

HALLIBURTON

iCem[®] Service

SRC ENERGY INC-EBUS

Date: Tuesday, February 20, 2018

Boomerang 28C-3-L Production

Job Date: Saturday, February 17, 2018

Sincerely,

Bryce Hinsch

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Table of Contents

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.....	13
3.1	SRC Energy Boomerang 28C-3-L Production Job Chart	13

1.0 Cementing Job Summary

1.1 Executive Summary

Halliburton appreciates the opportunity to perform the cementing services on the **Boomerang 28C-3-L** 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 30 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 #: 3843030	Quote #:	Sales Order #: 0904639269
Customer: SRC ENERGY INC-EBUS		Customer Rep: Steve Wilson	
Well Name: BOOMERANG		Well #: 28C-3-L	API/UWI #: 05-123-45997-00
Field: WATTENBERG	City (SAP): GREELEY	County/Parish: WELD	State: COLORADO
Legal Description: SE NW-5-5N-66W-1541FNL-2327FWL			
Contractor: Precision		Rig/Platform Name/Num: Precision 462	
Job BOM: 7523 7523			
Well Type: HORIZONTAL OIL			
Sales Person: HALAMERICA\HB41307		Srvc Supervisor: Bryce Muir	

Job

Formation Name			
Formation Depth (MD)	Top		Bottom
Form Type	BHST		
Job depth MD	18071ft	Job Depth TVD	7269 FT
Water Depth		Wk Ht Above Floor	3 FT
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	1820		0
Casing		5.5	4.778	20	BTC	P-110	0	18071	0	0
Open Hole Section			8.5				1820	18085	0	7269

Tools and Accessories

Type	Size in	Qty	Make	Depth ft	Type	Size in	Qty	Make
Guide Shoe	5.5				Top Plug	5.5	1	WF
Float Shoe	5.5	1	WF	18071	Bottom Plug	5.5	1	WF
Float Collar	5.5	1	WF	17959	SSR plug set	5.5		HES
Insert Float	5.5				Plug Container	5.5	1	HES
Stage Tool	5.5				Centralizers	5.5	278	WF

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	Tuned Spacer III	Tuned Spacer III	40	bbl	11.5	3.8		6		
		147.42 lbm/bbl	BARITE, BULK (100003681)							
		35.10 gal/bbl	FRESH WATER							
		0.50 gal/bbl	MUSOL A, 330 GAL TOTE - (790828)							

0.50 gal/bbl		DUAL SPACER SURFACTANT B, 5 GAL PAIL (100003665)							
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	ElastiCem LEAD	ELASTICEM (TM) SYSTEM	1044	sack	13.2	1.57		6	7.54
0.15 %		FE-2 (100001615)							
0.30 %		SCR-100 (100003749)							
7.54 Gal		FRESH WATER							
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
3	NeoCem	NeoCem TM	1304	sack	13.2	2.04		4	9.77
9.77 Gal		FRESH WATER							
0.08 %		SCR-100 (100003749)							
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
4	MMCR Displacement	MMCR Displacement	10	bbbl	8.34				
0.1250 gal/bbl		MICRO MATRIX CEMENT RETARDER, 5 GAL PAIL (100003781)							
0.50 gal/bbl		CLA-WEB - BULK (101985043)							
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
5	Water	Water	388	bbbl	8.33				
Cement Left In Pipe	Amount	112 ft			Reason			Shoe Joint	
<p>Comment: WE ARRIVED ON LOCATION AND SPOTTED IN EQUIPMENT AND BEGAN TO RIG UP OUR IRON. RIG CREW WAS RUNNING CASING. AFTER ALL CASING WAS RAN WE RIGGED UP OUR PLUG CONTAINER AND MANIFOLD SO THE RIG COULD CIRCULATED THE WELL. AFTER THE RIG FINISHED CIRCULATING WE HELD A SAFETY MEETING AND THEN STARTED OUR CEMENT JOB. WE PUMPED THE MATERIALS AND QUANTITIES STATED IN THE ABOVE TABLE. AFTER LANDING THE PLUG AND PUMPING A 6 BBL WET SHOE. WE SHUTDOWN TO CHECK FLOATS. THE FLOATS HELD AND WE GOT 3 BBLs BACK TO THE RCM. WE HELD A SAFETY MEETING AND RIGGED DOWN OUR EQUIPMENT. JOB WAS COMPLETELY SAFELY BY BRYCE MUIR AND CREW.</p>									

2.0 Real-Time Job Summary

2.1 Job Event Log

Type	Seq. No.	Activity	Graph Label	Date	Time	Source	Driv-Side Pump Pressure (psi)	Downhole Density (ppg)	Combined Pump Rate (bbl/min)	Pump Stage Total (bbl)	Comments
Event	1	Call Out	Call Out	2/16/2018	22:00:00	USER					CREW CALLED OUT TO PERFORM PRODUCTION CASING JOB FOR SRC ENERGY.
Event	2	Other	Other	2/16/2018	23:00:00	USER					LOAD UP ALL REQUIRED MATERIALS NEEDED TO PERFORM JOB. DOWNLOAD ALL NECESSARY PAPERWORK NEEDED FOR PRODUCTION JOB.
Event	3	Pre-Convoy Safety Meeting	Pre-Convoy Safety Meeting	2/16/2018	23:45:00	USER					DISCUSS HAZARDS ASSOCIATED WITH DRIVING TRUCKS TO LOCATION. IDENTIFY SAFEST ROUTE OF TRAVEL CONVOY ORDER, AND PLACES TO STOP IF NEEDED.
Event	4	Depart from Service Center or Other Site	Depart from Service Center or Other Site	2/17/2018	00:00:00	USER					
Event	5	Arrive at Location from Service Center	Arrive at Location from Service Center	2/17/2018	01:00:00	USER					
Event	6	Assessment Of Location Safety Meeting	Assessment Of Location Safety Meeting	2/17/2018	01:15:00	USER					ASSESS LOCATION TO IDENTIFY POTENTIAL HAZARDS. DISCUSS IN DETAIL HOW TO SPOT PUMPING EQUIPMENT. SPOT IN EQUIPMENT.
Event	7	Pre-Rig Up Safety Meeting	Pre-Rig Up Safety Meeting	2/17/2018	01:45:00	USER					DISCUSS HAZARDS ASSOCIATED WITH RIGGING

UP AND PACKING IRON ON A DARK LOCATION. DISCUSS WALKING SURFACES, PINCH POINTS, AND LINE OF FIRES.

Event	8	Rig-Up Equipment	Rig-Up Equipment	2/17/2018	02:00:00	USER					
Event	9	Other	Other	2/17/2018	03:00:00	USER					RIG RUNNING CASING.
Event	10	Rig-Up Equipment	Rig-Up Equipment	2/17/2018	04:30:00	USER	-28.70	0.04	0.00	0.4	RIG ON BOTTOM WITH CASING. RIG UP PLUG CONTAINER, MANIFOLD, AND HOSE FOR RIG TO CIRCULATE WELL. WE PRE LOADED THE TOP AND BOTTOM PLUGS. PLUGS LOADED BY BRYCE MUIR AND WITNESSED BY BRYCE MUIR. RIG CIRCULATED AT 291 GPM @ 950 PSI.
Event	11	Pre-Job Safety Meeting	Pre-Job Safety Meeting	2/17/2018	07:00:00	USER	-28.70	0.03	0.00	0.4	DISCUSS HES SAFETY AND JOB PROCEDURES WITH RIG CREW AND COMPANY MAN. IDENTIFY CLOSEST HOSPITALS, MUSTER AREAS, AND FIRST AID LOCATIONS. DISCUSSED IN DETAIL JOB ORDER OF OPERATION AND QUANTITIES OF FLUIDS TO BE PUMPED.
Event	12	Rig-Up Equipment	Rig-Up Equipment	2/17/2018	07:20:00	USER	-28.70	0.03	0.00	0.4	RIG UP PUMPING LINES.
Event	13	Start Job	Start Job	2/17/2018	07:35:08	COM6	5.30	8.41	0.00	12.3	
Event	14	Other	Other	2/17/2018	07:36:00	USER	-24.70	8.63	0.00	12.3	PUMP 3 BBLS FRESH WATER AHEAD TO FILL PUMPS AND LINES.
Event	15	Test Lines	Test Lines	2/17/2018	07:39:21	COM6	39.30	8.66	0.00	15.0	CONDUCT A LOW PRESSURE TEST TO 500 PSI TO TEST RCM PRESSURE KICKOUTS. THEN WE CONDUCTED A

											HIGH PRESSURE TEST TO 6500 PSI. WE HELD PRESSURE FOR A FEW MINUTES MONITORING PRESSURE LOSS.
Event	16	Pump Spacer 1	Pump Spacer 1	2/17/2018	07:53:03	COM6	130.30	9.53	0.70	0.6	PUMPED 40 BBLS OF TUNED SPACER. 11.5 #/GAL 3.8 CUFT/SK 23.8 GAL/SK. WE PUMPED SPACER AT 4 BPM @ 380 PSI. WE ADDED THE MUSOL AND DUAL B ON THE FLY AS WE PUMPED SPACER. WE HAD GOOD WELL CIRCULATION.
Event	17	Drop Bottom Plug	Drop Bottom Plug	2/17/2018	08:04:35	COM6	385.30	11.22	4.10	35.8	DROPPED 5.5" BOTTOM PLUG. BOTTOM PLUG DROPPED ON THE FLY DURING THE LAST 5 BBLS OF TUNED SPACER. WITNESSED BY THE DRILLER.
Event	18	Pump Lead Cement	Pump Lead Cement	2/17/2018	08:08:32	COM6	540.30	14.02	5.00	52.0	PUMPED 292 BBLS OF LEAD CEMENT. 1044 SACKS @ 13.2 #/GAL 1.57 CUFT/SK 7.54 GAL/SK. WE PUMPED LEAD CEMENT AT 8 BPM @ 700 PSI. WE HAD GOOD CIRCULATION.
Event	19	Check Weight	Check weight	2/17/2018	08:22:23	COM6	610.30	13.17	8.00	105.5	LEAD CEMENT VERIFIED BY PRESSURIZED MUD BALANCE.
Event	20	Check Weight	Check weight	2/17/2018	08:41:15	COM6	412.30	13.15	8.00	256.6	LEAD CEMENT VERIFIED BY PRESSURIZED MUD BALANCE.
Event	21	Pump Tail Cement	Pump Tail Cement	2/17/2018	08:49:48	COM6	557.30	13.33	8.00	0.1	PUMPED 474 BBLS OF TAIL CEMENT. 1304 SACKS @ 13.2 #/GAL 2.04 CUFT/SK 9.77 GAL/SK. WE PUMPED

											TAIL CEMENT AT 8 BPM @ 600 PSI. WE HAD GOOD CIRCULATION.
Event	22	Check Weight	Check weight	2/17/2018	08:54:26	COM6	586.30	13.20	8.00	37.2	TAIL CEMENT VERIFIED BY PRESSURIZED MUD BALANCE.
Event	23	Check Weight	Check weight	2/17/2018	09:06:08	COM6	1136.30	13.21	8.00	131.1	TAIL CEMENT VERIFIED BY PRESSURIZED MUD BALANCE.
Event	24	Shutdown	Shutdown	2/17/2018	09:52:35	COM6	5.30	-0.08	0.00	0.0	
Event	25	Clean Lines	Clean Lines	2/17/2018	09:52:39	COM6	0.30	-0.10	0.00	0.0	
Event	26	Drop Top Plug	Drop Top Plug	2/17/2018	10:02:17	COM6	-0.70	7.85	0.00	15.6	DROPPED 5.5" TOP PLUG. TOP PLUG DROPPED BY BRYCE MUIR AND WITNESSED BY THE COMPANY REP.
Event	27	Pump Displacement	Pump Displacement	2/17/2018	10:02:23	COM6	0.30	7.96	0.00	15.6	PUMPED 398 BBLS OF FRESH WATER DISPLACEMENT. WE ADDED MMCR TO THE FIRST 10 BBLS OF DISPLACEMENT. THE REMAINING 388 BBLS WE ADDED BIO-CIDE AND CLA-WEB TO EACH TANK. WE DIDN'T ADD CHEMICALS TO THE LAST 30 BBLS OF DISPLACEMENT TO MAKE SURE ALL CHEMICALS CLEARED PUMPING LINES.
Event	28	Displ Reached Cmnt	Displ Reached Cmnt	2/17/2018	10:03:00	USER	30.30	8.00	0.70	0.3	TOP PLUG REACHED CEMENT AT 15 BBLS OF DISPLACEMENT AWAY. WE PUMPED DISPLACEMENT AT 10 BPM @ 1600 PSI. THE MORE WE PUMPED THE HIGHER THE PRESSURE CLIMBED. WE ADJUSTED

												RATE ACCORDINGLY. WE GOT GOOD SPACER TO SURFACE AT 328 BBLS AWAY. AT 368 BBLS OF DISPLACEMENT PUMPED WE GOT GOOD CEMENT TO SURFACE. WE GOT 30 BBLS OF CEMENT TO SURFACE. CALCULATED TO OF TAIL CEMENT IS AT 6098 FEET.
Event	29	Bump Plug	Bump Plug	2/17/2018	10:55:04	COM6	2987.30	8.03	3.90	406.9		WE LANDED THE PLUG AT 398 BBLS DISPLACEMENT PUMPED. LANDED AT 2575 PSI AND PRESSURED UP TO 3175 PSI AND HELD PRESSURE FOR 4 MINUTES.
Event	30	Other	Other	2/17/2018	10:59:33	COM6	3210.30	8.03	0.00	406.9		WE ENGAGED PUMPS TO RUPTURE DISK AND PUMP A 6 BBL WET SHOE. THE DISK DIDN'T RUPTURE AT 5100 PSI. WE SHUTDOWN AS PER COMPANY MAN TO BLEED PRESSURE BACK TO 2500 PSI AND PUMP ON IT AGAIN.
Event	31	Other	Other	2/17/2018	11:02:40	COM6	2400.30	8.06	1.30	409.4		WE ENGAGED OUR PUMPS AT 3.5 BPM AND BEGAN TO PRESSURE UP TO RUPTURE DISK. WE WERE ABLE TO RUPTURE THE DISK. THE DISK RUPTURED AT 5605 PSI AT 3.5 BPM.
Event	32	Other	Other	2/17/2018	11:04:31	COM6	2401.30	8.08	2.10	413.9		WE INCREASED OUR PUMP RATE TO 4 BPM AND PUMPED A 6 BBL WET SHOE @ 2575 PSI.
Event	33	Shutdown	Shutdown	2/17/2018	11:06:04	COM6	2376.30	8.00	0.00	419.7		
Event	34	End Job	End Job	2/17/2018	11:07:59	COM6						

Event	35	Other	Other	2/17/2018	11:15:00	USER	WASH UP RCM THRU MANIFOLD ON THE RIG FLOOR.
Event	36	Pre-Rig Down Safety Meeting	Pre-Rig Down Safety Meeting	2/17/2018	11:45:00	USER	DISCUSS HAZARDS ASSOCIATED WITH RIGGING DOWN AND PACKING IRON ON LOCATION. DISCUSSED SUSPENDED LOADS, WALKING SURFACES, AND LINE OF FIRES.
Event	37	Rig-Down Equipment	Rig-Down Equipment	2/17/2018	12:00:00	USER	
Event	38	Pre-Convoy Safety Meeting	Pre-Convoy Safety Meeting	2/17/2018	13:15:00	USER	DISCUSS HAZARDS ASSOCIATED WITH DRIVING TRUCKS BACK TO THE SERVICE CENTER. DISCUSSED ROUTE OF TRAVEL, CONVOY ORDER, AND PLACES TO STOP IF NEEDED.
Event	39	Depart Location for Service Center or Other Site	Depart Location for Service Center or Other Site	2/17/2018	13:30:00	USER	JOB WAS COMPLETED SAFELY BY BRYCE MUIR AND CREW. THANK YOU FOR USING HALLIBURTON ENERGY SERVICES. STAY SAFE OUT HERE.

3.0 Attachments

3.1 SRC Energy Boomerang 28C-3-L Production Job Chart

