



Treatment Report

Customer: PDC Energy

Job #: JOB00082567

Rep: Shane Paris

Rig: Ensign 162

Job Date: Feb 26 @ 13:02

Supervisor: Vitalijs
Neverdasovs

Well: FERGUSON 23E-232

Time Requested: Feb 26 @ 13:02

Job Type: US Primary

UWI: 250'FNL, 2240'FEL, Sec 24

Time Arrived: Feb 26 @ 13:02

Casing-
Production

Surface: 40.385787, -104.524891

Time Released: Feb 26 @ 23:02

BHCT (°C, °F)	215	BHST (°C, °F)	215	Casing 1 Casing Size (mm, in)	9.625
Casing 1 Grade	J-55	Casing 1 Weight (kg/m, lb/ft)	36	Casing 2 Casing Size (mm, in)	5.5
Casing 2 Grade	HCP-110	Casing 2 Weight (kg/m, lb/ft)	20	Casing 3 Casing Size (mm, in)	5.5
Casing 3 Grade	HCP-110	Casing 3 Weight (kg/m, lb/ft)	20	Collapse Csg Pressure (MPa, psi)	11095.39
Float Depth (m, ft)	16573	Hole Size (mm, in)	8 3/4, 1647-7557', 8 1/2 7557-16622'	Max Csg Pressure (MPa, psi)	12632.79
Max Pressure (MPa, psi)	4800	Mud Density (kg/m ³ , lb/gal)	10.5	Mud Type	OBM
Plug Size (mm, in)	5 1/2	Plug Type	Rig Supplied	TMD (m, ft)	16613'
TVD (m, ft)	6542				

Treatment Info:	Tonnes Used:	Tonnes Not Used:	0.00		
Preflush:	5m3 Fresh Water & 19m3 MAG Sweep-H + MAG Clean-1 & 19m3 MAG Sweep-H	Slurry Temp:	73	Circulation Time:	4
		Water Temp:	65	Bulk Sample:	Yes
Displace:	345.5m3 Fresh Water	Bulk Temp:	37	Water Sample:	Yes
		Pump Out Lines:		Slurry Sample:	Yes
				Float Held:	Yes
Slurry Returns:	26 Plug Bumped:	Yes			

Time	Pressure MPa	Annular Pressure MPa	Volume Per Stage m ³	Total Stage Volume m ³	Rate m ³ /min	Treatment Detail
13:00	0.00					Arrive on Location
17:10	0.00					Safety Meeting
17:44	450.00		5	5.00	2	Fill Lines - H2O
17:50	4800.00					Start Pressure Test
17:53	0.00					End Pressure Test
17:55	703.00		38	38.00	6	Pump Preflush - MagSweep-H+MagClean1 @11ppg
18:01	613.00		19	19.00	6	Pump Preflush - MagSweep H @11.5ppg
18:06	680.00		19	19.00	6	Pump Scavenger - Mag EV 12ppg/Drop 2nd plug
18:13	1050.00		282.6	282.60	6	Pump Slurry - Mag EV 12.9ppg 1037 sks
19:01	719.00		368.3	368.30	6	Pump Slurry - Mag EV 13.7ppg 1532 sks

20:13	0.00					Stop Pumping
20:17	0.00					Pump Out Treating Lines - Wash out lines
20:18	0.00					Drop Plug
20:34	3008.00		345.5	345.50	11	Displace - MCR-2, 1st 10bbls
21:07	0.00					Stop Pumping - Switch tanks for flushes@307away
21:08	2750.00				8	Displace - Resume disp
21:11	2070.00					Decrease Rate
21:16	2450.00					Bump Plug - 26bbls spacer returns
21:19	4200.00		2	2.00	2	Shift sleeve for wet shoe
21:20	2175.00		5	5.00	4	Wet shoe
21:24	0.00					Check Floats - 2 bbls back
21:40	0.00					Rig Out
22:20	0.00					Wash Up Truck
23:00	0.00					Leave Location