

**HALLIBURTON**

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## **NOBLE ENERGY INC E-BUSINESS**

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**Spike State GWS H 36-14  
WATTENBERG  
Weld County , Colorado**

**Recement Service**  
**22-Apr-2013**

**Job Site Documents**

## The Road to Excellence Starts with Safety

Sold To #: 345242	Ship To #: 2993949	Quote #:	Sales Order #: 900380427
Customer: NOBLE ENERGY INC E-BUSINESS	Customer Rep: Trumble, Scott		
Well Name: Spike State GWS	Well #: H 36-14	API/UWI #: 05-123-16037	
Field: Wattenberg	City (SAP): HUDSON	County/Parish: Weld	State: Colorado
Lat: N 40.176 deg. OR N 40 deg. 10 min. 32.34 secs.	Long: W 104.614 deg. OR W -105 deg. 23 min. 9.168 secs.		
Contractor: Workover	Rig/Platform Name/Num: Workover 303		
Job Purpose: Recement Service			
Well Type: Development Well	Job Type: Recement Service		
Sales Person: FLING, MATTHEW	Srvc Supervisor: LAVALLEY, LARRY	MBU ID Emp #: 419296	

### Job Personnel

HES Emp Name	Exp Hrs	Emp #	HES Emp Name	Exp Hrs	Emp #	HES Emp Name	Exp Hrs	Emp #
GROVES, COREY Michael	7	497175	LANGE, TIMOTHY Paul	7	520811	LAVALLEY, LARRY P	7	419296
RICHEY, JESSICA L	7	525703	WILEY, JAMES A	7	440080			

### Equipment

HES Unit #	Distance-1 way	HES Unit #	Distance-1 way	HES Unit #	Distance-1 way	HES Unit #	Distance-1 way
10982754	20 mile	11064535	20 mile	11488570C	20 mile	11518549	20 mile
11527037	20 mile						

### Job Hours

Date	On Location Hours	Operating Hours	Date	On Location Hours	Operating Hours	Date	On Location Hours	Operating Hours
4/22/13	7	2						

TOTAL Total is the sum of each column separately

### Job

### Job Times

Formation Name	Formation Depth (MD)	Top	Bottom	Called Out	Date	Time	Time Zone
Form Type			BHST	On Location	22 - Apr - 2013	07:30	MST
Job depth MD	4798. ft		Job Depth TVD	Job Started	22 - Apr - 2013	10:15	MST
Water Depth			Wk Ht Above Floor	Job Completed	22 - Apr - 2013	13:45	MST
Perforation Depth (MD)	From		To	Departed Loc	22 - Apr - 2013	14:30	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
12." Open Hole				12.				513.	870.	513.	870.
Surface Casing	Used		8.625	8.097	24.		J-55	.	513.	.	513.
1 1/4"	Unknown		1.25	.671	3.02		K-55	.	4798.		
2 7/8" Production Casing	Unknown		2.875	2.441	6.5			.	4798.		4798.

### 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	

### Fluid Data

Stage/Plug #: 1

**HALLIBURTON****Cementing Job Summary**

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	13.5 FracCem	FRACCEM (TM) SYSTEM (452963)	250.0	sacks	13.5	1.48	7.07	2.0	7.07
	7.07 Gal	FRESH WATER							
2	15.8# Cement	HALCEM (TM) SYSTEM (452986)	400.0	sacks	15.8	1.15	5.0	2.0	5.0
	5 Gal	FRESH WATER							
<b>Calculated Values</b>		<b>Pressures</b>		<b>Volumes</b>					
Displacement	4.5	Shut In: Instant		Lost Returns	YES	Cement Slurry	133	Pad	
Top Of Cement		5 Min		Cement Returns	NONE	Actual Displacement	4.5	Treatment	
Frac Gradient		15 Min		Spacers	13.5	Load and Breakdown		Total Job	
<b>Rates</b>									
Circulating		Mixing	1	Displacement	1	Avg. Job	1		
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					