

MaxTrace™

The Max-Trace™ reservoir monitoring system is a collaboration between NOV and RESMAN. The system incorporates NOV's Rottweiler M™ Cast Iron Frac Plug and carrier that contains RESMAN Intelligent Tracers™. Combined, they create a wireless, passive, intelligence system for production data collection and analysis. The system allows for deployment and placement anywhere in the producing wellbore.

The Max-Trace can be installed as part of a plug and perf stimulation operation in conjunction with a dissolvable ball, or installed via coiled tubing post mill out and clean up of a completion using traditional composite frac plugs. The large ID of the system allows virtually unrestricted flow. When exposed to flow and contacted by the target fluid (oil or water) during production, the RESMAN Intelligent Tracers are designed to mark the fluid with a chemical signature. As the unique chemical signature from each Max-Trace location flows to surface where it can be collected and analyzed. This analysis allows the operator to better understand production contribution from the reservoir, identification of the source of water production, and to identify potential blockage of the wellbore. A wide selection of intelligent tracers are available for various well conditions including fluids, temperatures, and monitoring objectives.

Max-Trace is constructed from cast iron material that allows future removal of the tracer system if intervention is required. The large bore allows for coiled tubing clean out without the need to mill out the system.

Features

- Large Bore through the ID of the tool
- Cast Iron Materials for easy mill out if required
- Can be used in plug-n-perf operations as a frac plug or independently
- Multiple tracer arrays and placement to identify both water and oil production

Benefits

- Minimal pressure drop through the tool during production
- Easily milled and removed in the event future intervention is required
- Flexible options for placement of tracers in the completion

Applications

- Identification of plugged/bridged sections of the wellbore
- Identification of flow contribution from various areas of the wellbore
- Identification of water breakthrough and location of same

Technical Data

i-Trace CEM	OD in. (mm)	ID in. (mm)	Length in. (mm)	Material	Temperature °F (°C)	Pressure Rating psi (kPa)
5.500 in. 20#	4.500*	3.25	37.3	Cast Iron	300**	10,000**
5.500 in. 23#	4.375*	3.25	37.3	Cast Iron	300**	10,000**

*The Tracer Carrier itself is a common item for 5.500" 17-23#, and has a 4.375" OD; it attaches to the bottom of an existing Rottweiler cast iron plug, so the OD's listed above are for the plugs, not the Tracer Carrier itself

**Actual pressure ratings of the plug are 10,000 psi @ 250F / 8,000 psi @ 300F



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