

HALLIBURTON

iCem[®] Service

EXTRACTION OIL & GAS-EBUS

Kennedy 1 Surface

Sincerely,
Meghan Jacobs

Legal Notice

Disclaimer:

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Table of Contents

1.0 Cementing Job Summary 4

 1.1 Executive Summary4

2.0 Real-Time Job Summary 7

 2.1 Job Event Log7

3.0 Attachments..... 9

 3.1 Kennedy 1 Surface – Job Chart with Events9

 3.2 Kennedy 1 Surface – Job Chart without Events.....10

1.0 Cementing Job Summary

1.1 Executive Summary

Halliburton appreciates the opportunity to perform the cementing services on the **Kennedy 1** cement **Surface** 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 22bbls of cement 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 [Ft. Lupton]

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*Cementing Job Summary**The Road to Excellence Starts with Safety*

Sold To #: 369404	Ship To #: 3593699	Quote #:	Sales Order #: 0904752330							
Customer: EXTRACTION OIL & GAS -		Customer Rep: Sean MacEntire								
Well Name: KENNEDY	Well #: 1	API/UWI #: 05-123-40308-00								
Field: WATTENBERG	City (SAP): BERTHOUD	County/Parish: WELD	State: COLORADO							
Legal Description: NE NE-18-4N-68W-681FNL-342FEL										
Contractor:		Rig/Platform Name/Num: Cartel 88								
Job BOM: 7521 7521										
Well Type: HORIZONTAL OIL										
Sales Person: HALAMERICA\HX38199		Srv Supervisor: Luke Kosakewich								
Job										
Formation Name										
Formation Depth (MD)	Top	Bottom								
Form Type		BHST								
Job depth MD	1570ft	Job Depth TVD	1570							
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	1570	0	1570
Open Hole Section			13.5				0	1570	0	1570
Tools and Accessories										
Type	Size in	Qty	Make	Depth ft		Type	Size in	Qty	Make	
Guide Shoe						Top Plug	9.625	1	HES	
Float Shoe	9.625	1		1570		Bottom Plug				
Float Collar	9.625	1		1526		SSR plug set				
Insert Float						Plug Container	9.625	1	HES	
Stage Tool						Centralizers				
Fluid Data										
Stage/Plug #: 1										
Fluid #	Stage Type	Fluid Name	Qty	Qty UoM	Mixing Density lbm/gal	Yield ft3/sack	Mix Fluid Gal	Rate bbl/min	Total Mix Fluid Gal	
1	Spacer	Fresh Water Spacer	10	bbl	8.33			4		
Stage/Plug #: 1										
Fluid #	Stage Type	Fluid Name	Qty	Qty UoM	Mixing Density lbm/gal	Yield ft3/sack	Mix Fluid Gal	Rate bbl/min	Total Mix Fluid Gal	
1	Red Dye Spacer	Red Dye Spacer	10	bbl	8.33			4		

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Page 1 of 3

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Cementing Job Summary

Fluid #	Stage Type	Fluid Name	Qty	Qty UoM	Mixing Density lbm/gal	Yield ft3/sack	Mix Fluid Gal	Rate bbl/mi n	Total Mix Fluid Gal
2	SwiftCem	SWIFTCM (TM) SYSTEM	525	sack	13.5	1.74		5	9.2
Fluid #	Stage Type	Fluid Name	Qty	Qty UoM	Mixing Density lbm/gal	Yield ft3/sack	Mix Fluid Gal	Rate bbl/mi n	Total Mix Fluid Gal
3	Fresh Water	Fresh Water	117.9	bbl	8.33				
Cement Left In Pipe		Amount	44 ft		Reason			Shoe Joint	
Comment Halliburton bumped the plug 500 psi. over 500 psi. at 3 bpm. Finale pressure was 1,000 psi. Pressured up to 1,500 psi. for a 5 minute casing test. Pressure held. Circulated 22 bbls. of cement to surface. Floats held. Got 2 bbls. of fluid back to the truck.									

2.0 Real-Time Job Summary

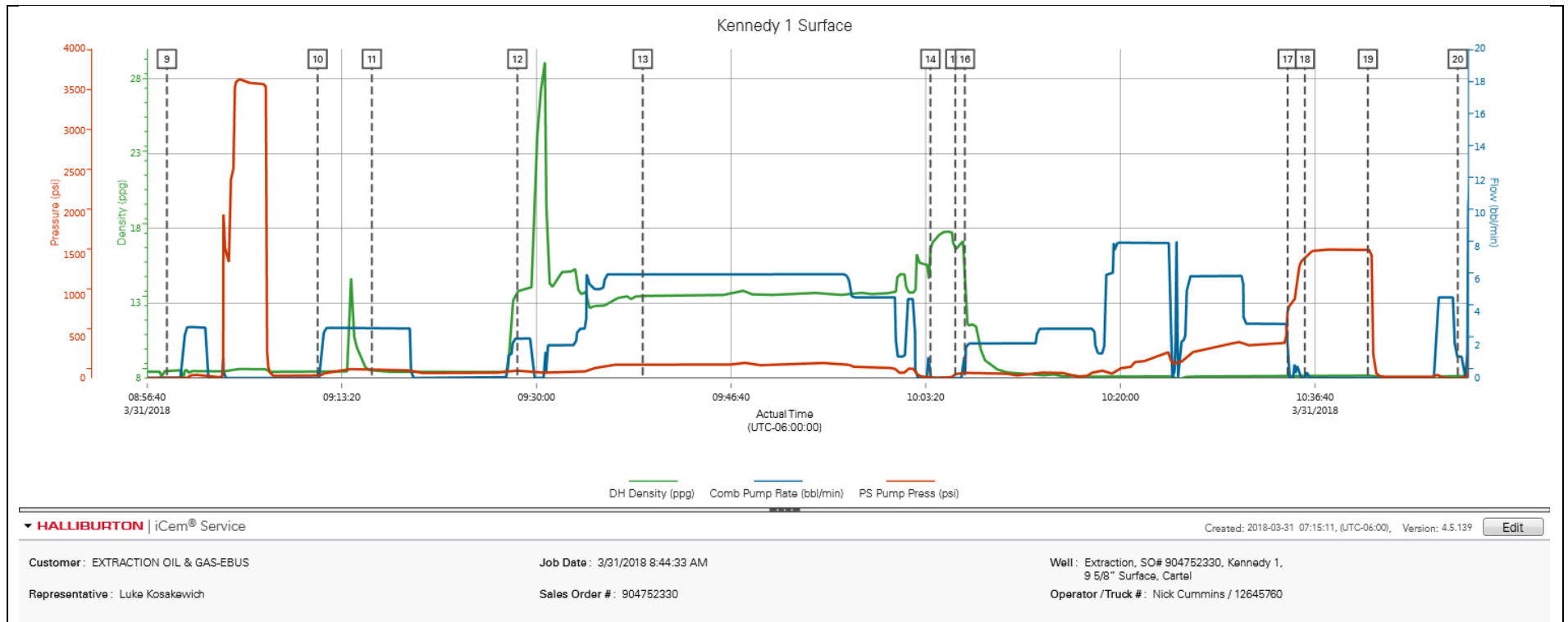
2.1 Job Event Log

Type	Seq. No.	Activity	Graph Label	Date	Time	Source	DH Density (ppg)	Comb Pump Rate (bbl/min)	PS Pump Press (psi)	Comments
Event	1	Call Out	Call Out	3/31/2018	00:00:00	USER				Halliburton cement was called for a crew to be on location by 06:00.
Event	2	Depart Yard Safety Meeting	Depart Yard Safety Meeting	3/31/2018	01:50:00	USER				My crew held a pre journey safety meeting and JSA.
Event	3	Depart Shop for Location	Depart Shop for Location	3/31/2018	02:00:00	USER				Started journey management with dispatch and left the yard.
Event	4	Arrive at Location from Service Center	Arrive at Location from Service Center	3/31/2018	03:00:00	USER				C
Event	5	Other	Other	3/31/2018	04:00:00	USER				
Event	6	Pre-Rig Up Safety Meeting	Pre-Rig Up Safety Meeting	3/31/2018	07:30:00	USER				The crew held a pre rig up safety meeting and JSA.
Event	7	Rig-Up Equipment	Rig-Up Equipment	3/31/2018	08:00:00	USER				The crew rigged up all lines, hoses and equipment for the job.
Event	8	Safety Meeting	Safety Meeting	3/31/2018	08:30:00	USER				All personnel on location held a pre cement job safety meeting and JSA.
Event	9	Start Job	Start Job	3/31/2018	08:58:22	COM5	8.48	0.00	-1.00	Pumped 4 bbls. to fill lines and establish circulation.
Event	10	Pump Spacer 1	Pump Spacer 1	3/31/2018	09:11:16	COM5	8.39	0.00	28.00	Pumped 10 bbls. of fresh water.
Event	11	Pump Spacer 2	Pump Spacer 2	3/31/2018	09:15:55	COM5	8.51	3.00	95.00	Pumped 10 bbls. of fresh water W/ red dye.
Event	12	Pump Cement	Pump Cement	3/31/2018	09:28:22	COM5	13.80	2.40	89.00	Pumped 163 bbls. (525 sks.) of Swiftcem mixed at 13.5 ppg., Yield: 1.74 ft ³ /sks, 9.2 gal/sks. Density was verified by pressurized scales.
Event	13	Check Weight	Check weight	3/31/2018	09:39:06	COM5	13.47	6.30	161.00	Cement weighed up at 13.5 ppg. Density was verified by pressurized scales.
Event	14	Shutdown	Shutdown	3/31/2018	10:03:44	COM5	16.64	0.00	8.00	Shutdown and washed up on top of the plug.

Event	15	Drop Top Plug	Drop Top Plug	3/31/2018	10:05:52	COM5	16.54	0.00	50.00	Dropped the top plug, which was witnessed by the customer.
Event	16	Pump Displacement	Pump Displacement	3/31/2018	10:06:41	COM5	14.56	1.30	62.00	Pumped 118 bbls. of fresh water for displacement.
Event	17	Bump Plug	Bump Plug	3/31/2018	10:34:19	COM5	8.15	0.00	805.00	Bumped the plug 500 psi. over 500 psi. at 3 bpm. Finale pressure was 1,000 psi. Got 22 bbls. of cement to surface.
Event	18	Other	Other	3/31/2018	10:35:47	COM5	8.16	0.00	1448.00	Pressured up to 1,500 psi. for a 5 minute casing test.
Event	19	Check Floats	Check Floats	3/31/2018	10:41:11	USER	8.16	0.00	1560.00	Bled off pressure to check floats. Floats held. Got 2 bbls. of fluid back to the truck.
Event	20	End Job	End Job	3/31/2018	10:48:53	COM5	8.11	1.30	-8.00	Washed pumps and lines until clean.
Event	21	Pre-Rig Down Safety Meeting	Pre-Rig Down Safety Meeting	3/31/2018	11:00:00	USER				Halliburton cement crew held a pre rig down safety meeting and JSA.
Event	22	Rig-Down Equipment	Rig-Down Equipment	3/31/2018	11:10:00	USER				Rigged down all lines, hoses and equipment.
Event	23	Depart Location Safety Meeting	Depart Location Safety Meeting	3/31/2018	11:30:00	USER				Held a pre journey safety meeting with the crew.
Event	24	Depart Location for Service Center or Other Site	Depart Location for Service Center or Other Site	3/31/2018	11:40:00	USER				Held a pre journey safety meeting with the crew.

3.0 Attachments

3.1 Kennedy 1 Surface – Job Chart with Events



3.2 Kennedy 1 Surface – Job Chart without Events

