

Coiled Tubing Multi-Lateral Entry System



High flow wellbore cleanout



Access to multiple laterals in single deployment



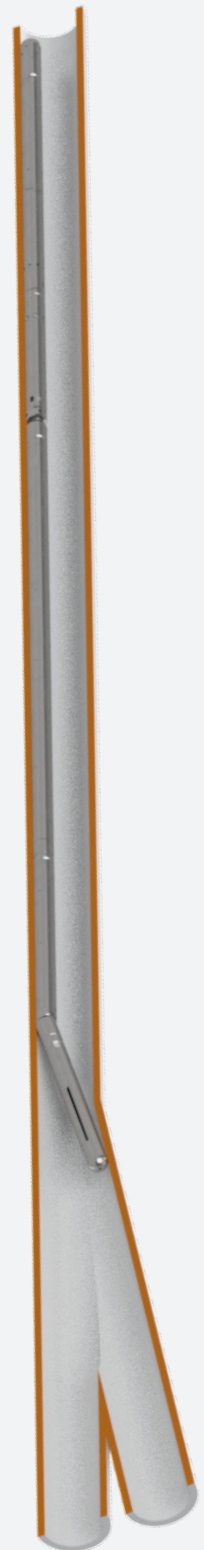
Industry leading pressure v expansion

DESCRIPTION

The Pragma Coiled Tubing Multi-Lateral Entry System (MLES) is designed to enable the repeatable entry of the desired lateral wellbore. The system typically consists of a Torque Through Coiled Tubing Connector, a Motorhead Assembly, a High Torque Indexing Tool, a Hydraulic Knuckle Joint and a Pump Out Choke Probe.

The system is flexible and to allow multiple lateral access in a single run and to enable large volume of fluid to be pumped at high flow rates a Velocity Check Circulation Valve (VCCV) can be placed above the indexing tool and the Pump Out Choke Probe replaced with a Nozzle. To gain access to longer laterals an Extended Reach Tool can be included in the tool string.

The Coiled Tubing High Torque Indexing Tool rotates the tools below it by 30° on each pressure cycle (15° and 45° indexes are available). Increasing the flow rate or pressure further activated the Hydraulic Knuckle Joint which kicks over the Pump Out Choke Probe.



The length of the Probe is designed so that it will not fully articulate in the man bore unless it locates the casing window. Typically the casing window is located by cycling the High Torque Indexing Tool and then picking up the tool string. If the window is located then the hydraulic Knuckle Joint can fully articulate and a circulation port will open. This will lead to a pressure drop giving a surface indication that the window has been located.

The Pragma Coiled Tubing MLES is commonly used for multi-lateral cleanout work. A similar system is also used for acid tunnelling applications.

APPLICATIONS

- **Logging:** Controlled access of laterals enables logging tools and cameras entry to determine the condition of the lateral and use the insights to strategize the next operation.
- **Water Shut Off:** Conventional plugs or bridge plugs can be deployed on coiled tubing into the lateral to temporarily or permanently close off the lateral if it's no longer productive.
- **Clean Outs:** Perhaps the most common operation for the MLES is to enable access into laterals to pump high volumes of clean out fluid such as HCl.

FEATURES & BENEFITS

- Multiple configurations and tool sizes available.
- Bespoke designs to suit customer specific applications.
- Robust construction.

OPTIONAL EQUIPMENT

- Flow Through Nozzle
- Velocity Check Circulation Valve
- Extended Reach Tool

TOOL STRING

- Torque Through CT Connector
- Extreme Service Motorhead Assembly
- High Torque Indexing Tool
- Hydraulic Knuckle Joint
- Pump Out Probe Sub

Tool String Size	Indexing Tool	Hydraulic Knuckle	Pump Out Choke Probe	Velocity Check Circulation Valve
1 11/16"	CIT169AC08-1	CKJHA169AC08	POC169AC08-18	
2 1/8"	CIT212AC09-1	CKJHA212AC08	POC212AC09-18	VCCV212AC09
2 7/8"	CIT288AC23-1	CKJHA288AC23	POC288AC23-18	VCCV288AC09

We offer optional equipment, alternative sizes, materials and thread connections.

Please contact us for more information.