

# Cement Post Job Report

**Client:** PDC Energy

**Well Name:** George 2N

**API #:** 05-123-51765

**Job Date:** March 11, 2024

**Job Type:** New Well - 5.5" Production String

**Cement Company & Contact:** EXERO Well Integrity -  
Cheve Meyer 720-239-3819



## TREATMENT REPORT

CLIENT	WELL	RIG	JOB TYPE	THREAD TYPE	WELLHEAD CONNECTION
PDC Energy	George 02N	True 41	Production	Buttress	5 1/2" HP Cement Head

WELL MD (FT)	WELL TVD (FT)	DEVIATION (DEG)	NUMBER OF STAGES	BHST (DEG)	BHCT (DEG)
17,992		90	1	230	230

PACKER/RETAINER/CIBP/DV TOOL DEPTHS (FT)	TOOL TYPE	TOP OF PERFS (FT)	BOTTOM OF PERFS (FT)	NUMBER OF HOLES

CASING/TUBING/DP DETAILS								
STRING TYPE	GRADE	OD"	WT/FT	ID"	OH SIZE"	% EXCESS LEAD	% EXCESS TAIL	TOTAL DEPTH (FT)
Surface		9.625	36	8.921	12.25			2022
Production	P110	5.5	20	4.778	8.5	0	0	17,983
MAXIMUM CASING/TUBING/DP PSI			MAXIMUM ANNULAR PSI					

Mud Type	OBM	Rotate Y,N	No	Circulation Data				Water Requirements (bbls)			
Mud ppg	10.2	Rate (rpm)		Circulate Time (hrs)	1.3			Spacers	160		
Flow Temp	150	Torque Val.		Circulation Rate (bpm)	10	PSI	1250	Stage 1 Lead	148		
Vis. Sec/qt	49	Time (hr)		Full Circulation ? (Y,N,P)	Yes			Stage 1 Tail	241		
PV (cP)	12	Pipe Reciprocation		Gas Present (Y,N)	No	Units		Stage 2 Lead			
Yield Pt	14	Recip Y,N		Centralizers/Plugs						Stage 2 Tail	
10 sec gel	7	Stroke (ft)		Quantity & Type	Customer Provided					Displacement	399
10 min gel	10	Recip time		Top Plug/Type	Customer Provided					Wash up	20
30 min gel	14	Stuck ?		Bottom Plug/Type	Customer Provided					Total + 10% Safety	1065

Preflush & Spacers		Stage 1 Lead - Class G		Stage 1 Tail - Class G		Stage 2 Lead		Stage 2 Tail		Displacement	
Spacer 1	Spacer	Density	12.9	Density	13.7	Density		Density		Fluid Type	Water
Density	12	Sacks	1643	Sacks	1529	Sacks		Sacks		Dens. ppg	8.33
Volume	160	Vol/bbls	319.0	Vol/bbls	373.1	Vol/bbls	0.0	Vol/bbls	0.0	Vol. bbl	399
Rate	10	Rate	10	Rate	10	Rate		Rate		Rate bpm	10
Spacer 2		Yield	1.09	Yield	1.37	Yield		Yield		Clay Stay?	No
Density		Gal/Sk	3.77	Gal/Sk	6.63	Gal/Sk		Gal/Sk		Biocide ?	Yes
Volume		% Excess	0	% Excess	0	% Excess		% Excess		Slow @ bbl	379
Rate		TOL (ft)	0	TOT (ft)	7546	TOL (ft)		TOT (ft)		Bump PSI	3000

Final Displacement (bbls)	399
Bump Plug?	Yes
Final Bump Pressure (psi)	3600
Full Returns throughout job?	Full
Vol. away/Time when returns lost	
Vol. away when returns were regained	
Spacer to Surface?	Yes
Spacer volume returned (bbls)	160
Cement to surface?	Yes
Cement volume to surface stage 1	30
Cement volume to surface stage 2	

Surface Top Out Details-Pumped		Job Summary & Chems Used	
Cement Type		MFC 47 (gal)	112
Dens. ppg		MFC 67 (gal)	160
Sacks qty		Defoamer (gal)	25
Gal/sk		Biocide (gal)	20
Yield		Corr. Inhib (gal)	
Lbs. of chloride used		Fiber (lbs)	145
Top out pipe used ?		Chloride (lbs)	
Feet of top out pipe		Retarder (lbs)	
Annulus holding?		Clay Stay (gal)	
Sodium Silicate Used		Other	

## JOB LOG

CLIENT	WELL	RIG	JOB TYPE	START DATE	Ambient Conditions
<b>PDC Energy</b>	<b>George 02N</b>	<b>True 41</b>	<b>Production</b>	<b>3/11/2024</b>	Temp / Hum / Air Press 58 deg F / 16% / 24.84 in

DATE (dd/mm)	TIME (hh:mm)	DENSITY (ppg)	RATE (bpm)	VOL. (bbl)	TOTAL VOL.	PRESSURE	TREATMENT COMMENTS
3/11/2024	5:00:00 AM						CREW CALLOUT FOR 1300
	12:00:00 PM						CREW ARRIVED ON LOCATION
	1:45:00 PM						SPOT IN RIG UP EQUIPMENT
	3:30:00 PM						SAFETY MEETING
	3:45:00 PM	8.3	3.0	3	3	450	RIG UP FLOOR / FILL LINES/DROP BOTTOM PLUG
	3:50:00 PM	8.3	1.0	1	1	7150	PRESSURE TEST
	3:56:00 PM	12	10.0	160	160	1700	PUMP 160 SPACER AT 12PPG WITH FIBER AND SURFACTANT
	4:18:00 PM	12.9	10.0	319	319	1250	PUMP 319 BLS OF LEAD AT 12.9PPG (1643SKS, 1.09YLD, 3.77GPS, 148MX H20)
	4:51:00 PM	13.7	10.0	373	373	1000	PUMP 373 BLS OF TAIL AT 13.7PPG (1529SKS, 1.37YLD, 6.63GPS, 241MX H20)
	5:29:00 PM	8.3	10.0	8	8	900	PUMP 8BLS SUGAR WATER
	5:30:00 PM						SHUTDOWN/WASH PUMP AND LINES/DROP TOP PLUG
	5:40:00 PM	8.3	5.0			250	BEGIN FRESH WATER DISPLACEMENT WITH BIOCID
	5:46:00 PM	8.3	10.0	50	50	2000	FRESH WATER DISPLACEMENT
	5:50:00 PM	8.3	10.0	50	100	3000	FRESH WATER DISPLACEMENT
	5:55:00 PM	8.3	10.0	50	150	3600	FRESH WATER DISPLACEMENT
	6:05:00 PM	8.3	10.0	50	200	3700	FRESH WATER DISPLACEMENT
	6:09:00 PM	8.3	10.0	50	250	3900	FRESH WATER DISPLACEMENT
	6:11:00 PM	8.3	10.0	10	260	3900	FRESH WATER DISPLACEMENT/SPACER INT VISIBLE AT SHAKER/WENT TO OPENTOP
	6:14:00 PM	8.3	10.0	40	300	3950	FRESH WATER DISPLACEMENT
	4:17:00 PM	8.3	10.0	50	350	4000	FRESH WATER DISPLACEMENT
	6:23:00 PM	8.3	4.0	29	379	3000	FRESH WATER DISPLACEMENT/SLOWRATE TO LAND PLUG
	6:30:00 PM	8.3	4.0	20	399	3600	LANDED PLUG ON CALC DISPLACEMENT/LEAD CEMENT INT VISIBLE AT SHAKERS
	6:35:00 PM	8.3					CHECK FLOATS/FLOATS HELD/7.5BBLS BACK
	6:40:00 PM	8.3	1.0	19	19	5700	SET PACKER PER TOOL HAND
	7:30:00 PM	8.3	5.0	60	60	150	RIG AND FLUSH STACK
	7:50:00 PM						RIG DOWN FLOOR AND EQUIPMENT/FINISH PAPER WORK
	9:00:00 PM						DEPART LOCATION

Chart Report

