

NOBLE ENERGY INC E-BUSINESS  
DO NOT MAIL-804 GRAND AVENUE  
PLATTEVILLE, Colorado

Rayglo  
Rayglo A 14-68-1HN

H & P/#/323

## Post Job Summary

### Plug Service - Whipstock

Date Prepared: 05/14/2012  
Version: 1

Service Supervisor: LAVALLEY, LARRY

Submitted by: MCKAY, ADAM

HALLIBURTON

# HALLIBURTON

## Wellbore Geometry

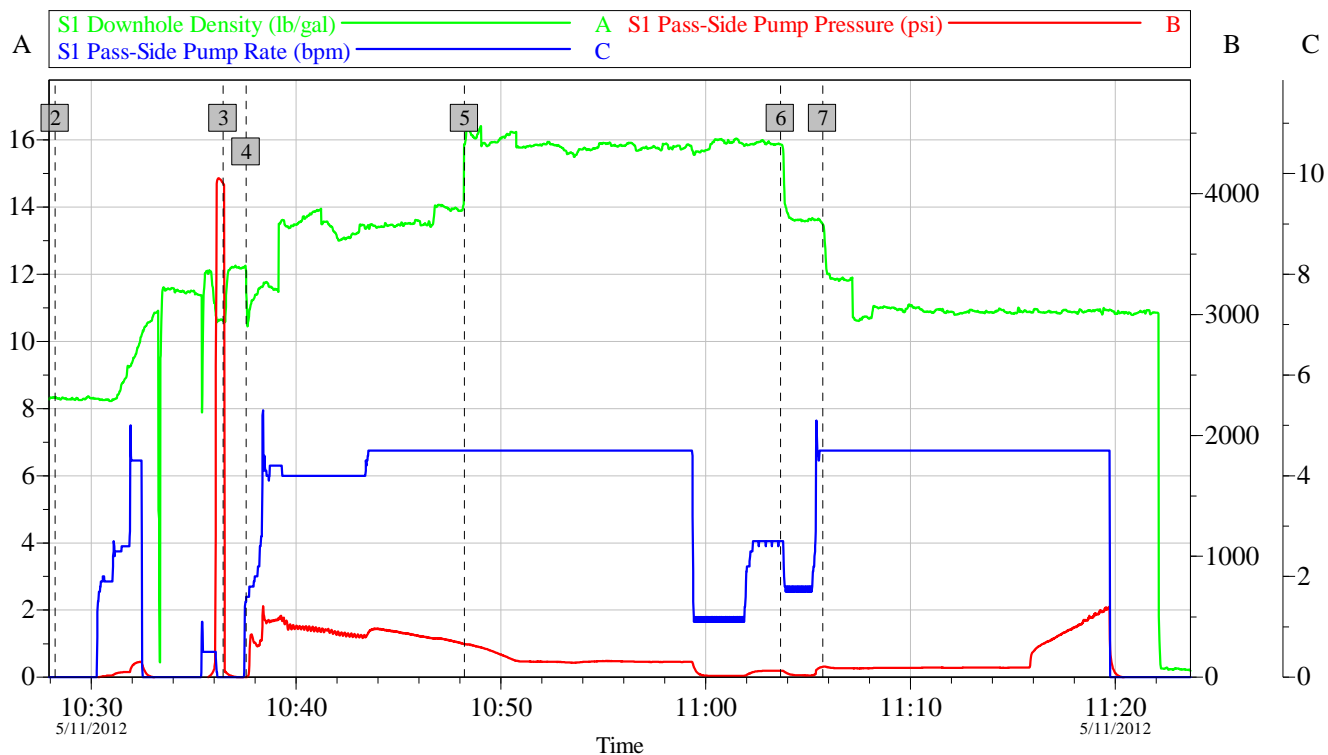
Job Tubulars					MD		TVD		Excess	Shoe Joint Length
Type	Description	Size in	ID in	Wt lbm/ft	Top ft	Bottom ft	Top ft	Bottom ft	%	ft
Casing	Surface Casing	8.63	8.097	24.00	0.00	721.00	0.00	0.00	0.00	
Open Hole Section	Open Hole		7.875		750.00	7,140.00	0.00	0.00	33.00	
Drill Pipe	Drill Pipe	4.00	.000	14.37	0.00	7,000.00	0.00	0.00		

## Pumping Schedule

Stage /Plug #	Fluid #	Fluid Type	Fluid Name	Surface Density lbm/gal	Avg Rate bbl/min	Surface Volume	Downhole Volume
1	1	Spacer	TUNED SPACER III	13.50	4.50	100.0 bbl	100.0 bbl
1	2	Cement Slurry	PlugCem 15.8#	15.80	4.50	220.0 sacks	220.0 sacks
1	3	Cement Slurry	Plugcem 17.5#	17.50	4.50	270.0 sacks	270.0 sacks

## Data Acquisition

### NOBLE RAYGLO A 14-68 1HN PLUG #1



#### Global Event Log

2	Start Job	10:28:14	3	Test Lines	10:36:26	4	Pump Spacer 1	10:37:33
5	Pump Lead Cement	10:48:14	6	Pump Spacer 2	11:03:39	7	Pump Displacement	11:05:43

Customer:

Well Description:

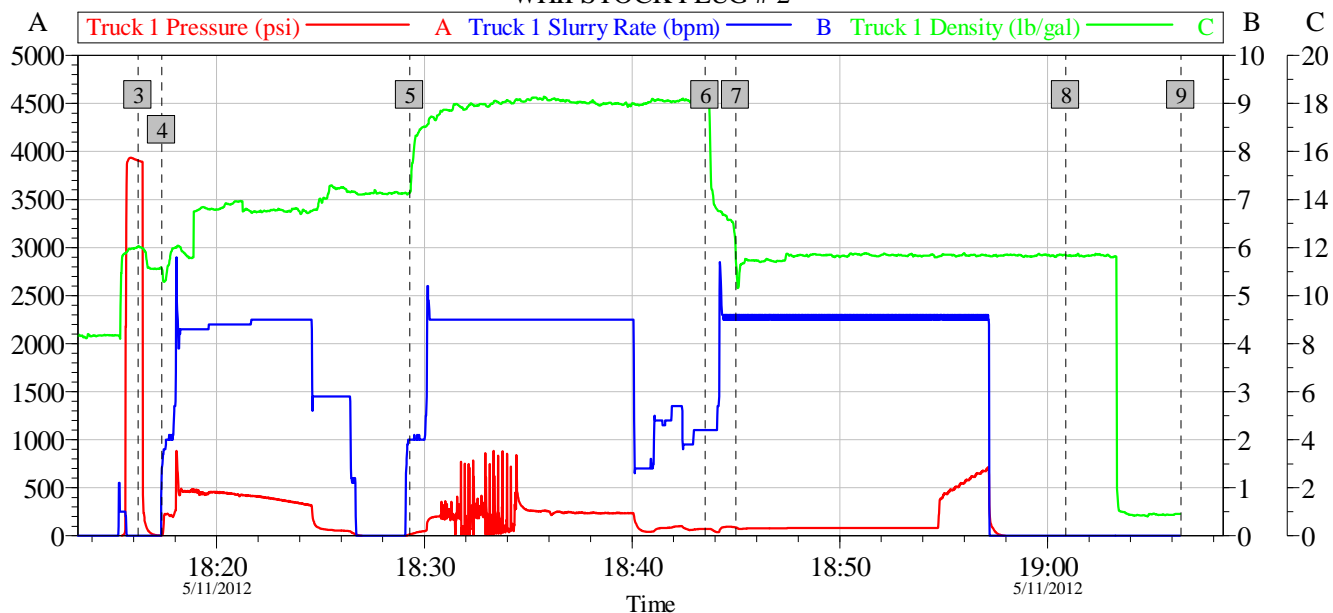
Job Date: 11-May-2012

UWI:

Sales Order #: 9508725

OptiCem v6.4.10  
14-May-12 16:33

## NOBLE RAYGLO A 14-68 1HN WHIPSTOCK PLUG # 2



Global Event Log											
Intersection			T1P	T1SR	T1D	Intersection			T1P	T1SR	T1D
1	Starting Job	17:08:11	-2.000	0.000	0.220	2	Start Job	17:19:38	1.000	2.200	7.551
3	Test Lines	18:16:13	3905	0.000	12.05	4	Pump Spacer 1	18:17:22	4.754	1.400	11.12
5	Pump Lead Cement	18:29:18	14.02	2.000	14.28	6	Pump Spacer 2	18:43:31	71.14	2.200	18.13
7	Pump Displacement	18:44:59	87.70	4.530	11.84	8	End Job	19:00:53	-6.000	0.000	11.68
9	Ending Job	19:06:26	-9.000	0.000	0.920						

Customer: NOBLE ENERGY	Job Date: 11-May-2012	Sales Order #: 9508725
Well Description: WHIPSTOCK PLUG	THANKS LARRY LAVALLEY AND CREW	

OptiCem v6.4.10  
11-May-12 19:08

## Service Supervisor Reports

### Job Log

Date/Time	Chart #	Activity Code	Pump Rate	Cum Vol	Pump	Pressure (psig)	Comments
05/11/2012 10:20		Start Job					
05/11/2012 10:36		Test Lines				4089.0	
05/11/2012 10:37		Pump Spacer 1	4.5	35.5		273.0	35.5 TUNED SPACER III MIXED @ 13.5 PPG
05/11/2012 10:48		Pump Lead Cement	4.5	44.6		273.0	220 SKS PLUGCEM MIXED @ 15.8 PPG
05/11/2012 11:03		Pump Spacer 2	4.5	5		53.0	TUNED SPACER III MIXED @ 13.5
05/11/2012 11:05		Pump Displacement	4.5	62.5		507.0	DRILLING MUD SUPPLIED BY RIG
05/11/2012 11:06		Shutdown					
05/11/2012 11:29		Other					WOC FOR 6 HOURS
05/11/2012 11:29		End Job					
05/11/2012 17:19		Start Job					
05/11/2012 18:16		Test Lines				3905.0	
05/11/2012 18:17		Pump Spacer 1	4.5	35.5		271.0	35.5 TUNED SPACER III MIXED @ 13.5 PPG
05/11/2012 18:29		Pump Lead Cement	4.5	44.6		193.0	270 SKS GRANITECEM MIXED @ 17.5 PPG
05/11/2012 18:43		Pump Spacer 2	4.5	5		71.0	TUNED SPACER III MIXED @ 13.5
05/11/2012 18:44		Pump Displacement	4.5	56		522.0	DRILLING MUD SUPPLIED BY RIG WHEN RELEASED GOT 1BBL FLOWBACK
05/11/2012 19:00		End Job					

# HALLIBURTON

## The Road to Excellence Starts with Safety

<b>Sold To #:</b> 345242		<b>Ship To #:</b> 2925272		<b>Quote #:</b>		<b>Sales Order #:</b> 9508725	
<b>Customer:</b> NOBLE ENERGY INC E-BUSINESS				<b>Customer Rep:</b> TURNER, JIM			
<b>Well Name:</b> Rayglo			<b>Well #:</b> A 14-68-1HN			<b>API/UWI #:</b> 05-123-34515	
<b>Field:</b> Wattenberg		<b>City (SAP):</b> GILL		<b>County/Parish:</b> Weld			<b>State:</b> Colorado
<b>Contractor:</b> H & P			<b>Rig/Platform Name/Num:</b> #323				
<b>Job Purpose:</b> Plug Service - Whipstock							
<b>Well Type:</b> Development Well			<b>Job Type:</b> Plug Service - Whipstock				
<b>Sales Person:</b> FLING, MATTHEW			<b>Srvc Supervisor:</b> LAVALLEY, LARRY			<b>MBU ID Emp #:</b> 419296	

### Job Personnel

HES Emp Name	Exp Hrs	Emp #	HES Emp Name	Exp Hrs	Emp #	HES Emp Name	Exp Hrs	Emp #
CARPENTER, JACOB P	0.0	499500	FLYNN, SHAD Michael	0.0	476484	LAVALLEY, LARRY P	0.0	419296
OTERI, VAUGHN Steeves	0.0	443828	ROMERO, JOSEPH Michael	0.0	512137			

### Equipment

HES Unit #	Distance-1 way	HES Unit #	Distance-1 way	HES Unit #	Distance-1 way	HES Unit #	Distance-1 way
10988836	45 mile	11036298	45 mile	11488570C	45 mile	11518549	45 mile
11527037	45 mile	11633846C	45 mile	11645065	45 mile		

### Job Hours

Date	On Location Hours	Operating Hours	Date	On Location Hours	Operating Hours	Date	On Location Hours	Operating Hours

<b>TOTAL</b>	Total is the sum of each column separately							
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### Job

Formation Name							Date	Time	Time Zone	
Formation Depth (MD)	Top			Bottom		Called Out	11 - May - 2012	04:00	MST	
Form Type				BHST		On Location	11 - May - 2012	07:30	MST	
Job depth MD	7181. ft		Job Depth TVD		7181. ft	Job Started	11 - May - 2012	10:20	MST	
Water Depth				Wk Ht Above Floor		6. ft	Job Completed	11 - May - 2012	19:00	MST
Perforation Depth (MD)	From			To		Departed Loc	11 - May - 2012	19:45	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
Open Hole				7.875				750.	7140.	.	.
Surface Casing	Unknown		8.625	8.097	24.			.	721.	.	.
Drill Pipe	Unknown		4.	.	14.37			.	7000.	.	.

### 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

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	TUNED SPACER III	TUNED SPACER III - SBM (483826)	100.00	bbl	13.5	9.7	64.62	5.0	
	37.58 gal/bbl	FRESH WATER							
	88.7 lbm/bbl	BARITE, 100 LB SK (100003680)							
2	PlugCem 15.8#	PLUGCEM (TM) SYSTEM (452969)	220.0	sacks	15.8	1.15	4.96	5.0	4.96
	4.96 Gal	FRESH WATER							
3	Plugcem 17.5#	PLUGCEM (TM) SYSTEM (452969)	270.0	sacks	17.5	.94	3.32	5.0	3.32
	3.32 Gal	FRESH WATER							
<b>Calculated Values</b>		<b>Pressures</b>		<b>Volumes</b>					
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	
<b>Rates</b>									
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					