



Bayswater Exploration & Production, LLC

G & D Hanks M-27-28HN

API # 05-123-46027

Production

June 24, 2019

Quote #: QUO-32781-F7F9Z4

Execution #: EXC-18961-X1X9K302



Bayswater Exploration & Production, LLC

Attention: Mr. Trevor Smith | (720) 335-9045 | trevor.smith@iptenergyservices.com

Bayswater Exploration & Production | 730 17th Street, Suite 610 | Denver, CO. 80202

Dear Mr. Trevor Smith,

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) 256-3006 | jason.creel@bjsservices.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	John Cook	RIG	True 38
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 (%)
Previous Casing	8.92	9.63	36.00	1,550.00	1,550.00	
Casing	4.78	5.50	20.00	18,260.00	7,000.00	
Open Hole	8.50	0.00	0.00	18,279.00	7,000.00	5.00

HARDWARE

Bottom Plug Used?	No	Landing Collar Depth (ft)	18,236
Top Plug Used?	Yes	Pipe Movement	None
Top Plug Provided By	Non BJ	Job Pumped Through	Manifold
Top Plug Size	5.500	Top Connection Thread	Buttress
Centralizers Used	No	Top Connection Size	5.5

CIRCULATION PRIOR TO JOB

Well Circulated By	Rig	YP Mud In	9
Circulation Prior to Job	Yes	YP Mud Out	9
Circulation Time (min)	3.00	Solids Present at End of Circulation	No
Circulation Rate (bpm)	10.00	10 sec SGS	12
Circulation Volume (bbls)	1600.00	10 min SGS	19
Lost Circulation Prior to Cement Job	No	30 min SGS	25
Mud Density In (ppg)	10.30	Flare Prior to / during the Cement Job	No
Mud Density Out (ppg)	10.30	Gas Present	Yes
PV Mud In	22	Gas Units	1600
PV Mud Out	22		

TEMPERATURE

Ambient Temperature (°F)	55.00	Flow Line Temperature (°F)	110.00
Mix Water Temperature (°F)	60.00		

Client: Bayswater Exploration & Production, LLC

Well: G & D HANKS M-27-28HN

Well API: 05-123-46027

Start Date: 6/23/2019

End Date: 6/24/2019

Field Ticket #: FT-18961-X1X9K30201-589503475



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	12.0000			0.00				80.0000
Spacer / Pre Flush / Flush	IntegraGuard EZ Spacer II	11.5000			0.00				26.0000
Spacer / Pre Flush / Flush	IntegraGuard EZ Spacer II	11.0000			0.00				26.0000
Lead Slurry	BJCem P100.3.01C	13.2000	1.8295	9.87	0.00	7,062.00	955	1748.0000	311.2000
Tail Slurry	BJCem P50.6.02C	13.5000	1.4772	7.45	7,062.00	11,216.00	1840	2719.0000	484.1000
Displacement 2	Retarded Water w/ Clay Protection & Biocide	8.3331				0.00	0	0.0000	10.0000
Displacement Final	Water w/ Clay Protection & Biocide	8.3331			0.00			0.0000	394.5000

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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	RETARDER, R-31	0.5000	PPB
Spacer / Pre Flush / Flush	IntegraGuard EZ Spacer II	WEIGHTING ADDITIVE, W-11	243.3100	PPB
Spacer / Pre Flush / Flush	IntegraGuard EZ Spacer II	IntegraGuard GW-86	1.2000	PPB
Spacer / Pre Flush / Flush	IntegraGuard EZ Spacer II	RETARDER, R-7C	2.0000	PPB
Lead Slurry	BJCem P100.3.01C	IntegraGuard GW-86	0.1000	BWOB
Lead Slurry	BJCem P100.3.01C	FOAM PREVENTER, FP-25	0.3000	BWOB
Lead Slurry	BJCem P100.3.01C	FLUID LOSS, FL-66	0.5000	BWOB
Lead Slurry	BJCem P100.3.01C	CEMENT, ASTM TYPE III	100.0000	PCT
Lead Slurry	BJCem P100.3.01C	RETARDER, SR-20	0.7000	BWOB
Lead Slurry	BJCem P100.3.01C	IntegraCare EC-2	3.0000	BWOB
Tail Slurry	BJCem P50.6.02C	FLUID LOSS, FL-66	0.2000	BWOB
Tail Slurry	BJCem P50.6.02C	EXTENDER, BENTONITE	2.0000	BWOB
Tail Slurry	BJCem P50.6.02C	IntegraGuard GW-86	0.1000	BWOB
Tail Slurry	BJCem P50.6.02C	FOAM PREVENTER, FP-25	0.3000	BWOB
Tail Slurry	BJCem P50.6.02C	CEMENT, CLASS G	50.0000	PCT
Tail Slurry	BJCem P50.6.02C	Flyash (Rockies)	50.0000	PCT
Tail Slurry	BJCem P50.6.02C	RETARDER, SR-20	0.0700	BWOB
Displacement 2	Retarded Water w/ Clay Protection & Biocide	ResCare CS-2	0.0800	GPB
Displacement 2	Retarded Water w/ Clay Protection & Biocide	RETARDER, SR-61L	0.1000	GPB
Displacement 2	Retarded Water w/ Clay Protection & Biocide	BIOCIDE, BIOC11139W	0.0100	GPB
Displacement Final	Water w/ Clay Protection & Biocide	ResCare CS-2	0.0800	GPB
Displacement Final	Water w/ Clay Protection & Biocide	BIOCIDE, BIOC11139W	0.0100	GPB

DISPLACEMENT AND END OF JOB SUMMARY

Displaced By	BJ	Method Used to Verify Returns	Visual
Did Float Hold?	Yes	Amt of Spacer to Surface	80.00
Bump Plug	Yes	Pressure Left on Casing (psi)	3400.00
Bump Plug Pressure (psi)	2300.00	Amt Bled Back After Job	5.00
Were Returns Planned at Surface	Yes	Total Volume Pumped (bbls)	404.80
Cement Returns During Job	Full	Top Out Cement Spotted	No
Amt of Cement Returned / Reversed	55.00	Lost Circulation During Cement Job	No

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BJ Cementing Event Log

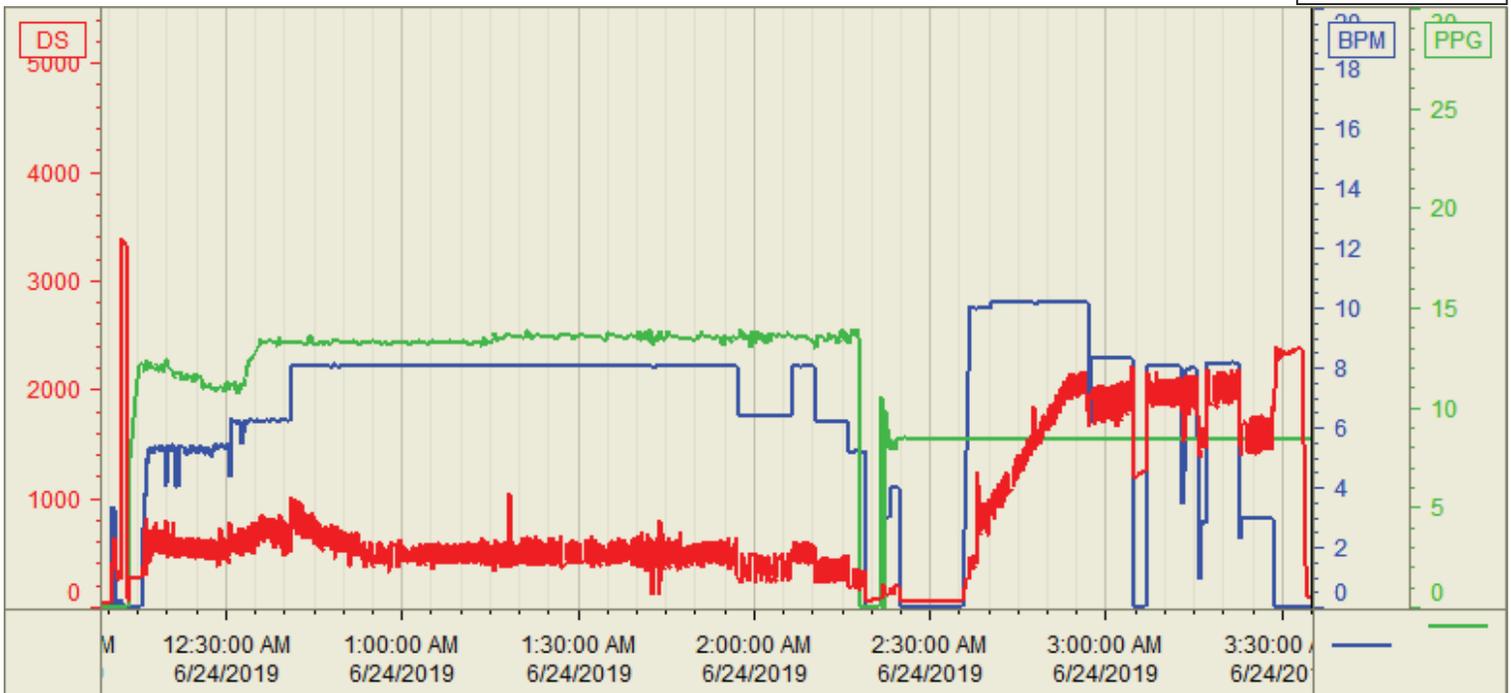
Long String - Cheyenne, WY - John Cook

SEQ	START DATE / TIME	EVENT	DENSITY (ppg)	PUMP RATE (bpm)	PUMP VOL (bbls)	PIPE PRESSURE (psi)	COMMENTS
1	06/23/2019 16:00	Callout					BJ crew called out for job for on location time of 22:00.
2	06/23/2019 16:00	Depart for Location					Crew departs for location.
3	06/23/2019 17:00	Arrive on Location					Crew arrives on location.
4	06/23/2019 18:30	Rig Up					Crew performs prejob steacs and begins rig up.
5	06/23/2019 19:00	STEACS Briefing					Rig crew and BJ crew perform prejob meeting to discuss job and safety.
6	06/23/2019 23:30	Other (See comment)					Rig crew and BJ crew perform prejob meeting to discuss job and safety.
7	06/24/2019 00:21	Pressure Test					Crew performed pressure test to 5000 psi
8	06/24/2019 00:23	Pump Spacer	11.5000	5.00	80.00	700.00	Pumped 80 bbls of EZ II spacer train 28 bbls at 12 ppg, 26 bbls at 11.5 ppg and 26 bbls at 11 ppg.
9	06/24/2019 00:26	Pump Lead Cement	13.2000	8.00	311.00	750.00	Pumped 311 bbls of lead cement at 13.2 ppg, 1.82 yield and 9.87 water.
10	06/24/2019 00:45	Pump Tail Cement	13.5000	8.00	484.00	900.00	Pumped 484.1 bbls of tail cement at 13.5 ppg, 1.47 yield and 7.45 water.
11	06/24/2019 01:26	Other (See comment)					Shutdown.
12	06/24/2019 02:18	Wash Pumps and Lines					Wash pumps and lines.
13	06/24/2019 02:20	Drop Top Plug					Drop top plug.
14	06/24/2019 02:26	Pump Displacement	8.3300	10.00	404.80	2000.00	Pump 404.8 bbls of water.
15	06/24/2019 02:27	Cement Back-to-Surface	8.3300	8.00	350.00	2100.00	55 bbls back to surface.
16	06/24/2019 03:27	Pump Displacement	8.3300	3.00	385.00	2300.00	Slow rate at 385 bbls away to 3 bpm.
17	06/24/2019 03:34	Land Plug	8.3300	3.00	404.80	2300.00	Landed plug at 2300 psi. Took it up to 3400 psi.
18	06/24/2019 03:39	Other (See comment)					Check floats. 5 bbls back
19	06/24/2019 03:43	STEACS Briefing					Crew briefing before rig down.
20	06/24/2019 03:50	Rig Down					Rig down.
21	06/24/2019 04:00	Leave Location					Depart location.

Customer: Bayswater
 Well Number: M-27-28HN
 Lease Info: G&D Hanks



Print Date/Time
 6/24/2019 4:21:06 AM



	Name	Y value	X value/time stamp	Tag name Y
1	DS - Press (PSI)	122	6/24/2019 3:35:01 AM	CementerDS_DISCHARGE_PRESS_DIAL
2	Density (PPG)	8.39	6/24/2019 3:35:00 AM	CementerDENSITY_ACTUAL_RATE
3	Combined Rate (BPM)	0.00	6/24/2019 3:35:00 AM	CementerFlow_Combined
4				
5				

Source: Control1 4:21:00 AM