HALLIBURTON

Cementing Job Summary

The Road to Excellence Starts with Safety

Sold To #: 304535	**Ship To #:** 3007348	**Quote #:**	**Sales Order #:** 900558607
Customer: PDC ENERGY EBUS		**Customer Rep:** Sailors, Chad	
Well Name: Frank	**Well #:** 1-21C		**API/UWI #:** 05-123-12549
Field: WATTENBERG	**City (SAP):** LA SALLE	**County/Parish:** Weld	**State:** Colorado
Lat: N 40.206 deg. OR N 40 deg. 12 min. 22.813 secs.		**Long:** W 104.672 deg. OR W -105 deg. 19 min. 40.091 secs.	
Contractor: WORKOVER	**Rig/Platform Name/Num:** Workover		
Job Purpose: Squeeze Perfs			
Well Type: Development Well	**Job Type:** Squeeze Perfs		
Sales Person: PLIENESS, RYAN	**Srvc Supervisor:** MCBRIDE, NATHAN	**MBU ID Emp #:** 313810	

Job Personnel

HES Emp Name	Exp Hrs	Emp #	HES Emp Name	Exp Hrs	Emp #	HES Emp Name	Exp Hrs	Emp #
CHISLUM, DENNIS	8.0	512130	MARKOVICH, STEVEN Michael	8.0	502964	MCBRIDE, NATHAN Charles	8.0	313810

Equipment

HES Unit #	*Distance-1 way*	HES Unit #	*Distance-1 way*	HES Unit #	*Distance-1 way*	HES Unit #	*Distance-1 way*
10822531C	30 mile	11064046C	30 mile	11362287C	30 mile	11633848	30 mile
12010170	30 mile						

Job Hours

Date	*On Location Hours*	Operating Hours	Date	*On Location Hours*	Operating Hours	Date	*On Location Hours*	Operating Hours
TOTAL								

Total is the sum of each column separately

Job

Formation Name					
Formation Depth (MD)	**Top**		**Bottom**		
Form Type		**BHST**			
Job depth MD	3515. ft	**Job Depth TVD**	3515. ft		
Water Depth		**Wk Ht Above Floor**	5. ft		
Perforation Depth (MD)	*From*	***4,600.00 ft***	**To**	5,200.00 ft	

Job Times

	Date	Time	Time Zone
Called Out	01 - Jul - 2013	04:30	MST
On Location	01 - Jul - 2013	08:00	MST
Job Started	01 - Jul - 2013	10:34	MST
Job Completed	01 - Jul - 2013	14:34	MST
Departed Loc	01 - Jul - 2013	16:00	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
Perforation Interval								3500.	3800.	.	.
Perforation Interval								605.	610.	.	.
10" Open Hole				10.				610.	3800.		
12" Open Hole				12.				426.	610.		
4 1/2"	Unknown		4.5	4.	11.6			.	6981.		
8 5/8" Surface Casing	Unknown		8.625	8.097	24.			.	426.		
Retainer	Unknown		3.5	2.992	9.3			3515.	3516.		
Tubing	Unknown		2.375	1.995	4.7	8 RD	J-55	.	3515.	.	3515.

Tools and Accessories

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

Miscellaneous Materials

HALLIBURTON

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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 ft3/sk	Mix Fluid Gal/sk	Rate bbl/min	Total Mix Fluid Gal/sk
1	Econocem B3 12.5#	ECONOCEM (TM) SYSTEM (452992)	90.0	sacks	12.5	1.89	10.27		10.27
	10.27 Gal	FRESH WATER							
2	MUD FLUSH III	MUD FLUSH III - SBM (528788)	12.00	bbl	8.4	.0	.0	.0	
	42 gal/bbl	FRESH WATER							
	3.33 lbm/bbl	MUD FLUSH III, 40 LB SACK (101633304)							
3	VariCem 12.#	VARICEM (TM) CEMENT (452009)	125.0	sacks	12.	2.18	12.33		12.33

Calculated Values		Pressures		Volumes					
Displacement		Shut In: Instant		Lost Returns		Cement Slurry		Pad	
Top Of Cement		5 Min		Cement Returns	8	Actual Displacement		Treatment	
Frac Gradient		15 Min		Spacers		Load and Breakdown		Total Job	

Rates

Circulating		Mixing		Displacement		Avg. Job	
Cement Left In Pipe	Amount	0 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