



US Treatment Report

Customer: PDC Energy		Job #: JOB00084004	
Rep: John Falton		Job Date: May 29 @ 00:00	
Supervisor: Travis Tolman		Time Requested: May 29 @ 10:00	
Job Type: US Primary		Time Arrived: May 29 @ 10:00	
Casing-Production		Time Released: May 29 @ 21:00	
Rig: Ensign 162			
Well: 5 of 11 Sunlight 3N			
UWI: Sunlight 3N			
Surface: Lat 40.410572 & Long - 104.581804			

Scavenger

62.82 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: 12.5lb/gal

Yield: 1.7 ft3/sk = 19bbls Mix Water: 8.98 gal/sk = 564.02 gal

840.2 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 = 228.94bbls Mix Water: 7.72 gal/sk = 6486.19gal

1932 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 = 464.52bbls Mix Water: 6.40gal/sack = 12364.8gal

BHCT (F)	215	BHST (F)	215	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)	17203	Funnel Vis (sec/qt)	55	Hole Size (in)	8.5
Max Csg Pressure (psi)	12640	Max Pressure (psi)	3500	Mud Density (lb/gal)	10.2
Mud Type	OBM	Plug Size (in)	5.5	Plug Type	Rig Supplie d
TMD (ft)	17239	TVD (ft)	6599		

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

Preflush: 5bbls Fresh Water & 38bbls MAG Sweep-H + MAG Clean-1 & 19bbls MAG Sweep -H	Circulation Time: 5
	Slurry Temp: 79 Bulk Sample: Yes
Displace: 10bbls Sugar Water & 371.5bbls Fresh Water	Water Temp: Water Sample: Yes
	Bulk Temp: 68 Slurry Sample: Yes
Slurry Returns: 6 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
10:00	0.00					Arrive on Location - On location time of 10:00
15:00	0.00					Safety Meeting - Safety meeting with company man rig hands and crew
15:23	0.00					Drop Plug - Drop first bottom plug

15:23	800.00		5	5	2	Fill Lines - Load lines with fresh water
15:27	4,900.00					Start Pressure Test - Pressure test with fresh water
15:31	860.00		38	38	5	Pump Preflush - Pump MAG Sweep H+MAG Clean 1 at 11.5#
15:39	630.00		19	19	5	Pump Preflush - Pump MAG Sweep H at 12#
15:44	415.00		19	19	3	Pump Scavenger - Pump scavenger at 12.5#-1.93 Y
15:49	0.00					Drop Plug - Drop second bottom plug
15:50	850.00		229	229	7.2	Pump Slurry - Pump lead cement at 12.9#-1.53Y-7.72 gps, est top of lead at 462'
16:40	550.00		465	465	7.4	Pump Slurry - Pump tail cement at 13.7#-1.35Y-6.4gps est top of tail at 5860'
18:03	0.00					Stop Pumping
18:06	0.00					Pump Out Treating Lines
18:18	0.00					Drop Plug - Drop top plug, witnessed by company man
18:19	1,800.00		80	80	10	Displace - Displace with fresh water, first 10bbbls with sugar, rest with Bio-cide, calculated displacement 381.5bbbls
18:33	3,200.00		170	170	9	Decrease Rate - Slow rate per company man
18:58	3,000.00		100	100	8	Decrease Rate - Slow rate per company man
19:13	3,000.00		20	20	6	Decrease Rate - Slow rate per company man request
19:23	2,700.00					Bump Plug - Land plug, actual displacement 382 bbls, got 76 bbls of pre-flush back plus 6 bbls cement to surface
19:27	3,555.00				1	Pressure up to shift tool
19:28	2,260.00		5	5	4	Displace - Pump wet shoe
19:28	2,200.00		22	22	4	Decrease Rate - Slow rate to land plug
19:29	0.00					Stop Pumping
19:30	0.00					Check Floats - Check float, got 2.5bbbls back
19:35	0.00					Rig Out
19:38	0.00					Wash Up Truck
21:00	0.00					Leave Location