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**CONOCO/PHILLIPS COMPANY EBUSINESS**

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**Watkins 4-64-19-1H  
WILDCAT  
Arapahoe County , Colorado**

**Cement Surface Casing  
19-Aug-2013**

**Job Site Documents**

## The Road to Excellence Starts with Safety

Sold To #: 352431	Ship To #: 3092714	Quote #:	Sales Order #: 900675906
Customer: CONOCO/PHILLIPS COMPANY EBUSINESS	Customer Rep: Evans, Wes		
Well Name: Watkins	Well #: 4-64-19-1H	API/UWI #: 05-005-07173	
Field: WILDCAT	City (SAP): BENNETT	County/Parish: Arapahoe	State: Colorado
Lat: N 39.695 deg. OR N 39 deg. 41 min. 43.062 secs.	Long: W 104.585 deg. OR W -105 deg. 24 min. 54.85 secs.		
Contractor: H&P	Rig/Platform Name/Num: 280		
Job Purpose: Cement Surface Casing			
Well Type: Development Well	Job Type: Cement Surface Casing		
Sales Person: GROFF, THEODORE	Srv Supervisor: BARRAS, JOSEPH	MBU ID Emp #: 405168	

## Job Personnel

HES Emp Name	Exp Hrs	Emp #	HES Emp Name	Exp Hrs	Emp #	HES Emp Name	Exp Hrs	Emp #
BANUELOS, GUADALUPE	8	372277	BARRAS, JOSEPH Corey	8	405168	DEY, JERRY A	8	505015
MULLER, MICHEL B	8	529830						

## Equipment

HES Unit #	Distance-1 way	HES Unit #	Distance-1 way	HES Unit #	Distance-1 way	HES Unit #	Distance-1 way
10025030	38 mile	10977079C	38 mile	11036298	38 mile	11362287C	38 mile
11518548	38 mile	11562544C	38 mile	11645063	38 mile		

## Job Hours

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

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	19 - Aug - 2013	00:00	MST
Job depth MD	1988. ft		Job Depth TVD	1915. ft	19 - Aug - 2013	10:09	MST
Water Depth			Wk Ht Above Floor	45. ft	19 - Aug - 2013	12:28	MST
Perforation Depth (MD)	From		To	Departed Loc	19 - Aug - 2013	14:00	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
13-1/2" Open Hole				13.5				100.	1915.		
16" Casing	Unknown		16.	15.5				.	100.		
9-5/8" Casing	Unknown		9.625	8.921	36.	STC	J-55	.	1915.		

Sales/Rental/3<sup>rd</sup> Party (HES)

Description	Qty	Qty uom	Depth	Supplier
CMT SURFACE CASING BOM	0	JOB		
SHOE,FLT,9-5/8 8RD,2-3/4 SUPER SEAL	1	EA		
CLR,FLT,9-5/8 8RD 29.3-40PPF,2-3/4	1	EA		
CENTRALIZER-9-5/8"-CSG-12 1/4"-HINGED	25	EA		
COLLAR-STOP-9 5/8"-FRICTION-HINGED	1	EA		
KIT,HALL WELD-A	1	EA		
MILEAGE FOR CEMENTING CREW,ZI	100	MI		

## 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						
<b>Miscellaneous Materials</b>																
Gelling Agt		Conc		Surfactant		Conc		Acid Type		Qty		Conc	%			
Treatment Fld		Conc		Inhibitor		Conc		Sand Type		Size		Qty				
<b>Fluid Data</b>																
<b>Stage/Plug #: 1</b>																
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	Clean Spacer III	CS-3 SPACER (NO SAP# - LOCAL PRICING) (45)			50.00	bbl	10.5	2.67	16.75	.0						
	0 gal/bbl	FRESH WATER														
	145.56 lbm/bbl	SAND-SSA-1 - SILICA FLOUR - 200 MESH, BULK (100003691)														
	0.88 lbm/bbl	SA-1015, 50 LB SACK (102077046)														
2	SwiftCem B2	SWIFTCEM (TM) SYSTEM (452990)			420.0	sacks	12.	2.56	15.09		15.09					
	15.086 Gal	FRESH WATER														
3	SwiftCem B2	SWIFTCEM (TM) SYSTEM (452990)			200.0	sacks	13.	2.01	10.99		10.99					
	10.989 Gal	FRESH WATER														
<b>Calculated Values</b>				<b>Pressures</b>				<b>Volumes</b>								
Displacement		Shut In: Instant		Lost Returns	0	Cement Slurry			Pad							
Top Of Cement		5 Min		Cement Returns	50	Actual Displacement			Treatment							
Frac Gradient		15 Min		Spacers	50	Load and Breakdown			Total Job							
<b>Rates</b>																
Circulating		Mixing		Displacement		Avg. Job										
Cement Left In Pipe	Amount	40 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											

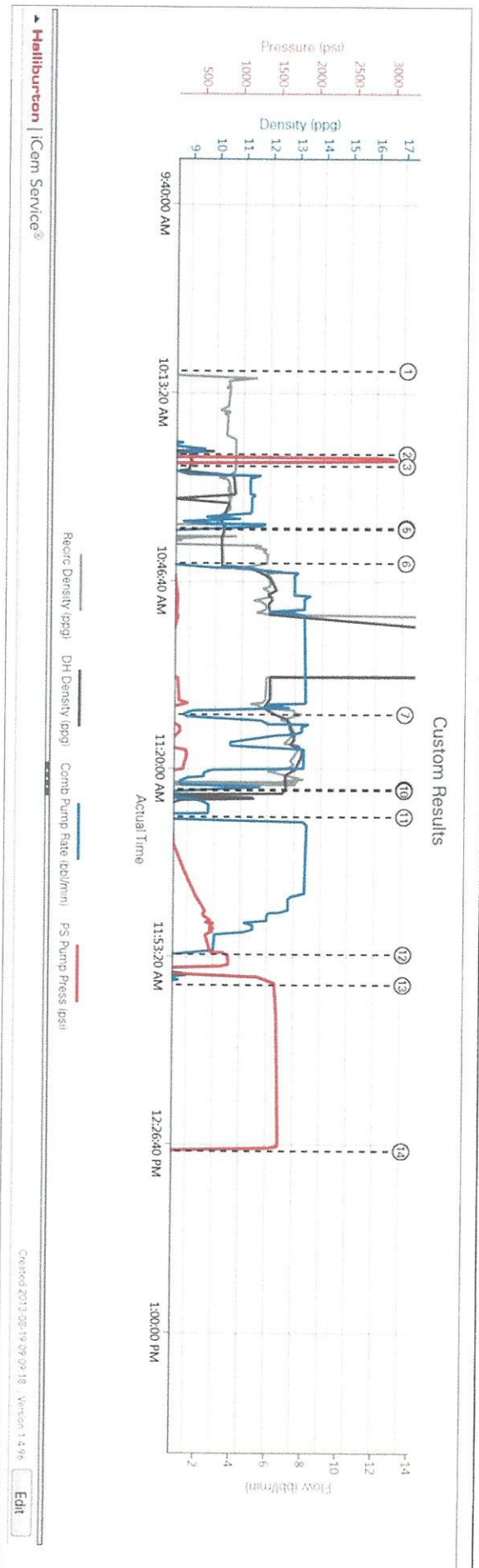
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Well Type: Development Well		Job Type: Cement Surface Casing	
Sales Person: GROFF, THEODORE		Srvc Supervisor: BARRAS, JOSEPH	MBU ID Emp #: 405168

Activity Description	Date/Time	Cht #	Rate bbl/min	Volume bbl		Pressure psig		Comments
				Stage	Total	Tubing	Casing	
Start Job	08/19/2013 10:09							
Test Lines	08/19/2013 10:24							TEST LINES TO 3000 PSI NO VISIBLE LEAKS
Pump Spacer 1	08/19/2013 10:26		5	50			80.0	MIXED WITH RIG WATER @ 10.5 PPG OF CLEAN SPACER3
Drop Top Plug	08/19/2013 10:37							PRELOADED WITNESSED BY COMPANYMAN
Pump Lead Cement	08/19/2013 10:43		8	192			193.0	MIXED WITH RIG WATER @ 12 PPG OF SWIFTCEM /420 SKS
Pump Tail Cement	08/19/2013 11:10		6	72			150.0	MIXED WITH RIG WATER @ 13 PPG OF SWIFTCEM 200 SKS
Shutdown	08/19/2013 11:23							
Drop Bottom Plug	08/19/2013 11:24							PRELOADED WITNESSED BY COMPANY
Pump Displacement	08/19/2013 11:28		7	150			697.0	RIG WATER WITH CEMENT BACK @ 100 BBL AWAY
Bump Plug	08/19/2013 11:53		3				901.0	
Check Floats	08/19/2013 11:55							FLOAT HELD WITH 1 BBL BACK TO TRK
Other	08/19/2013 11:58		1.5				1500.0	CASING TEST FOR 30 MIN PER COMPANYMAN
End Job	08/19/2013 12:28							

## 4.0 Attachments

4.1 CONOCO PHILLIPS 4-64-19-1H.png



## 3.5 Job Event Log

Time	Description	Graph Label	Recirc Density (ppg)	Downhole Density (ppg)	Combined Pump Rate (bbl/min)	Pass-Side Pump Pressure (psi)	Comment
10:09:38	Start Job	Start Job	8.38	8.39	0.00	3.00	
10:24:23	Test Lines	Test Lines	10.69	8.98	0.00	17.00	
10:26:29	Pump Spacer 1	Pump Spacer 1	10.70	8.95	0.00	9.00	
10:37:27	Shutdown	Shutdown	0.23	10.22	0.00	24.00	
10:37:44	Drop Bottom Plug	Drop Bottom Plug	0.51	10.33	0.00	4.00	
10:43:42	Pump Tail Cement	Pump Tail Cement	11.52	10.25	0.00	5.00	
11:10:34	Pump Tail Cement	Pump Tail Cement	12.84	12.41	1.30	17.00	
11:23:48	Shutdown	Shutdown	7.29	12.63	0.00	30.00	
11:23:54	Clean Lines	Clean Lines	6.64	12.61	0.00	19.00	
11:24:05	Drop Top Plug	Drop Top Plug	6.80	12.54	0.00	11.00	
11:28:45	Pump Displacement	Pump Displacement	7.93	7.85	0.00	14.00	
11:53:09	Bump Plug	Bump Plug	7.90	8.29	0.00	900.00	
11:58:31	Other	Other	7.90	8.31	0.00	1520.00	
12:28:05	End Job	End Job	7.90	8.30	0.00	14.00	