

**HALLIBURTON**

077-10200

---

# **BLACK HILLS EXPLORATION & PROD-EBIZ**

---

**DHS 3C-19 D17  
BRONCO FLATS  
Mesa County , Colorado**

**Cement Surface Casing**  
19-Jun-2013

**Job Site Documents**

## The Road to Excellence Starts with Safety

Sold To #: 306454	Ship To #: 3005273	Quote #:	Sales Order #: 900527673
Customer: BLACK HILLS EXPLORATION & PROD-EBIZ	Customer Rep: Hattfield, Kit		
Well Name: DHS	Well #: 3C-19 D17	API/UWI #:	
Field: BRONCO FLATS	City (SAP): DE BEQUE	County/Parish: Mesa	State: Colorado
Contractor: H&P	Rig/Platform Name/Num: H&P 319		
Job Purpose: Cement Surface Casing			
Well Type: Development Well	Job Type: Cement Surface Casing		
Sales Person: FLING, MATTHEW	Srvs Supervisor: SMITH, CHRISTOPHER	MBU ID Emp #: 452619	

## Job Personnel

HES Emp Name	Exp Hrs	Emp #	HES Emp Name	Exp Hrs	Emp #	HES Emp Name	Exp Hrs	Emp #
BRENNECKE, ANDREW Bailey	8.0	486345	JAMISON, PRICE W	8.0	229155	LAULAINEN, ROGER Edward	8.0	524413
SMITH, CHRISTOPHER Scott	8.0	452619						

## Equipment

HES Unit #	Distance-1 way	HES Unit #	Distance-1 way	HES Unit #	Distance-1 way	HES Unit #	Distance-1 way
10248065	50 mile	10297346	50 mile	10564022	50 mile	10567589C	50 mile
11071559	50 mile	11259884	50 mile	11808829	50 mile		

## Job Hours

Date	On Location Hours	Operating Hours	Date	On Location Hours	Operating Hours	Date	On Location Hours	Operating Hours
6/19/2013	6	1	6/20/19/2013	2	0.5			

TOTAL Total is the sum of each column separately

Job				Job Times			
Formation Name				Date	Time	Time Zone	
Formation Depth (MD)	Top	Bottom		Called Out	19 - Jun - 2013	10:00	MST
Form Type	BHST			On Location	19 - Jun - 2013	17:30	MST
Job depth MD	1008. ft	Job Depth TVD	1008. ft	Job Started	19 - Jun - 2013	23:15	MST
Water Depth	Wk Ht Above Floor			Job Completed	20 - Jun - 2013	01:09	MST
Perforation Depth (MD)	From	To		Departed Loc	20-Jun-2013	03:00	MST

## Well Data

Description	New / Used	Max pressure psig	Size in	ID in	Weight lbm/ft	Thread	Grade	Top MD ft	Bottom MD ft	Top TVD ft	Bottom TVD ft
14 3/4" Open Hole				14.75				120.	1000.		
10 3/4" Surface Casing	Unknown		10.75	10.05	40.5		J-55	.	1008.	.	1005.
20" Conductor Casing	Unknown		20.	19.124	94.			.	120.		

Sales/Rental/3<sup>rd</sup> Party (HES)

Description	Qty	Qty uom	Depth	Supplier
PLUG,CMTG,TOP,10 3/4,HWE,9.09 MIN/10.09	1	EA		

## Tools and Accessories

Type	Size	Qty	Make	Depth	Type	Size	Qty	Make	Depth	Type	Size	Qty	Make
Guide Shoe	10.75	1		1005	Packer					Top Plug	10.75	1	HES
Float Shoe					Bridge Plug					Bottom Plug			
Float Collar	10.75	1		971	Retainer					SSR plug set			
Insert Float										Plug Container	10.75	1	HES
Stage Tool										Centralizers			

## 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 <sup>3</sup> /sk	Mix Fluid Gal/sk	Rate bbl/min	Total Mix Fluid Gal/sk	
1	Water Spacer		30.00	bbl	8.33	.0	.0	4.0		
2	Lead Cement	VERSACEM (TM) SYSTEM (452010)	100.0	sacks	12.3	2.38	13.75	5.0	13.75	
3	Tail Cement	VERSACEM (TM) SYSTEM (452010)	230.0	sacks	12.8	2.11	11.75	5.0	11.75	
11.75 Gal		FRESH WATER								
4	Displacement		95.00	bbl	9.3	.0	.0	5.0		
Calculated Values		Pressures		Volumes						
Displacement	95.3	Shut In: Instant		Lost Returns		Cement Slurry	128.8	Pad		
Top Of Cement	SURFACE	5 Min		Cement Returns	25	Actual Displacement	95.3	Treatment		
Frac Gradient		15 Min		Spacers		Load and Breakdown		Total Job	256	
Rates										
Circulating		Mixing	5	Displacement	5	Avg. Job	5			
Cement Left In Pipe	Amount	33.7 ft	Reason	Shoe Joint						
Frac Ring # 1 @	ID	Frac ring # 2 @	ID	Frac Ring # 3 @	ID	Frac Ring # 4 @	ID			
The Information Stated Herein Is Correct				Customer Representative Signature						

# HALLIBURTON

## Cementing Job Log

*The Road to Excellence Starts with Safety*

Sold To #: 306454	Ship To #: 3005273	Quote #:	Sales Order #: 900527673
Customer: BLACK HILLS EXPLORATION & PROD-EBIZ	Customer Rep: Hattfield, Kit		
Well Name: DHS	Well #: 3C-19 D17	API/UWI #:	
Field: BRONCO FLATS	City (SAP): DE BEQUE	County/Parish: Mesa	State: Colorado
Legal Description:			
Lat:	Long:		
Contractor: H&P	Rig/Platform Name/Num: H&P 319		
Job Purpose: Cement Surface Casing	Ticket Amount:		
Well Type: Development Well	Job Type: Cement Surface Casing		
Sales Person: FLING, MATTHEW	Srv Supervisor: SMITH, CHRISTOPHER	MBU ID Emp #: 452619	

Activity Description	Date/Time	Cht #	Rate bbl/min	Volume bbl		Pressure psig		Comments
				Stage	Total	Tubing	Casing	
Call Out	06/19/2013 10:00							REQUESTED ON LOCATION AT 1830
Pre-Convoy Safety Meeting	06/19/2013 15:45							ALL HES PRESENT
Crew Leave Yard	06/19/2013 16:00							
Arrive At Loc	06/19/2013 17:30							RIG PULLING DRILL PIPE
Assessment Of Location Safety Meeting	06/19/2013 18:00							ALL HES PRESENT
Rig-Up Equipment	06/19/2013 18:45							
Pre-Job Safety Meeting	06/19/2013 23:00							ALL HES PRESENT
Start Job	06/19/2013 23:15							TD 1008', TP 1005', SJ 33.7', OH 14.75", CSG 10.75", 40.5#, MUD 9.3
Pump Water	06/19/2013 23:17		2	2			42.0	FRESH WATER
Test Lines	06/19/2013 23:22		0.5	0.5				ALL LINES HELD PRESSURE AT 2469 PSI
Pump Spacer 1	06/19/2013 23:26		4	30			95.0	FRESH WATER
Pump Lead Cement	06/19/2013 23:34		5	42.4			135.0	100SKS , 12.3PPG, 2.38FT3/SK, 13.75GAL/SK 10LBS TOUGH FIBER ADDED
Pump Tail Cement	06/19/2013 23:43		5	86.4			145.0	230SKS, 12.8PPG, 2.11FT3/SK, 11.75GAL/SK 25LBS TOUGH FIBER ADDED
Shutdown	06/20/2013 00:02							

Sold To #: 306454

Ship To #: 3005273

Quote # :

Sales Order #: 900527673

SUMMIT Version: 7.3.0081

Thursday, June 20, 2013 02:04:00

# HALLIBURTON

## Cementing Job Log

Activity Description	Date/Time	Cht #	Rate bbl/ min	Volume bbl		Pressure psig		Comments
				Stage	Total	Tubing	Casing	
Other	06/20/2013 00:03							WASH UP ON TOP OF PLUG
Pump Displacement	06/20/2013 00:05		5	85.5			234.0	9.3PPG MUD
Slow Rate	06/20/2013 00:26		2	10			200.0	
Bump Plug	06/20/2013 00:27						703.0	PLUG BUMPED
Check Floats	06/20/2013 00:29							FLOATS HELD
Pressure Up	06/20/2013 00:37		0.5	0.5			1500. 0	30 MINUTE CASING PRESSURE TEST
End Job	06/20/2013 01:07							PIPE WAS NOT MOVED THROUGH OUT JOB, GOOD RETURNS, 25 BLLS OF CEMENT TO SURFACE. RIG WAS GIVEN 200LBS SUGAR.
Post-Job Safety Meeting (Pre Rig-Down)	06/20/2013 01:10							ALL HES PRESENT
Rig-Down Equipment	06/20/2013 01:20							
Pre-Convoy Safety Meeting	06/20/2013 03:30							ALL HES PRESENT
Crew Leave Location	06/20/2013 03:45							THANK YOU FOR USING HALLIBURTON CEMENT, CHRIS SMITH AND CREW.

Sold To #: 306454

Ship To #: 3005273

Quote #:

Sales Order #: 900527673

SUMMIT Version: 7.3.0081

Thursday, June 20, 2013 02:04:00