

HALLIBURTON

iCem[®] Service

SRC ENERGY INC-EBUS
GOLDEN EAGLE 25C-1-M

Sincerely,

Alexandria Dionigi

Legal Notice

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1.0 Cementing Job Summary

1.1 Executive Summary

Halliburton appreciates the opportunity to perform the cementing services on the **GOLDEN EAGLE 25C-1-M** 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 18 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 #: 359915	Ship To #: 3961576	Quote #:	Sales Order #: 0905890730
Customer: SRC ENERGY INC-EBUS		Customer Rep:	
Well Name: GOLDEN EAGLE		Well #: 25C-1-M	API/UWI #: 05-123-50120-00
Field: WATTENBERG	City (SAP): EATON	County/Parish: WELD	State: COLORADO
Legal Description: NE NE-6-6N-66W-1239FNL-498FEL			
Contractor: PRECISION DRLG		Rig/Platform Name/Num: PRECISION 562	
Job BOM: 7523 7523			
Well Type: HORIZONTAL OIL			
Sales Person: HALAMERICA/HB41307		Srvc Supervisor: Nikolaus Kornafel	

Job

Formation Name			
Formation Depth (MD)	Top		Bottom
Form Type			BHST
Job depth MD	15582ft		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	LTC	J-55	0	1840	0	0
Casing		5.5	4.778	20	TXP-BTC	P110IC	0	15582	0	0
Open Hole Section			8.5				1840	156502	0	7308

Tools and Accessories

Type	Size in	Qty	Make	Depth ft	Type	Size in	Qty	Make
Guide Shoe	5.5	1		15582	Top Plug	5.5	1	
Float Shoe	5.5				Bottom Plug	5.5	1	
Float Collar	5.5	1		15535				
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 ft3/sack	Mix Fluid Gal	Rate bbl/min	Total Mix Fluid Gal
1	SPACER	SBM FDP-C1337-18 CEMENT SPACER SYS	80	bbl	11.5	3.84	23.9	5	2,795

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
2	LEAD CEMENT	ELASTICEM (TM) SYSTEM	1233	sack	13.2	1.6	7.8	8	9,617
3	TAIL CEMENT	NeoCem TM	843	sack	13.2	2.08	10.18	8	8,581
4	MMCR Displacement	MMCR Displacement	20	bbl	8.34			8	
5	Water	Water	273	bbl	8.33			8	
6	MMCR Displacement	MMCR Displacement	70	bbl	8.34			8	

Cement Left In Pipe	Amount	104 ft	Reason	Shoe Joint	
Mix Water:	pH 7	Mix Water Chloride:	0 ppm	Mix Water Temperature:	69 °F
Cement Temperature:	N/A	Plug Displaced by:	8.33 lb/gal	Disp. Temperature:	69 °F
Plug Bumped?	Yes	Bump Pressure:	2510 psi	Floats Held?	Yes/No
Cement Returns:	18 bbl	Returns Density:	N/A	Returns Temperature:	N/A

Comment: DROPPED THE BOTTOM PLUG THEN PUMPED 80 BBLs OF SPACER FOLLOWED BY 351 BBLs OF LEAD CEMENT FOLLOWED BY 312 BBLs OF TAIL CEMENT. SHUTDOWN TO WASH LINES AND DROP THE TOP PLUG. DISPLACED WITH 343 BBLs OF FRESH WATER WITH MMCR IN THE FIRST 20 BBLs AND WITH BIOCIDES AND CLA-WEB THROUGHOUT THE REST. BUMPED THE PLUG AT 2,510 PSI AND THEN PRESSURED UP TO SHIFT THE WET SHOE SUB. PUMPED A 6 BBL WET SHOE AND THEN RELEASED PRESSURE TO CHECK FLOATS. FLOATS HELD AND GOT 3 BBLs BACK TO THE TRUCK. FLOATS HELD. ALL 80 BBLs OF SPACER RETURNED TO SURFACE AND 18 BBLs OF LEAD CEMENT

2.0 Real-Time Job Summary

2.1 Job Event Log

Type	Seq. No.	Activity	Graph Label	Date	Time	Source	DH Density <i>(ppg)</i>	Comb Pump Rate <i>(bbl/min)</i>	DS Pump Press <i>(psi)</i>	Pump Stg Tot <i>(bbl)</i>	Comments
Event	1	Call Out	Call Out	8/10/2019	10:00:00	USER					CREW CALLED OUT AT 10:00, REQUESTED ON LOCATION 16:30. CREW PICKED UP CEMENT, CHEMICALS, AND PLUG CONTAINER FROM FT. LUPTON, CO. BULK 660 11764054, BULK 660 10679720, AND PUMP 11189151.
Event	2	Pre-Convoy Safety Meeting	Pre-Convoy Safety Meeting	8/10/2019	16:16:00	USER					CREW DISCUSSED ROUTES, HAZARDS, AND COMMUNICATION WITH CREW.
Event	3	Crew Leave Yard	Crew Leave Yard	8/10/2019	16:30:00	USER					STARTED JOURNEY MANAGEMENT.
Event	4	Arrive at Location from Service Center	Arrive at Location from Service Center	8/10/2019	18:00:00	USER					END JOURNEY MANAGEMENT. MEET WITH CO. MAN TO DISCUSS JOB; SURFACE CASING- 9.625" 36 LB/FT @ 1,840, 5.5" CASING: 20 LB/FT TOTAL 15,582', 8.5" HOLE, TD 15,602', SHOE TRAC- 104', TVD- 7,308'. PUMP FRESH WATER DISPLACEMENT 343 BBLS. CASING LANDED @ 22:00 08/10/2019. RIG CIRCULATED BOTTOMS UP AT 280GPM WHILE AT 680 PSI
Event	5	Pre-Rig Up Safety Meeting	Pre-Rig Up Safety Meeting	8/10/2019	18:15:00	USER					HAZARD HUNT. DISCUSSED POSSIBLE HAZARDS ASSOCIATED WITH LOCATION, RIG UP, AND WEATHER.
Event	6	Rig-Up Equipment	Rig-Up Equipment	8/10/2019	18:30:00	USER					CREW STAGED EQUIPMENT AND RIGGED UP BULK, IRON AND WATER HOSES TO PERFORM JOB.
Event	7	Pre-Job Safety Meeting	Pre-Job Safety Meeting	8/10/2019	23:30:00	USER	8.50	0.00	0.00	6.00	SAFETY MEETING WITH HALLIBURTON, AND RIG PERSONNEL. CREW

COMMUNICATED POTENTIAL SAFETY
 HAZARDS, AND JOB DETAILS.

Event	8	Start Job	Start Job	8/11/2019	00:41:35	COM5	6.21	0.00	-1.00	0.00	BEGIN RECORDING JOB DATA.
Event	9	Test Lines	Test Lines	8/11/2019	00:43:05	COM5	8.32	0.00	199.00	3.10	PRESSURE TESTED IRON TO 6,500 PSI. KICKOUTS SET @ 500 PSI, KICKED OUT @ 900 PSI, 5TH GEAR STALL OUT @ 2,100 PSI. PRESSURE HELD WITH NO LEAKS.
Event	10	Drop Bottom Plug	Drop Bottom Plug	8/11/2019	00:48:11	COM5	8.32	0.00	0.00	3.20	BOTTOM PLUG LEFT PLUG CONTAINER, VERIFIED BY COMPANY MAN.
Event	11	Pump Spacer 1	Pump Spacer 1	8/11/2019	00:48:50	COM5	8.32	0.00	1.00	3.20	PUMP 80 BBLS OF TUNED PRIMED SPACER @ 11.5 LB/GAL, 3.84 FT3/SK, 23.9 GAL/SK 10 GALLONS D-AIR. DENSITY VERIFIED BY PRESSURIZED MUD SCALES. PUMP RATE 6 BBLS/MIN @ 390 PSI.
Event	12	Check Weight	Check Weight	8/11/2019	00:55:10	COM5	11.43	5.30	388.00	30.40	DENSITY VERIFIED BY PRESSURIZED MUD SCALES.
Event	13	Pump Lead Cement	Pump Lead Cement	8/11/2019	01:02:11	COM5	11.69	6.00	304.00	0.10	PUMPED 1233 SKS OF ELASTICEM LEAD CEMENT @ 13.2 LB/GAL, 1.6 FT3/SK, 7.8 GAL/SK. 351 BBLS, TOL @ SURFACE. 18 BBLS OF LEAD CEMENT BACK TO SURFACE. DENSITY VERIFIED BY PRESSURIZED MUD SCALES. PUMP RATE 8 BBLS/MIN @ 700 PSI.
Event	14	Check Weight	Check Weight	8/11/2019	01:04:13	COM5	13.42	6.60	475.00	12.50	DENSITY VERIFIED BY PRESSURIZED MUD SCALES.
Event	15	Check Weight	Check Weight	8/11/2019	01:04:25	COM5	13.38	6.60	495.00	13.80	DENSITY VERIFIED BY PRESSURIZED MUD SCALES.
Event	16	Check Weight	Check Weight	8/11/2019	01:04:55	COM5	13.28	6.60	476.00	17.10	DENSITY VERIFIED BY PRESSURIZED MUD SCALES.
Event	17	Check Weight	Check Weight	8/11/2019	01:19:22	COM5	13.10	8.00	564.00	131.90	DENSITY VERIFIED BY PRESSURIZED MUD SCALES.

Event	18	Check Weight	Check Weight	8/11/2019	01:33:09	COM5	13.24	8.00	554.00	241.70	DENSITY VERIFIED BY PRESSURIZED MUD SCALES.
Event	19	Pump Tail Cement	Pump Tail Cement	8/11/2019	01:49:51	COM5	13.22	8.00	356.00	0.10	PUMP 843 SKS OF NEOCEM @ 13.2 LB/GAL, 2.08 FT3/SK, 10.18 GAL/SK, 312 BBLS. TOT CALCULATED @ 7,927.84'. DENSITY VERIFIED BY PRESSURIZED MUD SCALES. PUMP RATE 8 BBLS/MIN @ 650 PSI.
Event	20	Check Weight	Check Weight	8/11/2019	01:51:54	COM5	13.13	7.90	589.00	15.70	DENSITY VERIFIED BY PRESSURIZED MUD SCALES.
Event	21	Check Weight	Check Weight	8/11/2019	02:01:33	COM5	13.21	7.90	602.00	92.50	DENSITY VERIFIED BY PRESSURIZED MUD SCALES.
Event	22	Check Weight	Check Weight	8/11/2019	02:05:57	COM5	13.22	8.00	673.00	127.50	DENSITY VERIFIED BY PRESSURIZED MUD SCALES.
Event	23	Check Weight	Check Weight	8/11/2019	02:06:03	COM5	13.22	8.00	606.00	128.30	DENSITY VERIFIED BY PRESSURIZED MUD SCALES.
Event	24	Shutdown	Shutdown	8/11/2019	02:37:28	COM5					SHUTDOWN TO WASH LINES.
Event	25	Drop Top Plug	Drop Top Plug	8/11/2019	02:48:14	COM5	8.13	0.00	1.00	377.00	TOP PLUG LEFT PLUG CONTAINER, VERIFIED BY COMPANY MAN
Event	26	Pump Displacement	Pump Displacement	8/11/2019	02:48:18	COM5	8.13	0.00	0.00	377.00	BEGIN CALCULATED DISPLACEMENT OF 343 BBLS WITH FRESH WATER. 245 BBLS INTO DISPLACEMENT SPACER BACK TO SURFACE.
Event	27	Displ Reached Cement	Displ Reached Cement	8/11/2019	02:52:50	COM5	8.18	9.90	971.00	38.60	CAUGHT CEMENT @ 20 BBLS INTO DISPLACEMENT.
Event	28	Bump Plug	Bump Plug	8/11/2019	03:43:53	COM5					PLUG BUMPED AT CALCULATED DISPLACEMENT. 2,520 PSI PRESSURED UP 500 PSI OVER FINAL CIRCULATING PRESSURE. 80 BBLS OF SPACER TO SURFACE 18 BBLS OF CEMENT TO SURFACE.

Event	29	Pressure Up Well	Pressure Up Well	8/11/2019	03:45:35	COM5	8.22	0.40	2988.00	394.70	PRESSURED UP TO 5,063 PSI TO SHIFT THE WET SHOE AND PUMPED A 6 BBL WET SHOE.
Event	30	Other	Other	8/11/2019	03:49:57	COM5	8.21	0.00	2627.00	0.00	RELEASED PRESSURE, FLOATS HELD, 3 BBLs BACK.
Event	31	End Job	End Job	8/11/2019	03:50:55	COM5					STOP RECORDING JOB DATA.
Event	32	Pre-Rig Down Safety Meeting	Pre-Rig Down Safety Meeting	8/11/2019	04:00:00	USER					DISCUSSED POSSIBLE HAZARDS ASSOCIATED WITH WEATHER, LOCATION AND RIGGING DOWN IRON AND HOSES.
Event	33	Rig-Down Completed	Rig-Down Completed	8/11/2019	05:30:00	USER					ALL HALLIBURTON ITEMS WERE STOWED FOR TRAVEL, AND LOCATION WAS CLEAN.
Event	34	Safety Meeting - Departing Location	Safety Meeting - Departing Location	8/11/2019	06:00:00	USER					CREW DISCUSSED ROUTES HAZARDS AND COMMUNICATION WITH CREW.

3.0 Attachments

3.1 SRC GOLDEN EAGLE 25C-1-M PRODUCTION-Custom Results.png

