

HALLIBURTON

NOBLE ENERGY INC E-BUSINESS

Dunbar 18-34
WATTENBERG
Weld County , Colorado

Squeeze Hole in Casing
15-Jul-2013

Job Site Documents

The Road to Excellence Starts with Safety

Sold To #: 345242	Ship To #: 2422092	Quote #:	Sales Order #: 900590811
Customer: NOBLE ENERGY INC E-BUSINESS	Customer Rep: Burns, Pete		
Well Name: Dunbar	Well #: 18-34	API/UWI #: 05-123-22745	
Field: WATTENBERG	City (SAP): SEVERANCE	County/Parish: Weld	State: Colorado
Lat: N 40.482 deg. OR N 40 deg. 28 min. 56.723 secs.	Long: W 104.825 deg. OR W -105 deg. 10 min. 31.57 secs.		
Contractor: Noble	Rig/Platform Name/Num: Workover		
Job Purpose: Squeeze Hole in Casing			
Well Type: Development Well	Job Type: Squeeze Hole in Casing		
Sales Person: PLIENESS, RYAN	Srv Supervisor: SMITH, AARON	MBU ID Emp #: 518187	

Job Personnel

HES Emp Name	Exp Hrs	Emp #	HES Emp Name	Exp Hrs	Emp #	HES Emp Name	Exp Hrs	Emp #
DODSON, RICHARD Bryan	6.0	518192	REYNOLDS, SCOTT Arthur	6.0	522540	SMITH, AARON David	6.0	518187

Equipment

HES Unit #	Distance-1 way	HES Unit #	Distance-1 way	HES Unit #	Distance-1 way	HES Unit #	Distance-1 way
11036301	33 mile	11667703C	33 mile	12010173	33 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	Top	Bottom	Called Out	Date	Time	Time Zone
Formation Depth (MD)			On Location	15 - Jul - 2013	05:30	MST
Form Type		BHST	Job Started	15 - Jul - 2013	09:30	MST
Job depth MD	3121. ft	Job Depth TVD	Job Completed	15 - Jul - 2013	11:51	MST
Water Depth		Wk Ht Above Floor	Departed Loc	15 - Jul - 2013	14:28	MST
Perforation Depth (MD)	From 3,405.00 ft	To 3,405.00 ft				

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								3405.	3405.	.	.
7 7/8" Open Hole				7.875				811.	7343.		
Packer	Unknown							3100.	3101.		
4 1/2" Casing	Unknown		4.5	4.	11.6			.	7343.		
8 3/4" Surface Casing	Unknown		8.75	.				.	811.		
Retrievable Bridge Plug	Unknown			.				6900.	6901.		
2 3/8" Tubing	Unknown		2.375	1.995	4.6			.	3121.		

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

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

HALLIBURTON

Cementing Job Summary

Fluid Data									
Stage/Plug #: 1									
Fluid #	Stage Type	Fluid Name	Qty	Qty uom	Mixing Density lbm/gal	Yield ft ³ /sk	Mix Fluid Gal/sk	Rate bbl/min	Total Mix Fluid Gal/sk
1	15.8# G SQUEEZE CEMENT	SQUEEZECM (TM) SYSTEM (452971)	100.0	sacks	15.8	1.15	5.0		5.0
5 Gal		FRESH WATER							
Calculated Values		Pressures		Volumes					
Displacement		Shut In: Instant		Lost Returns		Cement Slurry		Pad	
Top Of Cement		5 Min		Cement Returns		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					

Cementing Job Log

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Activity Description	Date/Time	Cht #	Rate bbl/ min	Volume bbl		Pressure psig		Comments
				Stage	Total	Tubing	Casing	
End Job	07/15/2013 02:28							Thanks Aaron Smith and Crew.
Arrive at Location from Service Center	07/15/2013 09:30							With all equipment and materials.
Assessment Of Location Safety Meeting	07/15/2013 09:35							
Pre-Rig Up Safety Meeting	07/15/2013 09:40							Discussed rig-up jsa with crew.
Rig-Up Equipment	07/15/2013 09:45							
Rig-Up Completed	07/15/2013 10:00							
Pre-Job Safety Meeting	07/15/2013 11:30							With customer rep and rig crew.
Start Job	07/15/2013 11:51							
Test Lines	07/15/2013 11:52							2500
Injection Test	07/15/2013 11:58		2	5			300.0	
Shutdown	07/15/2013 12:01							
ISIP	07/15/2013 12:03							
Pump Cement	07/15/2013 12:08		2	20			25.0	100 sks @ 15.8 ppg 1.15 yield, 5.00 gal/sk
Pump Displacement	07/15/2013 12:20		0.5	14			.0	Fresh Water displaced 100 ft below tubing
Shutdown	07/15/2013 12:34						28.0	
Start Squeeze	07/15/2013 13:00						966.0	Well Squeezed off after 3 stages of 30 mins. 86sks in formation