

Treatment Report



Customer: PDC Energy
Rep: Jeremy Stoltz
Supervisor: Stephen Cardos
Job Type: US Primary

Rig: Ensign 162
Well: FERGUSON 23F-302
UWI: 1195'FNL, 2240'FEL, Sec 24
Surface: Lat 40.386034, Long - 104.524887

Job #: JOB00083305
Job Date: 3/15/2020
Time Requested: 3/15/20, 18:00
Time Arrived: 3/15/2020, 17:30
Time Released: 3/16/2020, 01:30

Casing-Production

Scavenger

-18.8 TON 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: 12kg/m3

Yield: -1.01m3/t = 19m3

Mix Water: -1.01m3/t = 18.988m3

0 TON 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:

Mix Water:

BHCT (C)	215	BHST (C)	215	Casing 1 Casing Size (mm)	9.625
Casing 1 Grade	J-55	Casing 1 Weight (kg/m)	36	Casing 2 Casing Size (mm)	5.5
Casing 2 Grade	HCP-110	Casing 2 Weight (kg/m)	20	Collapse Csg Pressure (MPa)	11110
Float Depth (m)	15476	Funnel Vis (sec/L)	52	Hole Size (mm)	8.75 8.5
Max Csg Pressure (MPa)	112630	Max Pressure (MPa)	5000	Mud Density (kg/m3)	10.3
Mud Type	OIL	Plug Size (mm)	5.5	Plug Type	Rig
	BASED	Tool Depth (m)	15476		Supplie
	MIN				d
TMD (m)	15519			TVD (m)	6544

Preflush: 5m3 Fresh Water & 38m3 MAG Sweep-H + MAG Clean-1 & 19m3 MAG Sweep-H

Circulation Time:

Slurry Temp: 72 Bulk Sample: Yes

Water Temp: 74 Water Sample: Yes

Bulk Temp: 68 Slurry Sample: Yes

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

Displace: 10m3 Fresh Water + MCR-3 & 343m3 Fresh Water

Time	Pressure MPa	Annular Pressure MPa	Volume Per Stage m3	Total Stage Volume m3	Rate m3/min	Treatment Detail
17:30	0.00					Arrive on Location - ARRIVED ON LOCATION EARLY , REQUESTED ON LOCATION IS 18:00
17:45	0.00					RIG UP
21:30	0.00					Safety Meeting - DISCUSS SAFETY PLANS AND JOB OUTLINE
22:05	0.00					Drop Plug - DROP FIRST BOTTOM PLUG
22:09	350.00		5		5	Pump Preflush - PUMP FRESH WATER TO LOAD LINES
22:14	4,680.00					Start Pressure Test - PRESSURE TEST LINES
22:19	450.00		38		5	Pump Preflush - PUMP MAG SWEEP H+MAG CLEAN 1 @11 LB
22:27	400.00		19		5	Pump Preflush - PUMP MAG SWEEP H @ 11.5 LB
22:30	550.00		19		5	Pump Scavenger - PUMP SCAVENGER SLURRY @ 12LB
22:35	0.00					Drop Plug - DROP SECOND BOTTOM PLUG
22:36	700.00		282		6.5	Pump Slurry - PUMP LEAD MAG EV 12.9LB (1092 SACKS)
23:22	600.00		360		6.5	Pump Slurry - PUMP TAIL MAG EV 13.7 LB (1499 SACKS)
00:29	0.00					Stop Pumping - SHUT DOWN AND SWAP VALVES

00:35	0.00					Wash Up Truck - WASH OUT PUMP AND CEMENT LINES
00:37	0.00					Drop Plug - DROP TOP PLUG
00:46	3,100.00		320		10.5	Displace - DISPLACE WITH FRESH WATER
01:18	2,300.00		23		5	Decrease Rate - SLOW RATE
01:23	2,800.00		343			Bump Plug - BUMP PLUG @2800PSI
01:25	3,800.00					SHIFT TOOL @3800PSI
01:26	2,300.00		5		4	Displace - DISPLACE WET SHOE
01:28	0.00					Check Floats - CHECK FLOATS(2BBL BACK)
01:30	0.00					Wash Up Truck - WASH UP PUMP AND RIG STACK
01:45	0.00					RIG DOWN JOB DONE