

**HALLIBURTON**

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## **CHEVRON - MID-CONTINENT EBIZ**

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**McLaughlin 9X33  
RANGELY  
Rio Blanco County , Colorado**

**Squeeze Perfs**  
23-Feb-2012

**Job Site Documents**

**HALLIBURTON****Cementing Job Summary***The Road to Excellence Starts with Safety*

Sold To #: 338668	Ship To #: 2909447	Quote #:	Sales Order #: 9307159
Customer: CHEVRON - MID-CONTINENT EBIZ	Customer Rep:		
Well Name: McLaughlin	Well #: 9X33	API/UWI #:	
Field:	City (SAP): RANGELY	County/Parish: Rio Blanco	State: Colorado
Legal Description: Section 30 Township 02N Range 102W			
Contractor: WORKOVER	Rig/Platform Name/Num: workover		
Job Purpose: Squeeze Perfs			
Well Type: Producing Well	Job Type: Squeeze Perfs		
Sales Person: SPENCER, WESTON	Srv Supervisor: FUCHS, BENJAMIN	MBU ID Emp #: 470584	

**Job Personnel**

HES Emp Name	Exp Hrs	Emp #	HES Emp Name	Exp Hrs	Emp #	HES Emp Name	Exp Hrs	Emp #
BROWN, CHRISTOPHER Paul	9.0	491062	FUCHS, BENJAMIN Reinhard	9.0	470584	WHITE, KAMEREON V	9.0	475856

**Equipment**

HES Unit #	Distance-1 way	HES Unit #	Distance-1 way	HES Unit #	Distance-1 way	HES Unit #	Distance-1 way
10948685	45 mile	11041164	45 mile	11056349	45 mile	11360879	45 mile
11512092	45 mile						

**Job Hours**

Date	On Location Hours	Operating Hours	Date	On Location Hours	Operating Hours	Date	On Location Hours	Operating Hours
2-23-2012	9	6						

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	23 - Feb - 2012	03:00 MST
Form Type		BHST	On Location	23 - Feb - 2012	06:00 MST
Job depth MD	1070. ft	Job Depth TVD	Job Started	23 - Feb - 2012	08:53 MST
Water Depth		Wk Ht Above Floor	Job Completed	23 - Feb - 2012	12:40 MST
Perforation Depth (MD)	From 850.00 ft	To 1,055.00 ft	Departed Loc	23 - Feb - 2012	15:00 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
Squeeze Interval								1137	1169		
Production Casing	Unknown		7.	6.366	23.		J-55	.	6500.		
Tubing	Unknown		2.875	2.441	6.4		J-55	.	1103		

**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 lbm/gal	Yield ft <sup>3</sup> /sk	Mix Fluid Gal/sk	Rate bbl/min	Total Mix Fluid Gal/sk				



**HALLIBURTON****Cementing Job Summary**

Stage/Plug #: 1									
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	Fresh Water Ahead		10.00	bbl	8.34	.0	.0	5.0	
2	SqueezeCem	SQUEEZECEM (TM) SYSTEM (452971)	100.0	sacks	15.8	1.16	4.93	5.0	4.93
	0.6 %	HALAD(R)-344, 50 LB (100003670)							
	0.6 %	HALAD(R)-413, 50 LB (100003738)							
	1 %	CAL-SEAL 60, 50 LB BAG (101217146)							
	0.2 %	CFR-3, W/O DEFOAMER, 50 LB SK (100003653)							
	4.93 Gal	FRESH WATER							
3	Field Water Displacement		7.00	bbl	8.43	.0	.0	3.0	
Calculated Values		Pressures		Volumes					
Displacement		Shut In: Instant		Lost Returns		Cement Slurry		Pad	
Top Of Cement		5 Min		Cement Returns		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					

*The Road to Excellence Starts with Safety*

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Well Name: McLaughlin	Well #: 9X33	API/UWI #:	
Field:	City (SAP): RANGELY	County/Parish: Rio Blanco	State: Colorado
Legal Description: Section 30 Township 02N Range 102W			
Lat:	Long:		
Contractor: WORKOVER	Rig/Platform Name/Num: workover		
Job Purpose: Squeeze Perfs	Ticket Amount:		
Well Type: Producing Well	Job Type: Squeeze Perfs		
Sales Person: SPENCER, WESTON	Srvs Supervisor: FUCHS, BENJAMIN	MBU ID Emp #: 470584	

Activity Description	Date/Time	Cht #	Rate bbl/min	Volume bbl		Pressure psig		Comments
				Stage	Total	Tubing	Casing	
Call Out	02/23/2012 03:00							Crew called out for job
Safety Meeting - Departing Location	02/23/2012 04:45							Discuss all travel related safety issues with crew
Crew Leave Yard	02/23/2012 05:00							Convoy to yard for safety
Arrive at Location from Service Center	02/23/2012 06:00							Arrived early to location, wait for sun to come up
Safety Meeting - Assessment of Location	02/23/2012 06:15							Identify and discuss all jobsite related safety hazards and equipment layout with crew
Other	02/23/2012 06:30							Spot equipment using spotter(s) and make sure all understand hand signals
Safety Meeting - Pre Rig-Up	02/23/2012 07:00							Discuss all rig up related safety issues with crew and rig crew
Rig-Up Equipment	02/23/2012 07:15							Be careful, no one gets hurt
Safety Meeting - Pre Job	02/23/2012 08:30							Discuss all job related safety issues and pump schedule with crew and rig crew
Start Job	02/23/2012 08:53	1						Everyone prepare equipment for job
Pump Water	02/23/2012 08:53	2	1	2	2		96.0	Fill lines with 2 bbls water
Pressure Test	02/23/2012 08:56	3					3178.0	Test lines to 3000 psi, establish good test
Pump Water	02/23/2012 09:00	4	1	2	4		.0	Fill back side with 2 bbls water
Load Backside	02/23/2012 09:01	5					200.0	Pressure up backside to 150 psi and shut in



## Cementing Job Log

Activity Description	Date/Time	Cht #	Rate bbl/ min	Volume bbl		Pressure psig		Comments
				Stage	Total	Tubing	Casing	
Injection Test	02/23/2012 09:05	6	0.5	10	14		137.0	Pump 10 bbls water ahead and record rate and pressure
Shutdown	02/23/2012 09:15	7					408.0	Test complete .5 bbl/min=400 psi, .75 bbl/min=430 psi, 1 bbl/min=470 psi
Other	02/23/2012 09:16	8					296.0	Mix and verify weight of cement before pumping it down hole
Pump Cement	02/23/2012 09:25	9	1	20	34		428.0	Pump 20 bbls cement mixed @ 15.8 ppg 1.16 yield 4.93 gal/sk (100 sks)
Shutdown	02/23/2012 09:45	10					136.0	Cement away
Clean Lines	02/23/2012 09:48	11						Wash pumps and lines to the pit, verify that they are clean
Pump Displacement	02/23/2012 09:57	12	0.4	2	36		5.0	Pump 6.5 bbls water displacement
Shutdown	02/23/2012 09:59	13					127.0	Hesitate per Company Man
Resume Squeeze	02/23/2012 10:17	14	0.4	1	37		.0	Pump 1 bbl and monitor pressure
Shutdown	02/23/2012 10:19	15					167.0	Hesitate per Company Man
Resume Squeeze	02/23/2012 10:38	16	0.5	1	38		18.0	Pump 1 bbl and monitor pressure
Shutdown	02/23/2012 10:39	17					259.0	Hesitate per Company Man
Resume Squeeze	02/23/2012 10:58	18	0.5	0.75	38.75		39.0	Pump .75 bbl and monitor pressure
Shutdown	02/23/2012 11:00	19					295.0	Hesitate per Company Man
Resume Squeeze	02/23/2012 11:20	20	0.5	0.75	39.5		80.0	Pump .75 bbl and monitor pressure
Shutdown	02/23/2012 11:21	21					342.0	Hesitate per Company Man
Resume Squeeze	02/23/2012 11:41	22	0.4	0.5	40		142.0	Pump .5 bbl and monitor pressure
Shutdown	02/23/2012 11:42	23					347.0	Hesitate per Company Man
Reverse Circ Well	02/23/2012 11:51	26	2	15	55.25		77.0	Pump tubing capacity x 2 to clean out tubing
Resume Squeeze	02/23/2012 12:02	24	0.4	0.25	40.25		209.0	Pump .25 bbl and monitor pressure

**HALLIBURTON*****Cementing Job Log***

Activity Description	Date/Time	Cht #	Rate bbl/ min	Volume bbl		Pressure psig		Comments
				Stage	Total	Tubing	Casing	
Other	02/23/2012 12:03	25					397.0	Final squeeze pressure
Shutdown	02/23/2012 12:23	27					65.0	Clean water to pit
Pressure Up Annulus	02/23/2012 12:37	28	0.5	1	56.25		350.0	Pressure up casing and shut in for test
End Job	02/23/2012 12:40	29						Job complete, Thank you for your business!

Sold To # : 338668

Ship To # :2909447

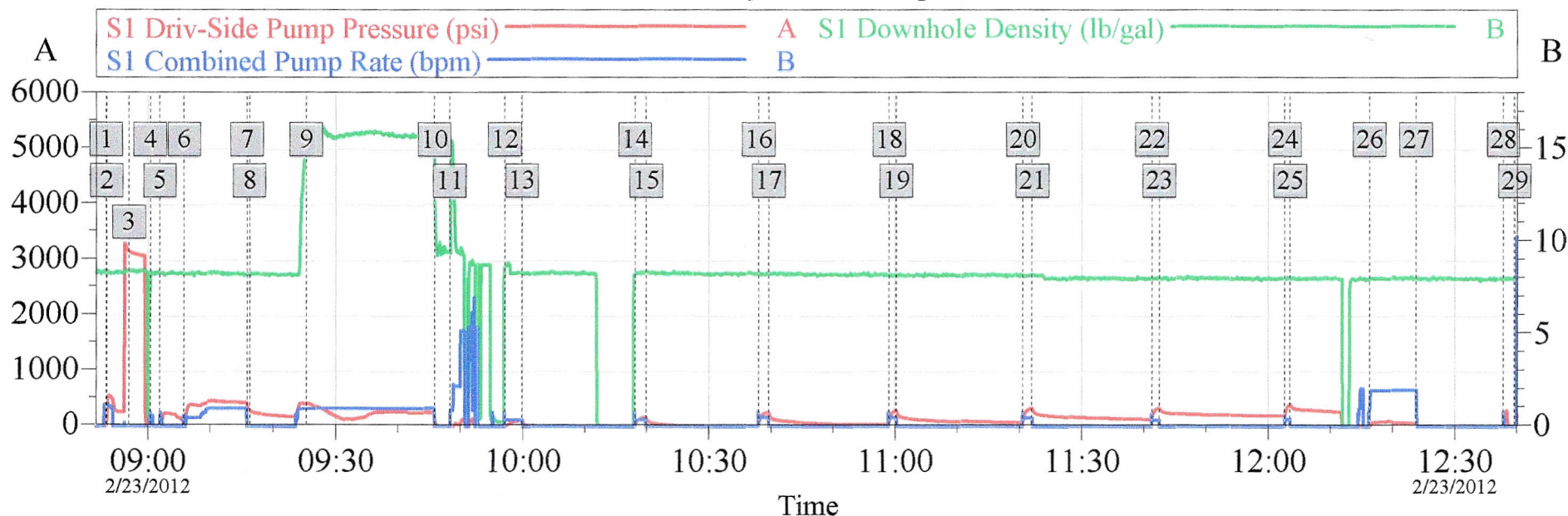
Quote # :

Sales Order # : 9307159



# Chevron McLaughlin 9X33

## Job Summary Chart Complete Job



### Global Event Log

1 Starting Job	08:53:19	2 Fill Lines	08:53:25	3 Test Lines	08:56:57
4 Fill Back Side	09:00:23	5 Load Back Side	09:01:56	6 Injection Rate	09:05:50
7 Shutdown	09:15:54	8 Mix and Weigh Cement	09:16:16	9 Pump Lead Cement	09:25:17
10 Shutdown	09:45:55	11 Clean Lines	09:48:19	12 Pump Displacement	09:57:09
13 Shutdown	09:59:55	14 Resume Squeeze	10:18:04	15 Shutdown	10:19:52
16 Resume Squeeze	10:37:55	17 Shutdown	10:39:32	18 Resume Squeeze	10:58:59
19 Shutdown	11:00:10	20 Resume Squeeze	11:20:28	21 Shutdown	11:21:58
22 Resume Squeeze	11:41:16	23 Shutdown	11:42:26	24 Resume Squeeze	12:02:38
25 Final Squeeze PSI	12:03:28	26 Reverse Out	12:16:14	27 Shutdown	12:23:41
28 Test Annulus	12:37:49	29 Ending Job	12:39:39		

Customer: Chevron  
Job Description: Squeeze  
Service Supervisor: B. Fuchs

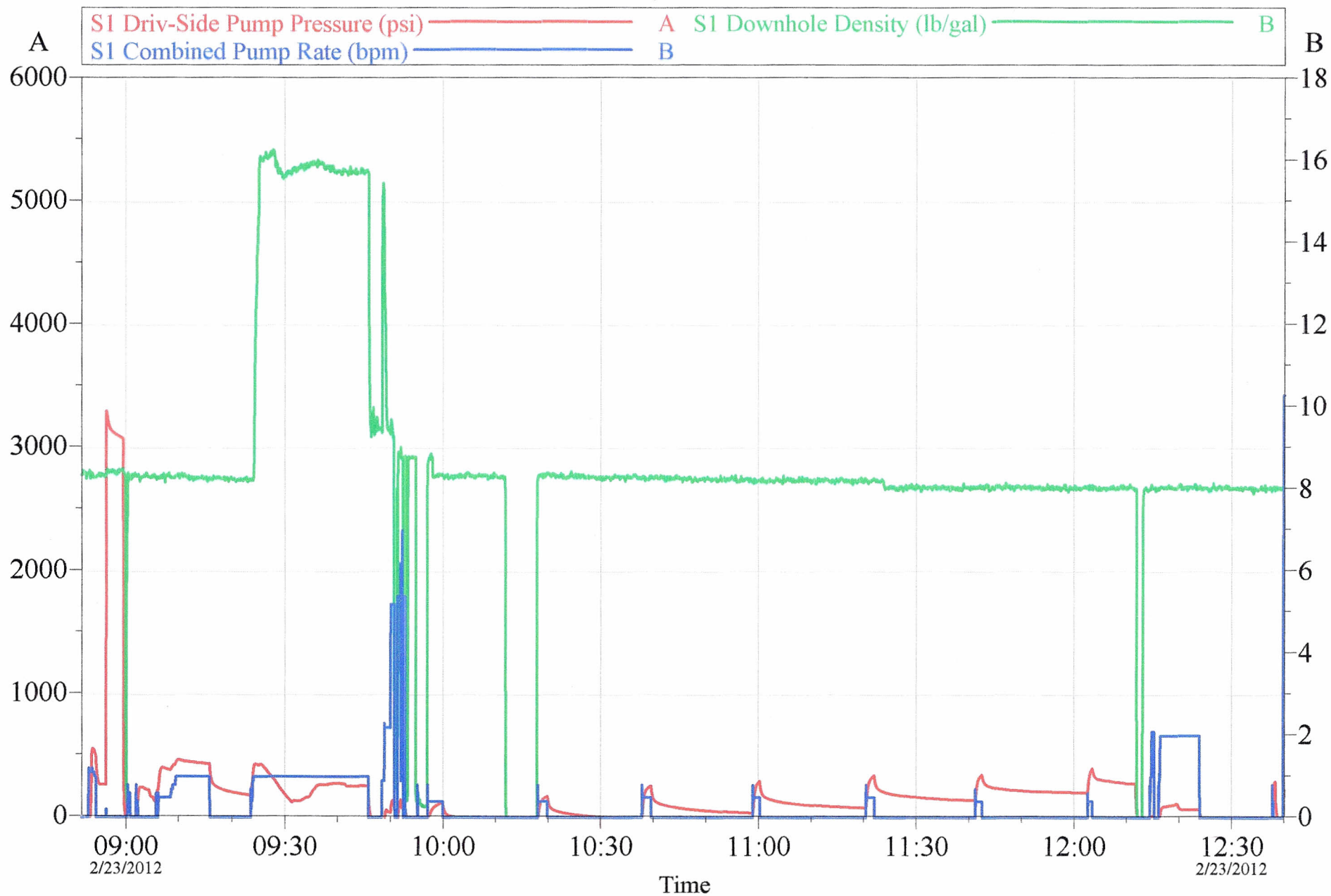
Job Date: 23-Feb-2012  
Elite #: 11512092  
Service Operator: K. White

Sales Order #: 9307159

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23-Feb-12 12:54

# Cheveron McLaughlin 9X33

## Job Summary Chart No Events



Customer: Cheveron  
Job Description: Squeeze  
Service Supervisor: B. Fuchs

Job Date: 23-Feb-2012  
Elite #: 11512092  
Service Operator: K. White

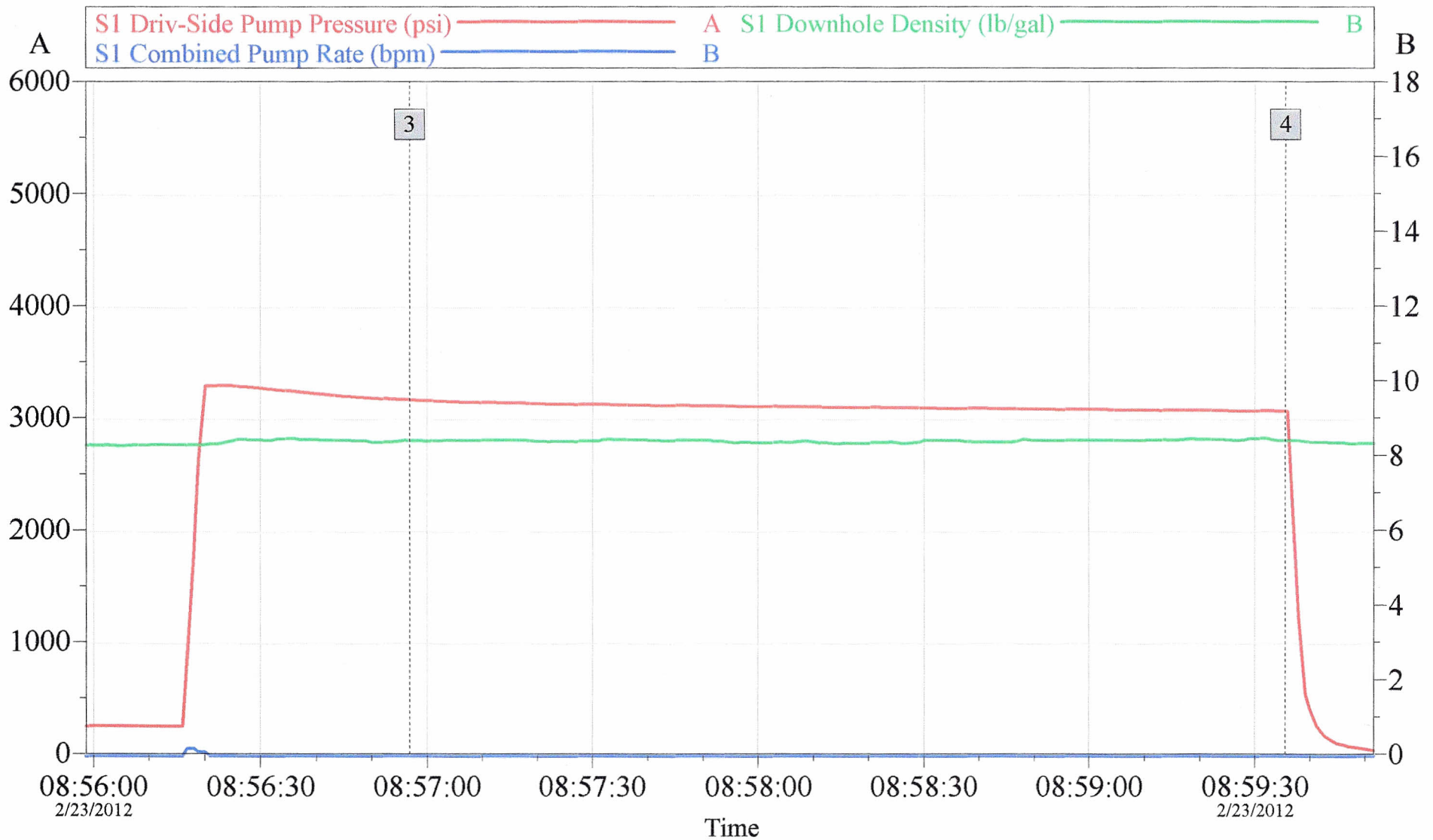
Sales Order #: 9307159

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23-Feb-12 12:54



# Cheveron McLaughlin 9X33

## Pressure Test



### Global Event Log

3 Test Lines 08:56:57 4 Other 08:59:35

Customer: Cheveron  
Job Description: Squeeze  
Service Supervisor: B. Fuchs

Job Date: 23-Feb-2012  
Elite #: 11512092  
Service Operator: K. White

Sales Order #: 9307159

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23-Feb-12 12:56