



VIKING
COIL TUBING





Viking Coil Tubing is a privately owned oilfield service company providing coiled tubing, thru tubing, pressure pumping and nitrogen services to the oil and gas industry. With bases in Texas and Oklahoma, the company provides services on a flexible call-out basis for operators. Knowledge, teamwork and integrity are essential to service quality, and for years, Viking Coil Tubing has leveraged these principles to deliver value for its customers.

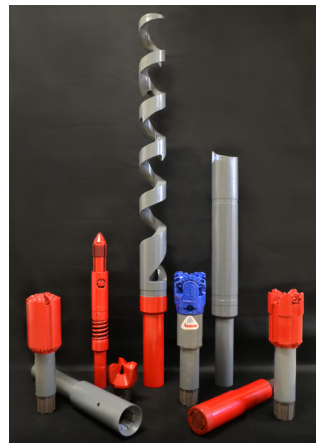
SERVICES:

- Coiled Tubing
- Nitrogen
- Pressure Pumping
- Thru Tubing Tools

Viking Coil Tubing's equipment is manufactured to the latest industry specifications, which are designed to fit stand-alone coiled tubing service requirements.

With dedicated engineering resources in the office and field, Viking Coil Tubing can design and deliver the coiled tubing application its customers require.

Viking Coil Tubing commenced operations in the Permian Basin of Texas in 2011. The company is a successor to Lariat Coil Tubing (a SandRidge Energy company) and Viking International (a TransAtlantic Petroleum company). The coiled tubing, thru tubing, pressure pumping, and nitrogen services of Viking Coil Tubing have been under the same effective ownership and management group since Lariat's formation in 2007. Viking Coil Tubing's management and supervisory team have extensive experience in intervention, completion, and well control services, which has provided the company with a reputation as a premier service provider.





Viking Coil Tubing provides high quality coiled tubing packages designed for a variety of oil and gas well applications. Our coiled tubing fleet ranges in capacity from 1.25” body load units for remedial production intervention to 2.375” dual trailer units with 24,000 + ft. capacity for extended reach horizontal completions. With a full fleet of support equipment and downhole tools in inventory Viking is well equipped to handle almost any coiled tubing operation. Viking Coiled Tubing units utilize the highest quality equipment and tools made in the USA.

APPLICATIONS:

- Extend Reach Horizontal Completions
- Intervention In High Pressure / High Temperature Environments
- Geothermal Well Intervention
- Pre Frac Toe Prep Operations
- Fishing Operations
- Screen Out and Sand Clean Out Operations
- Post Frac Drill Out Services
- CT Conveyed Gelled and Foamed Acid Treatments
- Selective Zone Interventions and Treatments
- Thru Tubing Intervention and Stimulation in Production Wells



BENEFITS:

- Readily Available
- Quick Operation Utilizing Innovative Technology and Equipment Design
- Real-Time Data Acquisition Systems
- Well Simulation Software
- Compact Footprint



TECHNICAL SPECIFICATIONS:

1.25” BODY LOAD COIL TUBING UNITS	
Coil Sizes	1.25” to 1.5” Coil Tubing
Coil Length	1.25” 20,000 ft. – 1.50” 17,000 ft
Injector	60,000 lb. pull / 30,000 snub
BOP & Riser Stack	3.06” 15M
DAS	Cerberus / Orion™
Crane	20 Ton CTU Mounted

2.00” SINGLE TRAILER COIL TUBING UNITS	
Coil Sizes	From 1.75” to 2.00” Coil Tubing
Coil Length	1.75” 25,000 ft. – 2.00” 22,000 ft.
Injector	80,000 lb. pull / 40,000 lb. snub
BOP & Riser Stack	5.12” 10M / 4.06” 15M
DAS	Cerberus / Orion™
Crane	50 Ton Boom Truck

2.375” DUAL TRAILER COIL TUBING UNITS	
Coil Sizes	From 2.00” to 2.375” Coil Tubing
Coil Length	2.00” 24,000 ft. – 2.375” 24,000 ft.
Injector	100,000 lb. pull / 50,000 lb. snub
BOP & Riser Stack	5.12” 15M
DAS	Cerberus / Orion™
Crane	130 Ton Conventional Crane



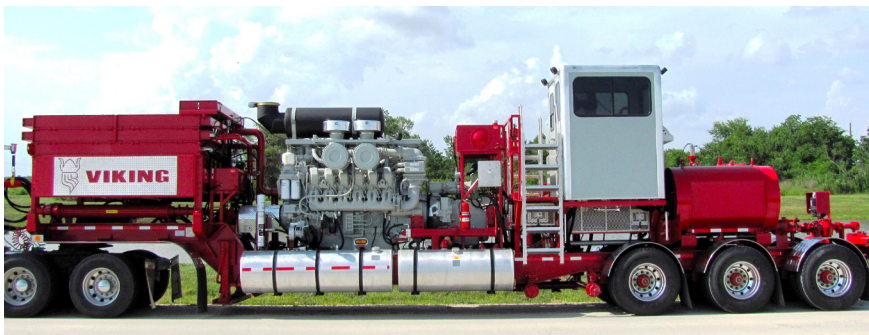
Viking Coil Tubing provides pressure pumping services for coil tubing support, stimulation, wire line conveyance, pressure / injectivity testing, and much more. Viking Coil Tubing has a dedicated fleet of fluid pumps which are suitable for all coiled tubing applications. All Viking pumps utilize high performance equipment made in the USA, and are remote accessible via Mobil Data Technologies monitoring and recording systems.



1,200 HHP TWIN TRIPLEX PUMPS	
Total Output	1,200 HHP
Pump System	MSI Hybrid-Triplex
Displacement Tanks	Two 12 bbl. with agitators
Power System	Cummins / Allison
Auxiliary Transmission	Eaton 2:1
Data Acquisition	Mobil Data Technologies™
Discharge Iron	2" 1502

2,000 HHP TWIN QUINTIPLEX PUMPS	
Total Output	2,000 HP
Pump System	MSI Hybrid Quintiplex
Displacement Tanks	Two 12 bbl. with agitators
Power System	Cummins / Allison
Auxiliary Transmission	Eaton 2:1
Data Acquisition	Mobil Data Technologies™
Discharge Iron	2" 1502

Viking Coil Tubing's fleet includes Stand-Alone Frac Pumps with hydraulic fracturing capabilities. The Stand-Alone Frac Pump is commonly used for pumping down perforating guns, injectivity testing, acid pumping, opening a wet shoe, and pressure activating a toe trigger.



2,500 HHP FRAC PUMPS	
Total Output	2,500 HHP Pump
Pump System	SPM Quintiplex
Displacement Tanks	One 15 bbl. with fluid jet
Charging System	Dual GD™ 5" x 6" Centrifugal Pumps
Power System	MTU / Allison
Data Acquisition	Mobil Data Technologies™
Discharge Iron	3" 1502



Through its Thru Tubing Division, Viking Coil Tubing offers a full range of down hole tools for well completion and intervention applications. Viking Coil Tubing employs high performance down hole tools, and ensures their reliability through in-house quality control equipment and procedures.

VCT THRU TUBING OFFERS THE FOLLOWING TOOLS:

- 1.69" – 2.12" – 2.88" – 3.12" – 3.75" Even Wall Down Hole Motors
- Junk Mills, Rock Bits, and Drag Bits
- Dual Acting Hydraulic Jars and Intensifiers
- Down Hole Agitators
- Composite Frac Plugs, Cast Iron Plugs, and Setting Tools
- TCP and Logging Conveyance Tools
- Dual Acting Impact Hammers
- Conventional Overshots
- Short Catch Overshots
- Hydraulic Releasing Overshots
- Internal Hydraulic Releasing Spears
- Internal, External, and Screw Type Wireline Spears
- Venturi Reverse Circulating Junk Baskets
- Flow Thru Fishing Magnets
- Washover Pipe and Accessories
- Conventional and Spinning Wash Tool Assemblies

VCT THRU TUBING OFFERS THE FOLLOWING QUALITY CONTROL EQUIPMENT:

- Torque Machine
- Pressure Test Stand
- Dynamometer
- Jar Tester



NITROGEN SERVICES



Viking Coil Tubing offers nitrogen pumping and transportation services. Nitrogen services are used in a variety of intervention, completion, and industrial applications. Nitrogen services are also used as a powerful tool in well stimulation, such as hydraulic fracturing, and acidizing.

COIL TUBING SUPPORT APPLICATIONS:

- Milling and Drilling with N2 Foam
- Sand Clean Outs with N2 Foam
- Jet Lifting and Fluid Displacements
- Nitrified Acid Treatments

INDUSTRIAL APPLICATIONS:

- Pipe Line Pigging and Purging
- Industrial Facility Purging and Pressure Testing

PRESSURE PUMPING APPLICATIONS:

- Energized Frac Treatments
- Energized Acid Treatments
- Chemical Displacements
- Nitrified Mud Sweeps for Cementing

180K NITROGEN PUMP UNITS

Vaporizer	Heat Recovery
Pump	ACD Cryo Triplex
Cold Ends	1.625"
Max Working Press	10,000 psi
Max Rate	3,000 SCFM
LN2 Capacity	3,000 Gallons



660K NITROGEN PUMP UNITS

Vaporizer	Direct Fire
Pump	Model 3-SLS Triplex
Cold Ends	2.5"
Max Working Press	10,000 psi
Max Rate	9,000 SCFM
LN2 Capacity	3,000 Gallons



NITROGEN TRANSPORT TRAILERS

Capacity	7,600 Gallons
Transfer Pump	3"x4" Cryo Centrifugal Transfer
Working Pressure	45 psi



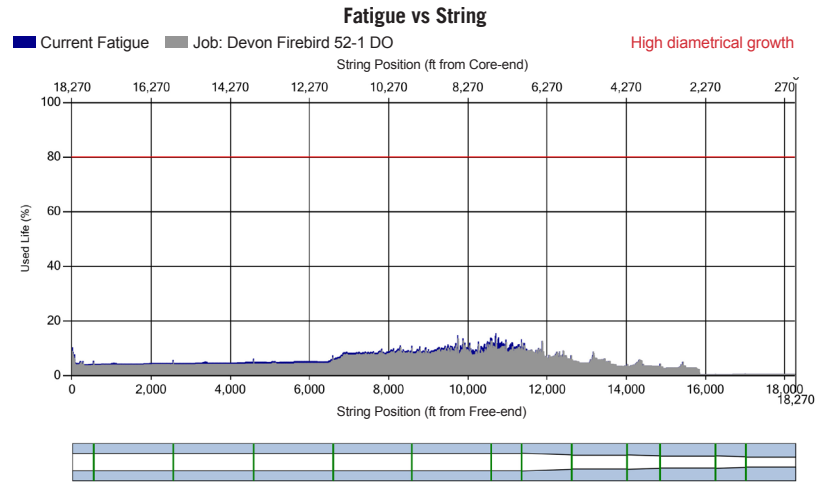
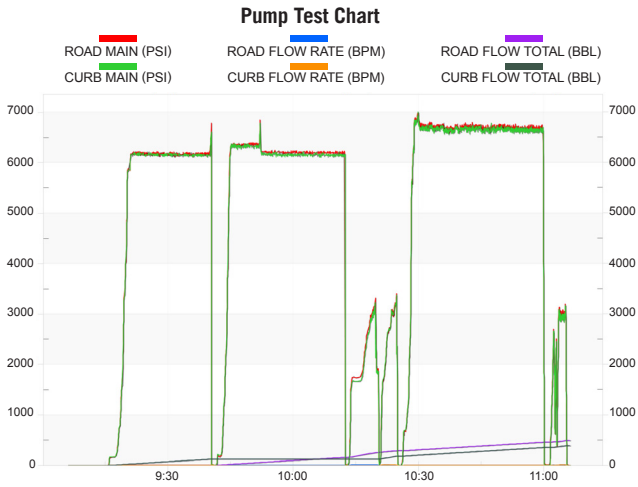
NITROGEN QUEEN TRAILER

Capacity	23,000 Gallons
Working Pressure	90 psi





Viking Coil Tubing provides its customers with a qualified staff of petroleum and mechanical engineers to optimize intervention and completion operations. Viking Coil Tubing's engineers utilize Cerberus™, Orion™ and SolidWorks™ computer software to assist in operational and equipment development.



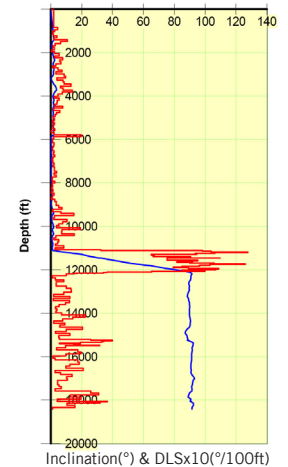
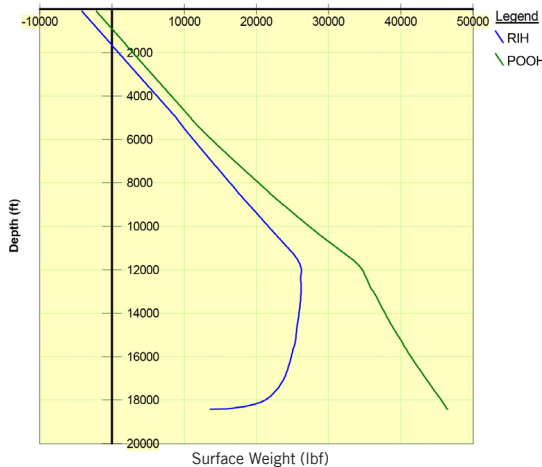
DATA ACQUISITION:

Viking Coil Tubing employs state of the art data acquisition systems which help reduce costs, extend coiled-tubing life, and improve personnel safety. Each coiled tubing unit is equipped with Cerberus™ modeling software which monitors coiled-tubing fatigue, downhole forces and parameters, and hydraulic pressures. The Orion™ data acquisition system records coiled-tubing depth, speed, weight, wellhead pressure and tubing pressure. Real-time monitoring enables adaptability at the well site to reduce non-productive time for our customers.

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Reaching Depth

RIH and POOH between 0 ft and 18431 ft



- B1** ■ RIH: CT and BHA can reach the target depth of 18431 ft
 - no lockup detected
 - BHA stress limit not exceeded
 - pipe yield limit not exceeded
 - no catastrophic buckling detected
 - pipe collapse limit not exceeded
- B2** ■ POOH: CT and BHA can be retrieved to surface from the target depth of 18431 ft
 - pipe yield limit not exceeded
 - pipe collapse limit not exceeded
 - BHA stress limit not exceeded
- Tractor Requirements**
- TR1** ■ No tractor pull is needed for the BHA to reach target depth of 18431 ft with the current input parameters.
- Workstring Status**
- T6** ■ The maximum workstring* OD is 2.000 in, and minimum well ID is 3.920 in at 11360 ft. (*CT and BHA)
The minimum workstring clearance is 0.960 in either side, or 1.920 in total.



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