

The Road to Excellence Starts with Safety

Sold To #: 304535	Ship To #: 2948549	Quote #:	Sales Order #: 9778586
Customer: PDC ENERGY EBUS		Customer Rep: Sailors, Chad	
Well Name: Wells Ranch	Well #: 23-15	API/UWI #: 05-123-22802	
Field: WATTENBERG	City (SAP): KERSEY	County/Parish: Weld	State: Colorado
Lat: N 40.485 deg. OR N 40 deg. 29 min. 5.118 secs.		Long: W 104.425 deg. OR W -105 deg. 34 min. 28.488 secs.	
Job Purpose: Recement Service			
Well Type: Development Well		Job Type: Recement Service	
Sales Person: AARON, WESLEY		Srvc Supervisor: NIELSON, BRANDON MBU ID Emp #: 479703	

Job Personnel

HES Emp Name	Exp Hrs	Emp #	HES Emp Name	Exp Hrs	Emp #	HES Emp Name	Exp Hrs	Emp #
BOURGEOIS, KEVIN Paul	4.0	459092	HOLMES, ANDREW Malcom	4.0	520802	NIELSON, BRANDON K	4.0	479703
SINCLAIR, RICHARD	2.5	368195						

Equipment

HES Unit #	Distance-1 way	HES Unit #	Distance-1 way	HES Unit #	Distance-1 way	HES Unit #	Distance-1 way
10824253C	48 mile	10866493C	48 mile	10951212	48 mile	11338223	48 mile

Job Hours

Date	On Location Hours	Operating Hours	Date	On Location Hours	Operating Hours	Date	On Location Hours	Operating Hours
8-29-12	4	2						
TOTAL			Total is the sum of each column separately					

Job

Formation Name	Formation Depth (MD)	Top	Bottom	Form Type	Job depth MD	Water Depth	Perforation Depth (MD)	From	To	Called Out	Date	Time	Time Zone
				BHST	2410. ft						29 - Aug - 2012	03:00	MST
										On Location	29 - Aug - 2012	06:00	MST
										Job Started	22 - Aug - 2012	06:49	MST
										Job Completed	29 - Aug - 2012	08:42	MST
										Departed Loc	29 - Aug - 2012	10:00	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
Production Casing	Unknown		4.5	4.	11.6				6921.		6900.
Tubing	Unknown		1.25	.824	2.4				2410.		3000.

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	Treatment Fld	Conc	Surfactant	Inhibitor	Conc	Acid Type	QTY	Conc	%
						Sand Type	Size		

Fluid Data

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
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Stage/Plug #: 1

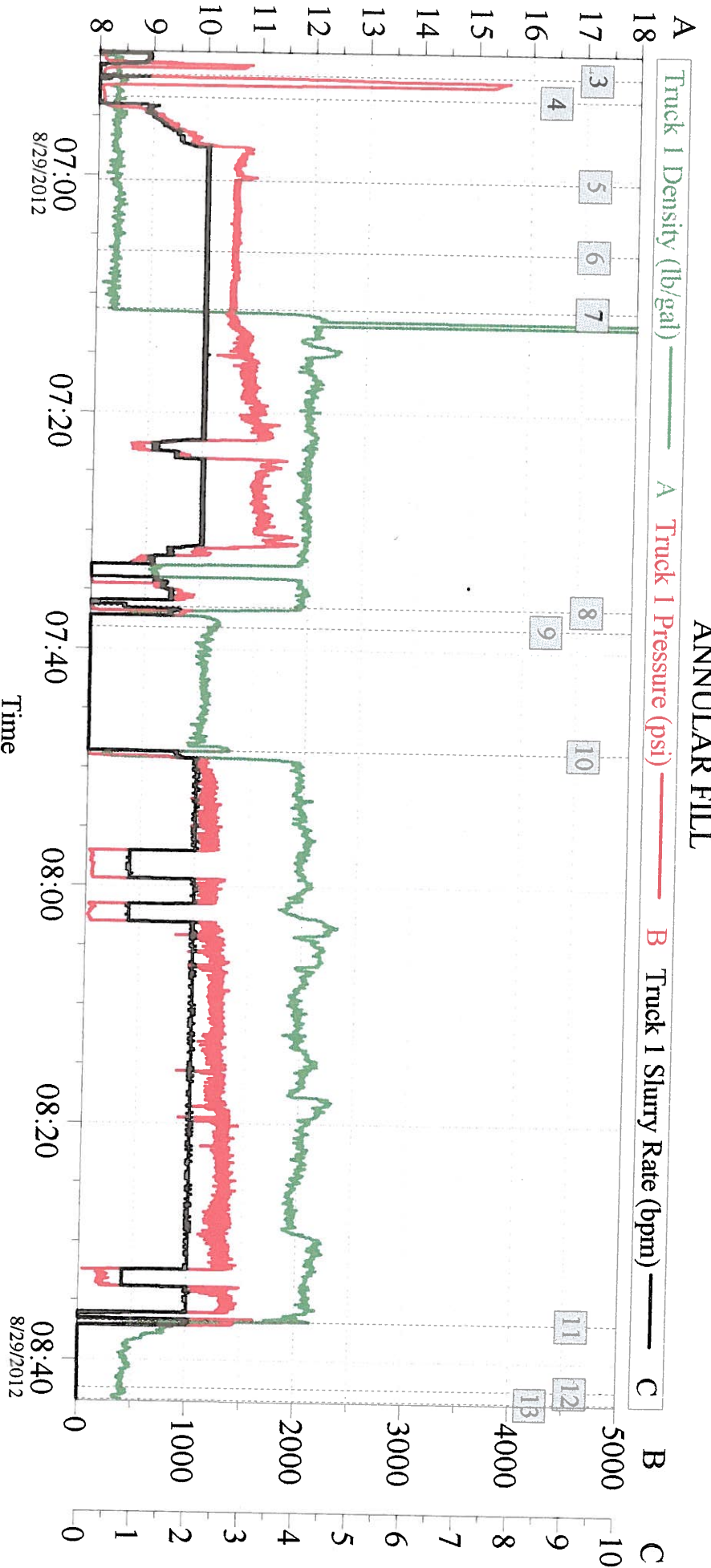
Stage/Plug #: 1									
Fluid #	Stage Type	Fluid Name	Qty	Qty uom	Mixing Density lbm/gal	Yield ft ³ /sk	Mix Fluid Gal/sk	Rate bbl/min	Total Mix Fluid Gal/sk
1	ClayWeb Water Spacer		10.00	bbl	8.33	.0	.0	2.0	
2	MUD FLUSH III	MUD FLUSH III - SBM (528788)	12.00	bbl	8.4	.0	.0	2.0	
3	ClayWeb Water Spacer		10.00	bbl	8.33	.0	.0	2.0	
59.525 gal/Mgal		CLA-WEB - TOTE (101985045)							
4	Varicem 12#	VARICEM (TM) CEMENT (452009)	360.0	sacks	12.	2.18	12.32	2.0	12.32
12.32 Gal		FRESH WATER							
Calculated Values		Pressures		Volumes					
Displacement		Shut In: Instant		Lost Returns	0	Cement Slurry		Pad	
Top Of Cement		5 Min		Cement Returns	22	Actual Displacement		Treatment	
Frac Gradient		15 Min		Spacers	32	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					

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Field: WATTENBERG		City (SAP): KERSEY		County/Parish: Weld		State: Colorado	
Legal Description:							
Lat: N 40.485 deg. OR N 40 deg. 29 min. 5.118 secs.				Long: W 104.425 deg. OR W -105 deg. 34 min. 28.488 secs.			
Contractor:			Rig/Platform Name/Num:				
Job Purpose: Recement Service					Ticket Amount:		
Well Type: Development Well			Job Type: Recement Service				
Sales Person: AARON, WESLEY			Srvc Supervisor: NIELSON, BRANDON			MBU ID Emp #: 479703	

Activity Description	Date/Time	Cht #	Rate bbl/ min	Volume bbl		Pressure psig		Comments
				Stage	Total	Tubing	Casing	
Test Lines	08/29/2012 06:51							PRESSURE TEST LINES TO 3500 PSI NO VISIBLE LEAKS
Pump Spacer 1	08/29/2012 06:53		2	10		1276. 0		FRESH WATER MIXED WITH CLAWEB
Pump Spacer 2	08/29/2012 07:00		2	12		1285. 0		FRESH WATER MIXED WITH MUD FLUSH
Pump Spacer 1	08/29/2012 07:06		2	10		1280. 0		FRESH WATER MIXED WITH CLAWEB
Pump Cement	08/29/2012 07:11		2	44		1280. 0		113 SKS VARICEM MIXED @ 12 # WITH FRESH WATER
Pump Displacement	08/29/2012 07:36		2	1		1280. 0		FRESH WATER
Shutdown	08/29/2012 07:38							RIG PULLED 18 JOINTS
Pump Cement	08/29/2012 07:48		2	96		1230. 0		247 SKS VARICEM MIXED @ 12 # WITH FRESH WATER. Cement returned to surface 118 bbl total cmt in to pumping leaving us with 22 bbl to surface
Pump Displacement	08/29/2012 08:36		2	1		1419. 0		FRESH WATER.
Shutdown	08/29/2012 08:38							
End Job	08/29/2012 08:42							

PDC WELLS RANCH 23-15 ANNULAR FIL



Global Event Log

Intersection	TIP	Intersection	TIP	Intersection	TIP
1 Starting Job	06:02:30 52.50	2 Start Job	06:49:17 29.53	3 Test Lines	06:51:30 38.04
4 Pump Spacer 1	06:53:25 43.75	5 Pump Spacer 2	07:00:23 1273	6 Pump Spacer 1	07:06:24 1274
7 Pump Cement	07:11:15 1280	8 Pump Displacement	07:36:25 3.889	9 Shutdown	07:38:08 -9.482
10 Pump Cement	07:48:34 -0.762	11 Pump Displacement	08:36:43 1383	12 End Job	08:42:22 -74.86
13 Ending Job	08:43:23 -76.81				

Customer:

Well Description:

Job Date: 29-Aug-2012

UWI:

Sales Order #: 9778586