



HighPoint Operating Corporation

GRINDE 01-64-05-4841B

API # 05-123-49721

Production

November 26, 2019

Quote #: QUO-39304-L9V7L6

Execution #: EXC-22717-D4P8G202



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	Hector Montoya	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
Previous Casing	6.37	7.00	23.00	7,397.00	7,055.00		J-55
Casing	4.00	4.50	11.60	17,098.00	7,055.00		P-110
Open Hole	6.13	0.00	0.00	17,105.00	7,055.00	10.00	

HARDWARE

Bottom Plug Used?	No	Landing Collar Depth (ft)	17,084
Top Plug Used?	Yes	Max Casing Pressure - Rated (psi)	10690.00
Top Plug Provided By	Non BJ	Max Casing Pressure - Operated (psi)	8552.00
Top Plug Size	4.500	Job Pumped Through	Manifold
Centralizers Used	Yes	Top Connection Thread	BTCs
Centralizers Quantity	119.00	Top Connection Size	4.5
Centralizers Type	Rigid		

CIRCULATION PRIOR TO JOB

Well Circulated By	Rig	PV Mud Out	7
Circulation Prior to Job	Yes	YP Mud In	8
Circulation Time (min)	60.00	YP Mud Out	8
Circulation Rate (bpm)	7.00	Solids Present at End of Circulation	No
Circulation Volume (bbls)	420.00	10 sec SGS	3
Lost Circulation Prior to Cement Job	No	10 min SGS	7
Mud Density In (ppg)	9.10	Flare Prior to / during the Cement Job	No
Mud Density Out (ppg)	9.10	Gas Present	No
PV Mud In	7		

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Well: GRINDE #01-64-05-4841B

Well API: 05-123-49721

Start Date: 11/26/2019

End Date: 11/26/2019



TEMPERATURE

Ambient Temperature (°F)	27.00	Slurry Cement Temperature (°F)	60.00
Mix Water Temperature (°F)	58.00	Flow Line Temperature (°F)	110.00

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	13,590.00	905	1442.0000	256.8000
Displacement 1	Retarded Water	8.3300			15,798.00			0.0000	20.0000
Displacement Final	Water + Chems	8.3300			0.00			0.0000	245.5000

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	Flyash (Rockies)	50.0000	PCT
Tail Slurry	BJCem P50.6.01C	CEMENT, CLASS G	50.0000	PCT
Tail Slurry	BJCem P50.6.01C	FLUID LOSS, FL-24	0.4000	BWOB
Tail Slurry	BJCem P50.6.01C	RETARDER, SR-20	0.2000	BWOB
Tail Slurry	BJCem P50.6.01C	BONDING AGENT, BA-90	3.0000	LBS/SK
Tail Slurry	BJCem P50.6.01C	EXTENDER, BENTONITE	4.0000	BWOB
Tail Slurry	BJCem P50.6.01C	FOAM PREVENTER, FP-25	0.3000	BWOB
Tail Slurry	BJCem P50.6.01C	IntegraGuard GW-86	0.1000	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

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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)	266.00	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	1.00
Bump Plug Pressure (psi)	2000.00	Total Volume Pumped (bbls)	562.00
Were Returns Planned at Surface	Yes	Top Out Cement Spotted	No
Cement Returns During Job	None	Lost Circulation During Cement Job	No

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Corporation

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Start 11/26/2019
Date:

End 11/26/2019
Date:



BJ Cementing Event Log

Long String - Cheyenne, WY - Hector Montoya

SEQ	START DATE / TIME	EVENT	DENSITY (ppg)	PUMP RATE (bpm)	PUMP VOL (bbls)	PIPE PRESSURE (psi)	COMMENTS
1	11/26/2019 07:00	Callout					BJ Crew gets called out
2	11/26/2019 08:00	Arrive on Location					Arrive safely on location
3	11/26/2019 10:00	STEACS Briefing					Discuss hazards of rigging up
4	11/26/2019 10:30	Rig Up					Rig Up
5	11/26/2019 11:30	Other (See comment)					Wait on rig to run casing
6	11/26/2019 15:30	STEACS Briefing					BJ Crew and Rig Crew discuss hazards of pumping the job
7	11/26/2019 16:08	Prime Up					Fill lines
8	11/26/2019 16:11	Pressure Test					Pressure test to 4000psi
9	11/26/2019 16:12	Pump Spacer	8.3300	5.00	40.00	750.00	Pump 40bbl w/ blue dye
10	11/26/2019 16:25	Pump Tail Cement	13.5000	6.00	256.00	600.00	256bbl at 13.5ppg, 905sks BJ Cem P50.6.01C, y-1.59, gps-7.95, mix water- 171bbl. Estimated Height of Cement 15,238ft. Estimated Top of Tail 1867ft
11	11/26/2019 17:11	Wash Pumps and Lines					Wash pump to the pit
12	11/26/2019 17:21	Drop Top Plug					Customer witnesses Top Plug leave
13	11/26/2019 17:22	Pump Displacement	8.3300	7.00	246.00	2100.00	Total displacement 246bbl. First 20bbl SR-61L, CI-27, OS-30, Biocide
14	11/26/2019 17:57	Pump Displacement	8.3300	3.00	20.00	1400.00	Slow rate last 20bbl to land plug
15	11/26/2019 18:03	Land Plug				2000.00	Land Plug, Final Circulating pressure was 1400psi took to 2000psi
16	11/26/2019 18:05	Other (See comment)				3500.00	Burst plug at 3500psi
17	11/26/2019 18:08	Pump Displacement	8.3300	3.00	2.50	1400.00	Pump 2.5bbl, shut down
18	11/26/2019 18:12	Check Floats					Floats Held, 1bbl back
19	11/26/2019 18:14	Rig Down					Rig Down
20	11/26/2019 19:30	Leave Location					Leave location

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Well Name / API: GRINDE #01-64-05-4841B / 05-123-49721

Well 17090
MD:



Quote #: QUO-39304-L9V7L6

Plan #: ORD-22717-D4P8G2

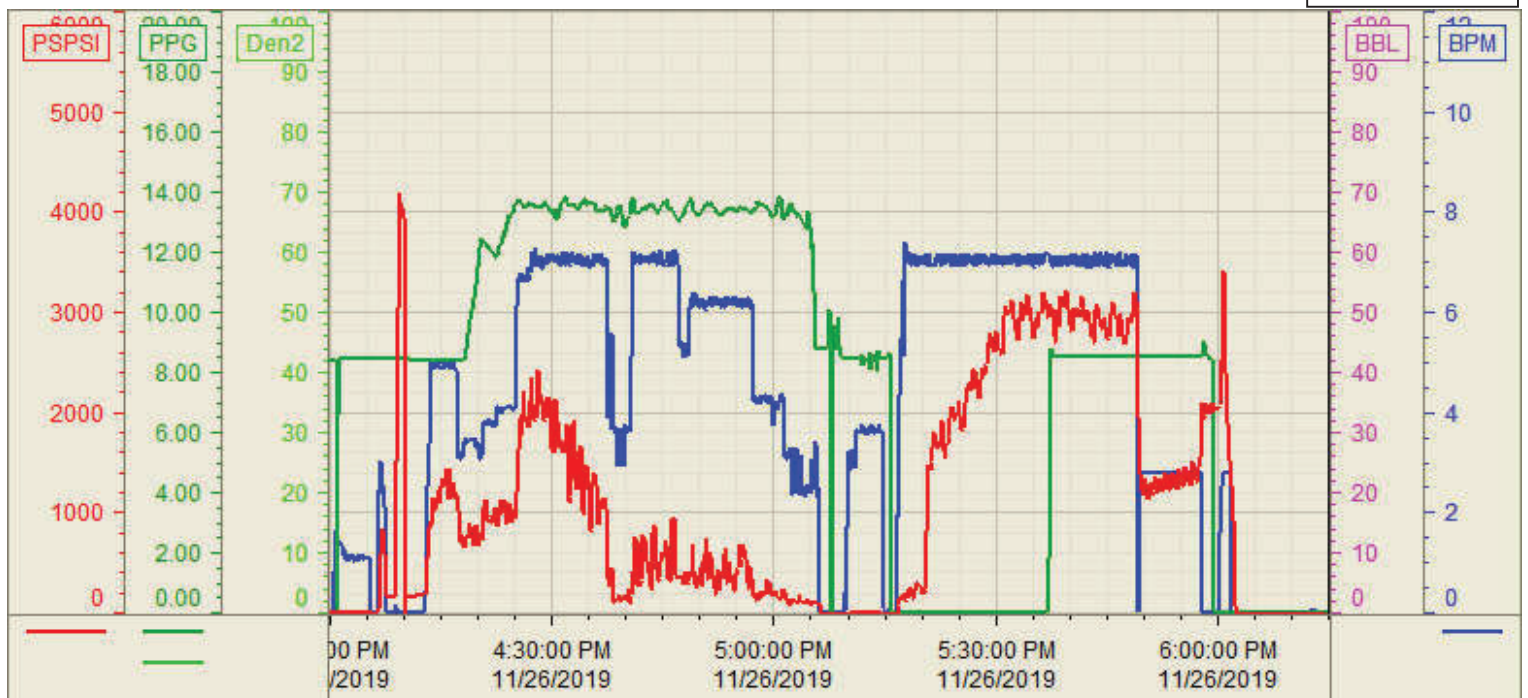
Execution #: EXC-22717-D4P8G202

Customer: HIGH POINT
Well Number: 01-64-05-4841B
Lease Info: GRINDE



Print Date/Time

11/26/2019 6:16:14 PM



	Name	Y value	X value/time stamp	Tag name Y
1	PPSI		11/26/2019 6:15:00 PM i.	CementPS_DISCHARGE_PRESS_DIAL
2	Den - Density (PPG)	0.01	11/26/2019 6:15:00 PM	CementDENSITY_ACTUAL_RATE
3	BPM	0.00	11/26/2019 6:15:03 PM	CementFlow_Combined
4	Den2 - Discharge Density (F	-0.24	11/26/2019 6:15:03 PM	CementDENSITY2_ACTUAL_RATE
5				

Source: Control1 6:15:49 PM