



Crestone Peak Resources Operating

Lochbuie Land 2K-25H-D166

API # 05-123-47988

Surface

12/15/2018

Quote #: 24275

Execution #: 13987



Crestone Peak Resources Operating

Attention: Mr. Jerry Thorstad | (303) 829-8179 | Jerry.Thorstad@Crestonepr.com

Crestone Peak Resources Operating | 10188 E I25 Frontage Rd. | Firestone, CO. 80504

Dear Mr. Jerry Thorstad,

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) 256-0306 | 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	Hector Montoya	SERVICE	Cementing
CLIENT FIELD REPRESENTATIVE	CRESTONE	COUNTY	WELD
DISTRICT	Cheyenne, WY	STATE / PROVINCE	CO

WELL GEOMETRY

TYPE	OD (in)	ID (in)	WEIGHT (lb/ft)	MD (ft)	TVD (ft)	EXCESS (%)
Open Hole	0.00	13.50	0.00	2,397.00	2,369.00	25.00
Casing	9.63	8.84	40.00	2,383.00	2,355.00	

HARDWARE

Landing Collar Depth (ft)	2,362	Job Pumped Through	Manifold
Max Casing Pressure - Rated (psi)	3520.00	Top Connection Thread	LTC
Max Casing Pressure - Operated (psi)	2860.00	Top Connection Size	9.625

CIRCULATION PRIOR TO JOB

Well Circulated By	Rig	Mud Density In (ppg)	8.90
Circulation Prior to Job	Yes	Mud Density Out (ppg)	8.90
Circulation Time (min)	90.00	Solids Present at End of Circulation	No
Circulation Rate (bpm)	7.00	Flare Prior to / during the Cement Job	No
Circulation Volume (bbls)	300.00	Gas Present	No
Lost Circulation Prior to Cement Job	No		

TEMPERATURE

Ambient Temperature (°F)	35.00	Slurry Cement Temperature (°F)	65.00
Mix Water Temperature (°F)	60.00	Flow Line Temperature (°F)	60.00

FLUID DETAILS

FLUID TYPE	FLUID NAME	DENSITY (ppg)	YIELD (Cu Ft/sk)	H ₂ O REQ (gals/sk)	VOL (sk)	VOL (Cu Ft)	VOL (bbls)
Tail Slurry	S100.3.XC	14.2000	1.4614	7.34	1005	1468.0000	261.4000
Displacement Final	Displacement	8.3337				0.0000	179.0000

FLUID TYPE	FLUID NAME	COMPONENT	CONCENTRATION	UOM
Tail Slurry	S100.3.XC	CEMENT, ASTM TYPE III	100.0000	PCT

DISPLACEMENT AND END OF JOB SUMMARY

Displaced By	BJ	Amt of Cement Returned / Reversed	55.00
Calculated Displacement Vol (bbls)	179.00	Method Used to Verify Returns	Visual
Actual Displacement Vol (bbls)	17.00	Amt of Spacer to Surface	10.00
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)	1290.00	Total Volume Pumped (bbls)	465.00
Were Returns Planned at Surface	Yes	Top Out Cement Spotted	No
Cement Returns During Job	Full	Lost Circulation During Cement Job	No

Client Name: Crestone Peak Resources
Operating

Start Date: 12/15/2018

Well: LOCHBUIE LAND 2K-25H-D166

End Date: 12/15/2018

Well API: 05-123-47988

Field Ticket #: FT-13987-Q058B80202-61278



BJ Cementing Event Log

Surface - Cheyenne, WY - Hector Montoya

SEQ	START DATE / TIME	EVENT	DENSITY (ppg)	PUMP RATE (bpm)	PUMP VOL (bbls)	PIPE PRESSURE (psi)	COMMENTS
1	12/15/2018 14:00	Callout					BJ Crew gets called out
2	12/15/2018 15:00	STEACS Briefing					BJ Crew talks about the hazards of driving to location
3	12/15/2018 15:30	Arrive on Location					BJ Crew safely arrives on location
4	12/15/2018 17:30	STEACS Briefing					BJ Crew talks about the hazards of rigging up
5	12/15/2018 18:00	Rig Up					Rig Up
6	12/15/2018 19:00	STEACS Briefing					BJ Crew and Rig crew talk about the hazards of pumping the job
7	12/15/2018 19:05	Prime Up	8.3300	2.00	5.00	80.00	Fill Lines
8	12/15/2018 19:06	Pressure Test					Pressure test to 3000psi
9	12/15/2018 19:08	Pump Spacer	8.3300	3.00	20.00	120.00	Pump 20bbl Red dye
10	12/15/2018 19:11	Pump Tail Cement	14.2000	5.00	262.00	240.00	Pump 262bbl Tail cement at 14.2ppg, 1010sks of S100.3.XC, yield 1.46, 7.34gps, 176bbl mix water
11	12/15/2018 19:20	Drop Top Plug					Customer Watches Plug Leave
12	12/15/2018 20:22	Pump Displacement	8.3300	7.00	169.00	900.00	Pump Total 179bbl Fresh Water displacement
13	12/15/2018 20:58	Pump Displacement	8.3300	4.00	10.00	1380.00	Slow rate las t 10bbl to Land the plug
14	12/15/2018 21:01	Land Plug					Plug lands, Final circulating pressure was 780psi took to 1380psi
15	12/15/2018 21:06	Check Floats					Held Pressure 5minutes, Floats held, 1bbl back to the truck
16	12/15/2018 21:08	STEACS Briefing					BJ Crew talks about the hazards of rigging down
17	12/15/2018 21:30	Rig Down					Rig down
18	12/15/2018 22:30	Leave Location					BJ Crew departs location
19	12/15/2018 23:00	Other (See comment)					Got 55bbl of cement to surface, plug landed at calculated, floats held, 1bbl back to the truck.... Visually verified Previous well: LOCHBUIE LAND 2L-25H-D166 Cement was at Surface and did not drop



CRESTONE
2K-25H-D166 - - Surface

