



US Treatment Report

Customer: PDC Energy		Job #: JOB00083642	
Rep: Buddy Davis		Job Date: Apr 05 @ 00:00	
Supervisor: Vitalijs Neverdasovs	Rig: Precision 462	Time Requested: Apr 05 @ 00:00	
Well: 2 of 12 - Lincoln State 8N -17B-M			
Job Type: US Primary	UWI: Lincoln State 8N-17B-M	Time Arrived: Apr 06 @ 00:51	
Casing-Production	Surface: 1152'FNL, 2451'FWL - Sec 18	Time Released: Apr 06 @ 00:51	

Scavenger

55.29 sk MAG EV 12.9 + 0.80% MCR-3 + 0.50% MCR-1 + 0.70% MCFL-7 + 1.00% MCFW-1 + 0.50% MCGC-1 + 0.20% MCDF-P
Weight: 12lb/gal

Yield: 1.93 ft3/sk = 19bbbls Mix Water: 10.71 gal/sk = 592.08 gal

962.7 sk MAG EV 12.9 + 0.80% MCR-3 + 0.50% MCR-1 + 0.70% MCFL-7 + 1.00% MCFW-1 + 0.50% MCGC-1 + 0.20% MCDF-P

Yield: 1.53 ft3/sk = 262.33bbbls Mix Water: 7.72 gal/sk = 7432.12gal

1515 sk MAG EV 13.7 + 0.50% MCA-2 + 0.35% MCR-H + 0.30% MCI-2 + 0.80% MCFL-7 + 0.30% MCFR-2 + 0.50% MCFW-1 + 0.50% MCGC-1 + 0.20% MCDF-P

Yield: 1.35ft3/sack = 364.26bbbls Mix Water: 6.40gal/sack = 9696gal

BHCT (F)	235	BHST (F)	235	Casing 1 Casing Size (in)	9.625
Casing 1 Grade	J-55	Casing 1 Weight (lb/ft)	36	Casing 2 Casing Size (in)	5.5
Casing 2 Grade	P-110	Casing 2 Weight (lb/ft)	20	Collapse Csg Pressure (psi)	11080
Float Depth (ft)	15503.6	Funnel Vis (sec/qt)	53	Hole Size (in)	8.5
	5				
Max Csg Pressure (psi)	12640	Max Pressure (psi)	3000	Mud Density (lb/gal)	10.4
Mud Type	OIL	Plug Size (in)	5.5	Plug Type	Rig
	BASE				Supplie
TMD (ft)	15537	TVD (ft)	7115		d

Treatment Info: Sacks Used: 0 Sacks Not Used: 0

Preflush: 38bbbls MAG Sweep-H + MAG Clean-1 & 19bbbls MAG Sweep-H

Circulation Time: 2.5

Slurry Temp: 78 Bulk Sample: Yes

Displace: 10bbbls Fresh Water & 333.8bbbls Fresh Water

Water Temp: 76 Water Sample: Yes

Bulk Temp: 62 Slurry Sample: Yes

Slurry Returns: 20 Plug Bumped: Yes Pump Out Lines: Yes Float Held: Yes

Time	Pressure psi	Annular Pressure psi	Volume Per Stage bbls	Total Stage Volume bbls	Rate bbls/mi n	Treatment Detail
02:30	0.00					Arrive on Location - On location time @ 03:00. RIG IS ASSEMBLING LANDING JOINT
06:05	0.00					Safety Meeting - Held pre job safety meeting to discuss job hazards and procedure. Rig is circulating.

07:01	0.00					Drop Plug - LOAD AND DROP 1st BOTTOM PLUG VERIFIED BY CUSTOMER
07:08	424.00		5	5	2.0	Fill Lines - Load line with fresh water
07:14	4,750.00		0.1	0.1	0.5	Start Pressure Test - Test line to 4750 PSI
07:18	589.00		38	38	5.0	Pump Preflush - Pump MAG Sweep H+MAG Clean 1 @ 11 PPG
07:28	550.00		19	19	5.0	Pump Preflush - Pump MAG Sweep H @ 11.5 PPG
07:34	701.00		19	19	5.0	Pump Scavenger - Pump scavenger @ 12.0 PPG
07:38	0.00					Drop Plug - DROP 2ND BOTTOM PLUG
07:39	750.00		262.4	262.4	7.0	Pump Slurry - Batch/ Weight/ Pump 963 sks / 262.4 BBLS of lead @ 12.9 PPG / Y 1.53/ MW 7.72. CALCULATED TOP OF LEAD @ 413'.
08:25	758.00		364.3	364.3	7.2	Pump Slurry - Weight/ Pump 1515 sks/ 364.3 BBLS of tail cement @ 13.7 PPG/ Y 1.35/ MW 6.49. CALCULATED TOP OF TAIL @ 6597'.
09:22	0.00					Stop Pumping - Finished pumping cement
09:25	250.00		20		5.0	Pump Out Treating Lines - Wash pumps and lines
09:30	0.00					Drop Plug - Load and Drop top plug verified by customer
09:33	3,050.00		320	320	8.5	Displace - Pump fresh displacement/ First 10 BBLS with 100 # sugar. Remaining with Biocide
10:21	2,490.00		24	24	3.0	Decrease Rate - Slow rate to 3 BPM
10:25	2,890.00		344	344	0	Bump Plug - BUMP PLUG WITH 500 PSI OVER FINAL CIRCULATING PRESURE. GOT 20 BBLS OF CEMENT BACK TO SURFACE
10:29	4,680.00		2	2	5	Pressure up to burst disc and pump 5 bbls wet shoe
10:31	1,850.00		0	0	0	Stop Pumping - Shutdown
10:32	0.00		0	0	0	Check Floats - Floats held / 2.5 BBLS back
10:45	0.00		0	0	0	Rig Out
12:00	0.00		0	0	0	Leave Location