

30-025-44112

UNIVERSAL
PRESSURE PUMPING, INC.



ImPetro Operating

300 E. Sonterra Blvd. Suite 1220
San Antonio, Tx. 78258

Wild Hog BWX State #2H

Eddy County, New Mexico

Cement 10 3/4" Plug

HOBBS OCD

MAR 16 2018

RECEIVED

Prepared for: ImPetro Operating

Prepared by: Triston Hudgins
Technical Advisor
Universal Pressure Pumping Inc.
(432) 978-3642

Service Point: Midland, Texas
Contact: Dylan Perrie
Cement Operations Manager
Cell: (325) 977-1987
Office: (432) 699-3271

On Call Cement Service Coordinator: (432) 556-0294

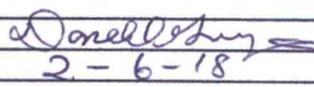
January 15, 2018



Work Ticket

Customer Name UniPetro Operating		Customer No.	Job No. 1115008702	Job Start Date
Address 300 E. Sycamore Blvd Suite 1220		Credit No.	AFE or P.O. No.	Job End Date
City, State, Zip San Antonio, Tx 78258		Job Type	# of Stages	Water Volume 70
District Midland	Crew Name	Well Type	Formation(s)	Water Mass (lbs)
Well Name and No. Well Hng 61W1K State #2H		Well API Number	County Eddy	State New Mexico

Product Code	Description	Unit of Measure	Quantity	List Price/Unit	Gross Amount	Item Discount	Tax	Net Amount
870050	Premium Plus Cement, Area 1	Bag	150	\$39.50	\$5,475.00	55.00%		\$2,463.75
873010	Calcium Chloride (Cement Additive)	Lb	141	\$1.82	\$256.82	55.00%		\$115.48
873600	Sugar	Lb	300	\$3.00	\$900.00	55.00%		\$405.00
873810	CDF-1L Defoamer	Gal	1	\$87.50	\$87.50	55.00%		\$39.38
860050	Cement Delivery Charge	TM	641	\$3.10	\$1,987.10	55.00%		\$894.20
872000	Blending Charge	CU FT	201	\$3.75	\$753.75	55.00%		\$339.19
860000	Unit Mileage Charge - Trucks and Vans (Except Bulk Units), Per Unit Mile	Mi	180	\$8.50	\$1,530.00	55.00%		\$688.50
860010	Pickup Mileage Charge, Per Unit Mile	Mi	180	\$5.15	\$927.00	55.00%		\$417.15
862311	Cement Pump Tubing, Area 1, 1,001'-2,000', 1st 4 Hrs	Ea	1	\$3,550.00	\$3,550.00	55.00%		\$1,597.50
863550	Sewage, 6 5/8" - 13 3/8" with Valve, Each	Job	1	\$385.00	\$385.00	55.00%		\$173.25
					Gross	\$15,851.97	Tax / Net Total	\$7,133.39

CUSTOMER AUTHORIZED AGENT SIGNATURE	Customer Representative:	 2-6-18
	Universal Representative:	
	Ticket Date:	



Cement 10 3/4" Plug							
Company:	ImPetro Operating	Date:					
Well:	Wild Hog BWX State #2H	County:	Eddy				
Rig Name:	Trinidad 117	State:	New Mexico				
Well Information							
Depth (TMD):	1900 ft	Tubing/Drill Pipe:				Hole at:	
Vert. Depth (TVD):	1900 ft	Tubing/Drill Pipe Length:		Liner Size:		Perfs at:	
Hole Size:	12 1/4 in	Casing Size:	10 3/4 in	Top of Liner:		Retainer at:	
DV Tool at:		Prev. Casing Depth:	1850 ft	Liner Length:		Plug:	
Additional Info:						Packer at:	
Planned Pre-Flush, Spacer, and Displacement Fluids							
Pre-flush	TBD	Type:					
Displacement	TBD	Type:					
Planned Cement							
Plug	Premium Plus + 1% CaCl₂						
150 sk	Weight: 14.80 ppg	Yield: 1.34 cuft/sk	Mixing Water: 6.34 gal/sk				
	Slurry Volume: 35.67 Bbl	Slurry Mixing Water: 22.64 Bbl					
Totals							
Total Volume: 35.67 Bbl		Total Mix Water: 22.64 Bbl			Total Displacement:		
Planned Pump Rates							
Max Pressure:		Max Rate:			Min Rate:		

Service Supervisor Signature

Company Representative Signature



Cementing Job Report

Company:	ImPetro Operating	Service Supervisor:	Donald Gregory
Well:	Wild Hog BWX State #2H	Total Pumping Time:	.5 hours
Job Type:	Cement 10 3/4" Plug	Total Time on Location:	4 hours
County:	Eddy	UPP Down Time:	0 hours
State:	New Mexico	Third Party Down Time:	0
Salesman:	Mark Acklin	Total Down Time:	0
Invoice #:	1115008702	Number of Personnel on Job:	4
Job Date:		Hours on Job:	4

Well Data				Capacities	
Depth (TMD):	1900 ft	Liner Size:		Casing:	
Vertical Depth (TVD):	1900 ft	Top of Liner:		Open Hole:	
Hole Size:	12 1/4 in	Hole at:		Open Hole Annulus:	
Casing Size:	10 3/4 in 45.5 #/ft	Perfs at:		Cased Hole Annulus:	
Previous Casing Size:	13 3/8 in 54.5 #/ft	Retainer at:		Tubing/Drill Pipe:	
Prev. Casing Depth:	1850 ft	Packer at:		Liner:	
DV Tool Depth:		Tubing/Pipe:			

Pre-Flush, Spacer, and Displacement Fluids

Pre-flush	TBD	Type:	
Displacement	TBD	Type:	

Cement

Plug

Premium Plus + 1% CaCl2

Sacks:	150 sk	Yield:	1.34 cuft/sk	Slurry Volume:	35.67 Bbl
Weight:	14.80 ppg	Mix Water:	6.34 gal/sk	Slurry Mix Water:	22.64 Bbl

Totals

Total Cement Pumped: 35.7 bbl Total Displacement Pumped: 25.7 bbl

Pumping Data

Cement Circulated:	0	Maximum Pressure:	1700 PSI	Maximum Rate:	4.00 BPM
Minimum STP:		Operator's Max Pressure:	1700 PSI	Minimum Rate:	.50 BPM
ISDP:		Average Pressure:	100 PSI	Average Rate:	1.50 BPM

Customer Representative

UPP Representative



Cementing Job Report

Company:	ImPetro Operating	Service Supervisor:	Austin Grantham
Well:	Wild Hog BWX State #2H	Total Pumping Time:	5
Job Type:	Squeeze Cement	Total Time on Location:	6
County:	Eddy	UPP Down Time:	0
State:	New Mexico	Third Party Down Time:	0
Salesman:	Mark Acklin	Total Down Time:	0
Invoice #:	1115008697	Number of Personnel on Job:	4
Job Date:		Hours on Job:	6

Well Data			Capacities	
Depth (TMD):	1900 ft	Liner Size:	Casing:	
Vertical Depth (TVD):	1900 ft	Top of Liner:	Open Hole:	
Hole Size:	17 1/2 in	Hole at:	Open Hole Annulus:	
Casing Size:	10 3/4 in 45.5 #/ft	Perfs at:	Cased Hole Annulus:	
Previous Casing Size:	13 3/8 in 54.5 #/ft	Retainer at:	Tubing/Drill Pipe:	
Prev. Casing Depth:		Packer at:	Liner:	
DV Tool Depth:		Tubing/Pipe:		

Pre-Flush, Spacer, and Displacement Fluids

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Cement

Squeeze Slurry

Premium Plus 50/50 Poz + 5% Salt + 10% Gel + 3# Kol-Seal + 0.1% CAS-1

Sacks:	200 sk	Yield:	2.47 cuft/sk	Slurry Volume:	88.00 Bbl
Weight:	11.80 ppg	Mix Water:	14.00 gal/sk	Slurry Mix Water:	66.66 Bbl

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Totals

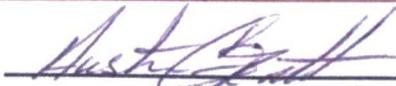
Total Cement Pumped: 88 bbl

Total Displacement Pumped: 30 bbl

Pumping Data

Cement Circulated:		Maximum Pressure:	2000 PSI	Maximum Rate:	3.00 BPM
Minimum STP:	2000	Operator's Max Pressure:	2000 PSI	Minimum Rate:	.50 BPM
ISDP:	1060	Average Pressure:	1500 PSI	Average Rate:	2.00 BPM

Customer Representative



UPP Representative

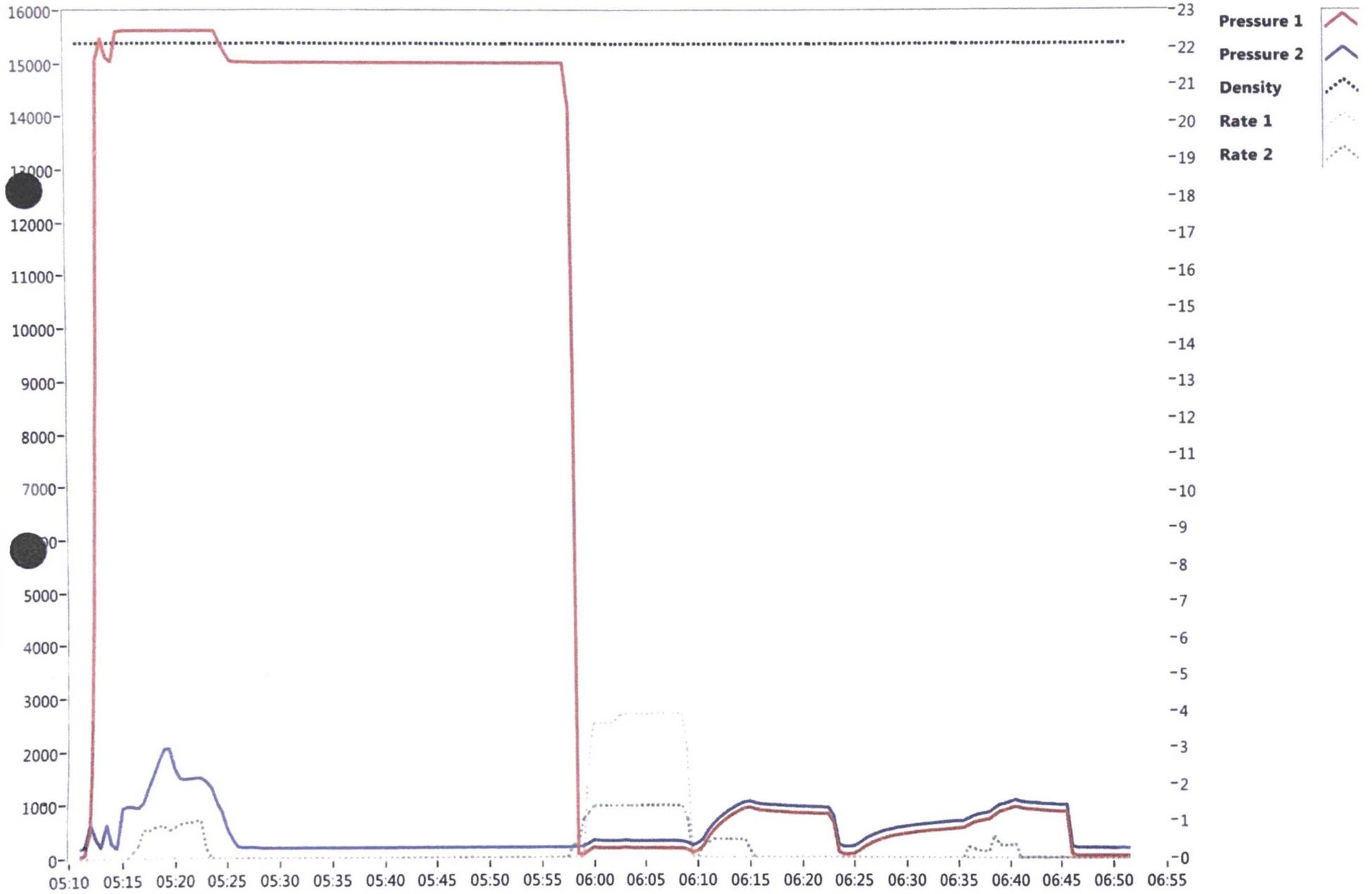


Work Ticket

Customer Name InPetro Operating		Customer No.		Job No. 1115009697		Job Start Date February 5, 2018		
Address 300 E. Sonterra Blvd Suite 1220		Credit No.		AFE or P.O. No.		Job End Date February 5, 2018		
City, State, Zip San Antonio, Tx 78258		Job Type		# of Stages		Water Volume		
District Midland		Crew Name		Well Type		Formation(s)		
Well Name and No. Wild Hog SWX State #2H		Well API Number 3002544112		County Eddy		State New Mexico		
Product Code	Description	Unit of Measure	Quantity	List Price/Unit	Gross Amount	Item Discount	Tax	Net Amount
870850	50/50 Poz with Premium Plus, Area 1	Sack	200	\$28.00	\$5,600.00	68.00%		\$1,792.00
873020	Salt, 100 mesh sacked	Lb	1167	\$0.91	\$1,061.97	68.00%		\$339.83
873100	Bentonite	Lb	1680	\$0.65	\$1,092.00	68.00%		\$349.44
873110	CAS-1, Suspension Agent, Sodium Metasilicate	Lb	17	\$4.95	\$84.15	68.00%		\$26.93
873510	Kol-Seal	Lb	600	\$1.28	\$768.00	68.00%		\$245.76
873600	Sugar	Lb	300	\$3.00	\$900.00	68.00%		\$288.00
873810	CDF-1L, Defoamer	Gal	1	\$87.50	\$87.50	68.00%		\$28.00
872000	Blending Charge	CU FT	495	\$3.75	\$1,856.25	68.00%		\$594.00
860050	Cement Delivery Charge	TM	912	\$3.10	\$2,827.20	68.00%		\$904.70
860000	Unit Mileage Charge - Trucks and Vans (Except Bulk Units), Per Unit Mile	MI	180	\$8.50	\$1,530.00	68.00%		\$469.60
860010	Pickup Mileage Charge, Per Unit Mile	MI	180	\$5.15	\$927.00	68.00%		\$296.64
862311	Cement Pump Tubing, Area 1, 1,001'-2,000', 1st 4 Hrs	Ea	1	\$3,550.00	\$3,550.00	68.00%		\$1,136.00
					Gross	\$20,284.07	Tax / Net Total	\$6,490.90
CUSTOMER AUTHORIZED AGENT SIGNATURE		Customer Representative:						
		Universal Representative: <i>[Signature]</i>						
		Ticket Date: <i>2-5-2018</i>						

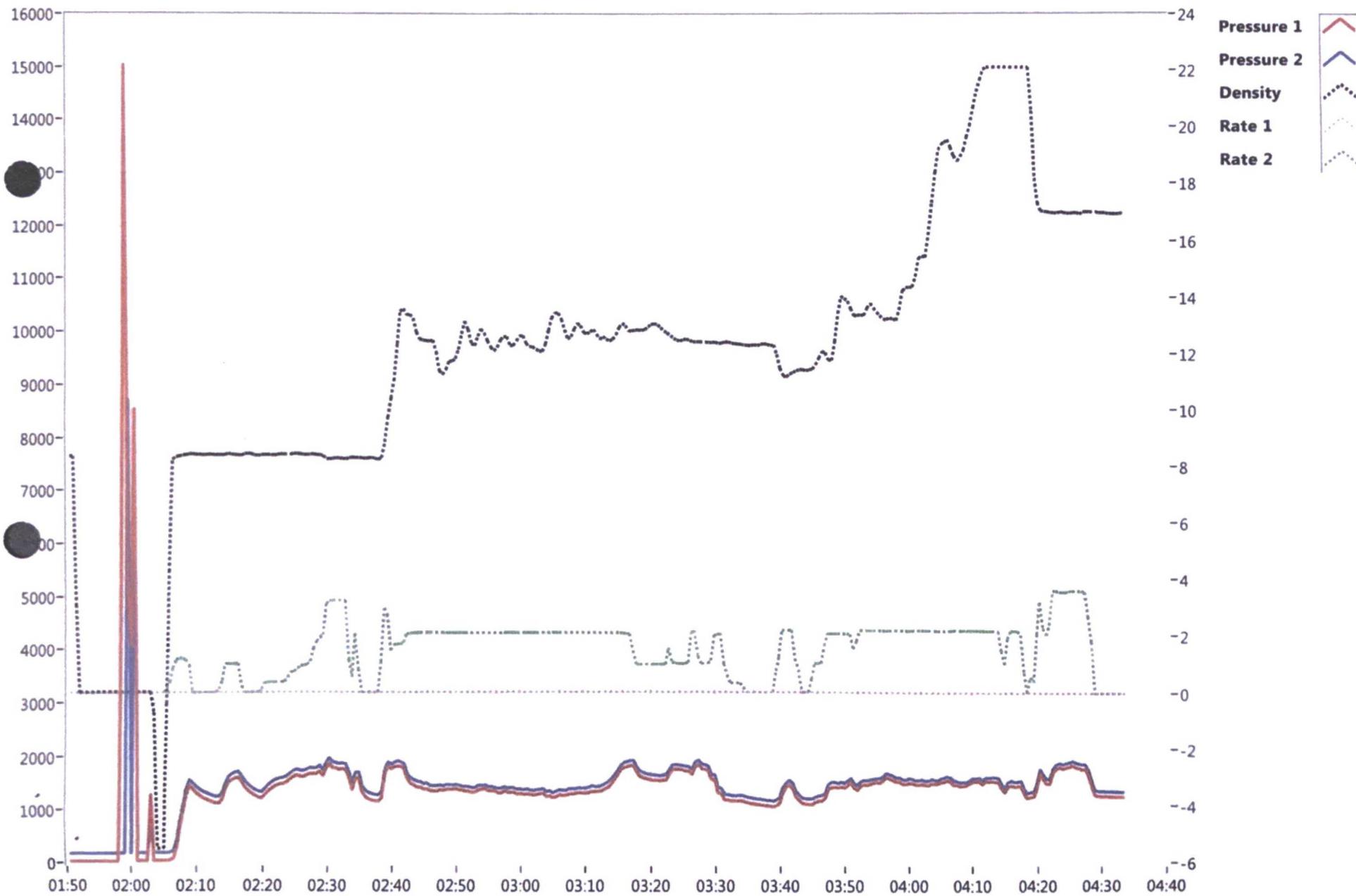


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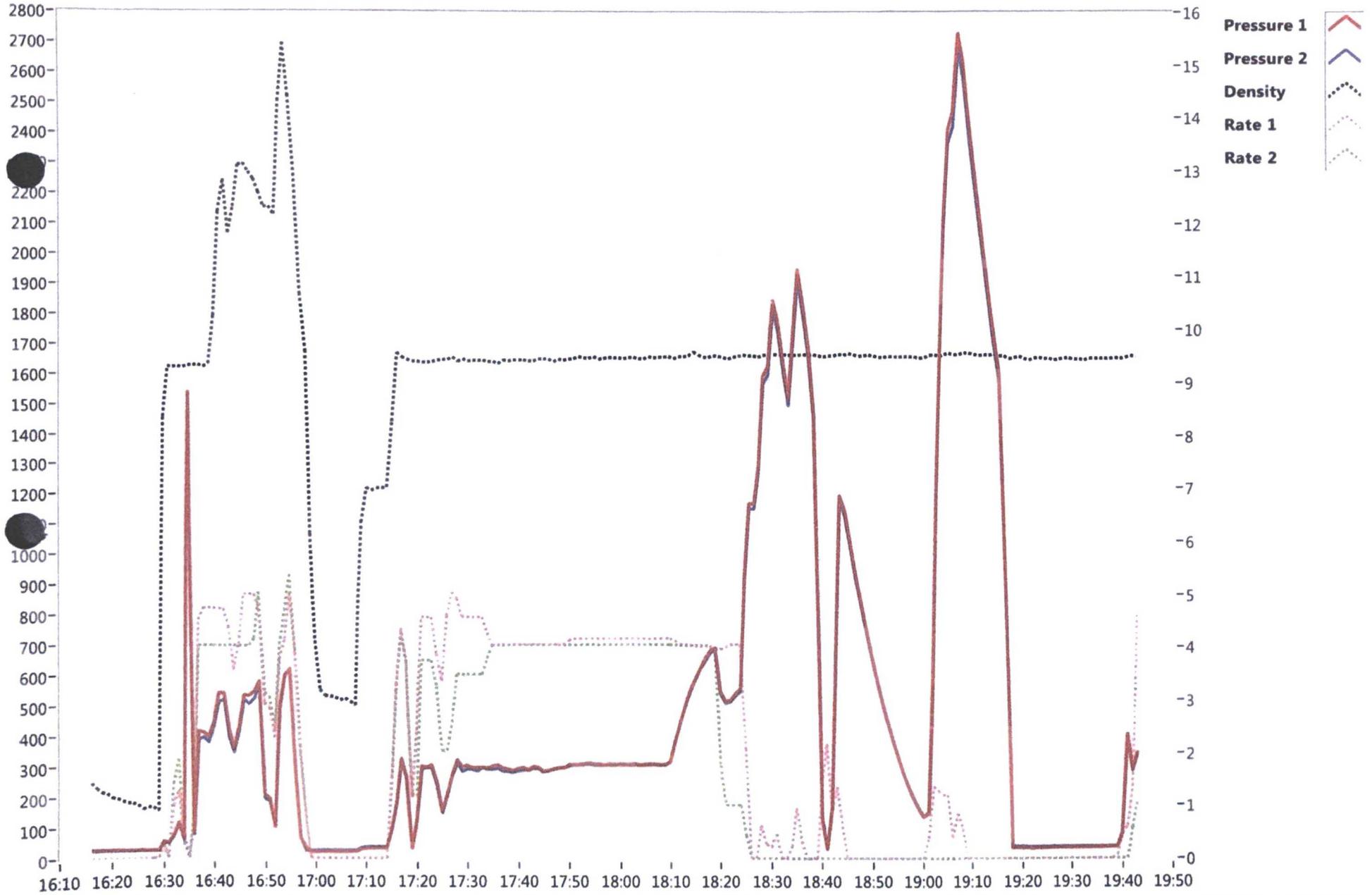


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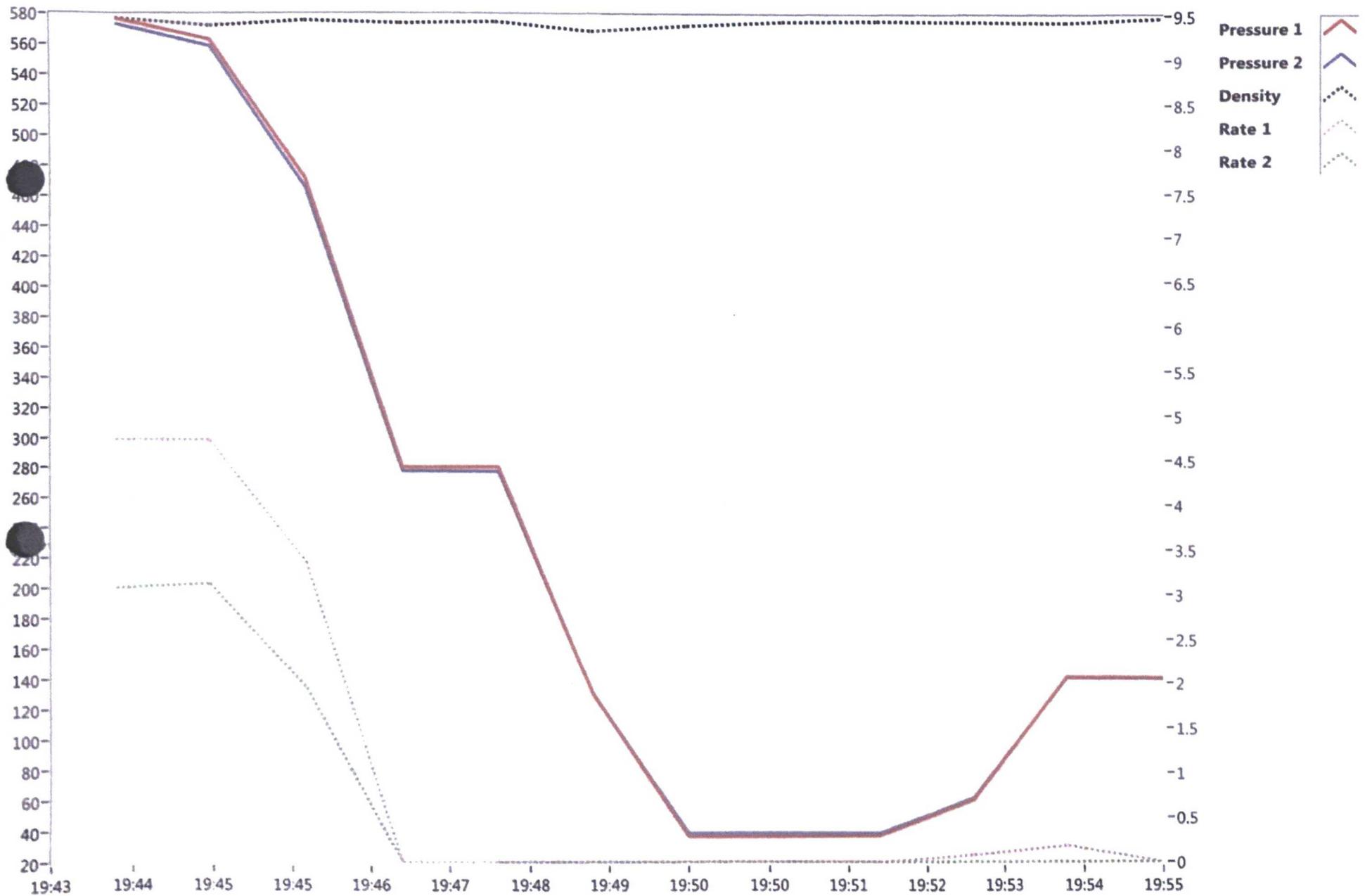


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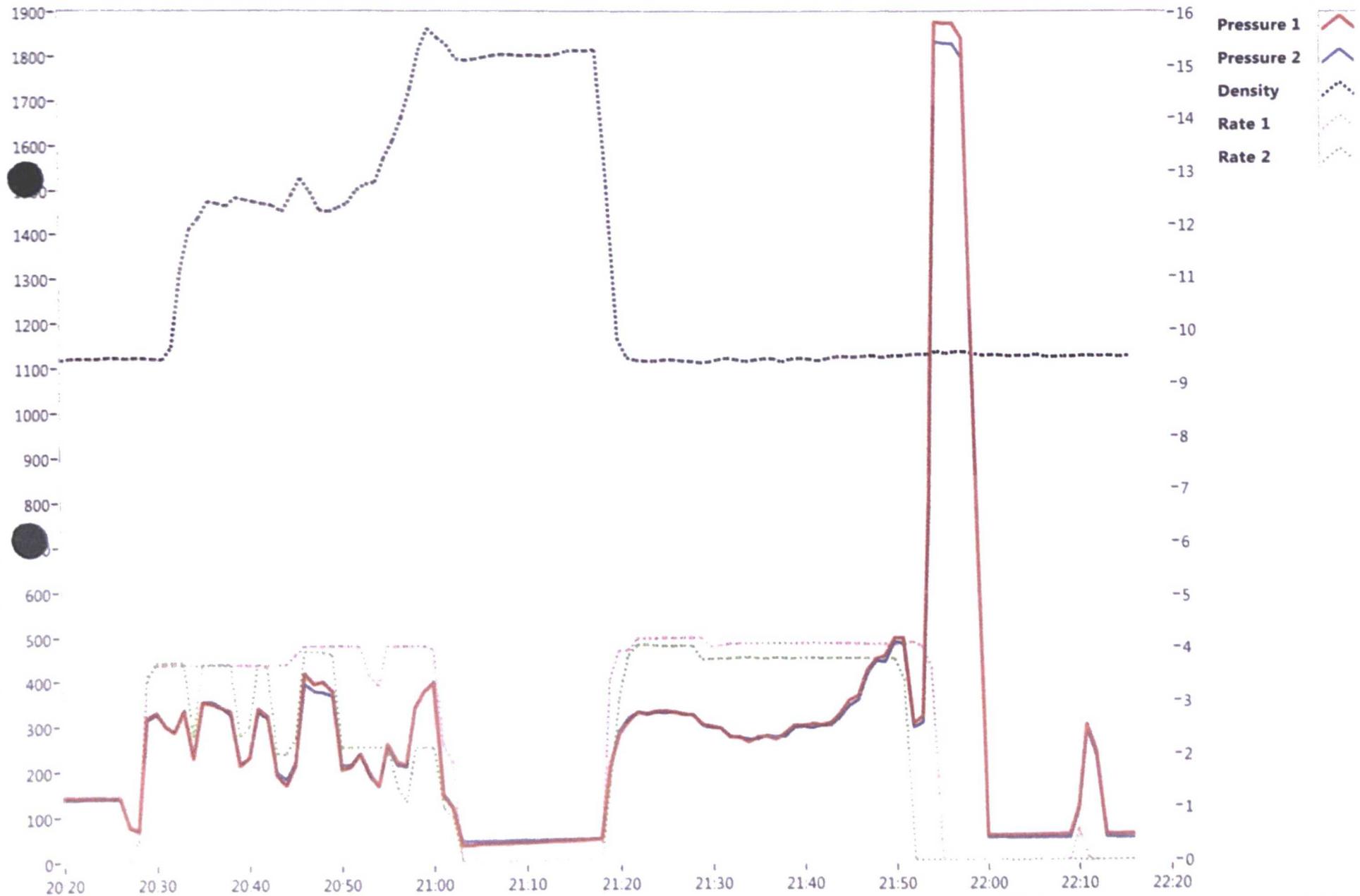


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RAILROAD COMMISSION OF TEXAS

1701 N. Congress
P.O. Box 12967
Austin, Texas 78701-2967

Form W-15

Rev. 08/2014

CEMENTING REPORT

Cementer: Fill in shaded areas.
Operator: Fill in other items.

OPERATOR INFORMATION	
Operator Name: ImPetro Operating	Operator P-5 No.:
Cementer Name: Universal Pressure Pumping Inc.	Cementer P-5 No.: 878392

WELL INFORMATION	
District No.:	County: Winkler
Well No.: #2	API No.: 42-495-33964 Drilling Permit No.:
Lease Name: Wildhog BWX State Com	Lease No.:
Field Name:	Field No.:

I. CASING CEMENT DATA	
Type of casing: <input type="checkbox"/> Conductor <input type="checkbox"/> Surface <input checked="" type="checkbox"/> Intermediate <input type="checkbox"/> Liner <input type="checkbox"/> Production	
Drilled hole size (in.):	Depth of drilled hole (ft.): Est. % wash-out or hole enlargement:
Size of casing in O.D. (in.):	Casing weight (lbs/ft) and grade: No. of centralizers used:
Was cement circulated to ground surface (or bottom of cellar) outside casing? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO If no for surface casing, explain in remarks	Setting depth shoe (ft.): Top of liner (ft.):
	Setting depth liner (ft)
Hrs. waiting on cement before drill-out:	Calculated top of cement (ft.): Cementing date: February 2, 2018

SLURRY					
Slurry No.	No. of Sacks	Class	Additives	Volume (cu. ft.)	Height (ft.)
1	450	C	See remarks	1108	5906
2	200	C	See remarks	280	1506
3					
Total	650			1388	7412

II. CASING CEMENT DATA	
Type of casing: <input type="checkbox"/> Surface <input type="checkbox"/> Intermediate <input type="checkbox"/> Production <input type="checkbox"/> Tapered production <input type="checkbox"/> Multi-stage cement shoe <input type="checkbox"/> Multiple parallel strings	
Drilled hole size (in.):	Depth of drilled hole (ft.): Est. % wash-out or hole enlargement:
Size of casing in O.D. (in.):	Casing weight (lbs/ft) and grade: No. of centralizers used:
Tapered string drilled hole size (in.)	Tapered string depth of drilled hole (ft.)
Upper: Lower:	Upper: Lower:
Tapered string size of casing in O.D. (in.)	Tapered string casing weight(lbs/ft) and grade
Upper: Lower:	Upper: Lower:
Was cement circulated to ground surface (or bottom of cellar) outside casing? <input type="checkbox"/> Yes <input type="checkbox"/> No	Setting depth shoe (ft.):
Hrs. waiting on cement before drill-out:	Calculated top of cement (ft.): Cementing date:

SLURRY					
Slurry No.	No. of Sacks	Class	Additives	Volume (cu. ft.)	Height (ft.)
1					
2					
3					
Total					

III. CASING CEMENT DATA	
Type of casing: <input type="checkbox"/> Surface <input type="checkbox"/> Intermediate <input type="checkbox"/> Production <input type="checkbox"/> Tapered production <input type="checkbox"/> Multi-stage cement/DV Tool <input type="checkbox"/> Multiple parallel strings	
Drilled hole size (in.):	Depth of drilled hole (ft.): Est. % wash-out or hole enlargement:
Size of casing in O.D. (in.):	Casing weight (lbs/ft) and grade: No. of centralizers used:
Tapered string drilled hole size (in.)	Tapered string depth of drilled hole (ft.)
Upper: Lower:	Upper: Lower:
Tapered string size of casing in O.D. (in.)	Tapered string casing weight(lbs/ft) and grade
Upper: Lower:	Upper: Lower:
Was cement circulated to ground surface (or bottom of cellar) outside casing? <input type="checkbox"/> Yes <input type="checkbox"/> No	Setting depth tool (ft.):
Hrs. waiting on cement before drill-out:	Calculated top of cement (ft.): Cementing date:

SLURRY					
Slurry No.	No. of Sacks	Class	Additives	Volume (cu. ft.)	Height (ft.)
1					
2					
3					
Total					

	PLUG #1	PLUG #2	PLUG #3	PLUG #4	PLUG #5	PLUG #6	PLUG #7
Cementing Date							
Size of hole or pipe (in.)							
Depth to bottom of tubing or drill pipe (ft.)							
Cement retainer setting depth (ft.)							
CIBP setting depth (ft.)							
Amount of cement on top of CIBP (ft.)							
Sacks of cement used							
Slurry volume pumped (cu. ft.)							
Calculated top of plug (ft.)							
Measured top of plug, if tagged (ft.)							
Slurry weight (lbs/gal)							
Class/type of cement							
Perforate and squeeze (YES/NO)							

REMARKS

Premium Plus + 0.3% CD-1 + 0.6% CFL-3
 Premium Plus 50/50 Poz + 5% Salt + 10% Gel + 2% Kol-Seal + 0.25% Celloflake + 0.3% CAS-1 + 0.4% CR-1

CEMENTER'S CERTIFICATE: I declare under penalties prescribed in Sec. 91.143, Texas Natural Resources Code, that I am authorized to make this certification, that the cementing of casing and/or the placing of cement plugs in this well as shown in the report was performed by me or under my supervision, and that the cementing data and facts presented on both sides of this form are true, correct, and complete, to the best of my knowledge. This certification covers cementing data only.

Jesse Delgado - Service Supervisor

Universal Pressure Pumping

Name and title of cementer's representative

Cementing Company

J. Delgado
Signature

4517 W. Industrial Ave.

Midland, Texas, 79703

(432) 699 3271

2/2/2018

Address

City, State, Zip Code

Tel: Area Code Number

Date: Month/Day/Year

OPERATOR'S CERTIFICATE: I declare under penalties prescribed in Sec. 91.143, Texas Natural Resources Code, that I am authorized to make this certification, that I have knowledge of the well data and information presented in this report, and that data and facts presented on both sides of this form are true, correct, and complete, to the best of my knowledge. This certification covers all well data.

Typed or printed name of operator's representative

Title

Signature

Address

City, State, Zip Code

Tel: Area Code Number

Date: Month/Day/Year

Instructions for Form W-15, Cementing Report

NOTICE: The Form W-15 must be submitted as an attachment to a Form G-1 (Gas Well Back Pressure Test, Completion or Recompletion Report, and Log), Form W-2 (Oil Well, Potential Test, Completion or Recompletion Report, and Log), Form W-3 (Plugging Record), or Form W-4 (Application for Multiple Completion), any time cement is pumped in a wellbore.

- A. **What to file:** An operator should file an original and one copy of the completed Form W-15 for each cementing company used on a well. The cementing of different casing strings on a well by one cementing company may be reported on one form. The Form W-15 should be filed with the Form W-3, Plugging Record, unless the Form W-3 is signed by the cementing company representative. When reporting dry holes, operators must complete Form W-15, in addition to Form W-3, to show any casing cemented in the hole.
- B. **How to file:** An Oil and Gas completion report and Form W-15 may be filed online using the Commission's Online System (<https://webapps.rrc.state.tx.us/security/login.do>) or a paper copy of the form may be mailed to the Commission in Austin (P.O. Box 12967, Austin, Texas 78711-2967).
- C. **Surface casing:** An operator must set and cement sufficient surface casing to protect all usable-quality water strata, as defined by the Groundwater Advisory Unit in Austin. Sufficient cement shall be used to fill the annular space outside the casing from the shoe to the ground surface or to the bottom of the cellar. Before drilling a well, an operator must obtain a letter from the Groundwater Advisory Unit stating the protection depth. Surface casing should not be set deeper than 200 feet below the specified depth without prior approval from the Commission. To plug and abandon a well, operators must use only cementers approved by the Commission's Director of Field Operations in accordance with SWR 14 ([http://info.sos.state.tx.us/pls/pub/readtac\\$ext.TacPage?sl=R&app=9&p_dir=&p_rloc=&p_tloc=&p_ploc=&pg=1&p_tac=&ti=16&pt=1&ch=3&rf=14](http://info.sos.state.tx.us/pls/pub/readtac$ext.TacPage?sl=R&app=9&p_dir=&p_rloc=&p_tloc=&p_ploc=&pg=1&p_tac=&ti=16&pt=1&ch=3&rf=14)). companies, service companies, or operators can qualify as approved cementers by demonstrating that they are able to mix and pump cement in compliance with Commission rules and regulations.
- D. **Estimated % wash-out:** If the estimated % wash-out is less than 20% (or 30% along the Gulf Coast), provide supporting documentation such as a caliper log to show how the estimated % wash-out was obtained.
- E. **Multi-stage cement:** An operator must report the multi-stage cement shoe in II. Casing Cementing Data section by selecting the type of casing and Multi-stage cement shoe. The operator must report the multi-stage cement tool in III. Casing Cementing Data section by selecting the type of casing and Multi-stage cement/DV tool.
- F. **Multiple parallel strings:** An operator should file the Form W-15 as an attachment to the Form W-4, Application for Multiple Completion. required to submit multiple Form W-15s to show all data for multiple parallel strings.
- G. **Slurry Data:** If cement job exceeds three slurries, continue the list of slurries in the Slurry table in the subsequent Casing Cement Data box.



Work Ticket

Customer Name Impetro Operating		Customer No.	Job No. 1115008692	Job Start Date
Address 300 E. Bonanza Blvd Suite 1220 San Antonio Tx 78258		Credit No.	AFE or P.O. No.	Job End Date
City, State, Zip	Job Type	# of Stages	Water Volume	
District Midland	Crew Name	Well Type	Formation(s)	Water Mass (lbs)
Well Name and No. Wilding BKK State Corn #2H		Well API Number 30-025-44112	County Lea	State New Mexico

Product Code	Description	Unit of Measure	Quantity	List Price Unit	Gross Amount	Rem Discount	Tax	Net Amount
870850	50/50 Poz with Premium Plus, Area 1	Sack	225	\$28.00	\$6,300.00	68.00%		\$2,016.00
873020	Salt, 100 mesh sacked	Lb	1316	\$0.91	\$1,197.56	68.00%		\$383.22
873100	Bentonite	Lb	1890	\$0.85	\$1,228.50	68.00%		\$393.12
873110	CAS-1, Suspension Agent, Sodium Metasilicate	Lb	19	\$4.95	\$94.05	68.00%		\$30.10
873510	Koi-Seal	Lb	450	\$1.28	\$576.00	68.00%		\$184.32
873600	Sugar	Lb	300	\$3.00	\$900.00	68.00%		\$288.00
873810	CDF-1L Defoamer	Gal	1	\$87.50	\$87.50	68.00%		\$28.00
890050	Cement Delivery Charge	TM	1018	\$3.10	\$3,149.80	68.00%		\$1,007.87
872000	Blending Charge	CU FT	554	\$3.75	\$2,077.50	68.00%		\$664.80
860000	Unit Mileage Charge - Trucks and Vans (Except Bulk Units), Per Unit Mile	MI	180	\$8.50	\$1,530.00	68.00%		\$489.00
860010	Pickup Mileage Charge, Per Unit Mile	MI	180	\$5.15	\$927.00	68.00%		\$296.64
862311	Cement Pump Tubing, Area 1, 1,001'-2,000', 1st 4 Hrs	Ea	1	\$3,550.00	\$3,550.00	68.00%		\$1,136.00
862583	Cement Pump Tubing, Area 1, Additional Hours, Pump/Hr	Hrs	6	\$660.00	\$3,960.00	68.00%		\$1,267.20
863003	Bulk Truck, Additional Hours After 4 Hrs, Per Unit/Hr	Hrs	6	\$165.00	\$990.00	68.00%		\$318.80
					Gross	\$26,567.71	Tax / Net Total	\$8,601.67

	Customer Representative: Universal Representative: Ticket Date: 2-4-18
<small>CUSTOMER AUTHORIZED AGENT SIGNATURE</small>	



Cement 10 3/4" Top Off

Company:	ImPetro Operating	Date:	
Well:	Wildhog BWX State Com #2H	County:	Lea
Rig Name:	Trinidad 117	State:	New Mexico

Well Information

Depth (TMD):	2300 ft	Tubing/Drill Pipe:		Hole at:	
Vert. Depth (TVD):	2300 ft	Tubing/Drill Pipe Length:		Liner Size:	
Hole Size:	17 1/2 in	Casing Size:	10 3/4 in	Top of Liner:	
DV Tool at:		Prev. Casing Depth:		Liner Length:	
Additional Info:				Plug:	
				Packer at:	

Planned Pre-Flush, Spacer, and Displacement Fluids

Planned Cement

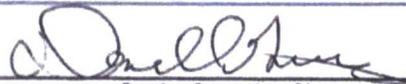
Single Slurry	Premium Plus 50/50 Poz + 5% Salt + 10% Gel + 2# Kol-Seal + 0.1% CAS-1				
225 sk	Weight: 11.80 ppg	Yield: 2.46 cuft/sk	Mixing Water: 14.03 gal/sk		
	Slurry Volume: 98.66 Bbl	Slurry Mixing Water: 75.14 Bbl			

Totals

Total Volume: 98.66 Bbl	Total Mix Water: 75.14 Bbl	Total Displacement: 24.5
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Planned Pump Rates

Max Pressure:	Max Rate:	Min Rate:
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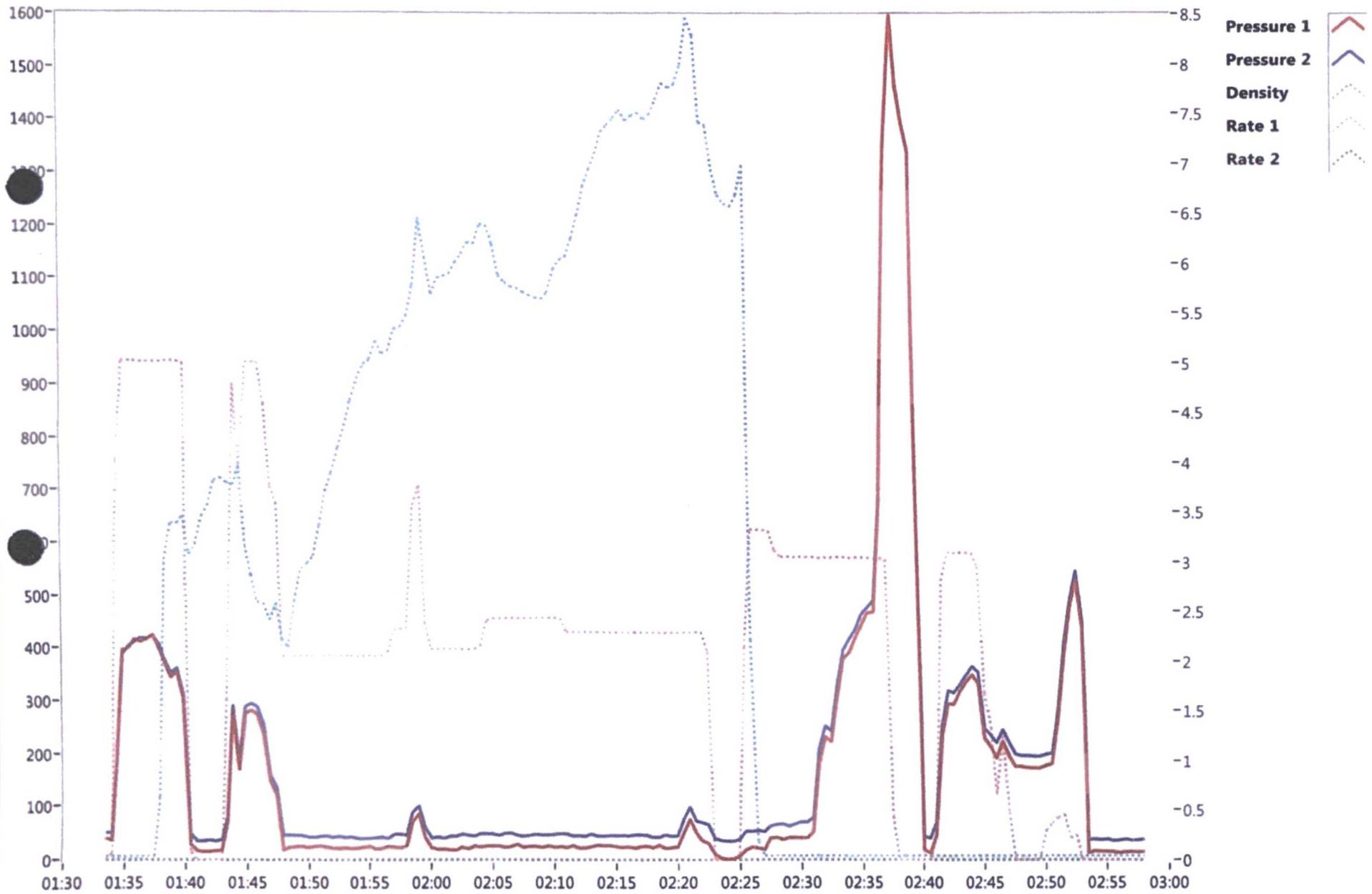


 Service Supervisor Signature

 Company Representative Signature



2/4/2018 2:59:22 AM





Cement 10.75" 1st Intermediate Casing					
Company:	ImPetro Operating	Date:			
Well:	Wildhog BWX State Corn #2	County:	Lea		
Rig Name:	Trinidad 117	State:	New Mexico		
Well Information					
Depth (TMD):	5200 ft	Tubing/Drill Pipe:		Hole at:	
Vert. Depth (TVD):	5200 ft	Tubing/Drill Pipe Length:		Liner Size:	
Hole Size:	12 1/4 in	Casing Size:	10 3/4 in	Top of Liner:	
DV Tool at:	2750 ft	Prev. Casing Depth:	1850 ft	Liner Length:	
Additional Info:					Packer at:
Planned Pre-Flush, Spacer, and Displacement Fluids					
Pre-flush	30 Bbls	Type:	Fresh Water		
Displacement	757.5	Type:	Displacement Fluid		
Planned Cement					
Lead	Premium Plus 50/50 Poz + 5% Salt + 10% Gel + 2% Kol-Seal + 0.25% Celloflake + 0.3% CAS-1 + 0.4% CR-1				
200 sk	Weight: 11.80 ppg	Yield: 2.47 cuft/sk	Mixing Water: 14.06 gal/sk		
	Slurry Volume: 87.96 Bbl	Slurry Mixing Water: 66.94 Bbl			
Tail	Premium Plus + 0.3% CD-1 + 0.6% CFL-3				
110 sk	Weight: 14.40 ppg	Yield: 1.42 cuft/sk	Mixing Water: 6.94 gal/sk		
	Slurry Volume: 27.77 Bbl	Slurry Mixing Water: 18.17 Bbl			
Lead	Premium Plus 50/50 Poz + 5% Salt + 10% Gel + 2% Kol-Seal + 0.25% Celloflake + 0.3% CAS-1 + 0.4% CR-1				
250 sk	Weight: 11.80 ppg	Yield: 2.47 cuft/sk	Mixing Water: 14.05 gal/sk		
	Slurry Volume: 110.10 Bbl	Slurry Mixing Water: 83.62 Bbl			
Tail	Premium Plus + 0.3% CD-1 + 0.6% CFL-3				
90 sk	Weight: 14.40 ppg	Yield: 1.42 cuft/sk	Mixing Water: 6.94 gal/sk		
	Slurry Volume: 22.72 Bbl	Slurry Mixing Water: 14.87 Bbl			
Totals					
Total Volume: 248.56 Bbl		Total Mix Water: 183.59 Bbl		Total Displacement:	
Planned Pump Rates					
Max Pressure: 2200		Max Rate: 8		Min Rate: 1	

Service Supervisor Signature

Company Representative Signature



Work Estimate

ImPetro Operating
 Wildhog BWX State Com #2
 Cement 10.75" 1st Intermediate Casing

County: Lea
 State: New Mexico
 Date: 2/1/2018

Job Data

Hole Size: 12.25 in Casing: 10.75 in 45.5 #/ft
 Measured Depth (TMD): 5200 ft Previous Casing: 13.375 in 54.5 #/ft
 Vertical Depth (TVD): 5200 ft
 Stage Tool Depth: 2750 ft

Job Calculation

1st Stage Tail 5200' TMD - 4700' ToC Tail = 500' ft x 0.1882 cuft/ft = 94 cuft
 94 cuft + 22 cuft SJ = 116cuft x 25% Excess = 145 cuft / 1.33 Yield = 110 Sacks

1st Stage Lead 4700' ToC Tail - 2750' DV Tool = 1950' x 0.1882 cuft/ft = 367 cuft
 367cuft x 25% Excess = 459 cuft / 2.47 yield = 200 sacks

2nd Stage Tail 2750' TMD - 2250' ToC Tail = 500' ft x 0.1882 cuft/ft = 94 cuft
 94cuft x 25% Excess = 118 cuft / 1.33 Yield = 90 Sacks

2nd Stage Lead 2250' ToC Tail - 1850 Surface Casing = 400' ft x 0.1882 cuft/ft = 76 cuft x 100%XS = 152cuft
 1850' Surface Casing - 0' Surface = 1850' x 0.2377 cuft/ft = 440 cuft
 152 cuft + 440 cuft = 592 cuft / 2.47 Yield = 250 Sacks

Pre-flush / Spacer / Displacement

Pre-flush 30 Bbls Fresh Water

Displacement TBD Displacement Fluid

Cement

Lead	Premium Plus 50/50 Poz + 5% Salt + 10% Gel + 2% Kol-Seal + 0.25% Celloflake + 0.3% CAS-1 + 0.4% CR-1		
	Density: 11.80 ppg	Yield: 2.47 cuft/sk	Mix Water: 14.06 gal/sk
	% Excess: 25%	Sacks: 200 sk	Barrels: 87.96 Bbl
Tail	Premium Plus + 0.3% CD-1 + 0.6% CFL-3		
	Density: 14.40 ppg	Yield: 1.42 cuft/sk	Mix Water: 6.94 gal/sk
	% Excess: 25%	Sacks: 110 sk	Barrels: 27.77 Bbl
Lead	Premium Plus 50/50 Poz + 5% Salt + 10% Gel + 2% Kol-Seal + 0.25% Celloflake + 0.3% CAS-1 + 0.4% CR-1		
	Density: 11.80 ppg	Yield: 2.47 cuft/sk	Mix Water: 14.05
	% Excess: 100%	Sacks: 250 sk	Barrels: 110.10 Bbl
Tail	Premium Plus + 0.3% CD-1 + 0.6% CFL-3		
	Density: 14.40 ppg	Yield: 1.42 cuft/sk	Mix Water: 6.94
	% Excess: 25%	Sacks: 90 sk	Barrels: 22.72 Bbl

Totals

Total Mixing Water:	<u>183.6</u> Bbl	Total Spacer and Displacement Water:	<u> </u> Bbl
Total Slurry Volume:	<u>248.6</u> Bbl	Water Required for Wash-Up:	<u>40.0</u> Bbl