

# HALLIBURTON

iCem<sup>®</sup> Service

## **CRESTONE PEAK RESOURCES-EBUS**

**Prosper Farms 4-65 11-12 1BH Production**

Job Date: Thursday, December 15, 2022

Sincerely,

**Meghan Van Zyl**

## Legal Notice

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## 1.0 Cementing Job Summary

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### 1.1 Executive Summary

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Halliburton appreciates the opportunity to perform the cementing services on the **Prosper Farms 4-65 11-12 1BH** 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 50 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**

<b>Sold To #:</b> 324725		<b>Ship To #:</b> 324725		<b>Quote #:</b>		<b>Sales Order #:</b> 0908297488				
<b>Customer:</b> CRESTONE PEAK RESOURCES-EBUS				<b>Customer Rep:</b> Sam Mares						
<b>Well Name:</b> Prosper Farms 4-65 11-12			<b>Well #:</b> 1BH			<b>API/UWI #:</b> 05-005-07511-00				
<b>Field:</b>		<b>City (SAP):</b> ARAPAHOE		<b>County/Parish:</b> ARAPAHOE			<b>State:</b> COLORADO			
<b>Legal Description:</b>										
<b>Contractor:</b> PATTERSON-UTI ENERGY				<b>Rig/Platform Name/Num:</b> PATTERSON 345						
<b>Job BOM:</b> 7523 7523										
<b>Well Type:</b> OIL & GAS WELL										
<b>Sales Person:</b> HALAMERICA\HX41066				<b>Srvc Supervisor:</b> Steven Markovich						
<b>Job</b>										
<b>Formation Name</b>										
<b>Formation Depth (MD)</b>		<b>Top</b>				<b>Bottom</b>				
<b>Form Type</b>				<b>BHST</b>						
<b>Job depth MD</b>		18310ft		<b>Job Depth TVD</b>						
<b>Water Depth</b>				<b>Wk Ht Above Floor</b>						
<b>Perforation Depth (MD)</b>		<b>From</b>				<b>To</b>				
<b>Well Data</b>										
<b>Description</b>	<b>New / Used</b>	<b>Size in</b>	<b>ID in</b>	<b>Weight lbm/ft</b>	<b>Thread</b>	<b>Grade</b>	<b>Top MD ft</b>	<b>Bottom MD ft</b>	<b>Top TVD ft</b>	<b>Bottom TVD ft</b>
Casing		9.625	8.921	36			0	3372	0	0
Casing	0	5.5	4.778	20			0	18310	0	0
Open Hole Section			8.5				3372	18320	0	0
<b>Tools and Accessories</b>										
<b>Type</b>	<b>Size in</b>	<b>Qty</b>	<b>Make</b>	<b>Depth ft</b>		<b>Type</b>	<b>Size in</b>	<b>Qty</b>	<b>Make</b>	
Guide Shoe	5.5			18310		Top Plug	5.5		HES	
Float Shoe	5.5					Bottom Plug	5.5		HES	
Float Collar	5.5					SSR plug set	5.5		HES	
Insert Float	5.5					Plug Container	5.5		HES	
Stage Tool	5.5					Centralizers	5.5		HES	
<b>Fluid Data</b>										
<b>Stage/Plug #: 1</b>										
<b>Fluid #</b>	<b>Stage Type</b>	<b>Fluid Name</b>	<b>Qty</b>	<b>Qty UoM</b>	<b>Mixing Density lbm/gal</b>	<b>Yield ft<sup>3</sup>/sack</b>	<b>Mix Fluid Gal</b>	<b>Rate bbl/min</b>	<b>Total Mix Fluid Gal</b>	
1	Tuned Prime Cement Spacer	TUNED PRIME CEMENT SPACER SYS	50	bbl	11.5	3.83	24.17	6	1771	

Fluid #	Stage Type	Fluid Name	Qty	Qty UoM	Mixing Density lbm/gal	Yield ft <sup>3</sup> /sack	Mix Fluid Gal	Rate bbl/min	Total Mix Fluid Gal
2	ElastiCem	SBM CEM ELASTICEM™ SYS	700	sack	13	1.66	8.32	8	5824
Fluid #	Stage Type	Fluid Name	Qty	Qty UoM	Mixing Density lbm/gal	Yield ft <sup>3</sup> /sack	Mix Fluid Gal	Rate bbl/min	Total Mix Fluid Gal
3	IsoBond(tm)	SBM CEM FDP-C1371 SYS	660	sack	13	1.55	7.16	8	4726
Fluid #	Stage Type	Fluid Name	Qty	Qty UoM	Mixing Density lbm/gal	Yield ft <sup>3</sup> /sack	Mix Fluid Gal	Rate bbl/min	Total Mix Fluid Gal
4	ElastiCem	SBM CEM ELASTICEM™ SYS	1520	sack	13.2	1.59	7.78	8	11826
Fluid #	Stage Type	Fluid Name	Qty	Qty UoM	Mixing Density lbm/gal	Yield ft <sup>3</sup> /sack	Mix Fluid Gal	Rate bbl/min	Total Mix Fluid Gal
5	MMCR Displacement	MMCR Displacement	20	bbl	8.33			10	840
Fluid #	Stage Type	Fluid Name	Qty	Qty UoM	Mixing Density lbm/gal	Yield ft <sup>3</sup> /sack	Mix Fluid Gal	Rate bbl/min	Total Mix Fluid Gal
6	Displacement Water	Displacement Water	405	bbl	8.34			9.31	17010
Comment 1000bbbls mix water total used.									

## 2.0 Real-Time Job Summary

## 2.1 Job Event Log

Seq No.	Activity	Date	Time	Dwnhole Density (ppg)	Cmb Pump Rate (bbl/min)	Pump A Pressure (psi)	Cmb Stg Total (bbl)	Comments
1	Check Floats	12/14/2022	15:00:00					Job called out with an on location time of 0100.
2	Pre-Convoy Safety Meeting	12/14/2022	22:00:00					JSA with HES crew on driving safety and route to rig.
3	Arrive at Location from Service Center	12/14/2022	23:30:00					Arrived on location, rig just landed casing.
4	Pre-Rig Up Safety Meeting	12/14/2022	23:40:00					JSA and hazard hunt with HES crew.
5	Rig-Up Equipment	12/14/2022	23:50:00					Rig up HES lines and equipment.
6	Pre-Job Safety Meeting	12/15/2022	02:00:00	0.00	0.00	5.43	0.52	JSA with HES and rig crew on job safety and procedure.
7	Start Job	12/15/2022	02:13:56	8.27	0.00	51.06	0.00	TD 18320' TP 18310' FC 18305', 5 1/2" 17# Production Casing, 9 5/8" 36# Surface casing set at 3372', TVD 7841', Mud# 9.2ppg, 8 1/2" Open Hole.
8	Drop Bottom Plug	12/15/2022	02:14:25	8.85	2.72	277.66	0.60	Plug loaded into HES head. Plug loaded and dropped in front of company rep.
9	Pump Spacer	12/15/2022	02:21:47	8.10	0.00	118.09	0.00	Pump 50bbls of 11.5ppg 3.83yield Tuned Prime Spacer. Pumped at 5.5bbl/min 520psi.
10	Check Weight	12/15/2022	02:26:52	11.51	5.38	328.76	26.65	Weight verified by pressurized scales.
11	Pump Cap Cement	12/15/2022	02:30:33	11.67	5.38	216.63	0.04	Pump 206.95bbls (700sks) of 13ppg 1.66yield Cap Cement. Pumped at 9bbl/min 400psi.

12	Check Weight	12/15/2022	02:32:48	13.09	5.39	210.05	12.25	Weight verified by pressurized scales.
13	Check Weight	12/15/2022	02:34:33	13.10	5.38	200.08	21.59	Weight verified by pressurized scales.
14	Pump Lead Cement	12/15/2022	02:55:34	12.87	8.96	321.70	0.15	Pump 182.19bbls (660sks) of 13ppg 1.55yield Lead Cement. Pumped at 9bbl/min 520psi.
15	Check Weight	12/15/2022	02:58:35	12.99	8.98	464.19	27.18	Weight verified by pressurized scales.
16	Pump Tail Cement	12/15/2022	03:16:42	12.95	6.61	242.10	0.11	Pump 430.43bbls (1520sks) of 13.2ppg 1.59yield Tail Cement. Pumped at 9bbl/min 520psi.
17	Check Weight	12/15/2022	03:21:15	13.27	9.07	328.30	40.58	Weight verified by pressurized scales.
18	Check Weight	12/15/2022	03:35:47	13.10	8.94	328.02	170.85	Weight verified by pressurized scales.
19	Check Weight	12/15/2022	03:46:41	13.12	9.00	334.62	267.46	Weight verified by pressurized scales.
20	Check Weight	12/15/2022	03:48:54	13.15	8.95	332.54	287.47	Weight verified by pressurized scales.
21	Shutdown	12/15/2022	04:09:08	13.25	3.54	102.76	448.01	Shutdown and clean pumps and lines.
22	Drop Top Plug	12/15/2022	04:20:46	7.98	0.00	10.08	464.76	Plug loaded into HES head. Plug loaded and dropped in front of company rep.
23	Pump Displacement	12/15/2022	04:21:04	7.98	0.00	10.16	0.00	Pump 424.68bbls of H2O. First 20bbls with MMCR then 404bbls of treated H2O. Pumped at 10bbl/min, slowed rate with pressure increase. Spacer to surface at 334bbls away, Cement to surface at 384bbls away, bringing 50bbls of cement to surface,
24	Bump Plug	12/15/2022	05:08:09	8.31	4.08	2531.41	426.95	Bumped plug at calculated displacement. Final lift pressure was 2531psi. Took pressure 500psi over and held. ;
25	Check Floats	12/15/2022	05:11:02	8.36	0.00	3143.81	427.64	Prior to checking floats pressure was 3143psi. After getting 5bbls back floats held,
26	End Job	12/15/2022	05:15:00					Thank you, Steven Markovich and crew.



27	Safety Meeting	12/15/2022	05:30:00	Pre rig-down JSA with HES crew,
28	Rig-Down Equipment	12/15/2022	05:45:00	Rig down HES lines and equipment.
29	Crew Leave Location	12/15/2022	07:00:00	

3.0 Attachments

3.1 Real Time iCem Job Chart

