

# HALLIBURTON

iCem<sup>®</sup> Service

## **EXTRACTION OIL & GAS-EBUS**

Date: Friday, January 03, 2020

### **GP Cody Fed 20E-15-1 Surface**

Job Date: Friday, January 03, 2020

Sincerely,

**NICK KORNAFEL & CREW**

## Legal Notice

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## Table of Contents

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1.0	Cementing Job Summary .....	4
1.1	Executive Summary .....	4
2.0	Real-Time Job Summary .....	7
2.1	Job Event Log .....	7
3.0	Attachments.....	10
3.1	EXTRACTION GP CODY FED 20E-15-1 SURFACE-Custom Results.png.....	10

## 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 **GP Cody Fed 20E-15-1** 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 40 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**

*The Road to Excellence Starts with Safety*

Sold To #: 369404	Ship To #: 3987169	Quote #:	Sales Order #: 0906194113
Customer: EXTRACTION OIL & GAS -		Customer Rep: COLBY	
Well Name: GP CODY FED		Well #: 20E-15-1	API/UWI #: 05-123-50286-00
Field: WATTENBERG	City (SAP): GREELEY	County/Parish: WELD	State: COLORADO
Legal Description: NE NE-20-5N-65W-670FNL-1305FEL			
Contractor:		Rig/Platform Name/Num: Cartel 15	
Job BOM: 7521 7521			
Well Type: HORIZONTAL OIL			
Sales Person: HALAMERICA/H171328		Srvc Supervisor: Nikolaus Kornafel	

**Job**

Formation Name			
Formation Depth (MD)	Top		Bottom
Form Type	BHST		
Job depth MD	1611ft		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
Open hole		13.5					0	1611	0	1611
Casing		9.625		36			0	1611	0	1611

**Tools and Accessories**

Type	Size in	Qty	Make	Depth ft	Type	Size in	Qty	Make
Guide Shoe	9.625	1		1608	Top Plug	9.625	1	HES
Float Shoe	9.625							
Float Collar	9.625	1		1563				
Insert Float	9.625				Plug Container	9.625	1	HES
Stage Tool	9.625				Centralizers	9.625		

**Fluid Data**

Stage/Plug #: 1

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
1	RED DYE	Red Dye Spacer	10	bbl	8.33			3	

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	CEMENT	SWIFTCEM (TM) SYSTEM	590	sack	13.5	1.74	9.17	8	5,410

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	Fresh Water	Fresh Water	121	bbl	8.33			8	

Cement Left In Pipe	Amount	Reason	Shoe Joint
Mix Water:	pH 7	Mix Water Chloride:	0 ppm
Cement Temperature:	N/A	Plug Displaced by:	8.33 lb/gal
Plug Bumped?	Yes	Bump Pressure:	585 psi
Cement Returns:	40 bbl	Returns Density:	N/A

**Comment** PUMPED 10 BBLs OF RED DYE SPACER FOLLOWED BY 590 SKS OF CEMENT AND THEN SHUTDOWN TO DROP THE TOP PLUG AND DISPLACED WITH 121 BBLs OF FRESH WATER. BUMPED THE PLUG AND CHECK FLOATS, FLOATS HELD 1 BBL BACK. 40 BBLs OF CEMENT TO SURFACE.

## 2.0 Real-Time Job Summary

### 2.1 Job Event Log

Type	Seq. No.	Activity	Graph Label	Date	Time	Source	DS Pump Press <i>(psi)</i>	Comb Pump Rate <i>(bbl/min)</i>	DH Density <i>(ppg)</i>	Pump Stg Tot <i>(bbl)</i>	Comments
Event	1	Call Out	Call Out	1/2/2020	14:00:00	USER					CREW CALLED OUT AT 14:00, REQUESTED ON LOCATION 18:00. CREW PICKED UP CEMENT, CHEMICALS, AND PLUG CONTAINER FROM FT. LUPTON, CO. AND PUMP 11826999.
Event	2	Pre-Convoy Safety Meeting	Pre-Convoy Safety Meeting	1/2/2020	16:00:00	USER					CREW DISCUSSED ROUTES, HAZARDS, AND COMMUNICATION WITH CREW.
Event	3	Crew Leave Yard	Crew Leave Yard	1/2/2020	16:15:00	USER					STARTED JOURNEY MANAGEMENT.
Event	4	Arrive at Location from Service Center	Arrive at Location from Service Center	1/2/2020	17:30:00	USER					END JOURNEY MANAGEMENT. MEET WITH CO. MAN TO DISCUSS JOB; SURFACE CASING- 9.625" 36 LB/FT @ 1,608, 13.5" HOLE, TD 1,611', SHOE TRAC- 45'. PUMP FRESH WATER DISPLACEMENT 121 BBLS. CASING LANDED @ 22:30 1/2/2020. RIG CIRCULATED BOTTOMS UP.

Event	5	Pre-Rig Up Safety Meeting	Pre-Rig Up Safety Meeting	1/2/2020	18:00:00	USER					HAZARD HUNT. DISCUSSED POSSIBLE HAZARDS ASSOCIATED WITH LOCATION, RIG UP, AND WEATHER.
Event	6	Rig-Up Equipment	Rig-Up Equipment	1/2/2020	19:00:00	USER					CREW STAGED EQUIPMENT, RIGGED UP BULK, IRON, AND WATER HOSES TO PERFORM JOB.
Event	7	Pre-Job Safety Meeting	Pre-Job Safety Meeting	1/2/2020	22:30:00	USER	-16.00	0.00	8.48	9.50	SAFETY MEETING WITH HALLIBURTON, AND RIG PERSONNEL. CREW COMMUNICATED POTENTIAL SAFETY HAZARDS, AND JOB DETAILS.
Event	8	Start Job	Start Job	1/2/2020	23:02:22	COM11	0.00	0.00	8.44	9.50	BEGIN RECORDING JOB DATA
Event	9	Test Lines	Test Lines	1/2/2020	23:04:38	COM11	48.00	0.00	8.28	12.00	TESTED ELECTRONIC KICKOUTS AT 500 PSI, KICKED OUT AT 880 PSI THEN PRESSURE TESTED IRON TO 2500 PSI, PRESSURE HELD WITH NO LEAKS
Event	10	Pump Spacer 1	Pump Spacer 1	1/2/2020	23:07:35	COM11	26.00	1.60	8.26	12.50	PUMPED 10 BBLS OF RED DYE SPACER
Event	11	Pump Lead Cement	Pump Lead Cement	1/2/2020	23:12:40	COM11	81.00	2.30	9.19	11.20	PUMPED 590 SKS OF CEMENT AT 13.5 LB/GAL, 1.57 FT3/SK, 9.17 GAL/SK AT 8 BPM 509 PSI. DENSITY VERIFIED BY PRESSURIZED MUD SCALES.
Event	12	Check Weight	Check Weight	1/2/2020	23:14:07	COM11	341.00	6.60	13.58	5.50	DENSITY VERIFIED BY PRESSURIZED MUD SCALES.
Event	13	Check Weight	Check Weight	1/2/2020	23:24:49	COM11	296.00	8.50	13.49	95.70	DENSITY VERIFIED BY PRESSURIZED MUD SCALES.

Event	14	Check Weight	Check Weight	1/2/2020	23:29:13	COM11	403.00	7.90	13.44	125.40	DENSITY VERIFIED BY PRESSURIZED MUD SCALES.
Event	15	Shutdown	Shutdown	1/2/2020	23:43:19	COM11	57.00	0.00	15.44	208.10	SHUTDOWN TO WASH LINES
Event	16	Drop Top Plug	Drop Top Plug	1/2/2020	23:46:11	COM11	10.00	0.00	-0.84	208.10	TOP PLUG LOADED INTO THE CASING, WITNESSED BY THE COMPANY MAN.
Event	17	Pump Displacement	Pump Displacement	1/2/2020	23:46:14	COM11	10.00	0.00	-0.84	0.00	BEGIN TO PUMP 121 BBLS OF FRESH WATER DISPLACEMENT
Event	18	Bump Plug	Bump Plug	1/3/2020	00:07:06	COM11	1456.00	0.00	7.87	130.20	PLUG BUMPED AT CALCUALTED DISPLACEMENT, 40 BBLS OF CEMENT TO SURFACE.
Event	19	Other	Other	1/3/2020	00:07:10	COM11	1458.00	0.00	7.87	130.20	RELEASED PRESSURE TO CHECK FLOATS, FLOATS HELD, 1 BBL BACK TO THE TRUCK
Event	20	End Job	End Job	1/3/2020	00:08:29	COM11	11.00	0.00	7.84	130.20	STOP RECORDING JOB DATA
Event	21	Pre-Rig Down Safety Meeting	Pre-Rig Down Safety Meeting	1/3/2020	00:10:00	USER	8.00	0.00	7.84	130.20	DISCUSSED POSSIBLE HAZARDS ASSOCIATED WITH WEATHER, LOCATION AND RIGGING DOWN IRON AND HOSES.
Event	22	Rig-Down Completed	Rig-Down Completed	1/3/2020	01:15:00	USER					ALL HALLIBURTON ITEMS WERE STOWED FOR TRAVEL, AND LOCATION WAS CLEAN.
Event	23	Safety Meeting - Departing Location	Safety Meeting - Departing Location	1/3/2020	01:30:00	USER					CREW DISCUSSED ROUTES HAZARDS AND COMMUNICATION WITH CREW.

## 3.0 Attachments

### 3.1 EXTRACTION GP CODY FED 20E-15-1 SURFACE-Custom Results.png

