



HighPoint Operating Corporation

GRINDE 01-64-05-4956C

API # 05-123-50641

Production

December 24, 2019

Quote #: QUO-40411-W6N6Q5

Execution #: EXC-23376-L5Y5B702



HighPoint Operating Corporation

Attention: Mr. Matthew Schwartz | (303) 312-8142 | mschwartz@hpres.com

HighPoint Operating Corporation | 1099 18th St. | Denver, CO. 80202

Dear Mr. Matthew Schwartz,

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 I | (307) 365-9038 | jason.creel@bjservices.com

Field Office 1716 East Allison Rd., Cheyenne WY, 82007
Phone: (307) 459-6487

Sales Office 999 18th St. Suite 1200 Denver, CO 80202
Phone: (281) 408-2361

BJ Cementing Treatment Report

SERVICE SUPERVISOR	Aldo Espinoza Galindo	RIG	Cade 23
DISTRICT	Cheyenne, WY	COUNTY	WELD
SERVICE	Cementing	STATE / PROVINCE	CO

WELL GEOMETRY

TYPE	ID (in)	OD (in)	WEIGHT (lb/ft)	MD (ft)	TVD (ft)	EXCESS (%)	GRADE
Casing	4.00	4.50	11.60	17,115.00	7,049.00		P-110
Previous Casing	6.37	7.00	23.00	7,407.00	7,049.00		J-55
Open Hole	6.13	0.00	0.00	17,118.00	7,049.00	10.00	

HARDWARE

Bottom Plug Used?	No	Tool Depth (ft)	17,101.00
Top Plug Used?	Yes	Max Casing Pressure - Rated (psi)	10690.00
Top Plug Provided By	Non BJ	Max Casing Pressure - Operated (psi)	5000.00
Top Plug Size	0.500	Pipe Movement	None
Centralizers Used	No	Job Pumped Through	No Manifold
Landing Collar Depth (ft)	17,115	Top Connection Thread	LTC
Tool Type	Float Collar	Top Connection Size	4.5

CIRCULATION PRIOR TO JOB

Well Circulated By	Rig	Mud Density In (ppg)	9.20
Circulation Prior to Job	Yes	PV Mud In	10
Circulation Time (min)	90.00	YP Mud In	9
Circulation Rate (bpm)	5.00	Solids Present at End of Circulation	No
Circulation Volume (bbls)	450.00	Flare Prior to / during the Cement Job	No
Lost Circulation Prior to Cement Job	No	Gas Present	No

TEMPERATURE

Ambient Temperature (°F)	23.00	Slurry Cement Temperature (°F)	60.00
Mix Water Temperature (°F)	60.00	Flow Line Temperature (°F)	62.00

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	Fresh Water	8.3300			1,470.00				40.0000
Tail Slurry	BJCem P50.6.01C	13.5000	1.5930	7.95	3,500.00	13,601.00	900	1434.0000	255.3000
Displacement 1	Retarded Water	8.3300			15,809.00			0.0000	20.0000
Displacement Final	Water + Chems	8.3300			0.00			0.0000	245.7000

FLUID TYPE	FLUID NAME	COMPONENT	CONCENTRATION	UOM
Tail Slurry	BJCem P50.6.01C	IntegraCare EC-2	3.0000	BWOB
Tail Slurry	BJCem P50.6.01C	RETARDER, SR-20	0.2000	BWOB
Tail Slurry	BJCem P50.6.01C	FLUID LOSS, FL-24	0.4000	BWOB
Tail Slurry	BJCem P50.6.01C	EXTENDER, BENTONITE	4.0000	BWOB
Tail Slurry	BJCem P50.6.01C	CEMENT, CLASS G	50.0000	PCT
Tail Slurry	BJCem P50.6.01C	BONDING AGENT, BA-90	3.0000	LBS/SK
Tail Slurry	BJCem P50.6.01C	IntegraGuard GW-86	0.1000	BWOB
Tail Slurry	BJCem P50.6.01C	Flyash (Rockies)	50.0000	PCT
Tail Slurry	BJCem P50.6.01C	FOAM PREVENTER, FP-25	0.3000	BWOB
Displacement Final	Water + Chems	OXYGEN SCAVENGER, OS-30	0.1680	GPB
Displacement Final	Water + Chems	BIOCIDE, BIOC11139W	0.0210	GPB
Displacement Final	Water + Chems	CORROSION INHIBITORS, CI-27	0.2100	GPB

DISPLACEMENT AND END OF JOB SUMMARY

Displaced By	BJ	Amt of Cement Returned / Reversed	0.00
Calculated Displacement Vol (bbls)	265.00	Method Used to Verify Returns	Visual
Actual Displacement Vol (bbls)	265.00	Amt of Spacer to Surface	0.00
Did Float Hold?	Yes	Pressure Left on Casing (psi)	0.00
Bump Plug	Yes	Amt Bled Back After Job	0.50
Bump Plug Pressure (psi)	1750.00	Total Volume Pumped (bbls)	560.30
Were Returns Planned at Surface	No	Top Out Cement Spotted	No
Cement Returns During Job	None	Lost Circulation During Cement Job	No

BJ Cementing Event Log

Long String - Cheyenne, WY - Aldo Espinoza Galindo

SEQ	START DATE / TIME	EVENT	DENSITY (ppg)	PUMP RATE (bpm)	PUMP VOL (bbls)	PIPE PRESSURE (psi)	COMMENTS
1	12/23/2019 17:00	Callout					Called out
2	12/23/2019 21:30	Arrive on Location					On location
3	12/23/2019 22:00	Rig Up					Rig up equipment
4	12/23/2019 23:45	Other (See comment)					Safety meeting
5	12/24/2019 00:10	Pressure Test	8.3400	0.20	0.20	5000.00	Pressure test lines to 5000 psi
6	12/24/2019 00:15	Pump Spacer	8.3400	5.60	40.00	1000.00	Pump 40 bbl of water spacer ahead of cement
7	12/24/2019 00:23	Pumping Cement	13.5000	5.60	255.30	400.00	Pump 900 sk / 255.3 bbl slurry at 13.5#/yield 1.59/ water 7.95
8	12/24/2019 01:25	Drop Top Plug					Drop top plug / wash pumping lines to pit, had some trouble starting displacement due to loss of prime on pumps
9	12/24/2019 01:40	Pump Displacement	8.3400	5.60	20.00	200.00	Start displacement with 20 bbl of water retarder,
10	12/24/2019 01:53	Pump Displacement	8.3400	5.60	30.00	560.00	50 bbl on to displacement, with biocide, oxygen scavenger and corrosion inhibitor
11	12/24/2019 02:09	Pump Displacement	8.3400	5.60	50.00	1300.00	100 bbl on to displacement
12	12/24/2019 02:15	Pump Displacement	8.3400	5.00	50.00	1400.00	150 bbl on to displacement
13	12/24/2019 02:29	Pump Displacement	8.3400	5.60	50.00	1500.00	200 bbl on to displacement
14	12/24/2019 02:37	Pump Displacement	8.3400	3.00	40.00	1060.00	240 bbl gone, slow down to 3 bpm to land plug
15	12/24/2019 02:48	Land Plug				1250.00	265 bbl land plug 1250 psi to 1750 psi
16	12/24/2019 02:49	Other (See comment)	8.3400	2.00	1.50	1750.00	pump 1.5 bbl to wet shoe, getting 3000 psi
17	12/24/2019 02:51	Check Floats					check floats .5 bbl back, calculated top of cement 2432'
18	12/24/2019 02:53	Rig Down					rig equipment down, thanks



JobMaster Program Version 4.02C1
Job Number:
Customer: **HIGHPOINT ENERGY**
Well Name: **GRINDE 01-64-05-4956C**

