

HALLIBURTON

iCem[®] Service

BONANZA CREEK ENERGY

Pronghorn K-5-8XRLNB
Intermediate

Sincerely,
Rayland Thompson

Table of Contents

1.1	Executive Summary	3
1.2	Cementing Job Summary	4
1.3	Planned Pumping Schedule	6
1.4	Job Event Log	8
2.0	Custom Graphs	11

2.1	Custom Graph	11
-----	--------------	----

1.1 Executive Summary

Halliburton appreciates the opportunity to perform the cementing services on the **Pronghorn K-5-8XRLNB** cement **Intermediate** 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.

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]

1.2 Cementing Job Summary

HALLIBURTON

Cementing Job Summary

The Road to Excellence Starts with Safety

Sold To #: 324725	Ship To #: 3580303	Quote #:	Sales Order #: 0901683611
Customer: BONANZA CREEK ENERGY		Customer Rep: Joe Kawasy	
Well Name: PRONGHORN	Well #: K-5-8XRLNB	API/UWI #: 05-123-40087-00	
Field: WATTENBERG	City (SAP): BRIGGS DALE	County/Parish: WELD	State: COLORADO
Legal Description: 5-5N-61W-200FNL-2291FEL			
Contractor: CADE DRLG		Rig/Platform Name/Num: CADE 22	
Job BOM: 7522			
Well Type: HORIZONTAL OIL			
Sales Person: HALAMERICA\HB21661		Srvc Supervisor: Rayland Thompson	
Job			

Formation Name	
Formation Depth (MD)	Top Bottom
Form Type	BHST
Job depth MD	6552ft 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			0	463	0	0
Casing		7	6.276	28		P-110	0	6552	0	6552
Open Hole Section			8.75				442	6565	0	6565

Tools and Accessories

Type	Size in	Qty	Make	Depth ft	Type	Size in	Qty	Make
Guide Shoe	7	1		6552	Top Plug	7	1	HES
Float Shoe	7	1			Bottom Plug	7	0	HES
Float Collar	7	1			SSR plug set	7	1	HES
Insert Float	7	1			Plug Container	7	1	HES
Stage Tool	7	1			Centralizers	7	1	HES

Miscellaneous Materials

Gelling Agt	Conc	Surfactant	Conc	Acid Type	Qty	Conc
Treatment Fld	Conc	Inhibitor	Conc	Sand Type	Size	Qty

Fluid Data

Stage/Plug #: 1										
Fluid #	Stage Type	Fluid Name	Qty	Qty UoM	Mixing Density lbm/gal	Yield ft ³ /sack	Mix Fluid Gal	Rate bbl/min	Total Mix Fluid Gal	
1	Mud Flush III (Powder)	Mud Flush III	20	bbl	8.4			6		
42 gal/bbl			FRESH WATER							

HALLIBURTON

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	Lead Cement	ECONOCEM (TM) SYSTEM	500	sack	12.5	1.89		5	10.23	
10.23 Gal		FRESH WATER								
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	Tail Cement	EXPANDACEM (TM) SYSTEM	215	sack	14.6	1.45		5	6.04	
6.04 Gal		FRESH WATER								
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	
4	Displacement	Displacement	260.5	bbl	8.33					
Cement Left In Pipe		Amount	41 ft		Reason			Shoe Joint		
Comment										

1.3 Planned Pumping Schedule

1.3 Pump Schedule

Description	Stage No.	Density (ppg)	Rate (bbl/min)	Yield (ft ³ /sack)	Water Req. (gal/sack)	Volume (bbl)	Bulk Cement (sacks)	Duration (min)
Bonanza Creek Intermediate Mud	1	10.00	5.00			0.00		0.00
Bottom Plug								
Mud Flush	2	8.40	5.00			24.00		4.80
Bonanza Creek Intermediate Lead 12.5 ppg EconoCem	3	12.50	5.00	1.8900	10.260	168.31	500.00	33.66
Bonanza Creek Intermediate Tail 14.6 ppg	4	14.60	5.00	1.4600	6.070	55.91	215.00	11.18
Top Plug/Start Displacement								
Bonanza Creek Intermediate Mud	5	10.00	5.00			220.00		44.00
Bonanza Creek Intermediate Mud	6	10.00	3.00			29.01		9.67
Total:						497.23		103.32

**Pump schedule may include additional rows for displacement if "Automatic Rate Adjustment" was enabled and ECDs approached the fracture gradient.*

1.4 Job Event Log

Type	Seq. No.	Activity	Graph Label	Date	Time	Source	DS Pump Press (psi)	Comb Pump Rate (bbl/min)	DH Density (ppg)	Comment
Event	1	Call Out	Call Out	9/22/2014	07:00:00	USER				Called out for the Bonanza Creek Pronghorn 7" intermediate on location @ 15:00
Event	2	Arrive at Shop	Arrive at Shop	9/22/2014	07:30:00	USER				Arrive @ yard load equipment for job get plugs & load head, 100 # sugar & 2 bags Mud Flush III Check truck 308 out
Event	3	Pre-Convoy Safety Meeting	Pre-Convoy Safety Meeting	9/22/2014	10:45:00	USER				Discussed route to location hazards on the roadways use of journey management pretrip/ gate check get hazmat certifi from shop
Event	4	Crew Leave Yard	Crew Leave Yard	9/22/2014	11:00:10	USER				Crew leave yard for location
Event	5	Arrive At Loc	Arrive At Loc	9/22/2014	13:35:00	USER				Arrive @ Loc talk with Joe (companyman) test water get #s check bin for proper loading air up bulk equip.
Event	6	Assessment Of Location Safety Meeting	Assessment Of Location Safety Meeting	9/22/2014	13:45:00	USER				Park trucks in the corner of location out of the way until casing crew finished running csg to spot equipment
Event	7	Pre-Rig Up Safety Meeting	Pre-Rig Up Safety Meeting	9/22/2014	17:00:00	USER				Discussed rig up hazards with crew entering and exiting iron trailer Watch overhead lines when spotting equip use spotters when backing or moving equipment
Event	8	Rig-Up Equipment	Rig-Up Equipment	9/22/2014	17:20:00	USER				Rig-up Halliburton hoses & lines to rig check water

										tank valves & conections for leaks
Event	9	Pre-Job Safety Meeting	Pre-Job Safety Meeting	9/22/2014	22:45:10	USER	13.00	0.00	9.09	Discussed with all involved the hazards of the job & pump schdule
Event	10	Start Job	Start Job	9/22/2014	22:56:29	COM7	14.00	0.00	9.10	Start Job
Event	11	Test Lines	Test Lines	9/22/2014	22:56:35	COM7	15.00	0.00	9.17	Test Kickouts to 500 psi Test Lines to 6000 psi no leaks presure test good
Event	12	Pump Spacer 1	Pump Spacer 1	9/22/2014	23:03:26	COM7	14.00	0.00	9.07	Pump 10 bbl fresh water
Event	13	Pump Spacer 2	Pump Spacer 2	9/22/2014	23:06:34	COM7	258.00	4.00	9.12	Pump 20 bbls Mud Flush III
Event	14	Pump Spacer 1	Pump Spacer 1	9/22/2014	23:17:59	COM7	235.00	3.70	9.04	Pump 10 bbls fresh water
Event	15	Pump Lead Cement	Pump Lead Cement	9/22/2014	23:19:01	COM7	209.00	2.70	12.77	Pump 168 bbls lead cmt @ 12.5# 500 sks
Event	16	Pump Tail Cement	Pump Tail Cement	9/22/2014	23:52:53	COM7	224.00	5.00	14.11	Pump 56 bbl tail cmt @ 14.6 # 215 sks
Event	17	Pump Displacement	Pump Displacement	9/23/2014	00:11:45	COM7	20.00	1.50	14.07	Drop top plug wash up with 1st 10 bbls displacement pump 249 bbls fresh water . got back 13 bbls cmt back to surface
Event	18	Displ Reached Cmnt	Displ Reached Cmnt	9/23/2014	00:37:22	COM7	117.00	6.10	8.61	disp reached cmt @ 130 bbls gone
Event	19	Bump Plug	Bump Plug	9/23/2014	01:13:41	COM7	2504.00	0.00	8.63	Bump plug floats held got back 2 bbl back
Event	20	Other	Test Casing	9/23/2014	01:13:50	COM7	2540.00	0.00	8.64	test casing to 2500 psi for 15 mins
Event	21	Other	Other	9/23/2014	01:31:45	COM7	2677.00	0.00	8.71	Bleed back psi got 2 bbls back
Event	22	End Job	End Job	9/23/2014	01:33:00	USER	32.00	0.00	8.58	End Job
Event	23	Pre-Rig Down Safety Meeting	Pre-Rig Down Safety Meeting	9/23/2014	01:40:00	USER	15.00	0.00	8.61	Discussed hazards rigging down & proper lifting
Event	24	Rig-Down Equipment	Rig-Down Equipment	9/23/2014	01:55:00	USER	13.00	0.00	0.13	Rig-down Halliburton hoses & lines
Event	25	Pre-Convoy Safety Meeting	Pre-Convoy Safety Meeting	9/23/2014	02:00:00	USER	13.00	0.00	0.20	Discussed the route to yard & hazards involved be careful going through the

							work zones encountered on the way to location
Event	26	Crew Return Yard	Crew Return Yard	9/23/2014	03:00:00	USER	Thank You for choosing Halliburton Rayland & Crew

2.0 Custom Graphs

2.1 Custom Graph



