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## **WEXPRO COMPANY E-BILL**

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**JC Donnell 17  
HIAWATHA  
Moffat County , Colorado**

**Squeeze Perfs**  
**15-Apr-2011**

**Job Site Documents**

## The Road to Excellence Starts with Safety

Sold To #: 343491	Ship To #: 2703299	Quote #:	Sales Order #: 8105817
Customer: WEXPRO COMPANY E-BILL		Customer Rep: Workover, .	
Well Name: JC Donnell	Well #: 17	API/UWI #: 005-081-07422	
Field: HIAWATHA	City (SAP): CRAIG	County/Parish: Moffat	State: Colorado
Legal Description: Section 30 Township 12N Range 97W			
Contractor: Wexpro	Rig/Platform Name/Num: Workover		
Job Purpose: Squeeze Perfs			
Well Type: Development Well		Job Type: Squeeze Perfs	
Sales Person: VOLNER, THOMAS		Srvc Supervisor: OLSEN, BARTLEY	MBU ID Emp #: 392185

## Job Personnel

HES Emp Name	Exp Hrs	Emp #	HES Emp Name	Exp Hrs	Emp #	HES Emp Name	Exp Hrs	Emp #
HEAPS, DAVID V	4	404575	LEATHAM, NOLAN Robert	4	482961	MAEDCHE, JAMES R	4	391220
MILSTEN, DAVID G	4	429844	OLSEN, BARTLEY Ned	4	392185	RASMUSSEN, BRYCE L	4	489414

## Equipment

HES Unit #	Distance-1 way	HES Unit #	Distance-1 way	HES Unit #	Distance-1 way	HES Unit #	Distance-1 way
10025032C	100 mile	10378456C	100 mile	10624098	100 mile	11305568	100 mile
11380721	100 mile						

## Job Hours

Date	On Location Hours	Operating Hours	Date	On Location Hours	Operating Hours	Date	On Location Hours	Operating Hours
04/15/2011	4	3						
TOTAL			Total is the sum of each column separately					

## Job

Job Times											
Formation Name						Date		Time	Time Zone		
Formation Depth (MD)		Top	Bottom				Called Out	15 - Apr - 2011	01:00	MST	
Form Type		BHST				On Location	15 - Apr - 2011	05:30	MST		
Job depth MD		4725. m		Job Depth TVD		4725. m	Job Started	15 - Apr - 2011	07:36	MST	
Water Depth		Wk Ht Above Floor		4. m		Job Completed	15 - Apr - 2011	08:36	MST		
Perforation Depth (MD)		From	1,449.02 m		To	1,453.90 m		Departed Loc	15 - Apr - 2011	10:00	MST

## Well Data

Description	New / Used	Max pressure MPa	Size mm	ID mm	Weight kg/m	Thread	Grade	Top MD m	Bottom MD m	Top TVD m	Bottom TVD m
Perforation Interval								4754.	4770.	.	.
Perforation Interval								5206.	5216.	.	.
Retainer	Unknown							4725.	4726.		
Production Casing	Unknown		4.5	4.	11.6		P-110	.	9100.		
Tubing	Unknown		2.375	1.995	4.7		N-80	.	4725.		

## 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													
Fluid #	Stage Type	Fluid Name			Qty	Qty uom	Mixing Density kg/m3	Yield m3/sk	Mix Fluid m3/tonne	Rate m3/min	Total Mix Fluid m3/tonne		
1	Fresh Water				10.00	bbl	8.34	.0	.0	2			
2	Mountain G	CMT - PREMIUM - CLASS G, 94 LB SK (100003685)			100.0	sacks	15.8	1.15	4.96	2	4.96		
	94 lbm	CMT - PREMIUM - CLASS G REG OR TYPE V, BULK (100003685)											
	0.2 %	HALAD(R)-322, 50 LB (100003646)											
	0.075 %	HR-5, 50 LB SK (100005050)											
	4.96 Gal	FRESH WATER											
3	Fresh Water				14	bbl	8.34	.0	.0	2			
Calculated Values			Pressures			Volumes							
Displacement		Shut In: Instant		Lost Returns		Cement Slurry		Pad					
Top Of Cement		5 Min		Cement Returns		4		Actual Displacement		Treatment			
Frac Gradient		15 Min		Spacers		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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Well Name: JC Donnell			Well #: 17		API/UWI #: 005-081-07422		
Field: HIAWATHA		City (SAP): CRAIG		County/Parish: Moffat		State: Colorado	
Legal Description: Section 30 Township 12N Range 97W							
Lat: N 0 deg. OR N 0 deg. 0 min. 0 secs.				Long: E 0 deg. OR E 0 deg. 0 min. 0 secs.			
Contractor: Wexpro			Rig/Platform Name/Num: Workover				
Job Purpose: Squeeze Perfs						Ticket Amount:	
Well Type: Development Well			Job Type: Squeeze Perfs				
Sales Person: VOLNER, THOMAS			Srv Supervisor: OLSEN, BARTLEY			MBU ID Emp #: 392185	

Activity Description	Date/Time	Cht #	Rate m3/ min	Volume m3		Pressure MPa		Comments
				Stage	Total	Tubing	Casing	
Call Out	04/15/2011 01:00							
Pre-Convoy Safety Meeting	04/15/2011 02:45							
Crew Leave Yard	04/15/2011 03:00							
Arrive At Loc	04/15/2011 05:30							
Assessment Of Location Safety Meeting	04/15/2011 05:45							
Rig-Up Equipment	04/15/2011 06:00							
Rig-Up Completed	04/15/2011 06:45							
Pre-Job Safety Meeting	04/15/2011 07:15							
Start Job	04/15/2011 07:36	1						RETAINER SET @ 4725' PERFS @ 4754' TO 4770' BOTTOM PERFS @ 5206'
Pump Water	04/15/2011 07:36	1	2	2	2		159.0	ESTABLISH CIRCULATION UNSTUNG FROM RETAINER
Shutdown	04/15/2011 07:38	2						
Pressure Test	04/15/2011 07:40	3						PRESSURE TEST HES IRON TO 3000psi
Pressure Test	04/15/2011 07:43	4						RE-PRESSURE TEST TO 3000psi
Pressure Up	04/15/2011 07:45	5						PUT 1000psi ON THE BACKSIDE
Shutdown	04/15/2011 07:46	6						STING INTO RETAINER
Injection Test	04/15/2011 07:47	7	1	2	4		680.0	1bbl/min 680psi

Sold To #: 343491

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Quote #:

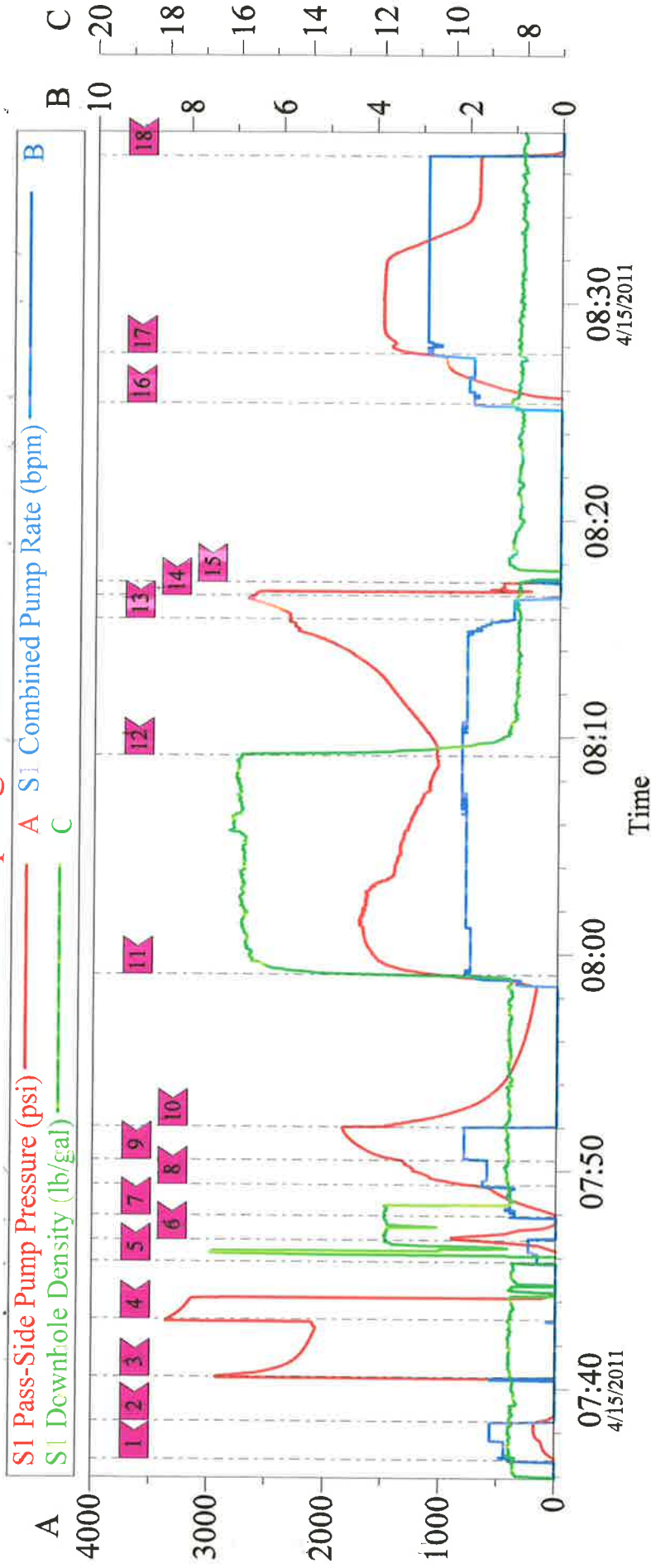
Sales Order #: 8105817

SUMMIT Version: 7.20.130

Fridav. April 15. 2011 09:40:00

Activity Description	Date/Time	Cht #	Rate m3/min	Volume m3		Pressure MPa		Comments
				Stage	Total	Tubing	Casing	
Other	04/15/2011 07:49	8	1.5	2	6		1300.0	INCREASE INJECTION RATE 1.5bbl/min 1300psi
Other	04/15/2011 07:50	9	2	4	10		1840.0	INCREASE INJECTION RATE 2bbl/min 1840psi
Shutdown	04/15/2011 07:52	10						SHUTDOWN/MIX CEMENT
Pump Cement	04/15/2011 07:59	11	2	20.5	30.5		1009.0	100sks MOUNTAIN-G PRIMARY @ 15.8ppg, 1.15yld, 4.96gps
Pump Displacement	04/15/2011 08:09	12	2	12	42.5		1056.0	
Slow Rate	04/15/2011 08:15	13	1	2	44.5			SHUTDOWN @ 14bbls DISPLACEMENT GONE DUE TO PRESSURE
Shutdown	04/15/2011 08:16	14						STINGOUT OF THE RETAINER
Pump Water	04/15/2011 08:17	15	0.5	0.25	44.75		273.0	
Shutdown	04/15/2011 08:17	15						PULL 2 JOINTS
Reverse Circ Well	04/15/2011 08:25	16	2	4	48.75		1010.0	
Other	04/15/2011 08:27	17	3	10	58.75		1211.0	REVERSED OUT 3.5bbls OF CEMENT OUT OF TUBING
Shutdown	04/15/2011 08:36	18						
End Job	04/15/2011 08:36	18						
Pre-Rig Down Safety Meeting	04/15/2011 08:45							
Rig-Down Equipment	04/15/2011 08:50							
Rig-Down Completed	04/15/2011 09:30							
Pre-Convoy Safety Meeting	04/15/2011 09:45							
Crew Leave Location	04/15/2011 10:00							

# Rock Springs Cement



Local Event Log			
Intersection	SPPP	Intersection	SPPP
1 START JOB/ESTABLISH CIRCULATION	07:36:44 -5.525	2 SHUTDOWN	07:38:30 159.3
3 PRESSURE TEST HES IRON	07:40:31 2929	4 RE-PRESSURE TEST HES IRON	07:43:10 3345
5 PUT 1000psi ON BACKSIDE	07:45:48 -49.00	6 SHUTDOWN/STING INTO RETAINER	07:46:49 730.0
7 START INJECTION TEST	07:47:55 -23.06	8 INCREASE RATE	07:49:21 713.7
9 INCREASE RATE	07:50:30 1346	10 SHUTDOWN/MIX CEMENT	07:52:01 1848
11 PUMP CEMENT	07:59:02 1009	12 START DISPLACEMENT	08:09:08 1056
13 SLOW RATE	08:15:27 2319	14 SHUTDOWN/PULL OUT OF RETAINER	08:16:30 2632
15 PUMP H2O/SHUTDOWN/PULL 2 JOINTS	08:17:09 273.5	16 REVERSE OUT	08:25:22 -84.00
17 INCREASE RATE	08:27:40 1211	18 SHUTDOWN/END JO	08:36:47 713.9

Customer: WEXPRO  
Well Description: SQUEEZE

Job Date: 15-Apr-2011  
Well #: 17

Sales Order #: 8105817  
Supervisor: BART OLSEN

# HAILE BURTON

## Water Analysis Report

COMPANY: Wexpro Date Recorded: 4/15/2011

SUBMITTED BY: BART OLSEN SO#: 8105817

LEASE: JC DONELL Job Type: SQUEEZE

WELL #: 17 Camp Location: ROCK SPRINGS WY

### CEMENT MIX WATER REQUIREMENTS

Item	Recorded Test Value	Max Acceptable Limit	Potential Problems in Exceeding Limit
pH	7	5 to 8.5	Chemicals in water can cause severe retardation
Chlorides <sup>1,2</sup>	100	3000 mg/L	Can accelerate the set time on cement 1% ~ 4800 mg/L
Total Alkalinity	180	1000 mg/L	Cement is greatly retarded to the point where it may not set up at all, decrease strength of cement and possibly thicken cement slurry. (Typically occurs @ pH ≥ 8.3)
Total Hardness	3	400 mg/L	Slightly shortens pump time on cement.
Sulfates	<200	1500 mg/L	Will greatly decrease the strength of cement.
Iron	0	300 mg/L	Could cause gelation issues with cement
Water Temp	73F	50F to 80F	High temps will accelerate; Low temps may risk freezing in cold weather

#### NOTES:

1. If the water's pH is greater than or equal to 8, avoid using it since Magnesium may be present (there are no field test strips for Magnesium).

Submitted Respectfully by: \_\_\_\_\_