

US Treatment Report



Customer: PDC Energy
Rep: Brady Sharp
Supervisor: Travis Tolman
Job Type: US Primary
 Casing-Production

Rig: Ensign 152
Well: MTD 2N
UWI: MTD 2N
Surface: Sec 23 T7N R66W6

Job #: JOB00078393
Job Date: Nov 20 2019
Time Requested: 5:00
Time Arrived: 4:45
Time Released: 2019-11-20 15:00

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	HCP-110	Casing 2 Weight (lb/ft)	20	Collapse Csg Pressure (psi)	11080
Float Depth (ft)	15726	Funnel Vis (sec/qt)	50	Hole Size (in)	8.5
Max Csg Pressure (psi)	12640	Max Pressure (psi)	4000	Mud Density (lb/gal)	10.5
Mud Type	OBM	Plug Size (in)	5.5	Plug Type	Rig
TMD (ft)	15757	TVD (ft)	7075		Supplie d

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

Circulation Time: 4

Slurry Temp: 55	Bulk Sample: Yes
Water Temp: 41	Water Sample: Yes
Bulk Temp: 68	Slurry Sample: Yes
Slurry Returns: 0 Plug Bumped: Yes	Pump Out Lines: Yes Float Held: Yes

Displace: 10bbbls Sugar Water & 339bbbls Fresh Water

Time	Pressure psi	Annular Pressure psi	Volume Per Stage bbls	Total Stage Volume bbls	Rate bbls/mi n	Treatment Detail
04:45	0.00					Arrive on Location - circulate rig
08:30	0.00					Safety Meeting - Held safety meet with company man rig crew and service crew
08:50	0.00					Drop Plug
08:51	300.00		5	5	3	Fill Lines - load line with fresh water
08:55	5,000.00					Start Pressure Test - pressure test 5000
09:00	0.00					End Pressure Test - end pressure test
09:05	200.00		38	38	5	Pump Preflush - pump preflush 38bbl 11
09:10	200.00		19	19	6.5	Pump Preflush - pump 19bbl 11.5
09:25	200.00		19	19	6.5	Pump Scavenger - pump 19bbl 12.0
09:37	0.00					Drop Plug - on the fly
09:39	750.00		261	261	6.5	Pump Slurry - pump lead sks 959.7 top of lead at 444'
10:26	400.00		372	372	6.5	Pump Slurry - pump tail sks 1550 top of tail at 6640'
11:40	0.00					Stop Pumping - stop pumping
11:43	0.00					Pump Out Treating Lines - pump out treating line
11:47	0.00					Drop Plug - drop plug

11:50	2,750.00		320	320	11.0	Displace - displace with fresh water first 10 sugar water calculated displacement 349
12:25	1,800.00		29	29	3.0	Decrease Rate - slow rate to land the plug
12:30	2,300.00					Bump Plug - land plug 349 displacement got 60 bbl back
12:33	3,485.00					Shift sleeve
12:38	2,000.00			5	3.0	pump 5bbl wet shoe
12:40	0.00					Check Floats - Float held, got back 2bbls
12:45	0.00					Rig Out - rig down
12:50	0.00					Wash Up Truck - wash up truck
15:00	0.00					Leave Location - leave location