

TCR-1 Workover/Stimulation Fluid Case Histories

TCR-1 is a solvent specifically formulated and distributed by Trican Well Service Ltd. for workovers and stimulation of production and injector wells where asphaltene and paraffin deposits are a problem.

Advantages

1. Re-suspends asphaltenes by mimicking the natural resins of heavy oil.
2. Breaks water in oil emulsions and water blocks by reducing the interfacial tension that exists between the oil and water phases.
3. Coats sand and clay solids and leaves the particles water wet.
4. Reduces damage induced by polymer drilling fluids.
5. Much higher flash point than alternative fluids.
6. Significantly reduces oil viscosity and prevents sludging.
7. Reduces operating costs by reducing the frequency of washes or stimulation.
8. A very effective penetrating and dispersing agent.

Case History

Petrovera

Location:..... 10A-16-52-2

Treatment: November 15, 2001

Formation: Sparky

Amount TCR-1 used: 2m³

The well was serviced using 2 m³ TCR-1 chased with 6-8 m³ of produced water. The BS&W on the well dropped from 59% to 10% and two months later it was at 35%. Although the total production dropped from 25-30 m³/day to 15-17 m³/day, the overall oil production remained at 10-12 m³/day. They have also seen a positive increase in production on other wells in the area.

In 2001, when the product was first made available, over 500 wells were treated with TCR-1. The largest customers for this product are Nexen and Petrovera.

Case History: Petrovera 52-2 W4M, Sparky Zone 5 – 6 m³ TCR-1 used per well

Production Before Treatment Production Rate (m ³ /day)				Production After Treatment Production Rate (m ³ /day)												
				1 Month			3 Months			6 Months			9 Months			
Well Location	Oil	Water	Total Fluid	Oil	Water	Total Fluid	Oil	Water	Total Fluid	Oil	Water	Total Fluid	Oil	Water	Total Fluid	
4B	0	0	0	1.2	3.6	4.8	0.7	2.2	2.9	0		0			0	Shut-in
4C	0	0	0	1.3	0.4	1.7	1.6	0.4	2			0			0	
3B	0	0	0	2.4	3.2	5.6	3.2	3.3	6.5			0			0	
3D	3	35	38	2.6	33.7	36.3	1.5	40.4	41.9			0			0	
3A	5.4	3.8	9.2	4.8	3.3	8.1	5.6	2.8	8.4			0			0	
6B-1	0	0	0	1	1.3	2.3	0.8	0.8	1.6	0		0			0	Shut-in
2B	1.9	1.5	3.4	1.4	2.8	4.2	2.6	2.5	5.1	3.2	3.1	6.3	3.7	3.8	7.5	
10A	9.8	14	23.8	10.6	2.3	12.9			0			0			0	
15B	4.7	1.6	6.3	7	1.6	8.6			0			0			0	
6B-2	0	0	0	3.6	1	4.6			0			0			0	
Totals	24.8	55.9	80.7	35.9	53.2	89.1	16	52.4	68.4	3.2	3.1	6.3	3.7	3.8	7.5	