

WPX ENERGY ROCKY MOUNTAIN LLC
1001 17th St. Suite 1200
Denver, CO 74104-3102

RMV 215-21

Stage 1
Garfield County, Colorado

Sales Order: 9410673

Post Job Report

For: Jared Rundberg
Date: Tuesday, April 03, 2012

Notice: Although the information contained in this report is based on sound engineering practices, the copyright owner(s) does (do) not accept any responsibility whatsoever, in negligence or otherwise, for any loss or damage arising from the possession or use of the report whether in terms of correctness or otherwise. The application, therefore, by the user of this report or any part thereof, is solely at the user's own risk.

HALLIBURTON

Table of Contents

1.0	Well Information.....	3
1.1	Customer Information.....	3
1.2	Pipe Information	4
1.3	Perforation Intervals.....	4
2.0	Pumping Schedule.....	5
2.1	Designed Pumping Schedule	5
2.2	Designed Pumping Schedule (continued)	6
3.0	Actual Stage Summary.....	7
3.1	Stage Summary	7
3.2	Bottom Hole Stage Summary	8
4.0	Performance Highlights.....	9
4.1	Job Summary	9
4.2	Job Event Log	10
5.0	Attachments.....	11
5.1	PDAT - Job Data.....	11
5.2	RWF 215-21 Stg 1 Post.doc.....	12
5.3	Step Down Analysis Input	12
5.4	Step Down Analysis Results.....	12
5.5	Step Down Analysis Data	12
5.6	13
5.7	Treatment Chart	14
5.8	Chemical Chart	15
5.9	Averages Chart	16
5.10	Net Pressure Plot.....	17

1.0 WELL INFORMATION

1.1 Customer Information

Customer	WPX ENERGY ROCKY MOUNTAIN LLC-EBUS
Sales Order	9410673
Well Name	RMV
Interval	1
Well Number	215-21
Job Date	03-Apr-2012
County	Garfield
State	Colorado
UWI/API	05045074650000
Lease Name	RMV
Country	United States of America
H2S Present	Unknown
CO2 Present	Unknown
Customer Representative	Jared Rundberg
Halliburton Representative	HOLLE

1.2 Pipe Information

Equipment	Top MD ft	Bottom MD ft	OD in	ID in	Grade	Weight lb/ft
Surface Pipe	0.0	1871.0	5.000	4.000		
Casing	0.0	5228.0	4.500	4.000	I-80	11.60

1.3 Perforation Intervals

Top MD ft	Bottom MD ft	Number of Shots	Perf Density spf	Perf Orientation °	Perf Diameter in	Perf Formation
4972.0	5208.0	34	0.1	0	0.350	Stage 1 Upper WF Interval

2.0 PUMPING SCHEDULE

2.1 Designed Pumping Schedule

Stage Number	Description	Flow Path	Fluid System	Clean Volume gal	Slurry Volume gal	Prop Conc Start lb/gal	Prop Conc End lb/gal
1	Acid	In	7.5%_Hydrochloric Acid	1000	1000	0.00	0.00
2	Pad	In	Waterfrac	56160	56160	0.00	0.00
3	Proppant Laden Fluid	In	Waterfrac	3744	3829	0.50	0.50
4	Proppant Laden Fluid	In	Waterfrac	7488	7828	1.00	1.00
5	Proppant Laden Fluid	In	Waterfrac	84240	89971	1.50	1.50
6	Proppant Laden Fluid	In	Waterfrac	99840	108903	2.00	2.00
7	Proppant Laden Fluid	In	Waterfrac	9360	10210	2.00	2.00
8	Proppant Laden Fluid	In	Waterfrac	7488	8338	2.50	2.50
9	Flush	In	Flush	5670	5670	0.00	0.00
10	Shut-In	In		0	0	0.00	0.00
Total				274990	291908		

2.2 Designed Pumping Schedule (continued)

Stage Number	Description	Prop Type	Prop Mass 100*lb	Rate Stage Start bpm	Rate Stage End bpm	Stage Time min
1	Acid			10.0	10.0	2.38
2	Pad			64.0	64.0	20.89
3	Proppant Laden Fluid	SAND - PREMIUM - 20/40, BULK, SK (100003678)	18.72	64.0	64.0	1.42
4	Proppant Laden Fluid	SAND - PREMIUM - 20/40, BULK, SK (100003678)	74.88	64.0	64.0	2.91
5	Proppant Laden Fluid	SAND - PREMIUM - 20/40, BULK, SK (100003678)	1263.60	64.0	64.0	33.47
6	Proppant Laden Fluid	SAND - PREMIUM - 16/30, BULK, SK (100003698)	1996.80	64.0	64.0	40.51
7	Proppant Laden Fluid	SAND - PREMIUM - 16/30, BULK, SK (100003698)	187.20	64.0	64.0	3.80
8	Proppant Laden Fluid	SAND - PREMIUM - 16/30, BULK, SK (100003698)	187.20	64.0	64.0	3.10
9	Flush			64.0	64.0	2.11
10	Shut-In			0.0	0.0	0.00
Total			3728.40			110.61

3.0 ACTUAL STAGE SUMMARY

3.1 Stage Summary

Stage Number	Stage Time	Start Time	End Time	Time min	Pump Time min	Max Treat Pr psi	Max Slurry Rate bpm
2	03-Apr-12 22:29:54	22:03:34	03-Apr-12 22:29:54	26.37	22.55	4711	62.7
3	03-Apr-12 22:31:25	22:29:55	03-Apr-12 22:31:25	1.52	1.52	4328	62.8
4	03-Apr-12 22:34:27	22:31:26	03-Apr-12 22:34:27	3.03	3.03	4357	62.9
5	03-Apr-12 23:22:01	22:34:28	03-Apr-12 23:22:01	47.57	47.57	4980	63.1
6	03-Apr-12 23:50:13	23:22:02	03-Apr-12 23:50:13	28.19	27.92	5476	46.8
8	03-Apr-12 23:50:37	23:50:14	03-Apr-12 23:50:37	0.40	0.02	5542	0.3
9	04-Apr-12 00:06:19	23:50:38	04-Apr-12 00:06:19	15.71	2.27	5258	11.1

Stage Number	Stage Time	Max Wellhead Rate bpm	Max Prop Conc lb/gal	Max Slurry Prop Conc lb/gal	Avg Treating Pressure psi	Avg Clean Rate bpm	Avg Slurry Rate bpm
2	03-Apr-12 22:29:54	62.7	0.46	14.77	4276	55.2	56.7
3	03-Apr-12 22:31:25	62.8	6.44	0.67	4167	58.8	61.3
4	03-Apr-12 22:34:27	62.9	1.04	1.42	4206	58.9	62.5
5	03-Apr-12 23:22:01	63.1	2.17	2.17	4086	42.9	46.8
6	03-Apr-12 23:50:13	46.9	1.66	110.45	4415	39.0	42.5
8	03-Apr-12 23:50:37	0.3	1.54	0.00	5542	10.7	0.3
9	04-Apr-12 00:06:19	11.1	1.53	44.26	770	6.1	6.4

Stage Number	Stage Time	Avg Wellhead Rate bpm	Avg Slurry Prop Conc lb/gal	Avg Hydraulic Horsepower hp	Clean Volume gal	Slurry Volume gal	Wellhead Volume gal
2	03-Apr-12 22:29:54	56.7	0.05	5941	54769	56139	53722
3	03-Apr-12 22:31:25	61.4	0.43	6264	3747	3908	3909
4	03-Apr-12 22:34:27	62.5	1.00	6443	7501	7965	7967
5	03-Apr-12 23:22:01	46.8	1.58	4683	85766	93446	93467
6	03-Apr-12 23:50:13	42.5	1.57	4594	45750	49804	49813
8	03-Apr-12 23:50:37	0.3	0.00	40	25	0	0
9	04-Apr-12 00:06:19	6.4	17.93	120	572	602	602
Total					198129	211863	209480

Stage Number	Stage Time	Prop Mass 100*lb
2	03-Apr-12 22:29:54	16.75
3	03-Apr-12 22:31:25	16.43
4	03-Apr-12 22:34:27	76.19
5	03-Apr-12 23:22:01	1365.93
6	03-Apr-12 23:50:13	696.12
8	03-Apr-12 23:50:37	0.00
9	04-Apr-12 00:06:19	0.31
Total		2171.72

3.2 Bottom Hole Stage Summary

Stage Number	Start Time	Max BH Pressure psi	Avg BH Pressure psi	Max BH Rate bpm	Avg BH Rate bpm	Max BH Conc lb/gal	Avg BH Conc lb/gal
WB/SL	00:00:00	-15	-15	0.0	0.0	0.00	0.00
2	22:07:29	6109	5784	62.8	58.3	0.94	0.03
3	22:32:05	5762	5701	62.5	62.1	0.67	0.43
4	22:33:35	5583	5476	62.6	62.4	1.43	1.01
5	22:36:37	7085	6007	62.8	45.4	2.19	1.58
6	23:25:21	7978	6113	46.6	39.3	1.67	1.48

4.0 PERFORMANCE HIGHLIGHTS

4.1 Job Summary

Start Time	03-Apr-12 21:57:06
End Time	04-Apr-12 00:06:19

Engineering Notes		
Engineer on Location	Caitlin McCarthy	
Initial Rate(Breakdown)	44.1	bpm
Initial Pressure(Breakdown)	4024	psi
Max Rate	63.0	bpm
Max Pressure	5315	psi
Max Pressure (SLF)	5315	psi
Average Rate	46.0	bpm
Average Treating Pressure	4217	psi
Average Missile Pressure	4524	psi
Beginning Annulus Pressure	0	psi
Max Annulus Pressure	0	psi
ISIP	1960	psi
Initial Frac Grad.	0.820	psi/ft
ISDP	N/A	psi
Final Frac Grad.	N/A	psi/ft
Tubular Type	4.5" 11.6 #	
20/40 Unimin Delivered	3728	sk
20/40 Unimin Pumped	2086	sk
16/30 White Delivered	456	sk
16/30 White Pumped	0	sk
Proppant in Formation	2086	sk
Maximum Proppant Concentration	2.5	lbs/gal
Initial Perfs Open	25/34	
Perf Diameter	0.35	in
Acid+Pad Volume	1328	bbl
SLF Volume	3400	bbl
Flush Volume	1	bbl
Job Notes:		
Job pumped to completion. See event notes. Stayed in 1.5 ppg stage due to pressure.		

4.2 Job Event Log

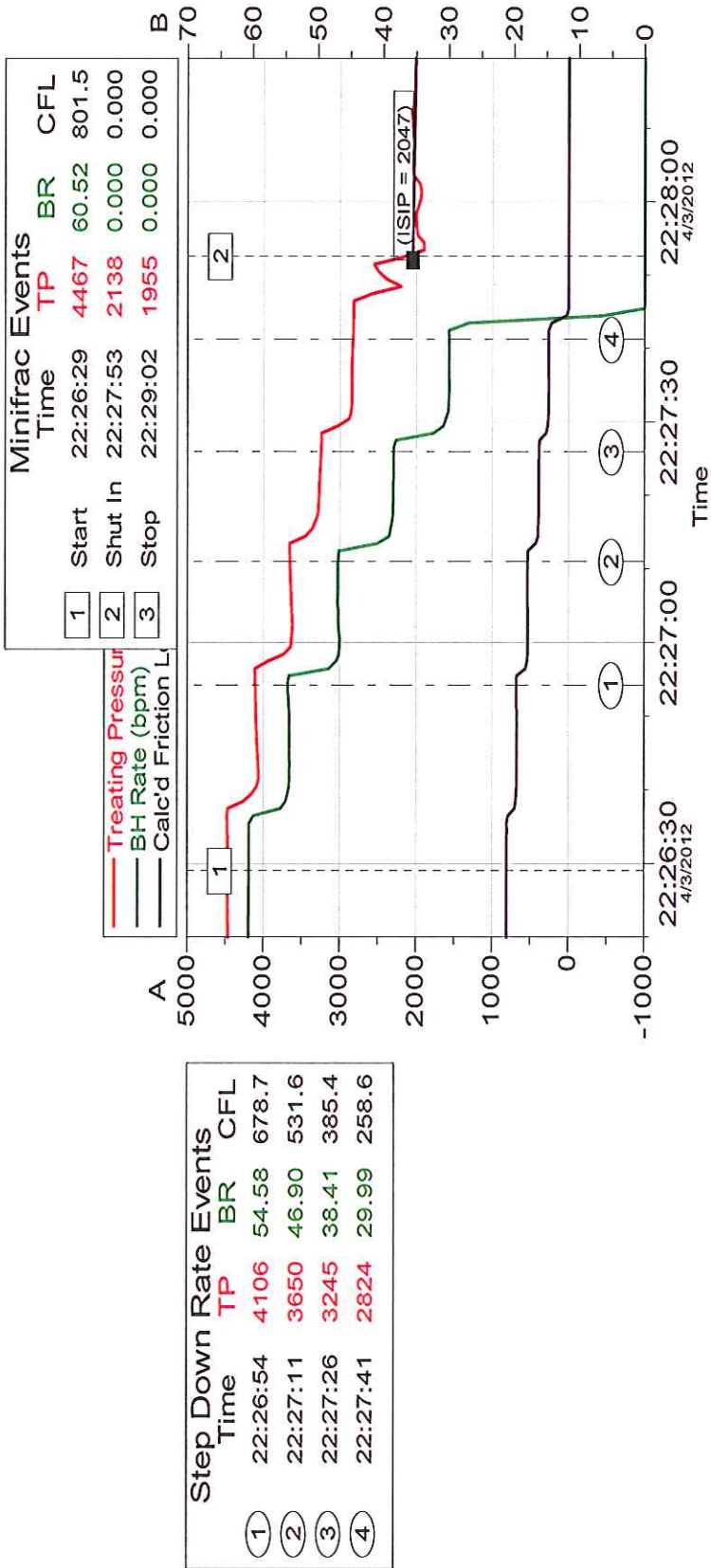
Stage Number	Event Number	Time	Description	Comment	Slurry Rate bpm	Treating Pressure psi	N2 Pressure psi	Job Clean Vol gal	Job Slurry Vol gal
	1	03-Apr-12 21:57:06	Start Job	Starting Job					
2		22:03:33	Stage 2	Pad	22.8	380	-0	12	16
		22:03:34	Start Averaging	Start Avg Trt 1	16.4	384	-0	18	27
	2	22:06:46	Break Formation	Break Formation	44.1	4024	-0	4284	4302
	3	22:27:55	ISIP	ISIP	0.0	1905	0	54063	55386
3		22:29:55	Stage 3	Proppant Laden Fluid	60.0	3949	-0	54769	56139
4		22:31:26	Stage 4	Proppant Laden Fluid	62.8	4328	-0	58516	60047
5		22:34:28	Stage 5	Proppant Laden Fluid	62.7	4012	-0	66017	68011
6		23:22:02	Stage 6	Proppant Laden Fluid	40.2	4464	0	151783	161457
	4	23:49:04	Other	Kicked pumps out due to pressure.	4.4	5307	0	197167	210851
	5	23:50:14	Other	Marked Flush	11.3	5476	0	197533	211261
8		23:50:14	Stage 8	Proppant Laden Fluid	11.3	5476	0	197533	211261
9		23:50:38	Stage 9	Flush	0.0	3893	0	197557	211261
	6	23:51:24	Other	Could not get back into well. Shut down.	0.0	5393	0	197557	211265
		04-Apr-12 00:06:19	End Averaging	End Avg Trt 1	11.1	1202	-0	198119	211853
	7	00:06:23	End Job	Ending Job	11.1	1211	-0	198129	211863

5.0 ATTACHMENTS

5.1 PDAT - Job Data

Halliburton Pumping Diagnostic Analysis Toolkit

Job Data



Customer:	WPX ENERGY ROCKY MOUNTAIN LLC-EBUS	Job Date:	03-Apr-2012	Sales Order #:	9410673
Well Description:	RMV 215-21	UWI:	05045074650000		

5.2 RWF 215-21 Stg 1 Post.doc

5.3 Step Down Analysis Input

ISIP: 2047 psi
 Fluid Density: 8.56 lb/gal
 Entry Hole Size: 0.350 in
 Number of Perforations: 34
 Fluid type: Newtonian
 Discharge Coefficient: 0.70

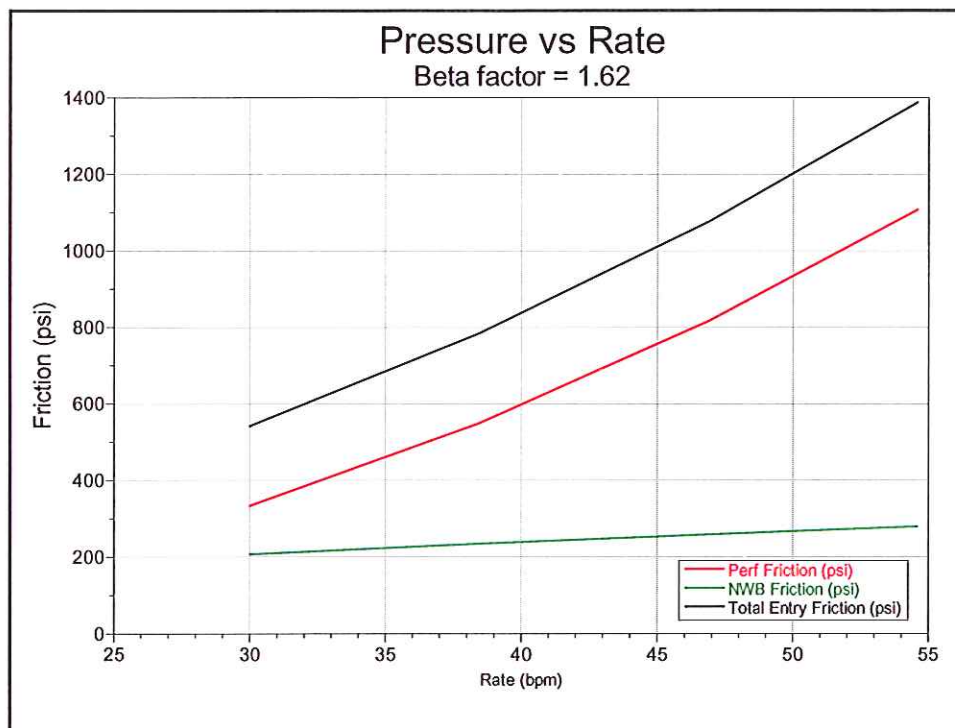
5.4 Step Down Analysis Results

Effective Perfs: 27.25
 Beta Factor: 1.62
 Pipe Friction: 679 psi
 Entry Friction: 1387 psi
 K_{Entry} : 2.17
 Perf Friction: 1107 psi
 K_{Perf} : 0.37
 NWB Friction: 280 psi
 K_{NWB} : 37.90

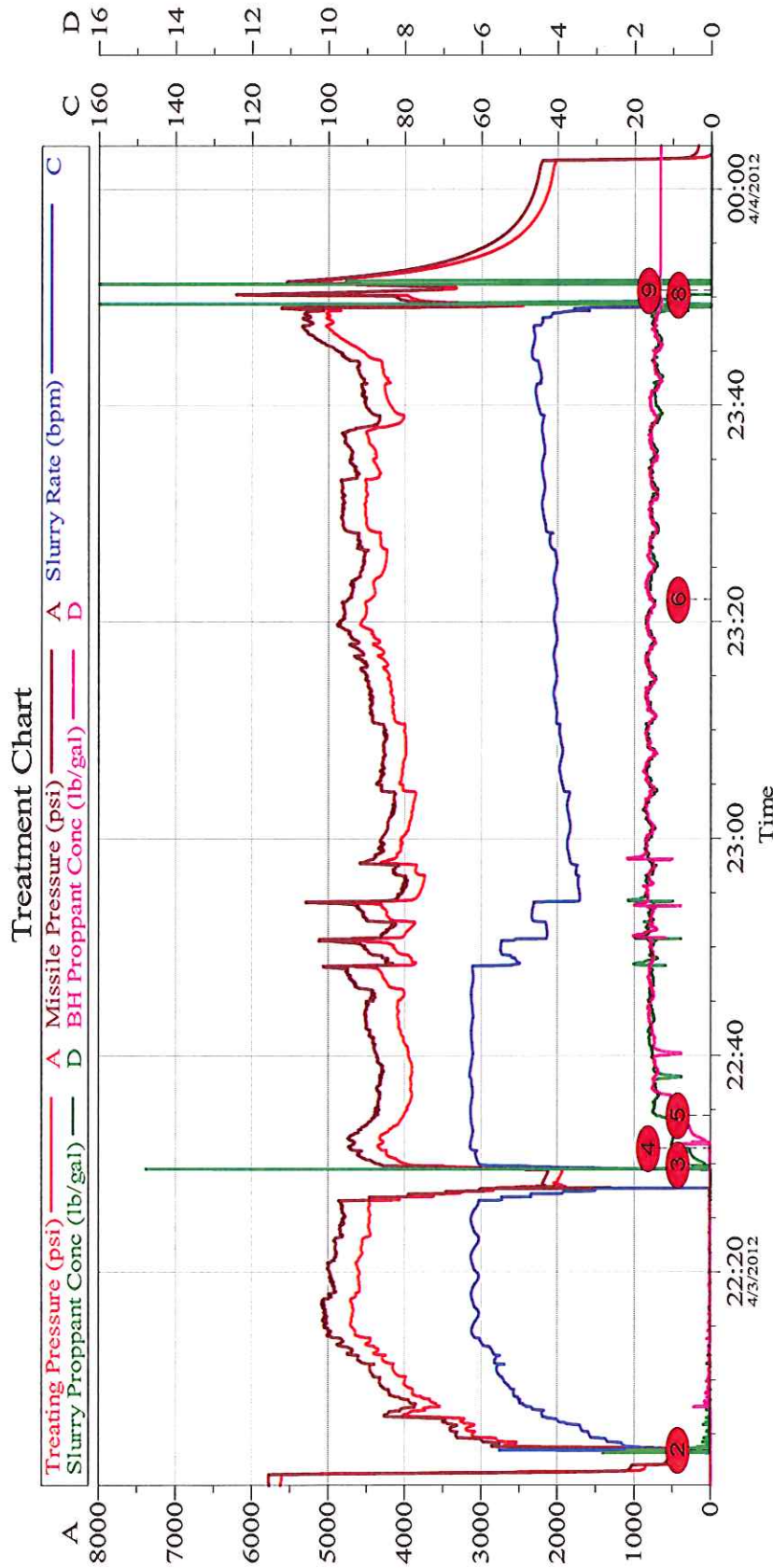
5.5 Step Down Analysis Data

Step Time	Step Pressure psi	Step Rate bpm	Pipe Friction psi	Entry Friction psi	Perf Friction psi	NWB Friction psi
03-Apr-2012 22:26:54	4106	54.58	679	1387	1107	280
22:27:10	3650	46.90	532	1077	817	260
22:27:25	3245	38.41	386	783	548	235
22:27:41	2824	29.99	259	542	334	208

5.6

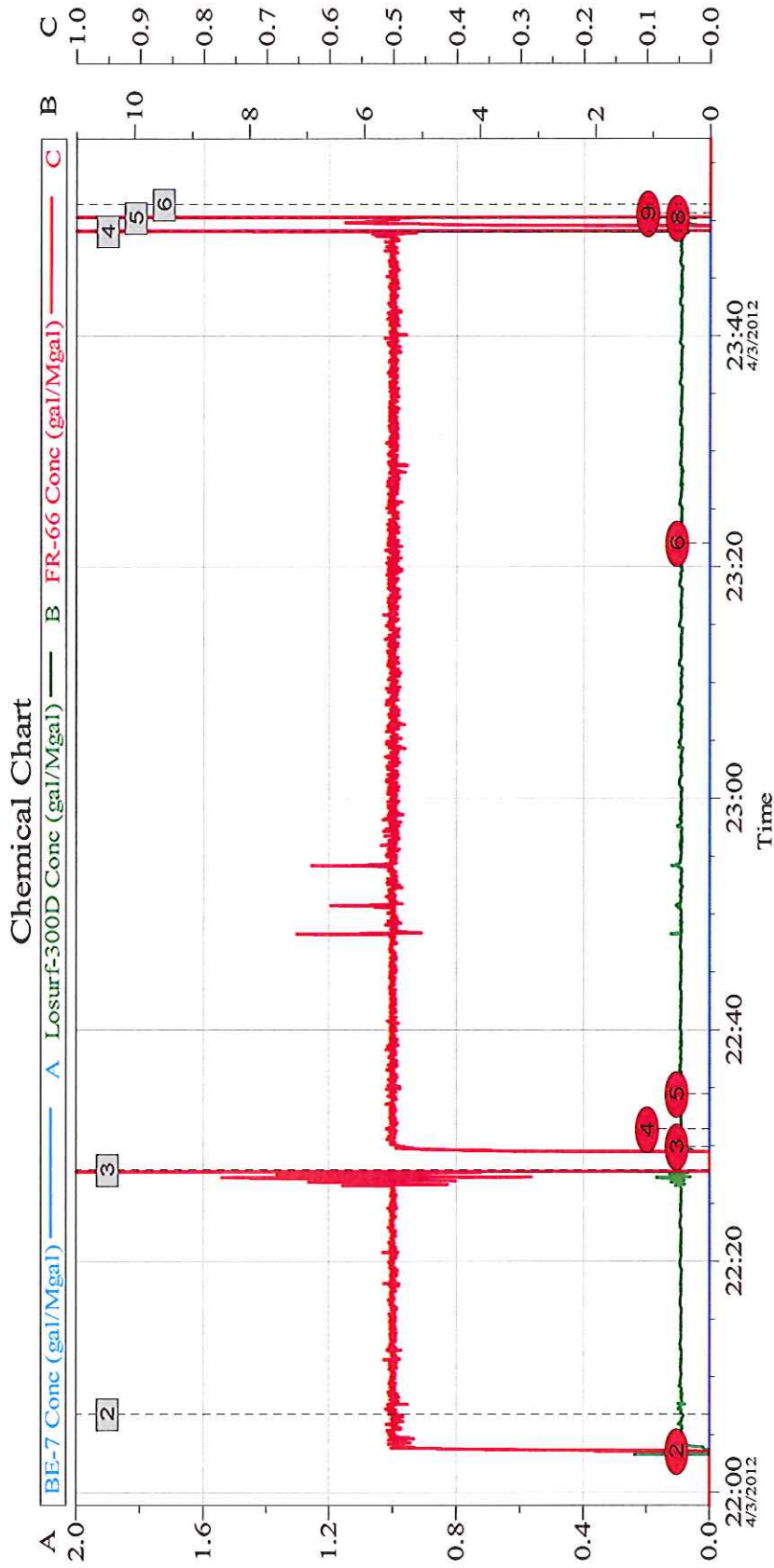


5.7 Treatment Chart



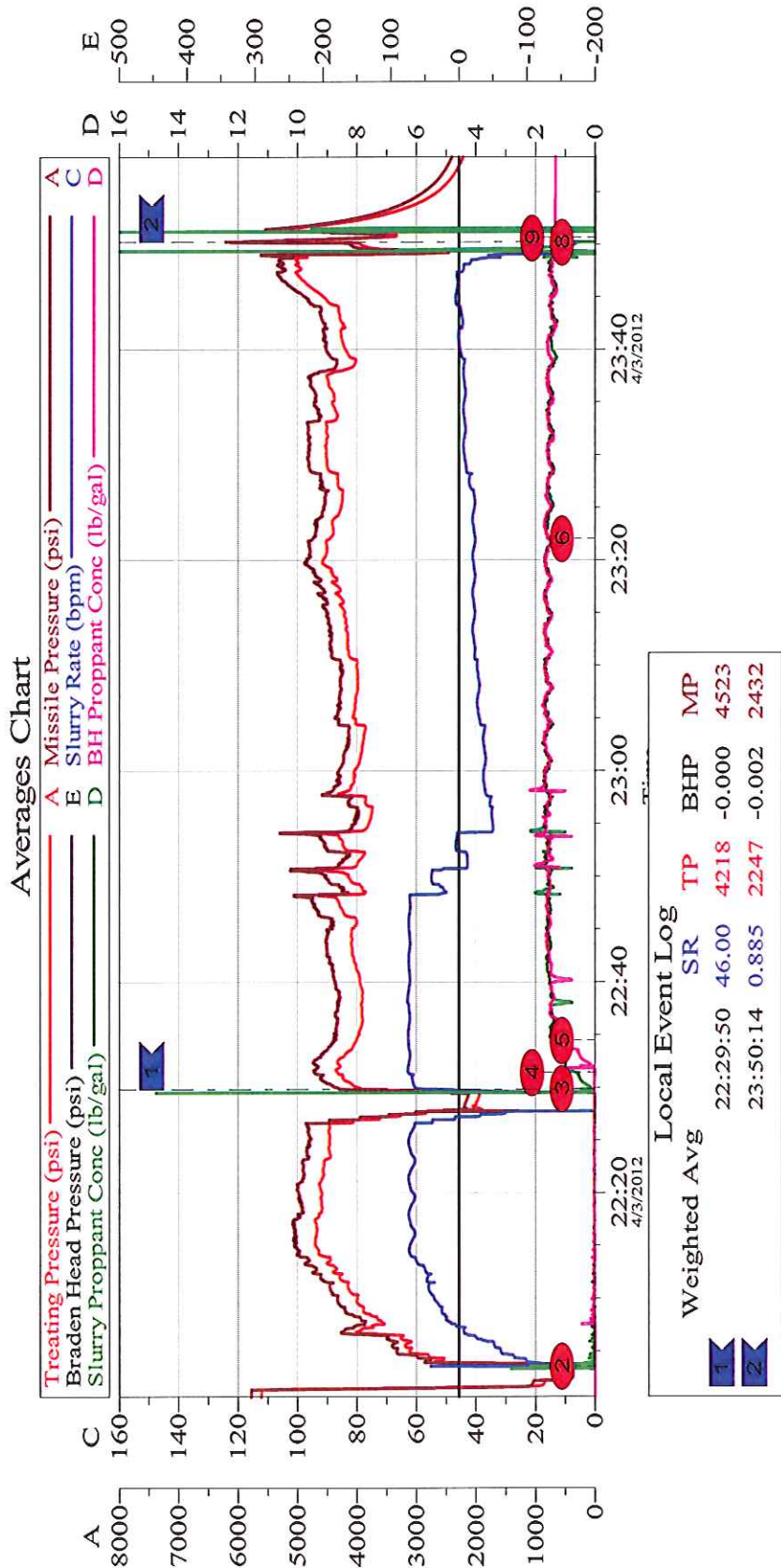
Customer: WPX ENERGY ROCKY MOUNTAIN LLC-EBUS	Job Date: 03-Apr-2012	Sales Order #: 9410673
Well Description: RMV 215-21	UWI: 05045074650000	

5.8 Chemical Chart



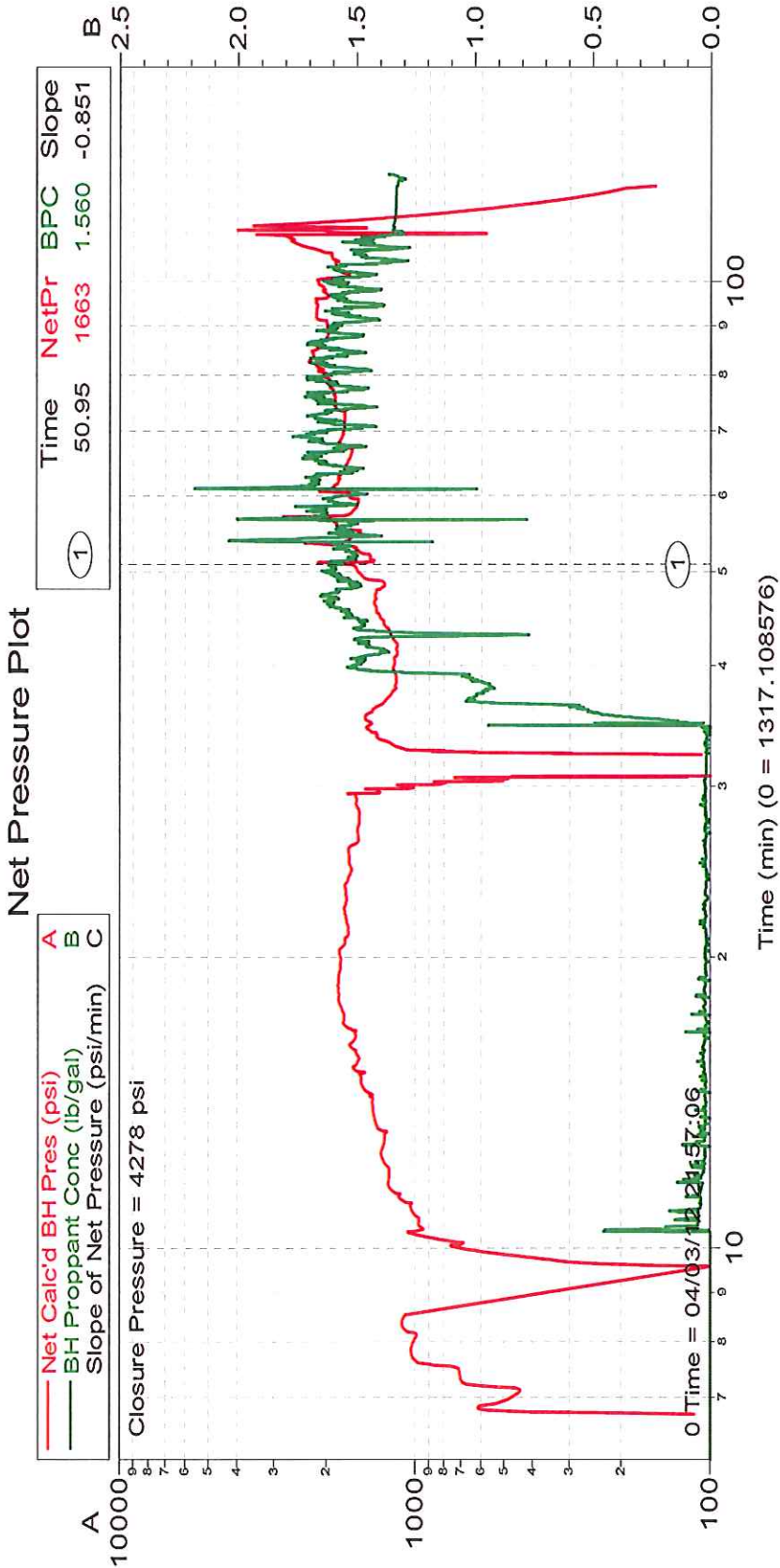
Customer: WPX ENERGY ROCKY MOUNTAIN LLC-EBUS	Job Date: 03-Apr-2012	Sales Order #: 9410673
Well Description: RMV 215-21	UWI: 05045074650000	

5.9 Averages Chart



Customer:	WPX ENERGY ROCKY MOUNTAIN LLC-EBUS	Job Date:	03-Apr-2012	Sales Order #:	9410673
Well Description:	RMV 215-21	UWI:	05045074650000		

5.10 Net Pressure Plot



Customer: WPX ENERGY ROCKY MOUNTAIN LLC-EBUS	Job Date: 03-Apr-2012	Sales Order #: 9410673
Well Description: RMV 215-21	UWI: 05045074650000	