

# HALLIBURTON

iCem® Service

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

**For:**

Date: Friday, April 28, 2017

**904004104 Noble Wells Ranch USX AA 33-17 PTA**

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Sincerely,

**Nathaniel Moore**

The Road to Excellence Starts with Safety

Sold To #: 345242	Ship To #: 2574739	Quote #:	Sales Order #: 0904004104
Customer: NOBLE ENERGY INC E-BUSINESS		Customer Rep: Dustin Stevens	
Well Name: Wells Ranch USX	Well #: AA 33-17	API/UWI #: 05-123-25050	
Field:	City (SAP): KERSEY	County/Parish: WELD	State: COLORADO
Legal Description:			
Contractor: Noble		Rig/Platform Name/Num: Workover	
Job BOM: 7528 7528			
Well Type: GAS			
Sales Person: HALAMERICA\HB70026		Srvc Supervisor: Nathaniel Moore	

### Job

Formation Name			
Formation Depth (MD)	Top		Bottom
Form Type			BHST
Job depth MD	2500ft		Job Depth TVD
Water Depth			Wk Ht Above Floor
Perforation Depth (MD)	From		To

### Well Data

Description	New / Used	Size in	ID in	Weight lbm/ft	Thread	Grade	Top MD ft	Bottom MD ft	Top TVD ft	Bottom TVD ft
Tubing		2.375	1.995	4.7			0	1911		0
Casing perms		4.5	4	11.6			0	2020		

### Tools and Accessories

Type	Size in	Qty	Make	Depth ft	Type	Size in	Qty	Make
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### Fluid Data

Stage/Plug #: 1

Fluid #	Stage Type	Fluid Name	Qty	Qty UoM	Mixing Density lbm/gal	Yield ft <sup>3</sup> /sack	Mix Fluid Gal	Rate bbl/min	Total Mix Fluid Gal
1	Mud Flush III (Powder)	Mud Flush III	10	bbl	8.4				
42 gal/bbl		FRESH WATER							

Fluid #	Stage Type	Fluid Name	Qty	Qty UoM	Mixing Density lbm/gal	Yield ft <sup>3</sup> /sack	Mix Fluid Gal	Rate bbl/min	Total Mix Fluid Gal
2	PLUG #1	HALCEM (TM) SYSTEM	210	sack	15.8	1.15		2	5
15.80 Gal		FRESH WATER							
94 lbm		CMT - PREMIUM - CLASS G REG OR TYPE V, BULK (100003685)							

Cement Left In Pipe	Amount	ft	Reason	Shoe Joint
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5.4 bbl water displacement to leave 2 bbl on top of retainer.

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## 1.0 Real-Time Job Summary

### 1.1 Job Event Log

Type	Seq. No.	Activity	Graph Label	Date	Time	Source	Pass-Side Pump Pressure (psi)	Downhole Density (ppg)	Combined Pump Rate (bbl/min)	Pump Stage Total (bbl)	Comments
Event	1	Call Out	Call Out	4/28/2017	06:00:00	USER					OL time 1000. Verify equipment and materials.
Event	2	Assessment Of Location Safety Meeting	Assessment Of Location Safety Meeting	4/28/2017	10:00:00	USER					Sign in. Spot in and rig up equipment. Wants 500' behind 4.5" casing. Perfs @ 2020' in 4.5" 11.6 # casing. 2.375" tubing in retainer at 1911'. 10" annular. Leave 2 bbl on top of retainer. 210 sks total.
Event	3	Pre-Job Safety Meeting	Pre-Job Safety Meeting	4/28/2017	11:00:00	USER	12.00	8.47	0.00	3.6	Discuss job procedure with HES and rig crew
Event	4	Start Job	Start Job	4/28/2017	11:08:25	COM1	12.00	8.44	0.00	3.6	Break circulation/Fill lines 4 bbl water 700 psi at 1.5 bbl/min
Event	5	Test Lines	Test Lines	4/28/2017	11:22:41	COM1	2916.00	8.52	0.00	33.1	2500 psi pressure test
Event	6	Pump Spacer 1	Pump Spacer 1	4/28/2017	11:26:00	COM1	10.00	8.48	0.00	0.0	10 bbl mud flush washed down with 5 bbl water.
Event	7	Pump Cement	Pump Cement	4/28/2017	11:40:03	COM1	190.00	8.68	1.00	0.0	210 sks/42.5 bbl 15.8 ppg 1.15 ft3/sk 5.0 gal/sk
Event	8	Check Weight	Check weight	4/28/2017	11:41:22	COM1	350.00	15.77	2.00	2.5	15.8 ppg verified with pressurized scales
Event	9	Other	Pump cavitation	4/28/2017	12:01:17	USER	16.00	15.54	3.50	46.1	Poor prime on pump caused slow pumping and bbl counter to be off.
Event	10	Pump Displacement	Pump Displacement	4/28/2017	12:27:19	COM1	23.00	12.09	3.00	130.7	5.4 bbl water displacement.
Event	11	Other	Lost prime	4/28/2017	12:32:20	USER	57.00	8.54	5.00	15.1	Lost prime going down hole.

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(v. 4.2.393)

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Opened release line and re-primed pumps to finish displacement.

Event	12	End Job	End Job	4/28/2017	12:40:24	COM1	98.00	7.21	0.00	33.3
Event	13	Pre-Rig Down Safety Meeting	Pre-Rig Down Safety Meeting	4/28/2017	12:45:00	USER	57.00	8.21	2.90	59.1
Event	14	Depart Location Safety Meeting	Depart Location Safety Meeting	4/28/2017	14:00:00	USER				

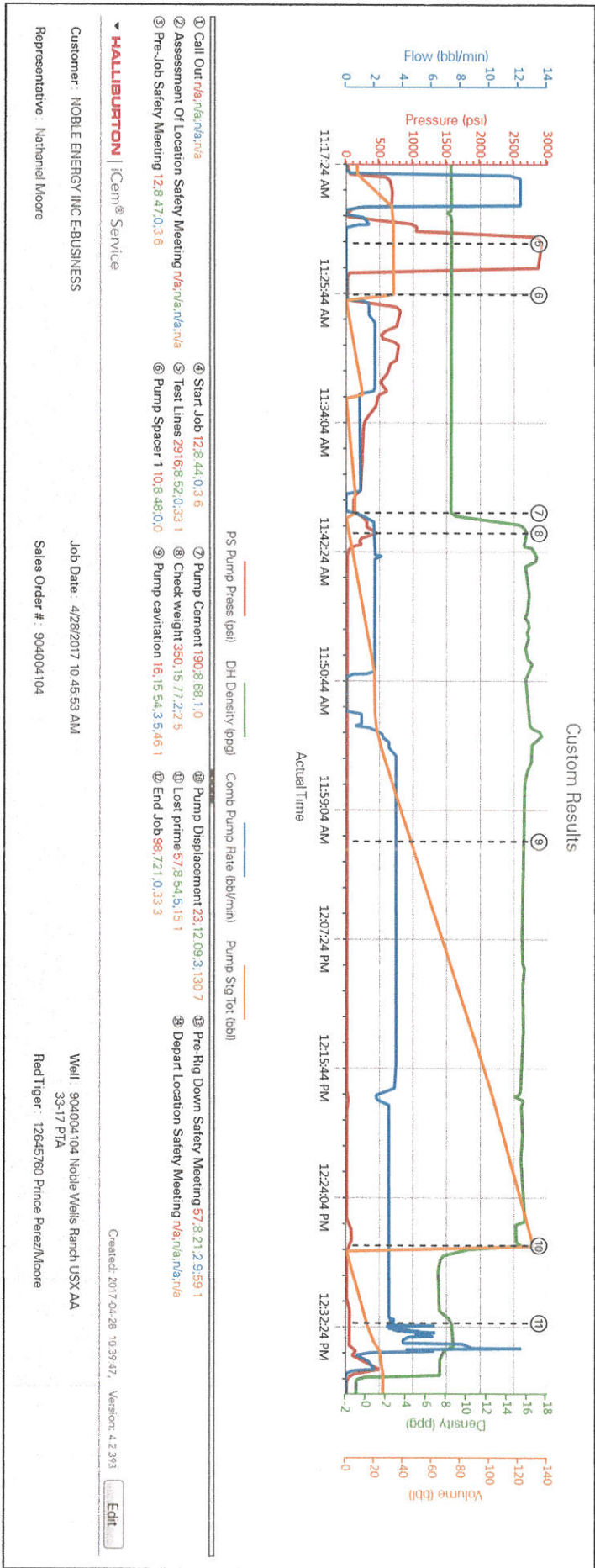


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2.0 Attachments

2.1 904004104 Noble Wells Ranch USX AA 33-17 PTA-Custom Results.png



2.2 904004104 Noble Wells Ranch USX AA 33-17 PTA-Custom Results (1).png

