



Bonanza Creek Energy

State Antelope Y-E-13HNC

API # 05-123-50291

Production

January 13, 2020

Quote #: QUO-40895-X1L2K9

Execution #: EXC-23849-B5G9J002



Bonanza Creek Energy

Attention: Mr. Adam Conry | (303) 883.3351 | AConry@bonanzacrk.com

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

Dear Mr. Adam Conry,

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,
Gage Putnam
Field Engineer I | (307) 887-4243 | Gage.Putnam@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

BJ Cementing Treatment Report

SERVICE SUPERVISOR	Nicholas Iverson	FORMATION	NIOBRARA
CLIENT FIELD REPRESENTATIVE	Joel Dill	RIG	Akita 519
DISTRICT	Cheyenne, WY	COUNTY	WELD
SERVICE	Cementing	STATE / PROVINCE	CO

WELL GEOMETRY

TYPE	ID (in)	OD (in)	WEIGHT (lbs/ft)	MD (ft)	TVD (ft)	EXCESS (%)
Previous Casing	8.92	9.63	36.00	1,635.00	1,664.00	
Open Hole	8.50	0.00	0.00	12,481.00	6,050.00	7.00
Casing	4.89	5.50	17.00	12,470.00	6,050.00	

HARDWARE

Bottom Plug Used?	No	Tool Type	Cement Retainer
Top Plug Used?	Yes	Tool Depth (ft)	12,470.00
Top Plug Provided By	Non BJ	Max Casing Pressure - Rated (psi)	5,000.00
Top Plug Size	5.500	Max Casing Pressure - Operated (psi)	4,400.00
Centralizers Used	Yes	Pipe Movement	None
Centralizers Quantity	280.00	Job Pumped Through	Manifold
Centralizers Type	Rigid	Top Connection Thread	btc
Landing Collar Depth (ft)		Top Connection Size	5.5

CIRCULATION PRIOR TO JOB

Well Circulated By	Rig	Mud Density In (ppg)	9.50
Circulation Prior to Job	Yes	Mud Density Out (ppg)	9.50
Circulation Time (min)	200.00	Solids Present at End of Circulation	No
Circulation Rate (bpm)	11.00	Flare Prior to / during the Cement Job	No
Circulation Volume (bbls)	700.00	Gas Present	No
Lost Circulation Prior to Cement Job	No		

TEMPERATURE

Ambient Temperature (°F)	13.00	Slurry Cement Temperature (°F)	80.00
Mix Water Temperature (°F)	80.00	Flow Line Temperature (°F)	80.00

Client: Bonanza Creek Energy

Well: STATE ANTELOPE Y-E-13HNC

Well API: 05-123-50291

Start Date: 1/13/2020

End Date: 1/13/2020

Field Ticket #: FT-23849-B5G9J00201-384337523



FLUID DETAILS

FLUID TYPE	FLUID NAME	DENSITY (ppg)	YIELD (Cu Ft/sk)	H ₂ O REQ. (gals/sk)	PLN TOP FLD (ft)	LENGTH (ft)	VOL (sk)	VOL (Cu Ft)	VOL (bbls)
Spacer / Pre Flush / Flush	IntegraGuard EZ Spacer II	11.0000			0.00				20.0000
Spacer / Pre Flush / Flush	IntegraGuard EZ Spacer II	12.0000			0.00				60.0000
Spacer / Pre Flush / Flush	IntegraGuard EZ Spacer II	11.0000			0.00				20.0000
Tail Slurry	IntegraCem LITE B03-CY02	13.5000	1.4274	7.10	0.00	12,384.00	2,160	3,084.0000	549.1000
Displacement 2	Retarded Water	8.3337			13,244.00	0.00	0	0.0000	20.0000
Displacement Final	Displacement Final (Water)	8.3308			0.00			0.0000	267.0000

FLUID TYPE	FLUID NAME	COMPONENT	CONCENTRATION	UOM
Spacer / Pre Flush / Flush	IntegraGuard EZ Spacer II	SPACER SURFACTANT, SS-267	1.0000	GPB
Spacer / Pre Flush / Flush	IntegraGuard EZ Spacer II	IntegraGuard GW-86	1.2000	PPB
Spacer / Pre Flush / Flush	IntegraGuard EZ Spacer II	WEIGHTING ADDITIVE, W-11	243.3100	PPB
Spacer / Pre Flush / Flush	IntegraGuard EZ Spacer II	RETARDER, R-7C	2.0000	PPB
Spacer / Pre Flush / Flush	IntegraGuard EZ Spacer II	RETARDER, R-31	0.5000	PPB
Tail Slurry	IntegraCem LITE B03-CY02	EXTENDER, XCem-03	15.0000	PCT
Tail Slurry	IntegraCem LITE B03-CY02	RETARDER, SR-20	0.7000	BWOB
Tail Slurry	IntegraCem LITE B03-CY02	CEMENT, FLY ASH (ROCKIES)	31.6500	PCT
Tail Slurry	IntegraCem LITE B03-CY02	IntegraGuard GW-86	0.1500	BWOB
Tail Slurry	IntegraCem LITE B03-CY02	FLUID LOSS, FL-24	0.2000	BWOB
Tail Slurry	IntegraCem LITE B03-CY02	RETARDER, R-6	0.6000	BWOB
Tail Slurry	IntegraCem LITE B03-CY02	IntegraCare A-30	3.3500	PCT
Tail Slurry	IntegraCem LITE B03-CY02	FOAM PREVENTER, FP-25	0.3000	BWOB
Tail Slurry	IntegraCem LITE B03-CY02	CEMENT, ASTM TYPE III	50.0000	PCT
Tail Slurry	IntegraCem LITE B03-CY02	IntegraCare EC-2	3.0000	BWOB
Tail Slurry	IntegraCem LITE B03-CY02	FLUID LOSS, FL-66	0.2000	BWOB
Displacement 2	Retarded Water	BIOCIDE, BIOC11139W	0.0100	GPB
Displacement 2	Retarded Water	RETARDER, SR-61L	0.1000	GPB
Displacement Final	Displacement Final (Water)	BIOCIDE, BIOC11139W	0.0100	GPB

DISPLACEMENT AND END OF JOB SUMMARY

Displaced By	BJ	Amt of Cement Returned / Reversed	15.00
Calculated Displacement Vol (bbls)	265.00	Method Used to Verify Returns	Visual
Actual Displacement Vol (bbls)	265.00	Amt of Spacer to Surface	60.00
Did Float Hold?	Yes	Pressure Left on Casing (psi)	0.00
Bump Plug	No	Amt Bled Back After Job	1.50
Bump Plug Pressure (psi)	3,300.00	Total Volume Pumped (bbls)	874.00
Were Returns Planned at Surface	Yes	Top Out Cement Spotted	No
Cement Returns During Job	Full	Lost Circulation During Cement Job	No

Client: Bonanza Creek Energy

Well: STATE ANTELOPE Y-E-
13HNC

Well API: 05-123-50291

Start Date: 1/13/2020

End Date: 1/13/2020

Field Ticket #: FT-23849-B5G9J00201-384337523



BJ Cementing Event Log

Long String - Cheyenne, WY

SEQ	START DATE / TIME	EVENT	DENSITY (ppg)	PUMP RATE (bpm)	PUMP VOL (bbls)	PIPE PRESSURE (psi)	COMMENTS
1	01/12/2020 20:00	Callout					Crew called out requested on location at 02:30 on 1/13/20
2	01/12/2020 20:30	STEACS Briefing					Steacs briefing
3	01/13/2020 01:30	Arrive on Location					Arrive on location
4	01/13/2020 02:05	STEACS Briefing					Steacs briefing
5	01/13/2020 02:10	Rig Up					Rig up
6	01/13/2020 02:30	STEACS Briefing					Steacs briefing with rig crew
7	01/13/2020 03:00	Prime Up	8.3300	3.00	3.00	150.00	Prime line for job
8	01/13/2020 04:35	Pressure Test	0.0000	0.00	0.00	6000.00	Pressure test iron to 6000
9	01/13/2020 04:38	Pump Spacer	11.0000	5.00	20.00	400.00	Pump spacer at 11ppg
10	01/13/2020 04:40	Pump Spacer	12.0000	5.00	20.00	399.00	Pump spacer at 12ppg
11	01/13/2020 05:44	Pump Spacer	11.0000	5.00	20.00	400.00	Pump spacer at 11ppg
12	01/13/2020 06:00	Pump Tail Cement	13.5000	5.00	549.10	330.00	Pump tail cement 13.5 ppg 2160 sks, 1.4274 ft/sks, 7.10 gal/sks tail to surface
13	01/13/2020 07:34	Wash Pumps and Lines	8.3300	4.00	10.00	10.00	Wash pumps and lines out to the pit
14	01/13/2020 07:45	Drop Top Plug	0.0000	0.00	0.00	0.00	Drop top plug
15	01/13/2020 07:46	Pump Displacement	8.3300	7.00	20.00	500.00	Pump displacement with retarder
16	01/13/2020 08:00	Pump Displacement	8.3300	7.00	170.00	1800.00	Pump displacement started getting space back at 170 away got a total of 15 bbls of cement back to surface
17	01/13/2020 08:30	Pump Displacement	8.3300	3.00	245.00	3000.00	Slow rate last 20 bbls
18	01/13/2020 08:41	Land Plug	8.3300		265.00	3300.00	Land plug bring pressure up to 3500 psi to burst plug and pump 5 bbls over
19	01/13/2020 08:44	Check Floats					Checked floats back to truck got 1.5 bbls back floats held
20	01/13/2020 08:45	STEACS Briefing					Steacs briefing
21	01/13/2020 08:50	Rig Down					Rig down
22	01/13/2020 09:30	STEACS Briefing					Steacs briefing
23	01/13/2020 09:35	Leave Location					Job complete crew leaves location

Client Name: Bonanza Creek Energy

Well Name / API : STATE
ANTELOPE Y-E-13HNC /
05-123-50291

Well MD: 12,481.00

Quote #: QUO-40895-X1L2K9

Plan #: ORD-23849-B5G9J0

Execution #: EXC-23849-B5G9J002

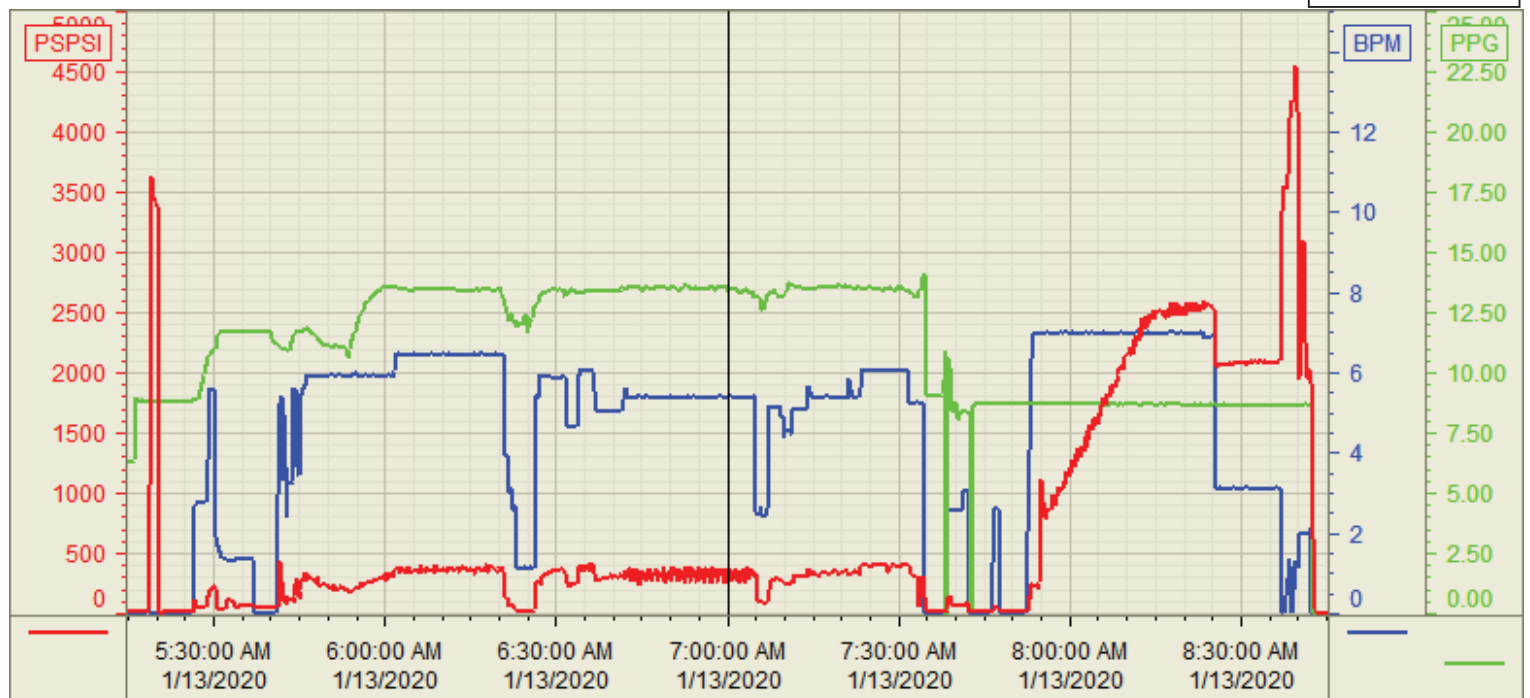


Customer: Bonanza Creek
Well Number: Y-E-13HNC
Lease Info: State Antelope



Print Date/Time

1/16/2020 11:43:34 AM



	Name	Y value	X value/time stamp	Tag name Y
1	PS - Press(Psi)	306.7 i.	1/13/2020 7:00:05 AM i.	Cementer\PS_DISCHARGE_PRESS_DIAL
2	Recirc - Density (PPG)	13.41	1/13/2020 7:00:09 AM	Cementer\DENSITY_ACTUAL_RATE
3	Combined rate (BPM)	5.38 i.	1/13/2020 7:00:05 AM i.	Cementer\Flow_Combined
4				
5				

Source: Control1 11:43:29 AM