

Western Wireline

Ventura

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Ventura, CA 93001
(805) 641-0700**

Bakersfield

**4000 Alken St
Bakersfield, CA 93308
(661) 589-4918**



www.westernwireline.com

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B – S.A.F.E.

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Slickline Services

Slickline Depth Measurement

Well Gauging

Bailing

Tubing Plugs, Standing Valves,

Downhole Chokes

Electronic Memory Survey

Cutting Paraffin & Scale

Wireline Fishing

Tubing Testing & Hydraulic Packer

Setting

Bottom Hole Fluid Sampling

Kinley Power Tools and Calipers

SCSSSV & SSSV Installation &

Repair

Gas Lift

Memory Logging Services

Pull and Set Jet Pumps

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Cased Hole Services

Logging

Perforating

Plugs and Packers

Pipe Recovery

**Casing and Tubing
Inspections**

Completion Services

Surface and Downhole Flow Control

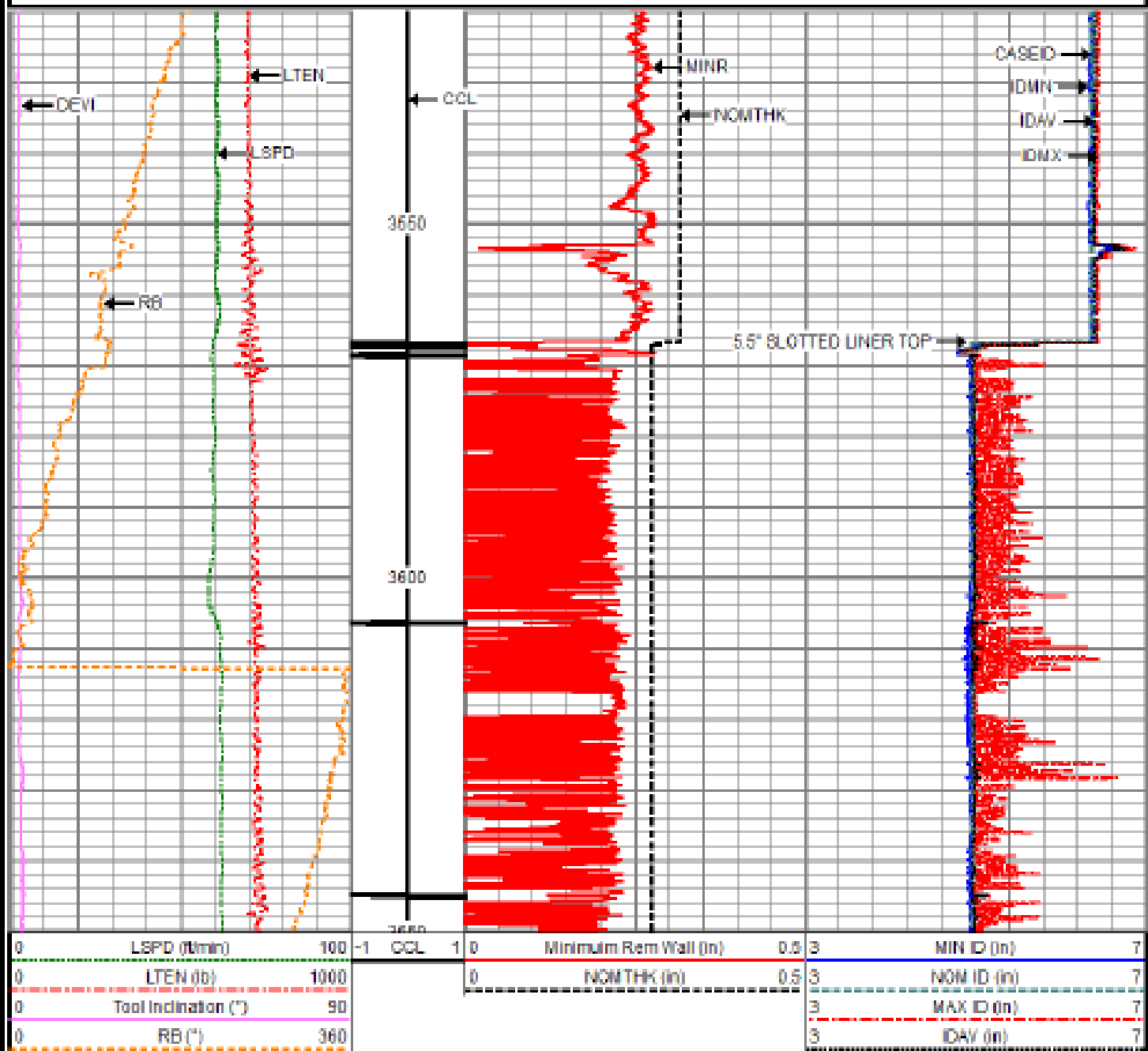
Gate Valve Drilling and Hot Tapping

Gas Lift

Waterflood

CASING INSPECTION LOGGING

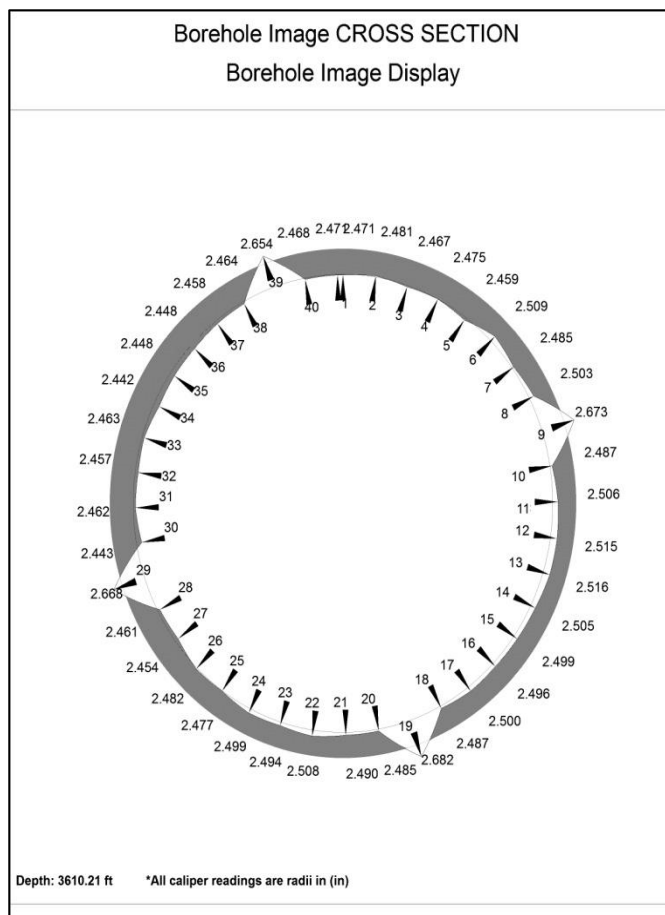
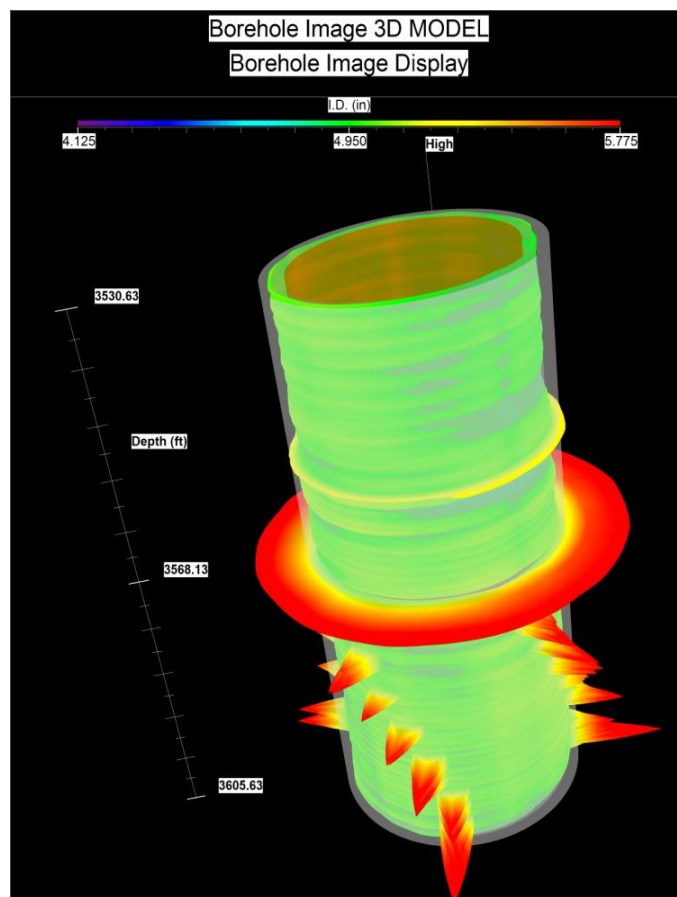
0	LSPD (ft/min)	100	-1	CCL	1	0	Minimum Rem Wall (in)	0.5	3	MIN ID (in)	7
0	LTEN (lb)	1000				0	NOMTHK (in)	0.5	3	NOM ID (in)	7
0	Tool Inclination (°)	90							3	MAX ID (in)	7
0	RB (°)	360							3	IDAV (in)	7



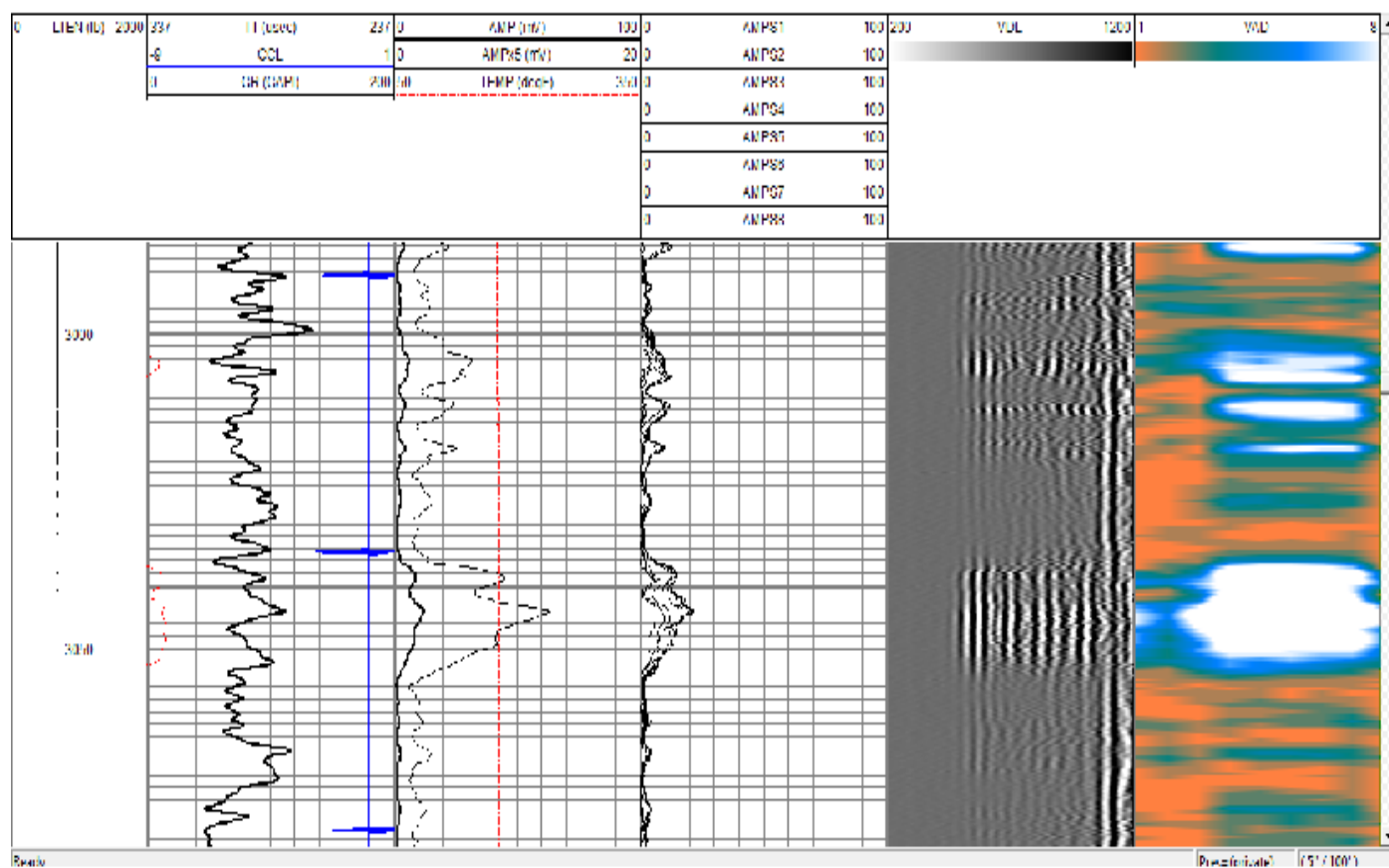
Casing can be inspected Using a variety of means.

**With 24, 40 and 60 Arm
tools,
Casing sizes ranging from
3.5" ID up through 9.625"
ID can be logged.**

**The caliper tools can be
run in conjunction with the
Magnetic Inspection tool
to log casing wear and
damage not only internally,
but externally as well.**



Radial Cement Bond Log



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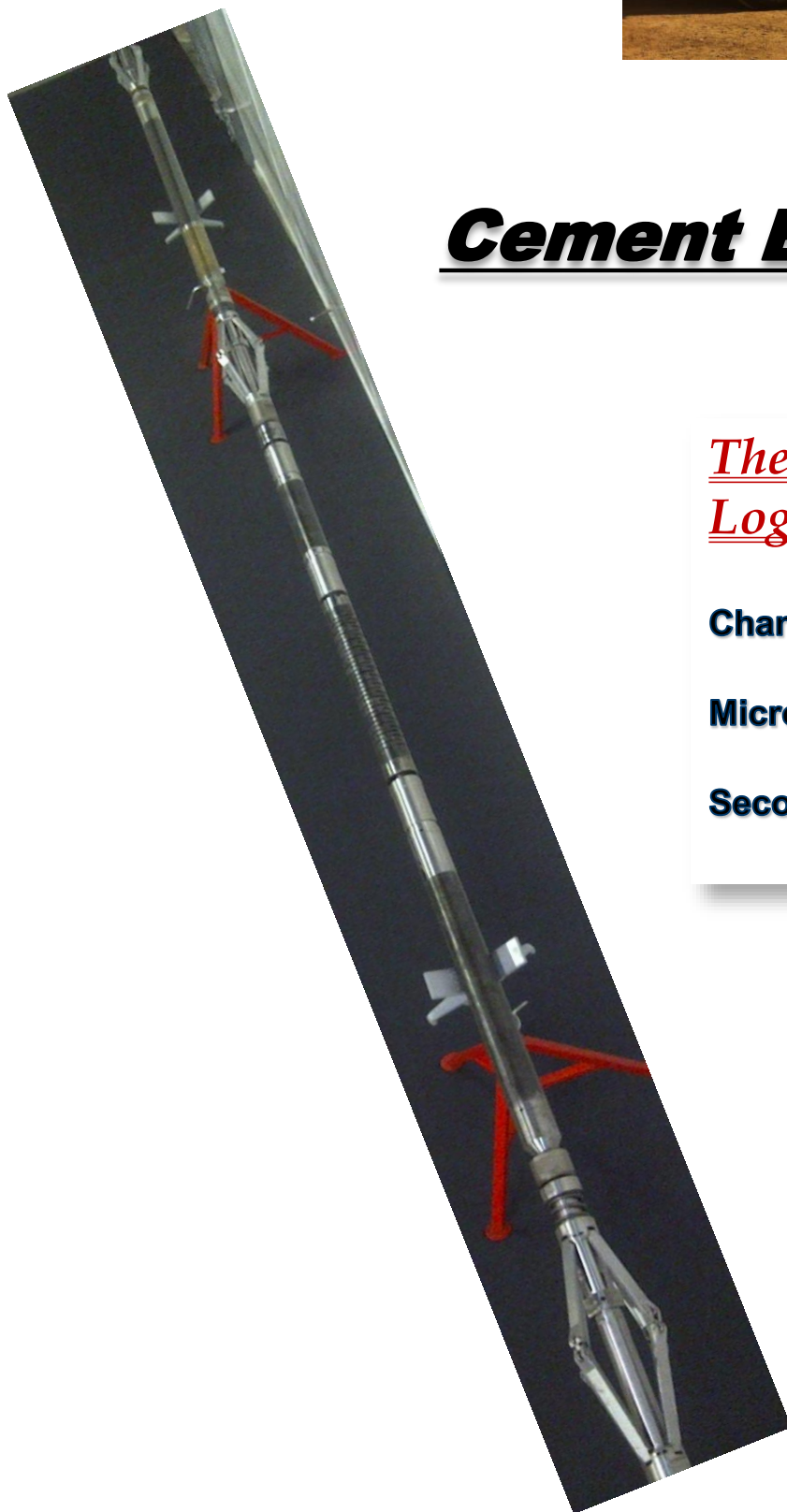
Cement Bond Logging

The Radial Cement Bond Log can detect:

Channeling

Micro-annulus

Secondary Channeling

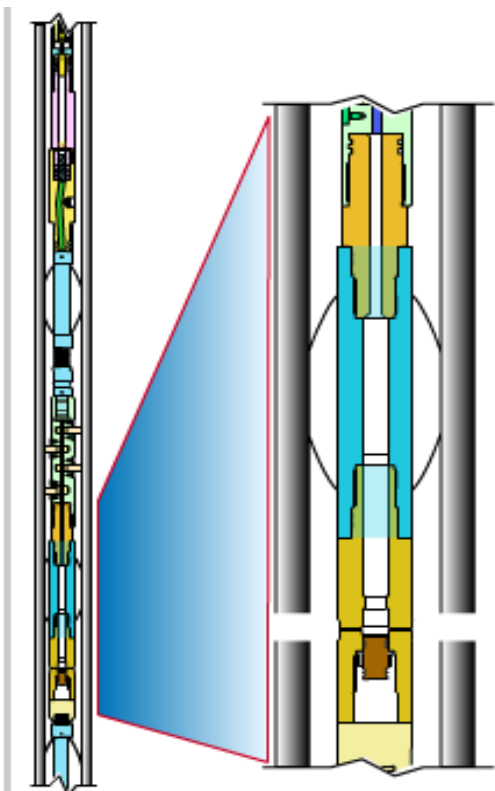


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Pipe Recovery



Chemical Cutter



7" Chemical Cut

Free Point Indicator

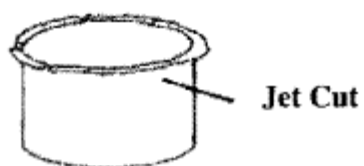
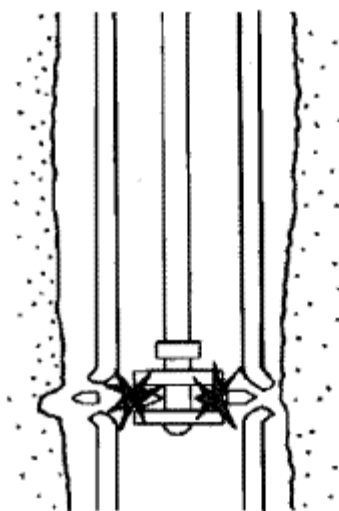


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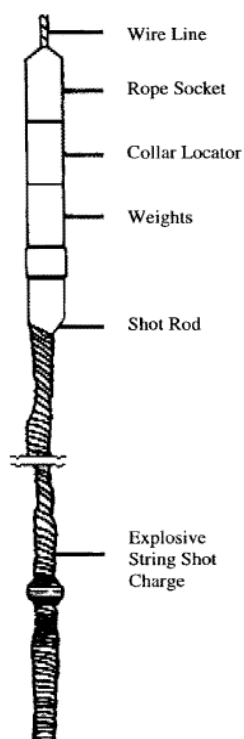
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Pipe Recovery

Jet Cutter



BACKING-OFF THE PIPE



String Shot Back Off



RADIAL CUTTING TECHNOLOGY

MCR's Radial Cutting Torch™ tool is the safest and most efficient pipe cutting device available in the industry. Based on patented cutting technology, MCR's Radial Cutting Torch tool, or **RCT™** tool, is used to sever tubing, casing, drill pipe, and coiled tubing without the use of explosives or hazardous materials, making it one of the safest pipe cutting tools on the market.

ADVANCED TECHNOLOGY

The patented nozzle and proprietary mixture of various powdered metals produces jets of highly energized plasma to cut virtually any type of pipe in any well condition. Because RCT cutting technology does not use explosives or hazardous chemicals, the tool can be shipped almost anywhere in the world within 24 hours, saving significant time and associated costs, while remaining compliant with safety regulations.

SUPPORTING TOOLS

- Electro-Mechanical Anchor (EMA)
 - Anchors during cutting operation
- Generator Safety Sleeve (GSS)
 - Safely dissipates all Thermal Generator energy in the event of operator activation error on surface
- Remote Firing Mechanism (RFM)
 - Data logging tool and firing system
 - Safely enables all MCR systems on coiled tubing, slickline and pipe

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24/7 SERVICE + SUPPORT + SOLUTIONS

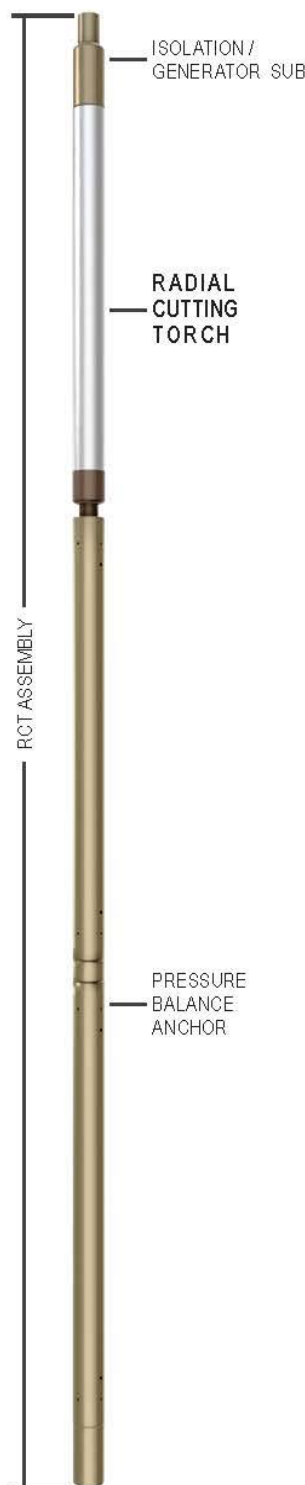
[tech assistance] tel. (TOLL FREE): +1 800 538 2338 » tel: +1 817 701 5100 [website] www.mcroiltools.com

[sales] EMAIL: sales@mcroiltools.com » tel. (DIRECT): +1 817 704 6661 » fax: +1 817 701 5105

UP TO



UP TO



OPERATION

MCR's Radial Cutting Torch assembly is lowered into the well until the desired depth is reached. MCR's **Thermal Generator™ (THG™)** activator activates the primary fuel load; highly energized plasma is produced causing an increase in internal pressure. Once the pressure produced inside the torch exceeds that of the well bore, the protective sleeve is displaced exposing the nozzle to the well bore. Plasma exits thru the nozzle to sever the target in drilling, completion, production, or recovery scenarios, within wellbore temperatures up to 500°F (260°C) and pressures up to 10,000 psi (69 MPa).

RCT tools are available for

- Standard severance applications
- Undersized for restrictions
- HT environments
(XRT™ Radial Cutting Torch tool series for HPHT deployments)*
- Cutting up to 9-7/8" casing
- Custom tools available

Non-hazmat rated RCT tools currently available

- RCT-SP series of torches.

*XRT Radial Cutting Torch tool systems are capable of pressures up to 30,000 psi (207 MPa). Contact MCR for system details.

BENEFITS

- Non-Explosive
- Radio Safe
- Operates in temperatures to 500°F (260°C) & pressures up to 10,000 psi (69 MPa)
(see XRT tool systems for HPHT requirements)
- Cuts all steel, high chrome, plastic coated tubulars, Inconel®, Monel®, Hastelloy® and exotic pipe
- Non-hazmat fuel systems available†
- Cuts are flare-free and do not produce swelling
- Cuts in fluids or dry pipe, heavy drilling fluids
- Deployable within hours not days
- Minimizes downtime and associated costs
- Approved for all methods of transport



†Radial Cutting Torch tools available as hazmat & non-hazmat

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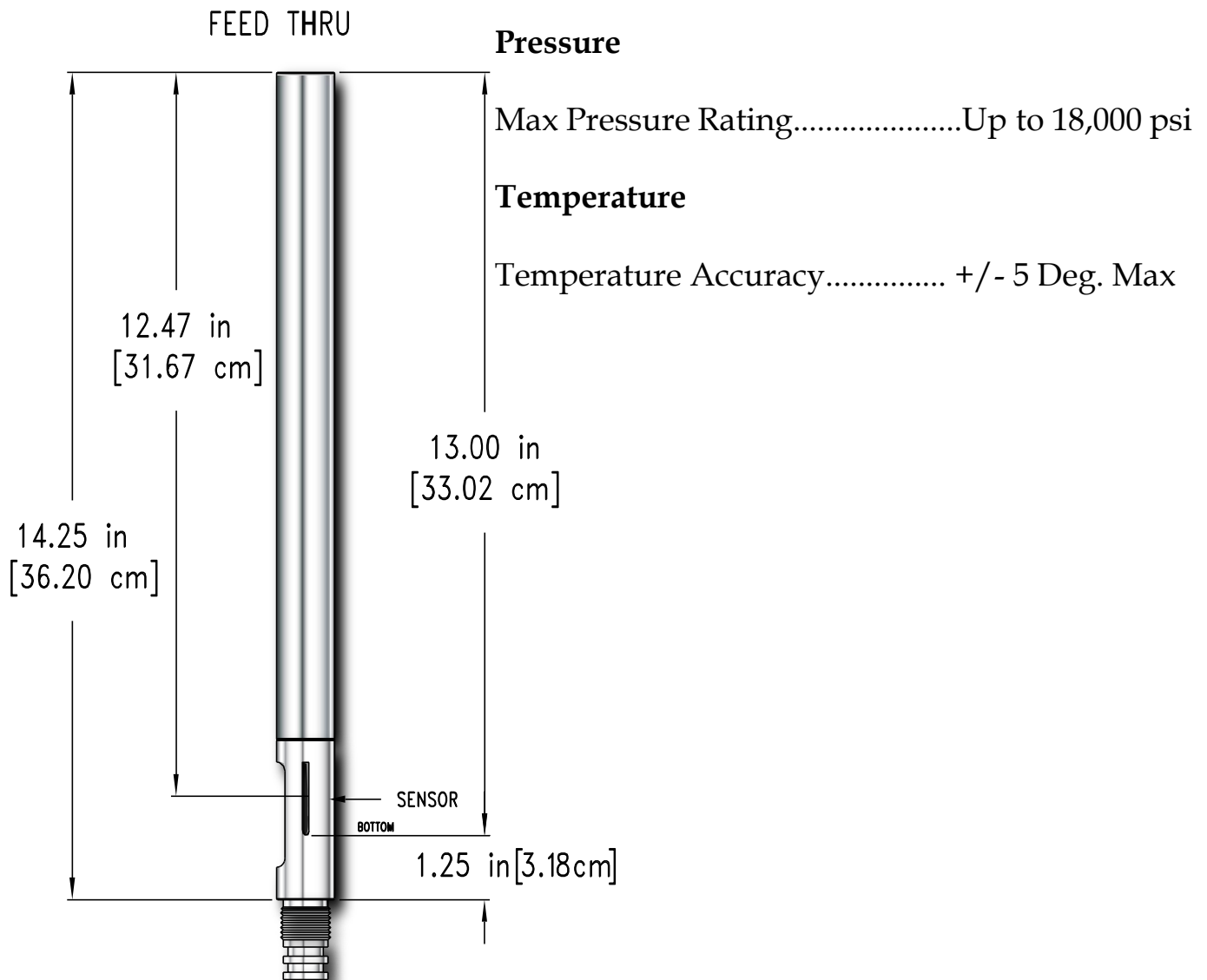
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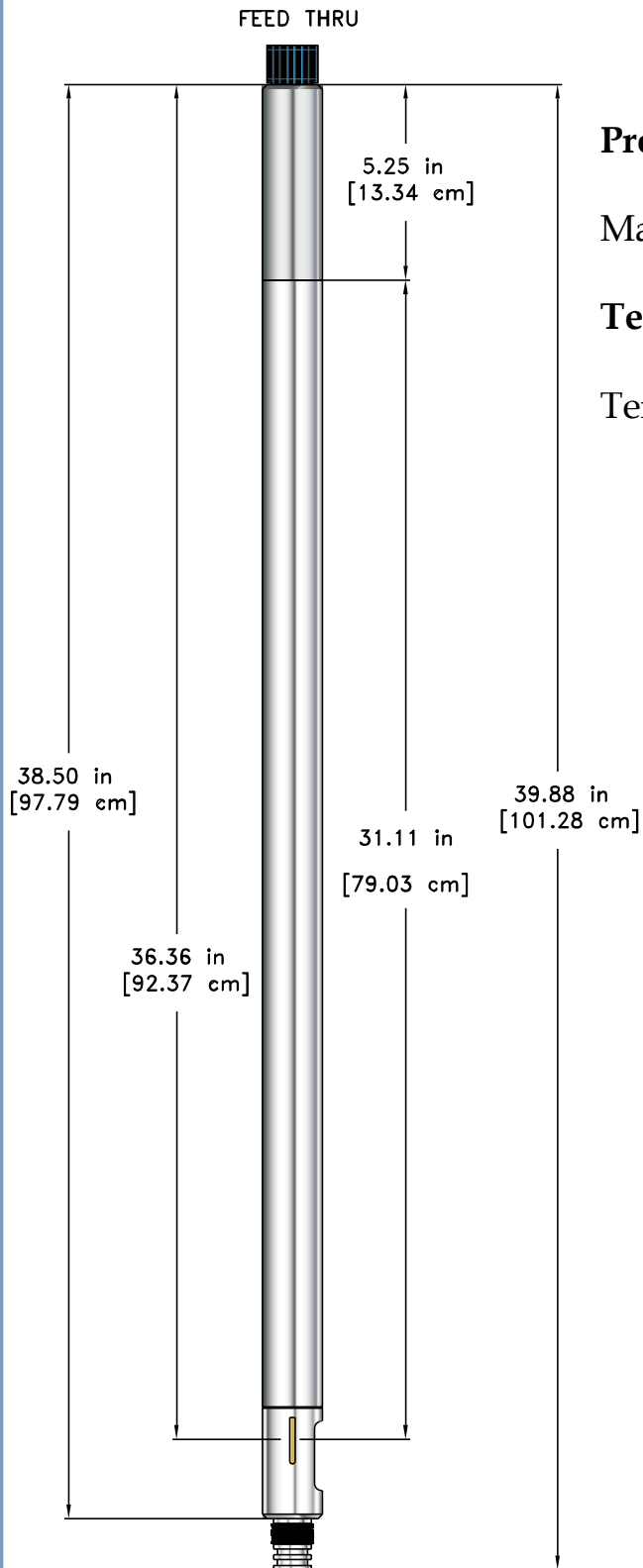
Temperature Observation

1-3/8" OD 400°



Temperature Observation

1-11/16" O.D 500°



Pressure

Max Pressure Rating.....Up to 18,000 psi

Temperature

Temperature Accuracy..... +/- 5 Deg. Max

Temperature Observation

Pressure/Temp Spinner 600°



Pressure..... Up to 5,000 psi

Pressure Accuracy.....0.024%F.S.

Pressure Resolution.....0.0003%

Temperature

Temperature Accuracy..... 0.15%F.S. Temperature

Resolution.....0.002%F.S.

Down hole time.....6 hours @ 300°C

Capillary Tubing Pressure Monitoring



This system allows for many different installations configurations, like running them on the tubing string as a semi permanent installation to get bottom hole pressure (BHP) to depths up to 17K feet. This system can also be combined with a temperature device such as Thermocouple or Optical Fiber allowing you to get both pressure and temperature at the same time. We have installed combination tubing consisting of 1/4" capillary tubing with a smaller thermocouple tube on the inside. The type of system works very well for high temperature applications where no other electronic device will hold up.

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Pressure Control



Profile Nipples

X Profile Nipples

XN Profile Nipples

1.875"

2.313"

2.750"

2.813"



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Pressure Control



Landing Nipples Controls

Back Pressure Valve Plugs

Blanking Plugs

Test Plugs



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DW Plug



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Kinley Perforator



Sand line Cutter



Completions

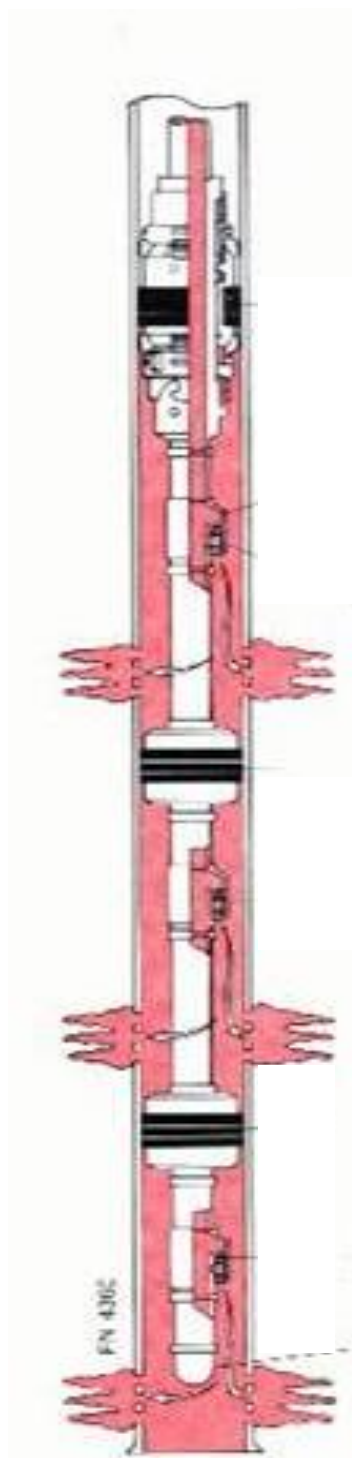
Water Flood

Single String Multiple Zone Injection

Side Pocket Mandrels

Flow Regulators

Orifice Valves



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Completions

Gate Valve Drilling and Hot Tap Services

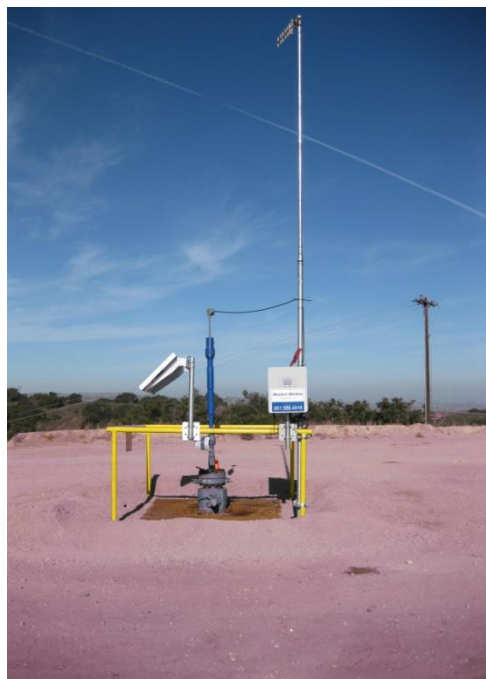


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Real Time Reservoir & Lift System



Monitoring

*Real Time Surface on Bottom
Hole Pressure & Temperature.*

*Monitoring From Your Desk ,
I_Pad, And I_Phone .*

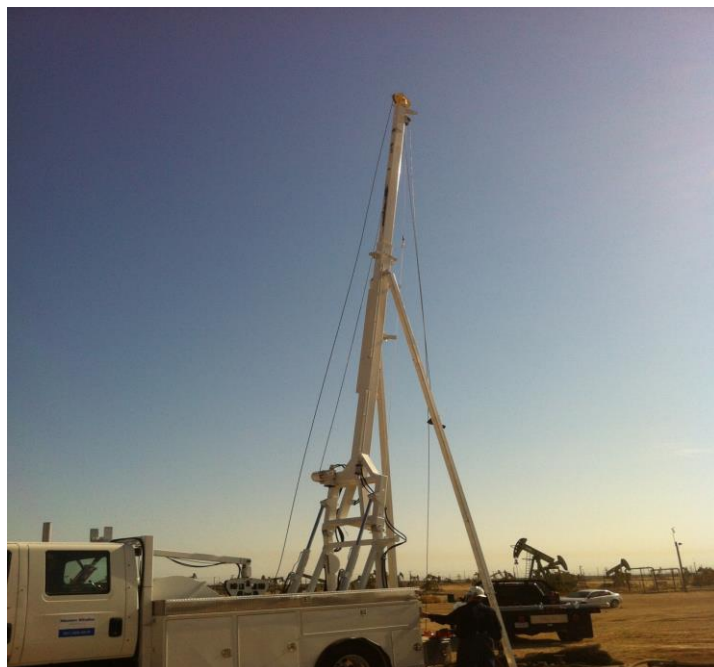
Step Rate Testing

*Rate, Surface, Subsurface
Pressures*

Real Time At Your Desk

Pressure Transient Testing

Real Time At Your Desk





*Call Western Wireline
For Your Well Service Needs*

*Bakersfield
661-589-4918*

*Ventura
805-641-0700*