BJ

Great Western Operating Company, LLC
Surface Post Job Report

Postle IC 09-299HN (05-123-46041)

S:11 T:3N R:68W Weld CO

BJ

Great Western Operating Company, LLC

Great Western Operating Company, LLC | 1801 Broadway, Suite 500 | Denver, CO 80202

Dear Great Western Operating Company,

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,
Jacob Ojeda
Field Engineer I | (763) 516-3012 | jacob.ojeda@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

Cementing Treatment

BJ

Start Date	10/18/2017	**Well**	Postle IC 09-299HN
End Date	10/22/2017	**County**	Adams
Client	GREAT WESTERN OPERATING COMPANY, LLC	**State/Province**	CO
Client Field Rep	Roberts, Dale	**API**	05-001-46041
Service Supervisor	Casciato, Luke	**Rig**	Cartel
Field Ticket No.	2084	**Type of Job**	Surface
District	Cheyenne, WY		

WELL GEOMETRY

Type	ID (in)	OD (in)	Wt. (lb/ft)	MD (ft)	TVD (ft)	Excess(%)	Grade	Thread
Open Hole	13.50			1,528.00	1,527.90	25.00		
Casing	8.92	9.63	36.00	1,528.00	1,527.90		J-55	LTC

Shoe Length (ft): 45

HARDWARE

Bottom Plug Used?	No	**Top Plug Size**	9.625
Top Plug Used?	Yes	**Centralizers Used**	Yes
Top Plug Provided By	Costumer	**Landing Collar Depth (ft)**	1,486

CIRCULATION PRIOR TO JOB

Well Circulated By	Rig	**Mud Density In (ppg)**	8.5
Circulation Prior to Job	Yes	**Mud Density Out (ppg)**	8.5
Circulation Time (min)	30	**Solids Present at End of Circulation**	No
Circulation Rate (bpm)	5	**Flare Prior to/during the Cement Job**	No
Circulation Volume (bbls)	150	**Gas Present**	No
Lost Circulation Prior to Cement Job	No		

TEMPERATURE

Ambient Temperature (^{o}F)	25	**Mix Water Temperature (^{o}F)**	55

Cementing Treatment

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BJ FLUID DETAILS

Fluid Type	Fluid Name	Density (ppg)	Yield (Cu Ft/sk)	H2O Req. (gals/sk)	Vol (sk)	Vol (Cu Ft)	Vol (bbls)
Spacer / Pre Flush / Flush	Water	8.3300					20.0000
Tail Slurry	S100-22	14.5000	1.3901	6.78	672	934.0000	166.3000
Displacement Final	Water	8.3300					112.7000

Fluid Type	Fluid Name	Component	Concentration	UOM
Tail Slurry	S100-22	CEMENT, ASTM TYPE III	100.00	PCT
Tail Slurry	S100-22	FOAM PREVENTER, FP-13L	0.03	GALS/SK

TREATMENT SUMMARY

Time	Fluid	Rate (bpm)	Fluid Vol. (bbls)	Pipe Pressure (psi)
3:29	Water	5.00	20.00	180
3:35	S100-22	6.00	166.30	200
4:07	Water	6.00	112.70	500

DISPLACEMENT AND END OF JOB SUMMARY

Displaced By	BJ	**Cement returns During Job**	Full
Calculated Displacement Volume (bbls)	114	**Amount of Cement Returned/Reversed**	24
Actual Displacement Volume (bbls)	114	**Method Used to Verify Returns**	Visual
Did Float Hold?	Yes	**Amount of Spacer to Surface**	20
Bump Plug	Yes	**Pressure Left on Casing (psi)**	0
Bump Plug Pressure (psi)	1200	**Total Volume Pumped (bbls)**	300
Were Returns Planned at Surface	Yes	**Top Out Cement Spotted**	No
		Lost Circulation During Cement Job	No
		Casing Pressure Test	2400 psi

BJ

Customer Name Great Western
Well Name Postle IC 09-299HN
Job Type Surface

District Cheyenne
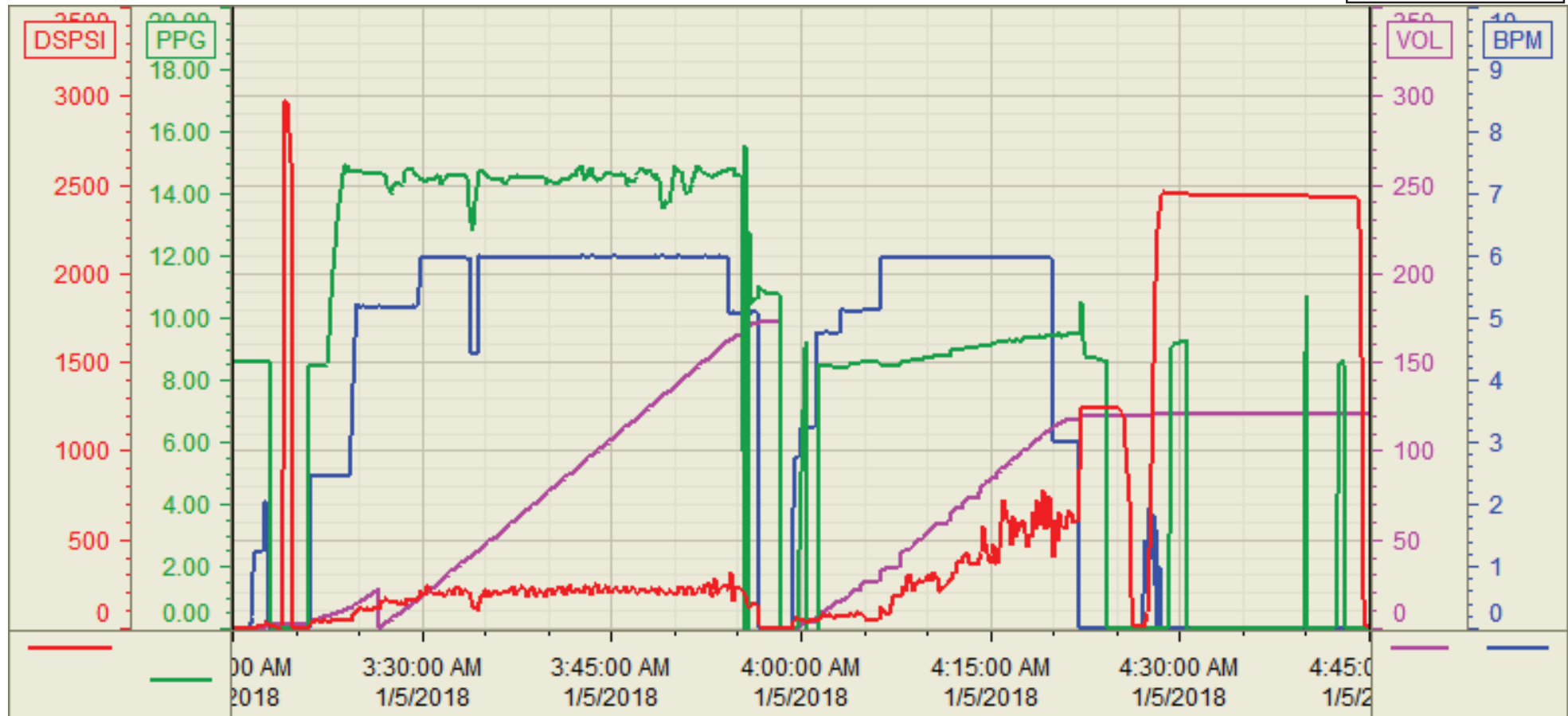**Supervisor** Casciato, Luke
Engineer

Seq No.	Start Date/Time	Category	Event	Equipment	Event ID	Density (lb/gal)	Pump Rate (bpm)	Pump Vol (bbls)	Pipe Pressure (psi)	Comments
1	1/4/2018 19:00		CALLOUT		1					CREW WAS CALLED OUT TO GREAT WESTERN REQUESTED ON LOCATION 1/5/2018 01:00.
2	1/5/2018 0:00		STEACS		U					CREW CONDUCTED JOURNEY MANAGEMENT.
3	1/5/2018 0:15		DEPART							CREW HEADS TO LOCATION.
4	1/5/2018 0:40		ARRIVE							CREW ARRIVES ON LOCATION.
5	1/5/2018 1:00		STEACS							CREW CONDUCTED STEACS PRIOR TO RIG UP.
6	1/5/2018 1:15		RIG UP		50					CREW RIGGED UP ALL IRON.
7	1/5/2018 2:30		STEACS							CREW CONDUCTED STEACS PRIOR TO CEMENT JOB.
8	1/5/2018 3:25		START JOB							CREW BEGINS JOB.
9	1/5/2018 3:26		FILL LINES			8.33	2	2	100	FILLED LINES FOR PRESSURE TEST.
10	1/5/2018 3:27		PRESSURE TEST		54				3000	PRESSURE TESTED ALL LINES TO 3000PSI.
11	1/5/2018 3:29		SPACER			8.33	5	20	180	PUMPED 20BBL OF H2O WITH DYE, FULL RETURNS.
12	1/5/2018 3:35		PRIMARY			14.5	5	166	180	MIXED AND PUMPED 166BBL OF PRIMARY CEMENT AT 14.5PPG (672SKS, 1.39YD, 6.67GL/SK) FULL RETURNS.
13	1/5/2018 4:04		SHUTDOWN							SHUTDOWN TO DROP TOP PLUG.
14	1/5/2018 4:07		DISPLACEMENT			8.33	6	104	700	PUMPED 104BBL OF H2O AT 6BPM. FULL RETURNS.
15	1/5/2018 4:29		SLOW RATE			8.33	3	10	500	SLOWED RATE TO LAND TOP PLUG.
16	1/5/2018 4:31		SHUTDOWN							LANDED PLUG AT CALCULATED DISPLACEMENT OF 114BBL, 24BBL OF CEMENT TO SURFACE. LANDED AT 700PSI, BUMPED TO 1200PSI.
17	1/5/2018 4:34		CHECK FLOATS		68					FLOATS HELD, .5BBL BACK.
18	1/5/2018 4:37		CASING TEST						2400	15MIN CASING TEST AT 2400PSI.
19	1/5/2018 4:52		CHECK FLOATS		68					FLOATS HELD, .5BBL BACK.
20	1/5/2018 5:00		STEACS							CREW CONDUCTED STEACS PRIOR TO RIG DOWN.
21	1/5/2018 5:15		RIG DOWN		73					CREW RIGGED DOWN ALL IRON AND FITTINGS.
22	1/5/2018 5:45		STEACS							CREW CONDUCTED JOURNEY MANAGEMENT.
23	1/5/2018 6:00		DEPART							CREW HEADS TO CAMP.
24										
25										
26										
27										
28										
29										
30										
31										
32										
33										

Customer: GREAT WESTERN
Well Number: 09-299HN
Lease Info: POSTLE IC

BJ

Print Date/Time
1/5/2018 4:51:20 AM

	Name	Y value	X value/time stamp	Tag name Y
1	DS - Press(PSI)	9.3 i.	1/5/2018 4:45:00 AM i.	Cementer\DS_DISCHARGE_PRESS_DIAL
2	Recirc - Density (PPG)	0.01	1/5/2018 4:45:02 AM	Cementer\DENSITY_ACTUAL_RATE
3	Down Hole Total (BBLS)	121.1	1/5/2018 4:45:02 AM	Cementer\DOWNHOLE_FLOW_TOTAL
4	Combined rate (BPM)	0.00	1/5/2018 4:45:02 AM	Cementer\Flow_Combined
5				

Source: Control1   4:51:14 AM