 min. SGS	9
30 min. SGS	16
Filtrate	8
Flow Line Temp.	185

### 1.6 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	9.4 lb/gal
Well Fluid Density Out of Well	9.4 lb/gal

### 1.7 Job Details (cont.)

Metrics	Value
BHCT	212 °F
BHST	212 °F



## 1.8 Circulation

Lost Circulation Experienced
No

## 1.9 Job Execution Information

Job	Fluid	Product	Function	Density (lb/gal)	Yield (ft <sup>3</sup> /sk)	Water Rq. (gal/sk)	Water Rq. (gal/bbl)	Volume (sk)	Volume (bbl)	Top (ft)
1	1	CD Spacer	Spacer	11.50			31.21		40.00	0
1	2	P100-X2	Lead	12.50	2.07	11.81		622.00	229.46	0
1	3	P50-X1	Tail	13.50	1.47	7.43		1055.00	277.08	5000
1	4	MMCR Water	Displacement	8.33			41.90		20.00	10248
1	5	Water	Displacement Final	8.33			41.99		237.00	0

## 1.10 Job Fluid Details

Job	Fluid	Type	Fluid	Product	Function	Conc.	Uom
1	1	Spacer	CD Spacer	ASR-20	Strength Retrogression	208.53	lb/bbl
1	1	Spacer	CD Spacer	AR-31	Retarder	0.51	lb/bbl
1	1	Spacer	CD Spacer	ASF-20	Surfactant	0.50	gal/bbl
1	1	Spacer	CD Spacer	ASF-80	Surfactant	0.50	gal/bbl
1	1	Spacer	CD Spacer	AVS-10	Viscosifier	0.90	lb/bbl
1	1	Spacer	CD Spacer	AVS-50	Viscosifier	5.00	lb/bbl
1	2	Lead	P100-X2	AC3-10	Cement	100.00	%
1	2	Lead	P100-X2	ABX-30	Bond Enhancer	0.40	%BWOB
1	2	Lead	P100-X2	ADF-11	Defoamer	0.30	%BWOB
1	2	Lead	P100-X2	AFL-10	Fluid Loss	0.30	%BWOB
1	2	Lead	P100-X2	ALC-10	Lost Circulation	0.13	lb/sk
1	2	Lead	P100-X2	AR-31	Retarder	0.18	%BWOB
1	2	Lead	P100-X2	AVS-20	Viscosifier	0.10	%BWOB
1	3	Tail	P50-X1	ACG-10	Cement	50.00	%
1	3	Tail	P50-X1	AFA-10	Extender	50.00	%
1	3	Tail	P50-X1	ADF-11	Defoamer	0.30	%BWOB
1	3	Tail	P50-X1	AFL-50	Fluid Loss	0.20	%BWOB
1	3	Tail	P50-X1	AR-20	Retarder	0.10	%BWOB
1	3	Tail	P50-X1	AVS-10	Viscosifier	0.10	%BWOB
1	3	Tail	P50-X1	AVS-50	Viscosifier	2.00	%BWOB
1	4	Displacement	MMCR Water	AR-61	Retarder	0.10	gal/bbl
1	5	Displacement Final	Water	Biocide	Other	0.01	gal/bbl



## 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	10/15/2017	20:00					Bj crew get called out for job. Requested on location at 03:00.
2	Safety Meeting	10/15/2017	22:00					Bj crew talks about the dangers of driving to locations.
3	Depart Yard	10/15/2017	22:15					Depart yard.
4	Safety Meeting	10/16/2017	00:00					Bj crew talks about the hazards of spotting in equipment and rigging up.
5	Rig Up	10/16/2017	00:15					Rig up.
6	Other	10/16/2017	01:30					Waiting on rig to finish running casing.
7	Safety Meeting	10/16/2017	05:30					Bj and rig crew talk about the hazards of the job.
8	Fill Lines	10/16/2017	06:39	8.33	2	3	50	Fill pumps and lines with 3 bbls of water.
9	Pressure Test	10/16/2017	06:42				5000	Pressure test to 5000 psi.
10	Pump Spacer	10/16/2017	06:48	11.5	4	40	400	Pump 40 bbls of cd spacer with surfactants at 11.5 ppg.
11	Pump Lead	10/16/2017	07:00	12.5	6	229	450	Pump 229.5 bbls of P100-x2 lead cement at 12.5ppg, 2.07yld, 11.81wtr. (622 sks)
12	Pump Tail	10/16/2017	07:48	13.5	6	277	450	Pump 277.1bbls of P50-x1 tail cement at 13.5ppg, 1.47yld, 7.43wtr. (1055 sks)
13	Shutdown/ wash up	10/16/2017	09:02					Pump 257.8 bbls of water displacement.
14	Drop Top Plug	10/16/2017	09:10					Company man witnesses top plug drop.
15	Displacement	10/16/2017	09:11	8.33	5		1500	Displace 257.8 bbls of water.
16	Slow Rate	10/16/2017	09:58	8.33	3		2000	Slow rate to 3bbls/min at 230 displaced
17	Bump Plug	10/16/2017	10:05				2000	Bump plug at 2000 psi. brought up to 3000 psi. 1000 over FCP.
18	Check Floats	10/16/2017	10:10					Check floats. Got 3 bbls back to pump.
19	Safety Meeting	10/16/2017	10:15					Bj crew talks about the hazards of rigging down.
20	Rig Down	10/16/2017	10:25					Rig down.
21	Safety Meeting	10/16/2017	11:45					Bj crew talks about the hazards of driving back to yard.
22	Depart Location	10/16/2017	12:00					Depart location.

### 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	250 mg/L	0-500 mg/L
Carbonates	0 mg/L	0-100 mg/L
Sulfates	>400 mg/L	0-1500 mg/L
Potassium	>200 mg/L	0-3000 mg/L
Iron	0 mg/L	0-300 mg/L

### 4 Pump Diagrams

