

*The Road to Excellence Starts with Safety*

Sold To #: 345242	Ship To #: 2658551	Quote #: 0021871352	Sales Order #: 0901368947
Customer: NOBLE ENERGY INC E-BUSINESS		Customer Rep:	
Well Name: WELLS RANCH USX AE	Well #: #21-14	API/UWI #: 05-123-26705	
Field:	City (SAP): KERSEY	County/Parish: WELD	State: COLORADO
Legal Description:			
Contractor:		Rig/Platform Name/Num: WORKOVER	
Job BOM: 14099			
Well Type: GAS			
Sales Person: HALAMERICA\HB47812		Srvc Supervisor: Jason Gibbs	

**Job**

Formation Name			
Formation Depth (MD)	Top		Bottom
Form Type		BHST	156 degF
Job depth MD	3540ft		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	4.6			0	3084	0	0
Casing		4.5	4	11.6			0	3540	0	3540

**Tools and Accessories**

Type	Size in	Qty	Make	Depth ft	Type	Size in	Qty	Make
Guide Shoe	4.5			3540	Top Plug	4.5		HES
Float Shoe	4.5				Bottom Plug	4.5		HES
Float Collar	4.5				SSR plug set	4.5		HES
Insert Float	4.5				Plug Container	4.5		HES
Stage Tool	4.5				Centralizers	4.5		HES

**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										
Fluid #	Stage Type	Fluid Name	Qty	Qty UoM	Mixing Density lbm/gal	Yield ft3/sack	Mix Fluid Gal	Rate bbl/min	Total Mix Fluid Gal	
1	Water	Water	10	bbl	8.34					
Fluid #	Stage Type	Fluid Name	Qty	Qty UoM	Mixing Density lbm/gal	Yield ft3/sack	Mix Fluid Gal	Rate bbl/min	Total Mix Fluid Gal	
2	HalCem	HALCEM (TM) SYSTEM	250	sack	13.5	1.48		2	7.05	

47 lbm		CMT - PREMIUM - CLASS G REG OR TYPE V, BULK (100003685)							
7.05 Gal		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/mi n	Total Mix Fluid Gal
3	Water	Water	13	bbl	8.34				
<b>Cement Left In Pipe</b>		<b>Amount</b>	<b>ft</b>	<b>Reason</b>			<b>Shoe Joint</b>		
<b>Comment</b>									

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Sold To #: 345242	Ship To # 2658551	Quote #:	Sales Order #: 0901368947
Customer: Noble		Customer Rep:	
Well Name: Wells Ranch USX AE	Well #: 21-14	API/UWI #: 05-123-26705-00	
Field: Wattenberg	City (SAP): Gill	County/Parish: Weld	State: Colorado
Lat:		Long:	
Contractor: Workover		Rig/Platform Name/Num: Workover	
Job Purpose: Cement Squeeze			Ticket Amount:
Well Type: Development Well		Job Type: Cement Squeeze	
Sales Person: GREGORY, JON		Srv Supervisor: Jason E Gibbs	MBU ID Emp #: 300487

Activity Description	Date/Time	Cht #	Rate bbl/min	Volume bbl		Pressure psig		Comments
				Stage	Total	Tubing	Casing	
Arrive at Location from Service Center	0800							
Assessment Of Location Safety Meeting	0815							Hazard Hunt of the location and rig
Pre-Job Safety Meeting	0900							
Test Lines	1321						4000	Test to 3995 psi
Pump Spacer 1	1324		1	10			1300	10bbl of H2O injection rate of 1300ps @ 2bbl/min
Pump Cement	1356		1	51			453	250 sks of HalCem @15.8#/gal 1.15 yeild 5.0 gal/sk
Shutdown	1424						0	
Pump Displacement	1424		1	13			1003	Displace with H2O supplied by rig.
Shutdown	1433							Stage CMT
Pump Displacement	1537						1001	Stage CMT with 1/4bbl
Pump Displacement	1612						1124	
Pump Displacement	1645						1530	
Pump Displacement	1716						3120	
End Job	1731						3120	

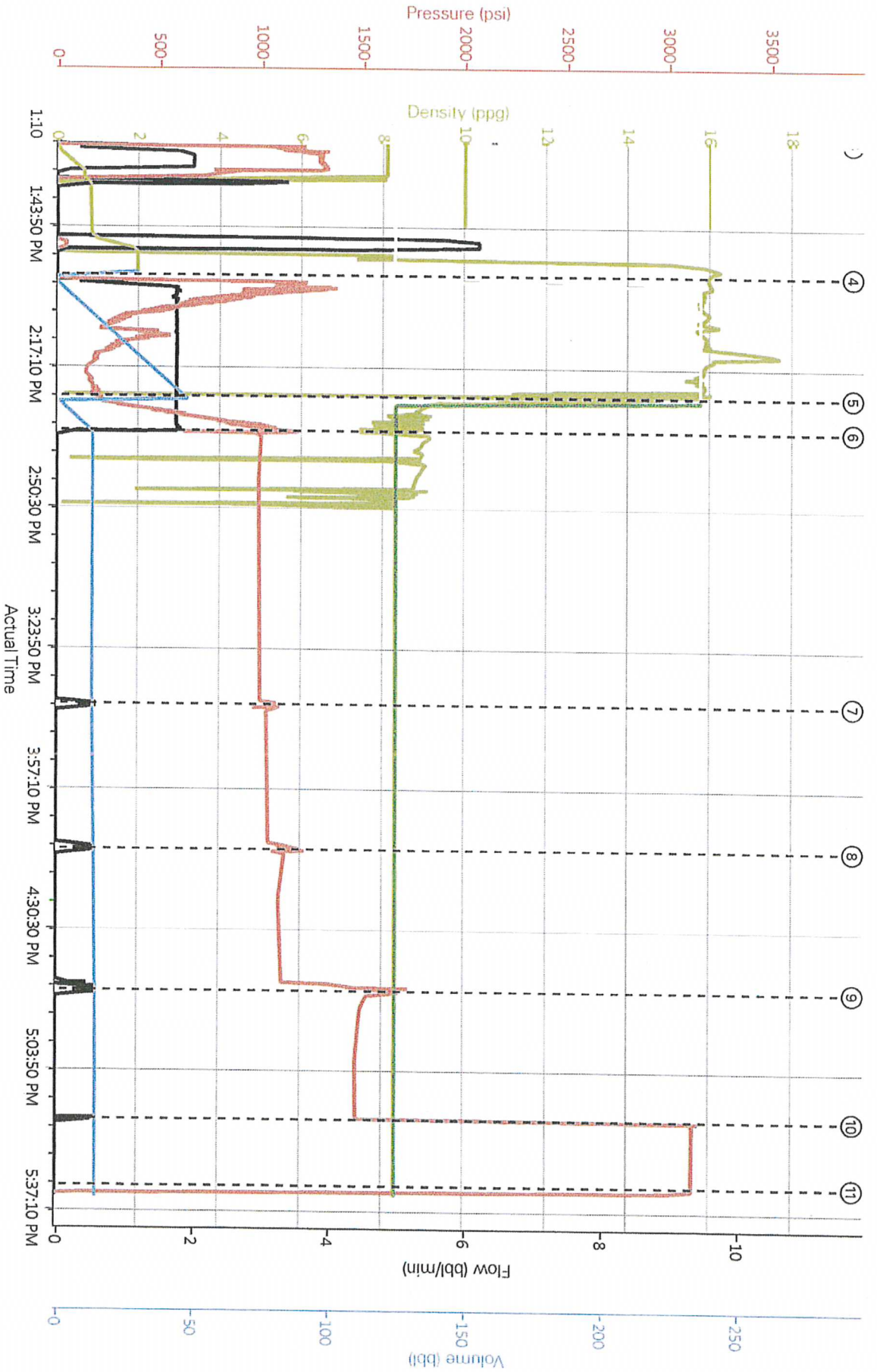
# HALLIBURTON

NOBLE ENERGY INC E-BUSINESS  
Wells Ranch USX AE 21-14  
Case 1

## 1.6 Job Event Log

Event	Type	Seq. No.	Activity	Graph Label	Date	Time	Source	Recirc Density (ppg)	Comb Pump Rate (bbl/min)	DS Pump Press (psi)	Comb Pump Total (bbl)	Density (ppg)	Comment
Event 1	Start Job		Start Job	Start Job	5/22/2014	13:19:56	COM4	8.36	0.00	-58.15	0.0	8.30	
Event 2	Test Lines		Test Lines	Test Lines	5/22/2014	13:21:21	COM4	8.06	0.00	465.21	0.3	8.30	
Event 3	Pump Spacer 1		Pump Spacer 1	Pump Spacer 1	5/22/2014	13:24:26	COM4	8.09	0.00	-48.29	0.0	8.30	
Event 4	Pump Cement		Pump Cement	Pump Cement	5/22/2014	13:56:06	COM4	15.96	0.00	-58.15	0.0	8.30	
Event 5	Pump Displacement		Pump Displacement	Pump Displacement	5/22/2014	14:24:48	COM4	14.20	1.76	237.53	48.4	15.80	
Event 6	Shutdown		Shutdown	Shutdown	5/22/2014	14:32:55	COM4	8.84	0.00	1005.32	13.4	8.33	
Event 7	Shutdown		Shutdown	Shutdown	5/22/2014	15:37:47	COM4	8.35	0.00	1031.93	13.8	8.33	
Event 8	Shutdown		Shutdown	Shutdown	5/22/2014	16:12:12	COM4	8.31	0.00	1124.58	14.4	8.33	
Event 9	Shutdown		Shutdown	Shutdown	5/22/2014	16:45:45	COM4	8.32	0.00	1530.65	14.9	8.33	
Event 10	Other		Other	Other	5/22/2014	17:16:11	COM4	8.33	0.00	3121.43	15.0	8.33	
Event 11	Other		Other	Other	5/22/2014	17:31:52	COM4	8.34	0.00	3120.44	15.0	8.33	

# Noble Energy Wells Ranch USX AE 21-14



- ① Start Job 8:36:0;59.14
- ② Test Lines 8:06:0;464.3
- ③ Pump Spacer 1 8:09:0;8.3
- ④ Pump Cement 16:01:0;50:27:0:8.3
- ⑤ Pump Displacement 14:07:1.76;231.62;48.38;15.8
- ⑥ Shutdown 8:85:0;1006.31;13.4;8.33
- ⑦ Shutdown 8:35:0;1031.93;13.82;8.33
- ⑧ Shutdown 8:32:0;1124.58;14.36;8.33
- ⑨ Shutdown 8:34:0;1530.65;14.93;8.33
- ⑩ Other 8:38:0;3126.36;15.02;8.33
- ⑪ Other 8:34:0;3120.93;15.02;8.33