

HALLIBURTON

iCem[®] Service

CRESTONE PEAK RESOURCES-EBUS

State Pikes 4-65 36-31-32 1AH Production

Job Date: Thursday, February 10, 2022

Sincerely,

Meghan Van Zyl

Legal Notice

Disclaimer:

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1.0 Cementing Job Summary

1.1 Executive Summary

Halliburton appreciates the opportunity to perform the cementing services on the **State Pikes 4-65 36-31-32 1AH** cement **Production** casing job. A pre-job safety meeting was held before the job where details of the job were discussed, potential safety hazards were reviewed, and environmental compliance procedures were outlined.

Approximately 45 bbls of cement were returned to surface.

Halliburton maintains a continuous quality improvement process and appreciates any comments or suggestions that you may have. Halliburton again thanks you for the opportunity to perform service work on this well. We hope to be your solutions provider for future projects.

Respectfully,

Halliburton Fort Lupton

Sold To #: 377645	Ship To #: 9100499	Quote #:	Sales Order #: 0907667870
Customer: CRESTONE PEAK RESOURCES-EBUS		Customer Rep: Darrell Smith	
Well Name: STATE PIKES 4-65 36-31-32		Well #: 1AH	API/UWI #:
Field:	City (SAP): FOXFIELD	County/Parish: Arapahoe	State: COLORADO
Legal Description:			
Contractor: ENSIGN DRLG		Rig/Platform Name/Num: ENSIGN 161	
Job BOM: 7523 7523			
Well Type: OIL			
Sales Person: HALAMERICA\HX41066		Srvc Supervisor: Nicholas Roles	

Job

Formation Name			
Formation Depth (MD)	Top		Bottom
Form Type		BHST	235 degF
Job depth MD	19766ft	Job Depth TVD	
Water Depth		Wk Ht Above Floor	
Perforation Depth (MD)	From		To

Well Data

Description	New / Used	Size in	ID in	Weight lbm/ft	Thread	Grade	Top MD ft	Bottom MD ft	Top TVD ft	Bottom TVD ft
Casing		9.625	8.921	36			0	3360	0	3360
Casing		5.5	4.67	23	TXP-BTC	P110ICY	0	19766		7836
Open Hole Section			8.5				3360	19780	3360	7836

Tools and Accessories

Type	Size in	Qty	Make	Depth ft	Type	Size in	Qty	Make
Guide Shoe	5.5				Top Plug	5.5	1	INNOVEX
Float Shoe	5.5			19766	Bottom Plug	5.5	1	INNOVEX
Float Collar	5.5			19751	SSR plug set	5.5		HES
Insert Float	5.5				Plug Container	5.5	1	HES
Stage Tool	5.5				Centralizers	5.5		HES

Fluid Data

Stage/Plug #: 1									
Fluid #	Stage Type	Fluid Name	Qty	Qty UoM	Mixing Density lbm/gal	Yield ft ³ /sack	Mix Fluid Gal	Rate bbl/min	Total Mix Fluid Gal
1	Tuned Prime	TUNED PRIME CEMENT SPACER SYS	50	bbl	11.5	3.74		6	

Fluid #	Stage Type	Fluid Name	Qty	Qty UoM	Mixing Density lbm/gal	Yield ft ³ /sack	Mix Fluid Gal	Rate bbl/mi n	Total Mix Fluid Gal																													
2	Cap	SBM CEM ELASTICEM™ SYS	700	sack	13	1.66		9	8.29																													
3	FDP-C1371 SYS	SBM CEM FDP-C1371 SYS	685	sack	13	1.55		9	7.21																													
4	ElastiCem	SBM CEM ELASTICEM™ SYS	1725	sack	13.2	1.59		9	7.76																													
5	Displacement	Displacement	419	bbl	8.4			10																														
<table border="1"> <tr> <td>Cement Left In Pipe</td> <td>Amount</td> <td>14 ft</td> <td>Reason</td> <td>Shoe Joint</td> </tr> <tr> <td>Mix Water:</td> <td>pH 7</td> <td>Mix Water Chloride:</td> <td>>3000 ppm</td> <td>Mix Water Temperature:</td> <td>70 °F °C</td> </tr> <tr> <td>Cement Temperature:</td> <td>## °F °C</td> <td>Plug Displaced by:</td> <td>8.33 lb/gal</td> <td>Disp. Temperature:</td> <td>70 °F °C</td> </tr> <tr> <td>Plug Bumped?</td> <td>Yes</td> <td>Bump Pressure:</td> <td>3850 psi MPa</td> <td>Floats Held?</td> <td>Yes</td> </tr> <tr> <td>Cement Returns:</td> <td>45 bbl m3</td> <td>Returns Density:</td> <td>## lb/gal kg/m3</td> <td>Returns Temperature:</td> <td>## °F °C</td> </tr> </table>										Cement Left In Pipe	Amount	14 ft	Reason	Shoe Joint	Mix Water:	pH 7	Mix Water Chloride:	>3000 ppm	Mix Water Temperature:	70 °F °C	Cement Temperature:	## °F °C	Plug Displaced by:	8.33 lb/gal	Disp. Temperature:	70 °F °C	Plug Bumped?	Yes	Bump Pressure:	3850 psi MPa	Floats Held?	Yes	Cement Returns:	45 bbl m3	Returns Density:	## lb/gal kg/m3	Returns Temperature:	## °F °C
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Comment Got 45bbls Cement to surface. Est TOT-7802', TOL-3193'.																																						

2.0 Real-Time Job Summary

2.1 Job Event Log

Seq No.	Activity	Graph Label	Date	Time	DH Density (ppg)	Comb Pump Rate (bbl/min)	DS Pump Press (psi)	Pump Stg Tot (bbl)	Comments
1	Call Out	Call Out	2/10/2022	04:00:00					Called out by service coordinator for OL time of 1400.
2	Pre-Convoy Safety Meeting	Pre-Convoy Safety Meeting	2/10/2022	10:45:00					Discuss all hazards associated with journey, directions to destination, complete journey management if needed, and ensure all convoy is fit for duty.
3	Depart from Service Center or Other Site	Depart from Service Center or Other Site	2/10/2022	11:00:00					Depart from service center or other job site.
4	Arrive at Location from Service Center	Arrive at Location from Service Center	2/10/2022	12:00:00					Upon arrival to location, signed in with onsite safety personnel. Met with company man and discussed job specific requirements and specifications.
5	Pre-Rig Up Safety Meeting	Pre-Rig Up Safety Meeting	2/10/2022	12:15:00					Held pre rig up JSA for hazards, hazard hunt with crew, and discussed plan for spotting equipment and rigging up lines for job. Discussed muster points and closest emergency location as well as coordinates.
6	Rig-Up Equipment	Rig-Up Equipment	2/10/2022	12:30:00					Begin rig up with crew.
7	Rig-Up Completed	Rig-Up Completed	2/10/2022	13:30:00					Complete rig up for job to nearest point before red zone.
8	Other	Other	2/10/2022	14:00:00					Mix water test results- PH-7, Chlo-0, Temp-65F.

9	Safety Meeting - Pre Job	Safety Meeting - Pre Job	2/10/2022	17:00:00	7.97	0.00	-3.00	0.00	Held job specific hazards as well as confirming job procedure with co man and rest of crew associated with job.
10	Start Job	Start Job	2/10/2022	18:25:53	7.96	0.00	19.00	0.00	TD-19780', OH-8.5", TP-5.5" 23#-19766', FC-19673',TVD-7840', SURF-3338' 9.625" 40#, MUD
11	Drop Bottom Plug	Drop Bottom Plug	2/10/2022	18:27:32	7.98	3.40	336.00	1.30	9.8# Dropped by HES supervisor, witnessed by company man.
12	Test Lines	Test Lines	2/10/2022	18:28:09	8.33	0.00	156.00	3.10	Pumped 3bbls fresh water to fill lines at 4bpm 320psi, shut manifold, and performed 500psi k/o function test, followed with 5th gear stall at 1800psi, proceeded to bring pressure to 4500psi, pressure stabilized and held with no leaks.
13	Pump Spacer 1	Pump Spacer 1	2/10/2022	18:31:42	8.33	0.00	5.00	0.00	Pumped 50bbls of 11.5# 3.74y 23.65g/s FDP Spacer with 10g D-air at 6bpm 447psi.
14	Check Weight	Check Weight	2/10/2022	18:34:57	11.61	5.90	407.00	14.50	Weight verified with pressurized mud scales.
15	Pump Cap Cement	Pump Cap Cement	2/10/2022	18:40:13	12.19	5.90	225.00	0.00	Pumped 700skts or 207bbls of 13# 1.66y 8.29g/s Elasticem at 9bpm 498psi.
16	Check Weight	Check Weight	2/10/2022	18:42:02	12.91	5.90	349.00	10.70	Weight verified with pressurized mud scales.
17	Check Weight	Check Weight	2/10/2022	18:54:46	12.92	9.10	483.00	106.50	Weight verified with pressurized mud scales.
18	Check Weight	Check Weight	2/10/2022	19:01:38	13.09	9.10	495.00	168.70	Weight verified with pressurized mud scales.
19	Pump Lead Cement	Pump Lead Cement	2/10/2022	19:05:42	13.01	9.00	542.00	205.30	Pumped 685skts 189bbls 13# 1.55y 7.21g/s Gasstop at 9bpm 600psi.
20	Check Weight	Check Weight	2/10/2022	19:18:26	12.99	7.00	461.00	108.00	Weight verified with pressurized mud scales.
21	Check Weight	Check Weight	2/10/2022	19:26:41	12.93	9.00	696.00	175.50	Weight verified with pressurized mud scales.

22	Pump Tail Cement	Pump Tail Cement	2/10/2022	19:28:22	12.81	9.00	619.00	190.60	Pumped 1725sks or 488.5bbls 13.2# 1.59y 7.76g/s Elasticem at 9bpm 580psi.
23	Bump Plug	Bump Plug	2/10/2022	19:30:12	13.21	8.90	1532.00	16.50	Ruptured bottom plug at 16bbls away of tail, 1532psi.
24	Check Weight	Check Weight	2/10/2022	19:37:10	13.17	9.00	504.00	79.40	Weight verified with pressurized mud scales.
25	Shutdown	Shutdown	2/10/2022	20:24:06	13.42	0.00	123.00	499.10	Shutdown, washed up through pumps and lines with fresh water. Pumped total of 10bbls until clean.
26	Drop Top Plug	Drop Top Plug	2/10/2022	20:32:32	8.20	0.00	-3.00	15.40	Dropped by HES supervisor, witnessed by company man.
27	Pump Displacement	Pump Displacement	2/10/2022	20:32:34	8.20	0.00	-3.00	15.40	Pumped 419bbls fresh water at 10bpm.
28	Bump Plug	Bump Plug	2/10/2022	21:38:46					Slowed down at 390bbls away to 4bpm, final circulating pressure-2850psi. Bump pressure-3850psi.
29	Other	Other	2/10/2022	21:42:02	8.25	0.00	3866.00	427.00	Released pressure and got 5bbls back. Floats held.
30	End Job	End Job	2/10/2022	21:43:56	8.19	0.00	-12.00	427.00	Got 45bbls Cement to surface. Est TOT-7802', TOL-3193'.
31	Pre-Rig Down Safety Meeting	Pre-Rig Down Safety Meeting	2/10/2022	21:50:00					Held safety meeting with crew prior to rig down, discussed possibility of trapped pressure, swing radius, slips trips and falls, pinch points and risks associated with rig down.
32	Rig Down Lines	Rig Down Lines	2/10/2022	22:00:00					Begin rig down
33	Rig-Down Completed	Rig-Down Completed	2/10/2022	23:00:00					Rig down complete with no injuries, spills or damage to equipment.
34	Pre-Convoy Safety Meeting	Pre-Convoy Safety Meeting	2/10/2022	23:15:00					Held safety meeting with convoy, discussed trip hazards, directions and all crew fit for duty prior to departure.

35	Depart Location for Service Center or Other Site	Depart Location for Service Center or Other Site	2/10/2022	23:30:00
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Depart location, if applicable journey will be submitted.

3.0 Attachments

3.1 Real Time iCem Job Chart

