

TICKET	BCO-2308-0016
DATE	8/4/2023
CREW INFORMATION	
SUPERVISOR	Jason Ahlin
PUMP UNIT	
NUMBERS	
ARRIVAL (D&T)	8/4/23 1:45 PM
DEPARTURE (D&T)	8/4/23 12:00 AM

[illegible][illegible]**Date Signed**



Job Summary

Ticket Number
TN# **BCO-2308-0016** Ticket Date
8/4/2023

COUNTY	COMPANY	API Number
ADAMS (CO)	PDC ENERGY	500107238
WELL NAME	RIG	JOB TYPE
STATE-FERGUSON 1	Ensign	CM-SQUEEZE JOB
SURFACE WELL LOCATION	CJES Field Supervisor	CUSTOMER REP
39.91705 -104.84312	Jason Ahlin	Bud Holman

EMPLOYEES

LUIS MORALES	MIKE AUTHUR
OSCAR QUEJALES	
ISRAEL CALEDERON	

WELL PROFILE

Max Treating Pressure (psi):		Bottom Hole Static Temperature (°F):	
Bottom Hole Circulating Temperature (°F):		Well Type:	

Open Hole

1	Size (in)	TMD From (ft)	TMD to (ft)	TVD From (Ft)	TVD to (Ft)
2	Size (in)	TMD From (ft)	TMD to (ft)	TVD From (Ft)	TVD to (Ft)

Casing/Tubing/Drill Pipe

Type	Size (in)	Weight (lb/ft)	Grade	TMD From (ft)	TMD to (ft)	TVD From (Ft)	TVD to (Ft)
Surface	8 5/8	24	J55	0	67		
Type	Size (in)	Weight (lb/ft)	Grade	TMD From (ft)	TMD to (ft)	TVD From (Ft)	TVD to (Ft)
Type	Size (in)	Weight (lb/ft)	Grade	TMD From (ft)	TMD to (ft)	TVD From (Ft)	TVD to (Ft)

CEMENT DATA

Stage 1:	From Depth (ft):	40	To Depth (ft):	67		
Type: SQUEEZE	Volume (sacks):	100	Volume (bbls):	21		
Cement & Additives:				Density (ppg)	Yield (ft³/sk)	Water Req.
				15.8	1.21	5.13
Stage 2:	From Depth (ft):		To Depth (ft):			
Type:	Volume (sacks):		Volume (bbls):			
Cement & Additives:				Density (ppg)	Yield (ft³/sk)	Water Req.
Stage 3:	From Depth (ft):		To Depth (ft):			
Type:	Volume (sacks):		Volume (bbls):			
Cement & Additives:				Density (ppg)	Yield (ft³/sk)	Water Req.
Stage 4:	From Depth (ft):		To Depth (ft):			
Type:	Volume (sacks):		Volume (bbls):			
Cement & Additives:				Density (ppg)	Yield (ft³/sk)	Water Req.

SUMMARY

Preflushes:	10 bbls of CaCl2	Stage 1	Stage 2
	2 bbls of Fresh Water	3.5	
	10 bbls of SMS	2.5	
Total Preflush/Spacer Volume (bbl):	27	Plug Bump (Y/N):	N/A
Total Slurry Volume (bbl):	21.5	Lost Returns (Y/N):	N/A (if Y, when)
Total Fluid Pumped	48.5	Bump Pressure (psi):	
Returns to Surface:	N/A		

Job Notes (fluids
pumped / procedures /
tools / etc.):

FILLED LINES. PRESSURE TESTED TO 1500 PSI. PUMPED 10 BBLs OF CALCIUM CHLORIDE. PUMP 2 BBLs OF FRESH WATER. PUMPED 10 BBLs OF SMS. PUMPED 5 BBLs OF FRESH WATER. BATCHED UP CEMENT TO 15.8. YIELD: 1.21 WATER REQ: 5.13. PUMPED 8 BBLs OF CEMENT. HESITATED 10 MINS. PUMPED 5 BBLs OF CEMENT. HESITATED 10 MINS. PUMPED THE REST OF THE CEMENT. DISPLACED .5 BBLs. HESITATED. HESITATED A

Customer Representative Signature:

Thank You For Using
NexTier Completion Solutions



Client
Ticket No.
Location
Comments

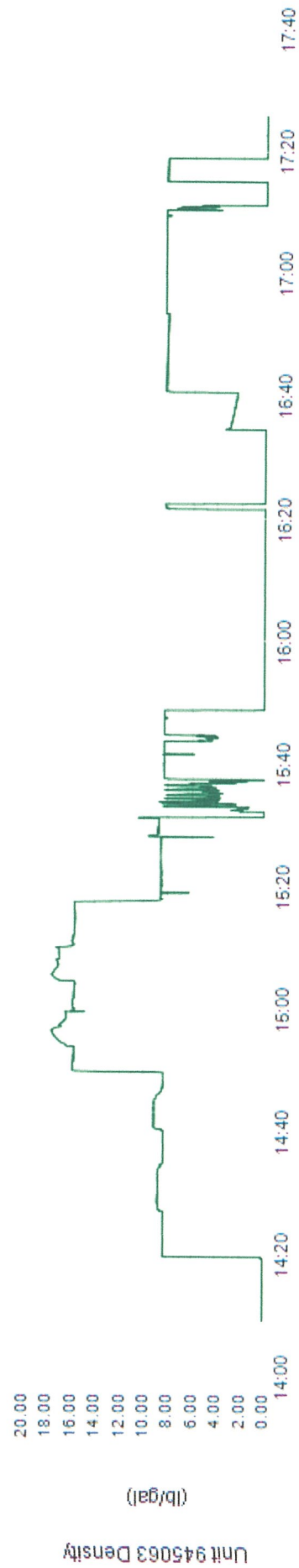
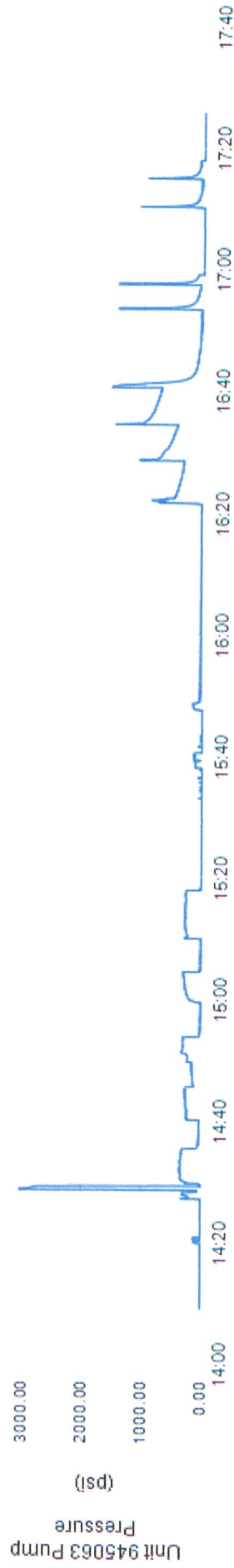
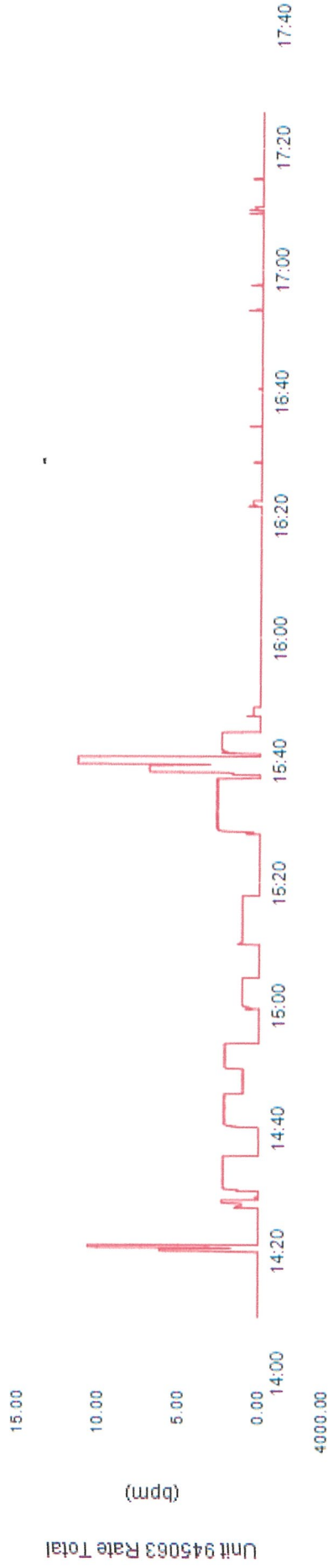
PDC
23080016
ADAMS COUNTY

Client Rep
Well Name
Job Type

BUD
STATE FERGUSON 1
Bradenhead Squeeze

Supervisor
Unit No.
Service District
Job Date

LUIS
945063
Service District
08/04/2023



<div>NexTier</div>																NexTier Completion Solutions 3990 Rogerdale Rd., Houston, TX 77042 (713)325-6000							
Customer: PDC ENERGY						Date: 4-Aug-23			Serv. Supervisor: Jason Ahlin														
Cust. Rep.: Bud Holman						Ticket #: BCO-2308-0016			Serv. Center Brighton - 3021														
Well Name: STATE-FERGUSON 1						API Well #: 500107238			County: ADAMS (CO)		State: COLORADO												
Well Type: Oil						Rig: Ensign			Type of Job: CM-SQUEEZE JOB														
Materials Furnished by NexTier																							
Plugs		Casing Hardware				Physical Slurry Properties																	
						Sacks of Cement	Fluid Density (lb/gal)	Excess	Yield (cuft/sk)	Mix Water (gal/sk)	Fluid Volume (bbls)	Fluid Volume (cuft)	Mix Water (bbls)										
10 bbls H2O + 350# Calcium - Calcium Spacer		+35.0 PPB NAC-110							(0.27)	(4.20)	10.00	-											
2 bbl Water - Spacer										-	2.00	-											
10 bbls H2O + 400# SMS - SMS Spacer		+40.0 PPB NAC-102							(0.40)	(4.80)	10.00	-											
2 bbls Water - Spacer										-	2.00	-											
Slurry - Surface AGM Blend		100 % NCM-914 +0.4 % NFL-551+4.0 % NAC-101+2.0 % NAC-110				100	15.8		1.21	5.13	21.52	120.84	12										
										-		-											
										-		-											
										-		-											
										-		-											
Displacement Chemicals:																							
OPEN HOLE DATA						TUBULAR DATA																	
14.75 in. O.H. 74 to 74 ft						SIZE WEIGHT		THRD	DEPTH		GRADE	ID	BURST	COLLAPSE									
Ambient Tmp.		Bulk Tmp.	Slurry 1 Tmp.	Slurry 2 Tmp.	Slurry 3 Tmp.	Slurry 4 Tmp.	8.625		(ft)		J55	(in)	(psi)	(psi)									
							24																
PREVIOUS CASING DATA				PERFORATED INTERVAL DATA						CASING EQUIPMENT DEPTHS													
8.625 in. 24# (0 to 74 ft)				TOP		BTM	SPF	SIZE		SHOE	FLOAT	STAGE	ACP										
WELL FLUID			DISPLACEMENT FLUID			DIFF PRESS	CSG LIFT	MAX PRESS		Mix H2O Chlorides (ppm)	Mix H2O pH	Mix H2O Temp	WATER ON LOC (bbl)										
TYPE	DENSITY	VOLUME	TYPE	DENSITY		(psi)	(psi)	(psi)															
H2O	8.3 ppg	2.5 bbl	H2O	8.3 ppg						500	7	75.0 °F	500										
Bumped Plug	Final Differential (psi)	Floats Held (Y/N)	PSI Left on Casing	Cement to Surface (bbl)	Top of Cement (ft)	Full Circ. During Job (Y/N)	Max Pump Pressure (psi)	Casing Rotation		Additional Hrs Charged (hrs)	Casing Reciprocation	Rathole Length (ft)											
							1,500.00			-													
Comments/Additional Details:																							
									Jason Ahlin Service Supervisor														
									4-Aug-23 Date														

Cement Job Log



Customer:	PDC ENERGY			Date:	4-Aug-23		Serv. Supervisor:	Jason Ahlin		
Cust. Rep.:	Bud Holman			Ticket #:	BCO-2308-0016		Serv. Center:	Brighton - 3021		
Well Name:	STATE-FERGUSON 1	RTS Date:	04-Aug-2023	API Well #:	500107238		County:	ADAMS (CO)	State:	COLORADO
Well Type:	Oil	RTS Time:	1:45 PM	Rig:	Ensign		Type of Job:	CM-SQUEEZE JOB		

Left Yard:	Date	04-Aug-23	Time	12:00 PM	Left Loc.:	Date	04-Aug-23	Time	5:45 PM	Start Pump:	Date	04-Aug-23	Time	2:19 PM
Arrived Loc.:	Date	04-Aug-23	Time	1:45 PM	Returned Yd.:	Date	04-Aug-23	Time	6:30 PM	End Pump:	Date	04-Aug-23	Time	5:02 PM

TIME	Rate							Csg. Press.		Tbg. Press.		Ann. Press.		Stg. Vol.		Cum. Vol.		Stage Num.	Stage Details
	(bbl/min)	(psi)	(psi)	(psi)	(bbl)	(bbl)	(bbl)	(psi)	(psi)	(psi)	(bbl)	(bbl)	(bbl)	(bbl)	(bbl)	(bbl)			
12:00 PM																		Left Yard or Current Location	
1:45 PM																		ARRIVE ON LOCATION	
1:50 PM																	1	SPOT EQUIPMENT	
1:55 PM																	1	RIG UP	
2:10 PM																	1	SAFETY MEETING WITH CUSTOMER	
2:19 PM	1		307								1.0 bbl	1.0 bbl					1	FILL LINES	
2:21 PM																	1	PRESSURE TEST TO 1500 PSI	
2:23 PM	2		321								12.0 bbl	13.0 bbl					1	PUMP 10 BBLS OF CALCIUM CHLORIDE FOLLOWED BY 2 BBLS OF H2O	
2:33 PM	2		249								15.0 bbl	28.0 bbl					1	10 BBLS OF SMS FOLLOWED BY 5 BBLS OF FRESH WATER	
2:43 PM	2		318								8.5 bbl	36.5 bbl					1	PUMP SQUEEZE CEMENT 15.8 PPG 8.5 BBLS	
2:47 PM																	1	HESITATED	
2:52 PM	1		220								5.0 bbl	41.5 bbl					1	PUMP 5 BBLS OF SQUEEZE SLURRY	
2:57 PM																	1	HESITATED	
3:02 PM	1		271								8.0 bbl	49.5 bbl					1	PUMPE THE REST OF THE SQUEEZE CEMENT	
3:10 PM	1		320								0.5 bbl	50.0 bbl					1	DISPLACE .5 BBLS	
3:11 PM																	1	HESITATED	
3:40 PM	1		160								0.5 bbl	50.5 bbl					1	PUMPED .5 BBLS MORE OF DISPLACEMENT 1500 PSI TO 650	
3:41 PM																	1	HESITATED	
4:10 PM	1		761								0.1 bbl	50.6 bbl					1	PUMPED .1 BBLS PRESURRED UP AND PRESSURE BLEAD OFF TO 400	
4:28 PM	1		489								0.1 bbl	50.7 bbl					1	PUMPED .1 BBLS AGAIN PRESSURE FALLS	
5:09 PM																	1	RIG DOWN	
5:45 PM																	1	LEAVE LOCATION	
← This entry is coming from Job Log (2)																			
5:45 PM																		LEFT LOCATION	
6:30 PM																		ARRIVED BACK AT YARD OR NEXT LOCATION	

Comments:

ON DISPLACEMENT WE HESITATED A COUPLE OF TIMES PRESSURE WOULD FALL SLOWLY. COMPANY MANS ASKED TO PRESSURE UP TO 1500 PSI PRESSURE STARTED TO FALL FAST AFTER PRESSURING UP TO 1500 PSI