

# HALLIBURTON

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## **PICEANCE ENERGY LLC - EBUS**

**For: Chuck Mallary**

### **PICEANCE FEDERAL 28-09E**

API# 05-077-10255-00

Job Date: Sunday, December 13, 2015

Sincerely,

**Grand Junction Cement Engineering**

## Legal Notice

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Table of Contents

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Real-Time Job Summary .....  
    Job Event Log.....  
Custom Graphs.....  
    Custom Graph.....

## 1.0 Real-Time Job Summary

## 1.1 Job Event Log

Type	Seq. No.	Activity	Date	Time	Source	DH Density (ppg)	Comb Pump Rate (bbl/min)	PS Pump Press (psi)	Pump Stg Tot (bbl)	Comments
Event	1	Call Out	12/12/2015	19:30:00	USER					HES CREW WAS CALLED AND WOULD BE ROLLING FROM PREVIOUS JOB
Event	2	Pre-Convoy Safety Meeting	12/12/2015	22:00:00	USER					JOURNEY CREATED, ALL HES INVOLVED IN SAFETY MEETING
Event	3	Crew Leave Yard	12/12/2015	22:30:00	USER					1-F-550 PICKUP, 1-ELITE PUMP TRUCK, 1-660 BULK TRUCK, 1-BODY LOAD
Event	4	Arrive At Loc	12/13/2015	00:30:00	USER					HES ARRIVED 1 HOUR EARLY
Event	5	Assessment Of Location Safety Meeting	12/13/2015	00:45:00	USER					RIG WAS ALMOST DONE RUNNING CASING, HES REP SPOKE WITH COMPANY REP AND HELD SAFETY MEETING
Event	6	Pre-Rig Up Safety Meeting	12/13/2015	01:00:00	USER					JSA REVIEWED, ALL HES INVOLVED IN SAFETY MEETING
Event	7	Rig-Up Equipment	12/13/2015	01:15:00	USER					RIG UP IRON TO THE STAND PIPE AND WASH UP LINE TO THE CELLAR, WATER HOSES TO UPRIGHT AND RIG TANK, BULK EQUIPMENT TO PUMP TRUCK
Event	8	Rig-Up Completed	12/13/2015	02:15:00	USER					COMPLETED
Event	9	Pre-Job Safety Meeting	12/13/2015	02:20:00	USER					ALL HES AND RIG CREW AND COMPANY REP TO REVIEW JOB PROCEDURES

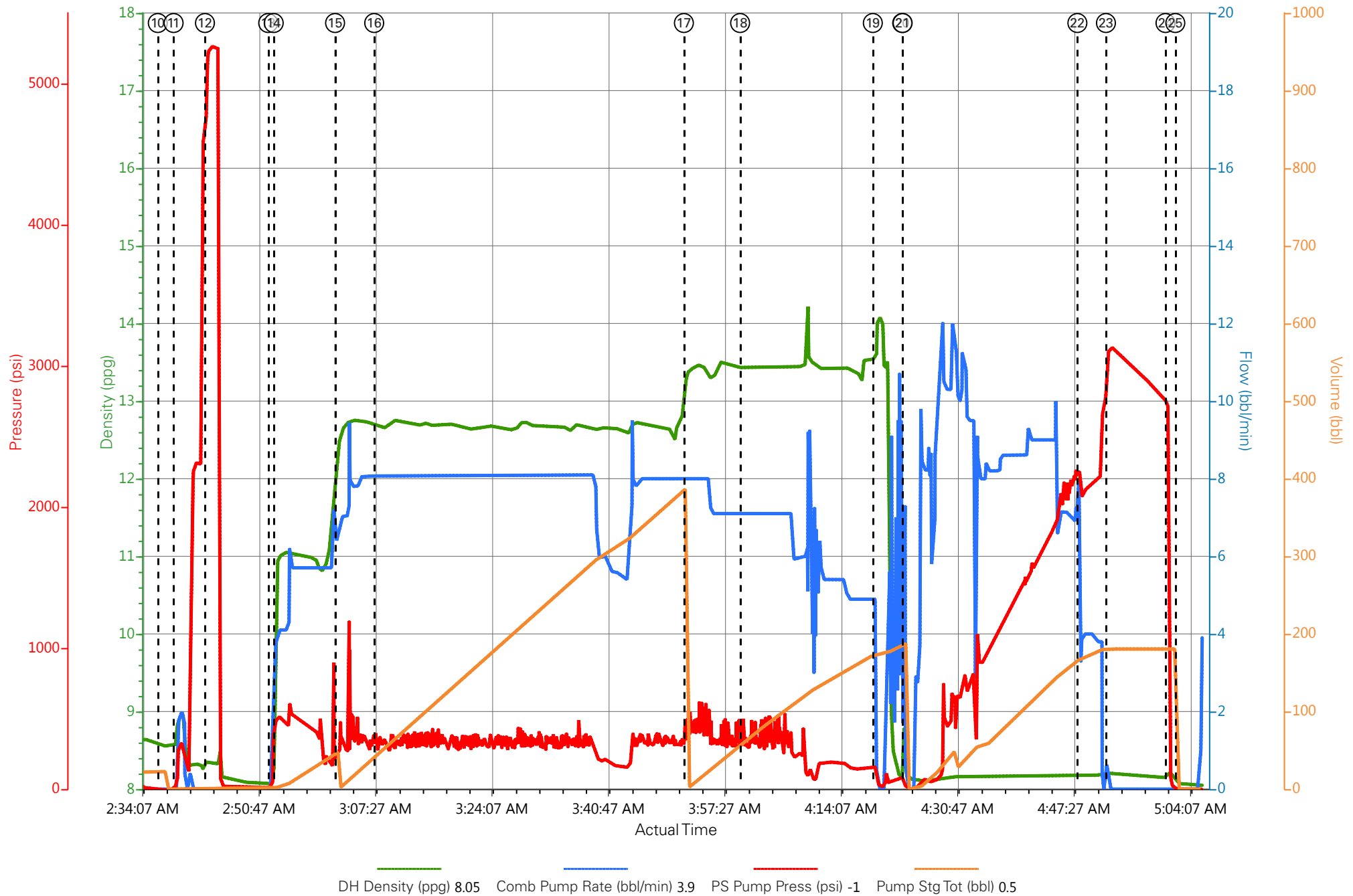
TD: 8513FT TP: 8503FT SJ:  
83.51FT OH: 8.75 CSG: 4.5  
11.6# I-80 SRF CSG: 1593FT  
8.625 36# J-55 MUD WT:  
9.4 WTR TEST- TEMP: 50  
CHLORIDES: 0 PH: 7

Event	10	Start Job	12/13/2015	02:36:40	COM7						11.6# I-80 SRF CSG: 1593FT 8.625 36# J-55 MUD WT: 9.4 WTR TEST- TEMP: 50 CHLORIDES: 0 PH: 7
Event	11	Prime Pumps	12/13/2015	02:38:56	COM7	8.34	2	376	2		FILL LINES TO PRESSURE TEST
Event	12	Test Lines	12/13/2015	02:43:25	COM7	8.35		5268			PRESSURE TEST LINES TO 5000 PSI, PRESSURE TEST OK
Event	13	Drop Bottom Plug	12/13/2015	02:52:28	USER						BOTTOM PLUG AWAY NO PROBLEMS
Event	14	Pump Spacer 1	12/13/2015	02:53:15	COM7	11	6	262	40		40BBLS OF TUNED SPACER 11PPG 4.55YIELD 30GAL/SK WEIGHT OF TUNED SPACER VERIFIED VIA MUD SCALES THROUGHOUT TUNED SPACER
Event	15	Pump Lead Cement	12/13/2015	03:02:02	COM7	12.7	8	350	320.5		1090SKS OF ECONOCEM CEMENT (320.5BBLS) 12.7PPG 1.65YIELD 7.95GAL/SK WEIGHT OF CEMENT VERIFIED VIA MUD SCALES THROUGHOUT LEAD CEMENT
Event	16	Check Weight	12/13/2015	03:07:38	COM7	12.7					VERIFIED WEIGHT OF CEMENT
Event	17	Pump Tail Cement	12/13/2015	03:51:58	COM7	13.5	8	360	139		446SKS OF THERMACEM CEMENT (139BBLS) 13.5PPG 1.75YIELD 7.97GAL/SK WEIGHT OF CEMENT VERIFIED VIA MUD SCALES THROUGHOUT TAIL CEMENT
Event	18	Check Weight	12/13/2015	04:00:01	COM7	13.5					VERIFIED WEIGHT OF

5										CEMENT
Event	19	Shutdown	12/13/2015	04:19:01	USER					SHUTDOWN END OF CEMENT, CLEAN LINES TO THE CELLAR READY TANKS FOR DISPLACEMENT
Event	20	Drop Top Plug	12/13/2015	04:23:13	COM7					TOP PLUG AWAY NO PROBLEMS
Event	21	Pump Displacement	12/13/2015	04:23:17	COM7	8.35	8	2236	120.5	FRESH WATER DISPLACEMENT WITH CLAWEB ADDED
Event	22	Slow Rate	12/13/2015	04:48:18	USER	8.35	4	2112	10	SLOWE RATE TO 4BBL/MIN TO BUMP THE PLUG, PRESSURE PRIOR TO SLOWING WAS 2236PSI, AFTER SLOWING PRESSURE WAS 2112PSI
Event	23	Bump Plug	12/13/2015	04:52:23	COM7			2350	130.5	BUMPED PLUG AT 2350PSI, TOOK TO 3000PSI FOR 10MIN CASING TEST
Event	24	Check Floats	12/13/2015	05:00:55	USER			3150		FLOATS HELD 1BBL BACK TO TANKS, 40 BBLS OF TUNED SPACER AND 27BBLS OF CEMENT BACK TO SURFACE
Event	25	End Job	12/13/2015	05:02:19	COM7					THANK YOU FOR CHOOSING HALLIBURTON CEMENT CARL KUKUS AND CREW
Event	26	Pre-Rig Down Safety Meeting	12/13/2015	05:16:51	USER					JSA REVIEWED, ALL HES INVOLVED
Event	27	Rig-Down Equipment	12/13/2015	05:25:00	USER					WASH UP AND BLOW DOWN PUMP TRUCK, RIG DOWN ALL LINES AND EQUIPMENT
Event	28	Rig-Down Completed	12/13/2015	06:25:00	USER					COMPLETED

Event	29	Pre-Convoy Safety Meeting	12/13/2015	06:30:00	USER	JOURNEY CREATED, ALL HES INVOLVED IN SAFETY MEETING
Event	30	Crew Leave Location	12/13/2015	06:35:00	USER	1-F-550 PICKUP, 1-ELITE PUMP TRUCK, 1-660 BULK TRUCK, 1-BODY LOAD

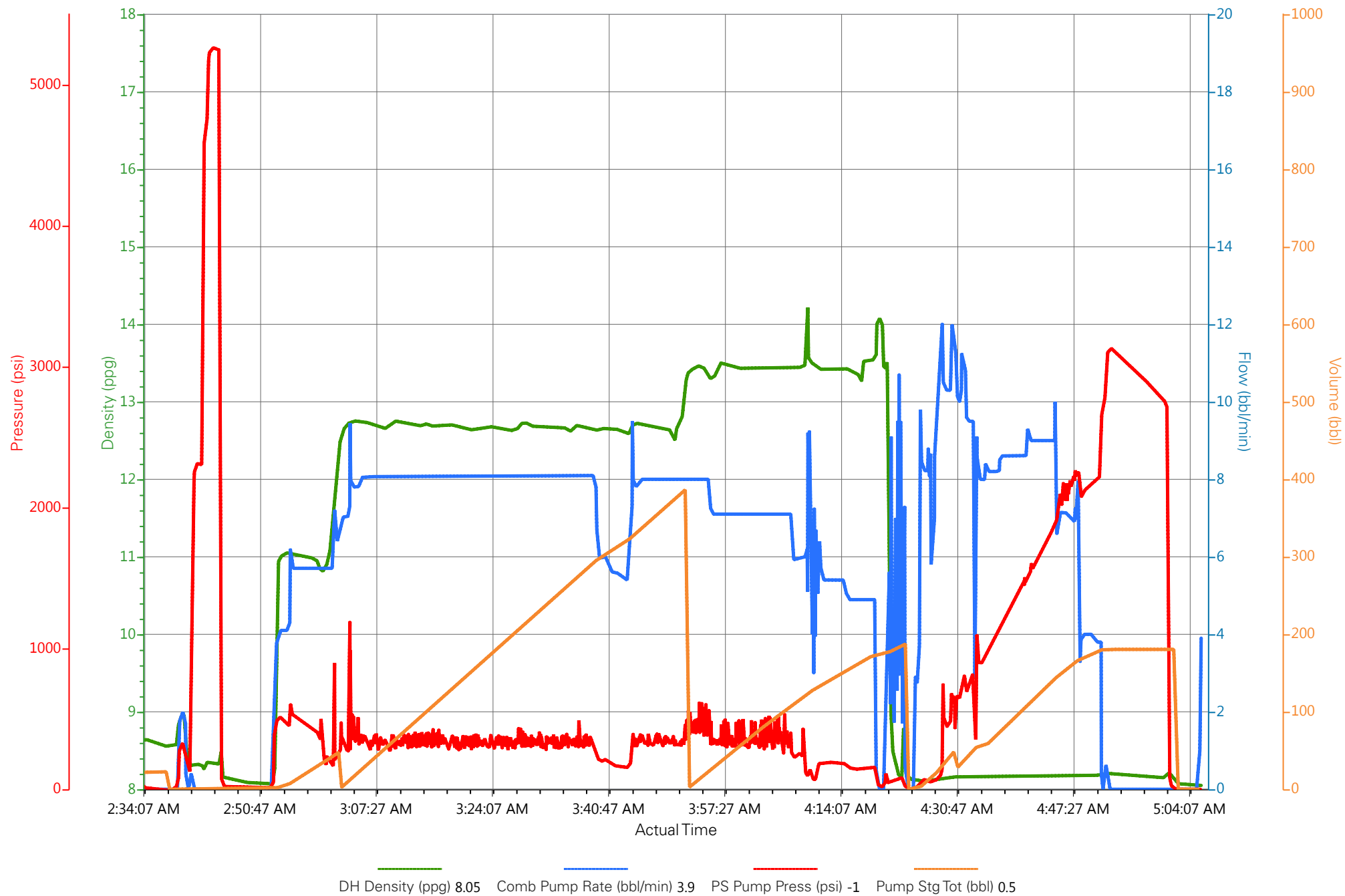
# PICEANCE ENERGY-PICEANCE FEDERAL 28-09E-PRODUCTION



- |                             |                   |   |                    |                          |              |                    |                |
|-----------------------------|-------------------|---|--------------------|--------------------------|--------------|--------------------|----------------|
| ① Call Out                  | ③ Crew Leave Yard | ⑤ Assessment Of Location Safety Meeting | ⑦ Rig-Up Equipment | ⑨ Pre-Job Safety Meeting | ⑪ Fill Lines | ⑬ Drop Bottom Plug | ⑮ Pump Lead    |
| ② Pre-Convoy Safety Meeting | ④ Arrive At Loc   | ⑥ Pre-Rig Up Safety Meeting             | ⑧ Rig-Up Completed | ⑩ Start Job              | ⑫ Test Lines | ⑭ Tuned Spacer     | ⑯ Check weight |



# PICEANCE ENERGY-PICEANCE FEDERAL 28-09E-PRODUCTION



### Job Information

<b>Request/Slurry</b>	2290581/1	<b>Rig Name</b>	Patterson #306	<b>Date</b>	09/DEC/2015
<b>Submitted By</b>	Jenna Cook	<b>Job Type</b>	Production Casing	<b>Bulk Plant</b>	Grand Junction
<b>Customer</b>	Piceance Energy LLC	<b>Location</b>	Mesa	<b>Well</b>	Piceance Fed 28-09E

### Well Information

<b>Casing/Liner Size</b>	4.5 in / 114.3 mm	<b>Depth MD</b>	2594 m / 8509 ft	<b>BHST</b>	119°C / 247°F
<b>Hole Size</b>	7.875 in / 200.025 mm	<b>Depth TVD</b>	2454 m / 8051 ft	<b>BHCT</b>	76°C / 168°F
<b>Pressure</b>	341 bar / 4940 psi				

### Drilling Fluid Information

<b>Mud Supplier Name</b>	<b>Mud Trade Name</b>	<b>Density</b>
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### Cement Information - Lead Design



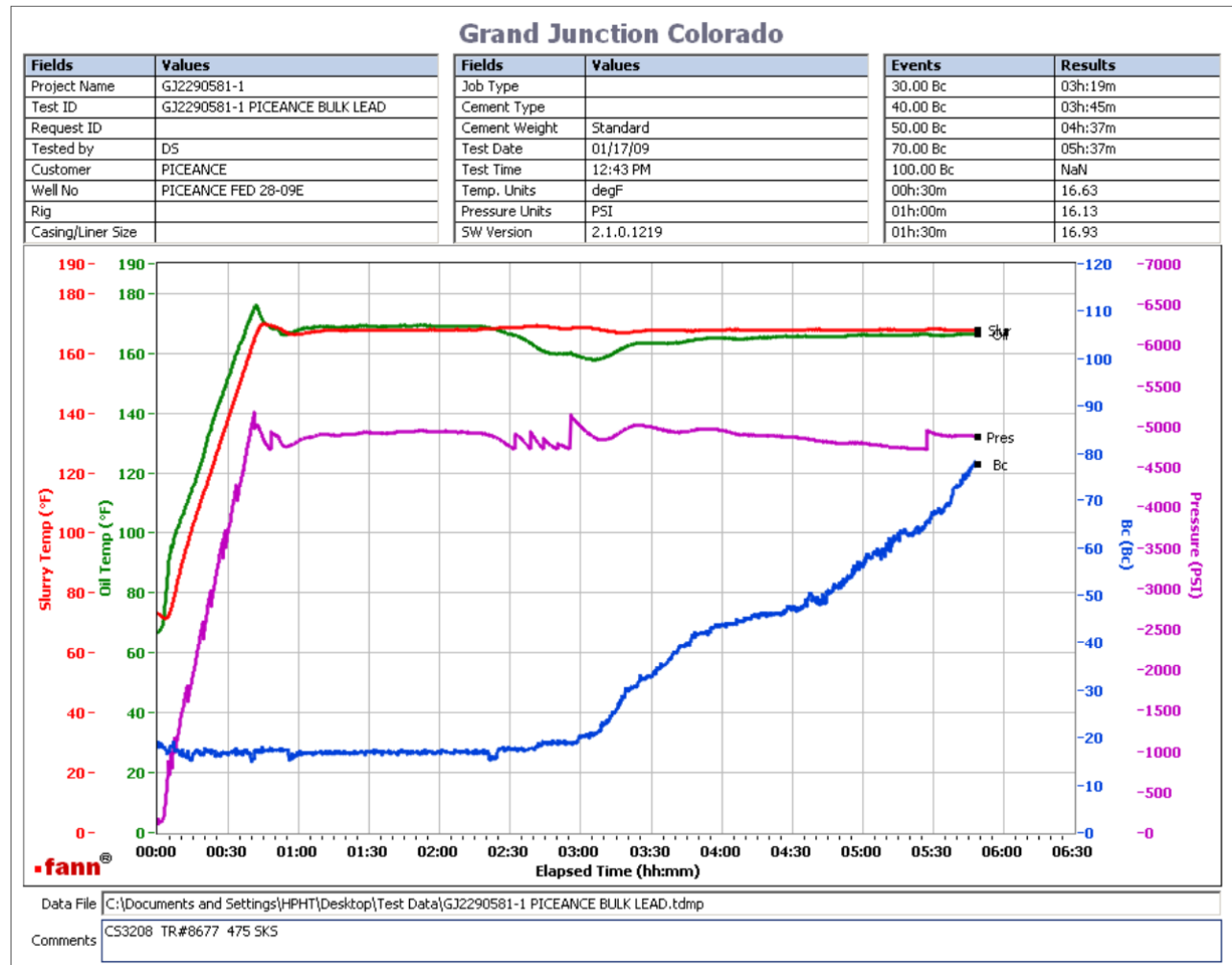
<u>Conc</u>	<u>UOM</u>	<u>Cement/Additive</u>	<u>Sample Type</u>	<u>Sample Date</u>	<u>Lot No.</u>	<b>Cement Properties</b>		
		> Mountain G	Bulk Blend	11.12.15	Tank 29	Slurry Density	12.7	lbm/gal
		> San Juan	Bulk Blend	11.12.15	Tank 16 & 22	Slurry Yield	1.6449	ft3/sack
		Cement Blend				Water Requirement	7.9376	gal/sack
		Fresh Water	Lab	12.03.13		Total Mix Fluid	7.94	gal/sack
		HALAD-344 (PB)	Bulk Blend	11.12.15	1504446			
		SA-1015 (PB)	Bulk Blend	11.12.15	5A0001W			
		Kol-Seal	Bulk Blend	11.12.15	Tank 1 & 20	Water Source	Fresh Water	
		Pol-E-Flake	Bulk Blend	11.12.15		Water Chloride		
		HR-601	Bulk Blend	11.12.15	69			

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Thickening Time

11/DEC/2015

Temp (°F)	Pressure (psi)	Reached in (min)	Start BC	30 Bc (hh:mm)	40 Bc (hh:mm)	50 Bc (hh:mm)	70 Bc (hh:mm)	Termination Time	Termination BC
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Total sks=1090  
CS3208 TR#8677 475 SKS

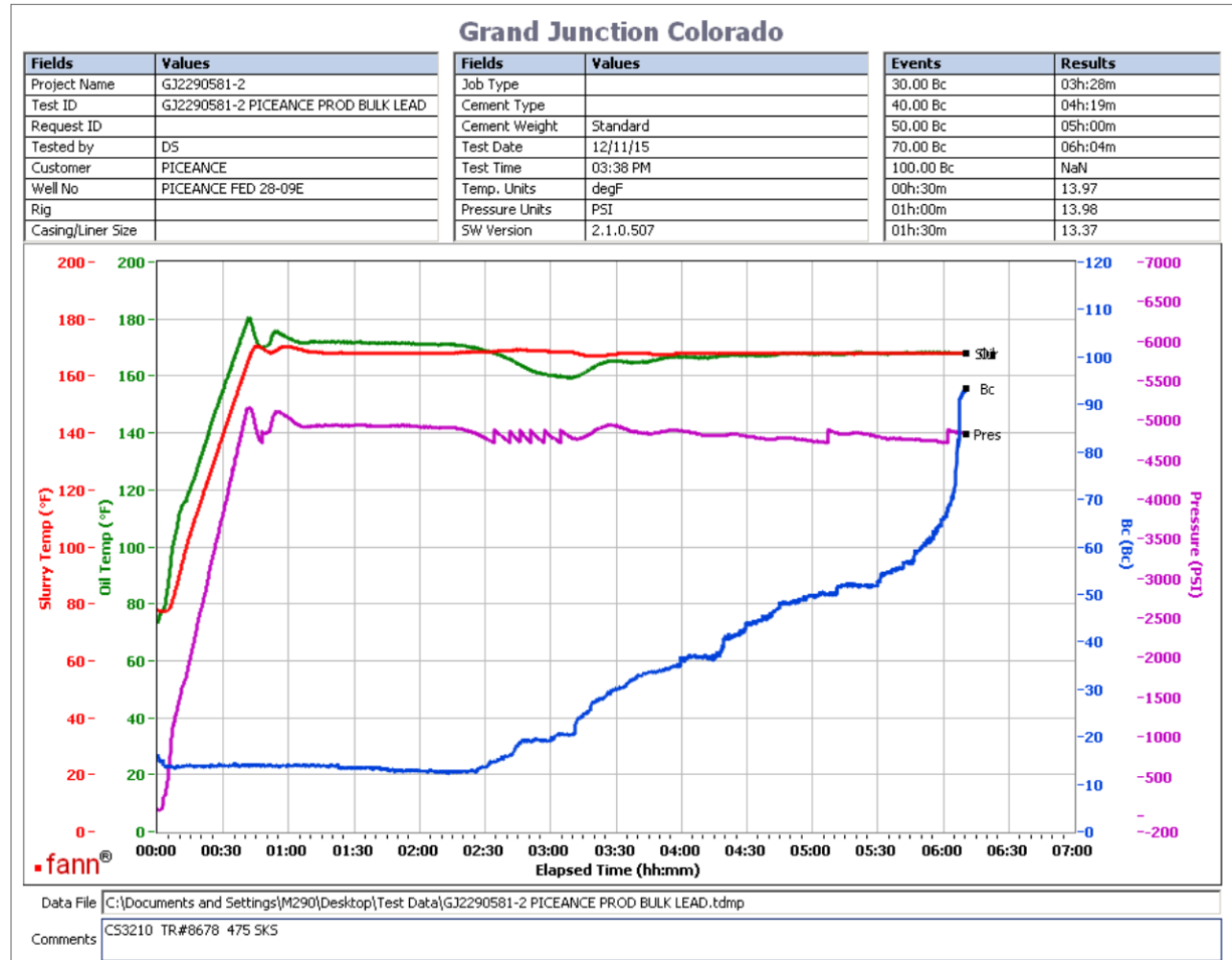
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## Operation Test Results Request ID 2290581/2

### Thickening Time

11/DEC/2015

Temp (°F)	Pressure (psi)	Reached in (min)	Start BC	30 Bc (hh:mm)	40 Bc (hh:mm)	50 Bc (hh:mm)	70 Bc (hh:mm)	Termination Time	Termination BC
168	4940	41	15	3:28	4:19	5:00	6:04	6:10	92



Total sks=1090  
CS3210 TR# 8678 475 SKS

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Thickening Time

11/DEC/2015

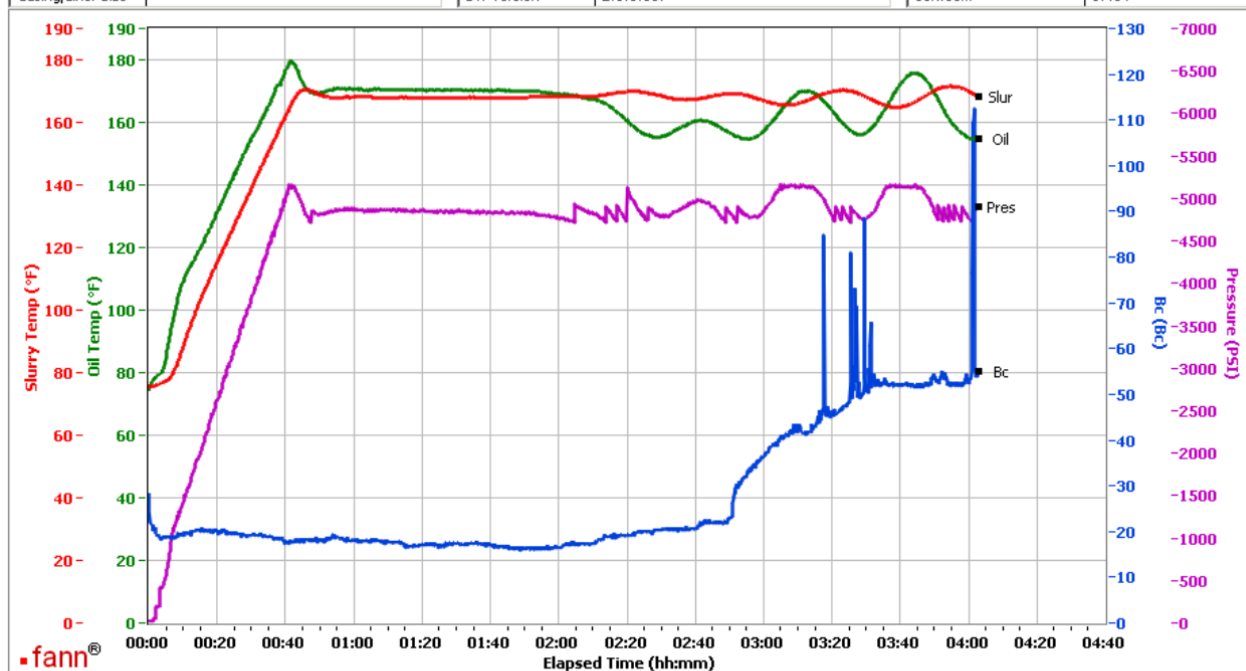
Temp (°F)	Pressure (psi)	Reached in (min)	Start BC	30 Bc (hh:mm)	40 Bc (hh:mm)	50 Bc (hh:mm)	70 Bc (hh:mm)	100 Bc (hh:mm)
168	4940	41	28	2:52	3:04	3:30	4:03	4:03

Grand Junction Colorado

Fields	Values
Project Name	BULK PRODUCTION LEAD
Test ID	GJ2290581-3
Request ID	
Tested by	CT
Customer	PICEANCE
Well No	PICEANCE FEDERAL 28-09E
Rig	
Casing/Liner Size	

Fields	Values
Job Type	
Cement Type	
Cement Weight	Standard
Test Date	12/11/15
Test Time	11:35 PM
Temp. Units	degF
Pressure Units	PSI
SW Version	2.1.0.507

Events	Results
30.00 Bc	02h:52m
40.00 Bc	03h:04m
50.00 Bc	03h:17m
70.00 Bc	03h:17m
100.00 Bc	04h:01m
00h:30m	19.15
01h:00m	18.17
01h:30m	17.34



Data File C:\Documents and Settings\M290\Desktop\Test Data\GJ2290581-3 PICEANCE BULK PRODUCTION LEAD.tdms

Comments CS3212 TRAILER 4549 140 SKS

Total sks=1090  
CS3212 Trailer 4549 140 sks

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### Job Information

<b>Request/Slurry</b>	2290582/1	<b>Rig Name</b>	Patterson #306	<b>Date</b>	09/DEC/2015
<b>Submitted By</b>	Jenna Cook	<b>Job Type</b>	Production Casing	<b>Bulk Plant</b>	Grand Junction
<b>Customer</b>	Piceance Energy LLC	<b>Location</b>	Mesa	<b>Well</b>	Piceance Fed 28-09E

### Well Information

<b>Casing/Liner Size</b>	4.5 in / 114.3 mm	<b>Depth MD</b>	2594 m / 8509 ft	<b>BHST</b>	119°C / 247°F
<b>Hole Size</b>	7.875 in / 200.025 mm	<b>Depth TVD</b>	2454 m / 8051 ft	<b>BHCT</b>	76°C / 168°F
<b>Pressure</b>	341 bar / 4940 psi				

### Drilling Fluid Information

<b>Mud Supplier Name</b>	<b>Mud Trade Name</b>	<b>Density</b>
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### Cement Information - Tail Design



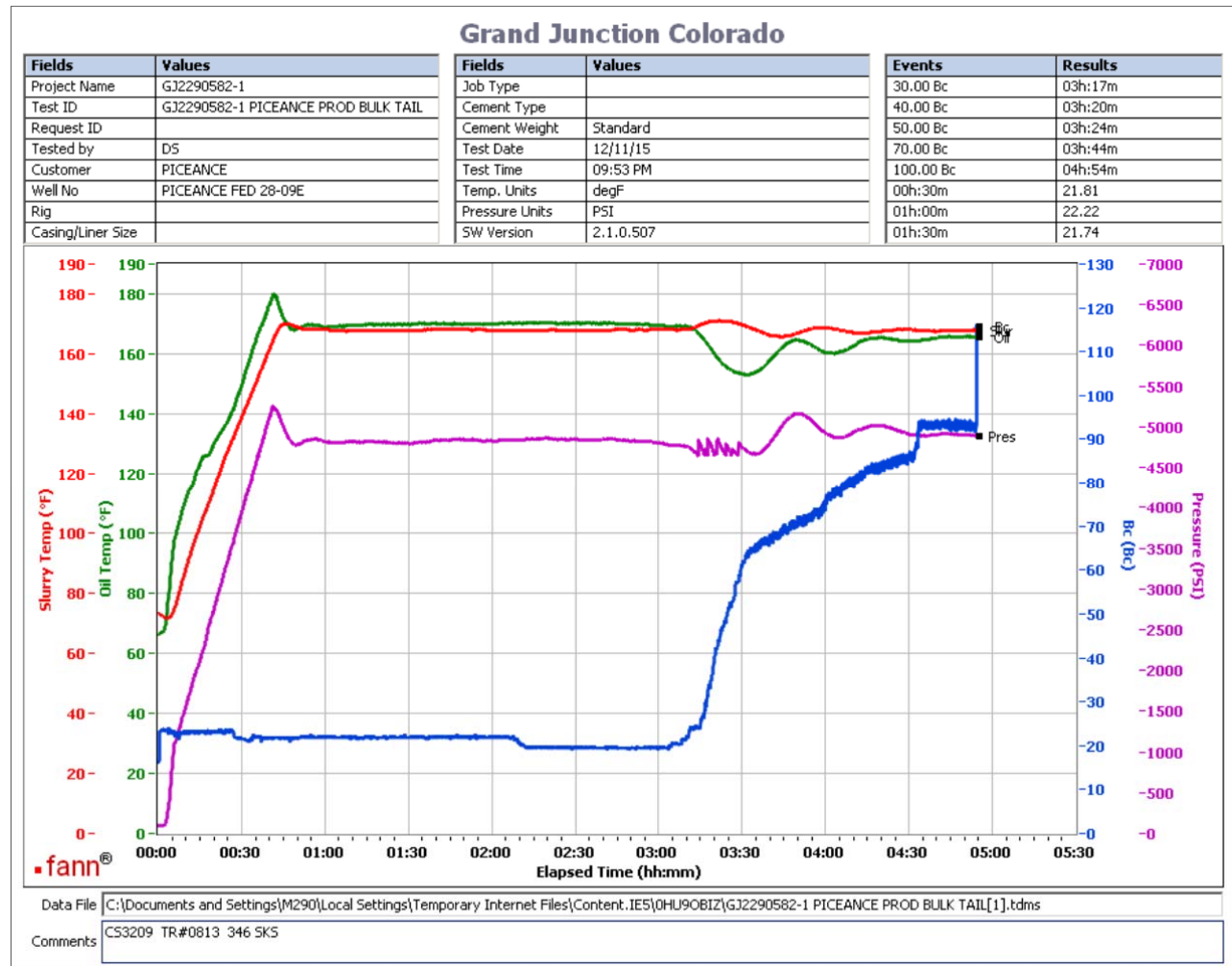
<u>Conc</u>	<u>UOM</u>	<u>Cement/Additive</u>	<u>Sample Type</u>	<u>Sample Date</u>	<u>Lot No.</u>	<b>Cement Properties</b>		
		> Mountain G	Bulk Blend	11.12.15	Tank 29	Slurry Density	13.5	lbm/gal
		> San Juan	Bulk Blend	11.12.15	tank 16 &22	Slurry Yield	1.7488	ft3/sack
		Cement Blend				Water Requirement	7.9691	gal/sack
		Fresh Water	Lab	12.03.13	N/A	Total Mix Fluid	7.97	gal/sack
		SA-1015 (PB)	Bulk Blend	11.12.15	5A0001W			
		SS-200 silica flour	Bulk Blend	11.12.15	tank 6 &25			
		HALAD-344 (PB)	Bulk Blend	11.12.15	15040446	Water Source	Fresh Water	
		SUPER CBL	Bulk Blend	11.12.15	15L0052	Water Chloride		
		Kol-Seal	Bulk Blend	11.12.15	tank 1 &20			
		Pol-E-Flake	Bulk Blend	11.12.15				
		HR-601	Bulk Blend	11.12.15	69			

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## Thickening Time

11/DEC/2015

Temp (°F)	Pressure (psi)	Reached in (min)	Start BC	30 Bc (hh:mm)	40 Bc (hh:mm)	50 Bc (hh:mm)	70 Bc (hh:mm)	100 Bc (hh:mm)
168	4940	41	16	3:17	3:20	3:24	3:44	4:54



Total sks=446

CS3209 TR#0813 346 SKS

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# Operation Test Results Request ID 2290582/2

## Thickening Time

11/DEC/2015

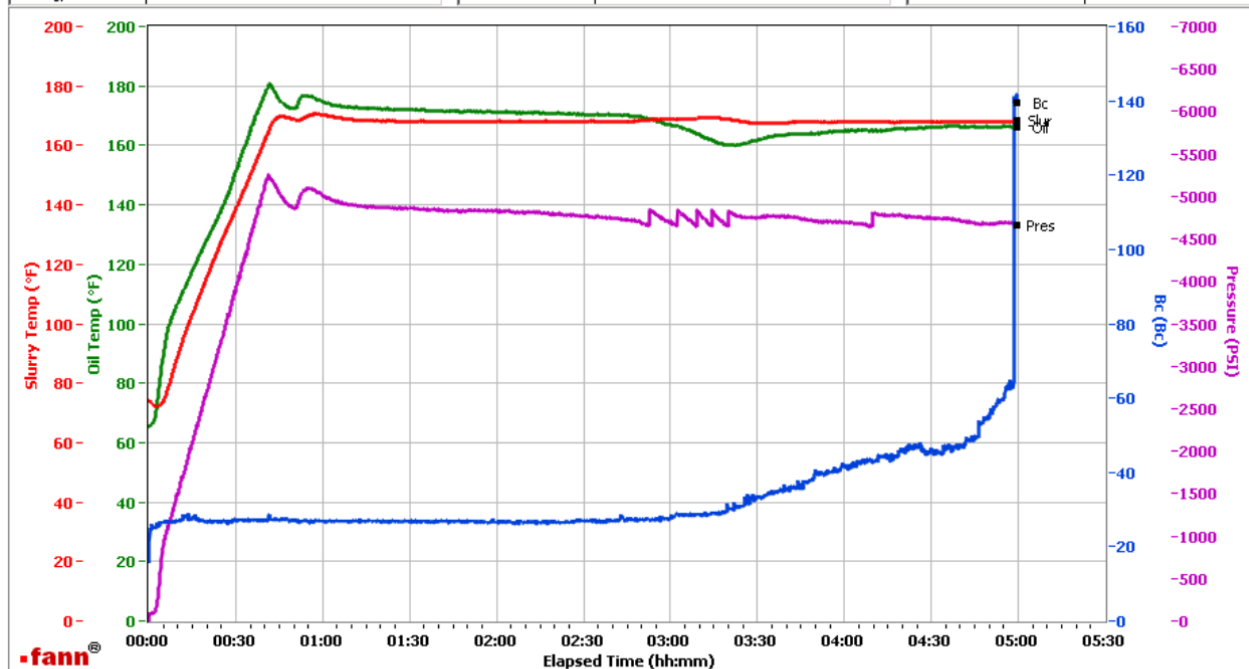
Temp (°F)	Pressure (psi)	Reached in (min)	Start BC	30 Bc (hh:mm)	40 Bc (hh:mm)	50 Bc (hh:mm)	70 Bc (hh:mm)	100 Bc (hh:mm)
168	4940	41	16	3:19	3:50	4:46	4:58	4:58

## Grand Junction Colorado

Fields	Values
Project Name	BULK PRODUCTION TAIL
Test ID	GJ2290582-2
Request ID	
Tested by	CT
Customer	PICEANCE
Well No	PICEANCE FEDERAL 28-09E
Rig	
Casing/Liner Size	

Fields	Values
Job Type	
Cement Type	
Cement Weight	Standard
Test Date	12/12/15
Test Time	12:21 AM
Temp. Units	degF
Pressure Units	PSI
SW Version	2.1.0.507

Events	Results
30.00 Bc	03h:19m
40.00 Bc	03h:50m
50.00 Bc	04h:46m
70.00 Bc	04h:58m
100.00 Bc	04h:58m
00h:30m	26.68
01h:00m	27.16
01h:30m	26.58



Data File C:\Documents and Settings\Administrator\Local Settings\Temporary Internet Files\Content.IE5\0PEF4HI7\GJ2290582-2 PICEANCE BULK PRODUCTION TAIL[1].tdms

Comments CS3211 TRAILER 4549 100 SKS

Total sks=446  
CS3211 Trailer 4549 100 sks

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