



Treatment Report

Customer: Occidental Petroleum Corp.

Job #: JOB00148251

Rep: David Cornett

Rig: Ikon 12

Job Date: Feb 10 @ 01:02

Supervisor: James Ragle

Well: Rainbow 9-02HZ

Time Requested:

Job Type: US Primary

UWI: Rainbow 9-02HZ

Time Arrived: Feb 10 @ 01:02

Casing-Surface

Surface: Rainbow 9-02HZ

Time Released: Feb 10 @ 08:02

908.0 MAG S 14.1 0.25% MCA-1 + 0.10% MCDF-P
0

Yield: 1.31m³/t = 1189.48m³

Mix Water: 6.06m³/t = 5502.48m³

1 Grade	L80	1 Size (mm, in)	9.625	1 Weight (kg/m, lb/ft)	36
BHCT (°C, °F)	88	BHST (°C, °F)	104	Collapse Csg Pressure (MPa, psi)	2020
Float Depth (m, ft)	1844	Funnel Vis (sec/L, sec/qt)	TBD	Max Csg Pressure (MPa, psi)	3520
Max Pressure (MPa, psi)	1300	Mud Density (kg/m ³ , lb/gal)	TBD	Mud Type	WBM
Plug Size (mm, in)	9.625	Plug Type	Rig Supplied	TMD (m, ft)	1893
TVD (m, ft)	1837				

Treatment Info:	Tonnes Used:	Tonnes Not Used:	0.00
Preflush:	10m ³ MAG Mark & 10m ³ Fresh Water	Slurry Temp:	77
		Water Temp:	54
		Bulk Temp:	27
Displace:	142.5m ³ Fresh Water	Slurry Sample:	Yes
		Water Sample:	Yes
		Slurry Sample:	Yes
Slurry Returns:	32 Plug Bumped:	Yes Pump Out Lines:	Float Held:
			Yes

Time	Pressure MPa	Annular Pressure MPa	Volume Per Stage m ³	Total Stage Volume m ³	Rate m ³ /min	Treatment Detail
01:30	0.00	0.00		0.00		Arrive on Location - GOT NUMBERS FROM COMPANY MAN, RIG RUNNING CASING, TIME REQUESTED 300AM /WATER TESTED PH-7/HARDNESS 250/CHLORIDE 100
05:30	0.00	0.00		0.00		Safety Meeting - HELD MEETING WITH COMAPANY MAN, RIG CREW, AND MAGNUM CREW
06:17	250.00	0.00		5.00	4	Fill Lines - LOAD LINES, DROP BOTTOM PLUG WITNESSED BY COMPANY MAN
06:19	2300.00	0.00		0.50		Start Pressure Test - PRESSURE TEST LINES TO 2300 PSI
06:23	294.00	0.00		15.00	3.5	Pump Preflush - 10 BBLS FRESH WATER 10 BBLS MAG MARK
06:28	728.00	0.00		211.00	5	Pump Slurry - MIX AND PUMP 903.5 SKS MAG S 14.1PPG/YIELD 1.31/MIX WATER 6.06/ 210 BBLS VERIFIED USING PRESSURIZED SCALES

07:14	0.00	0.00		0.00		Stop Pumping
07:18	0.00	0.00		0.00		Drop Plug - WITNESS BY COMPANY MAN
07:20	550.00	0.00		110.00	5	Displace - PUMP FRESH WATER CALCULATED 142.5 BBLs 32 BBLs TO SURFACE
07:46	900.00	0.00		32.50	3	Decrease Rate - SLOWED RATE TO LAND PLUG
07:58	1321.00	0.00		0.00		Bump Plug - LAND PLUG
08:03	0.00	0.00		0.00		Check Floats - FLOATS HELD 1 BBL BACK
08:04	0.00	0.00		0.00		Rig Out
08:10	0.00	0.00		0.00		Wash Up Truck
08:30	0.00	0.00		0.00		Leave Location