



Our History

25 years of evolution

1997



KODIAK FOUNDED

Kodiak founded in 1997 as an Slickline service provider in Alberta Canada

2005



STARTED WIRELINE DIVISION

Mr. Joe Hickey, current President and CEO of the company started Wireline division and came in as a partner

2013



FIRST INTERNATIONAL VENTURE

After establishing a solid company in Canada, Kodiak starts first international venture in Colombia and kicks off operations in April 2014

2016



EXPANDING INTO MEXICO

Mr. Luis Diaz joins Kodiak to continue managing and growing the Colombian operations and started expansion into Mexico

2017...



USA and NEW PRODUCT LINES

Kodiak sees the opportunity in the pump down market and also creates three new strategic divisions: Manage Pressure Drilling, Testing, Fluid Management and more....

Mision and Vision Statement

▶ MISSION STATEMENT

Kodiak provides a wide range of oilfield services with highly trained personnel which enables us to deliver customizable solutions to optimize the success of exploration, completion and production of oil and gas wells. We are committed to offering exceptional value by providing practical and cost effective solutions focused on the specific needs of our customers.

▶ VISION STATEMENT

To continue to build our presence globally, by diversifying our service line and product portfolio thereby expanding our ability to deliver customized, value add solutions to our customers. We achieve this through strategic growth in current markets and emerging opportunities; combined with continuous improvement to our operational efficiency and asset utilization.



Corporate Values - SUCCESS



SAFETY



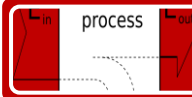
UNIQUENESS



COLLABORATION



CREATIVITY



EFFICIENCY

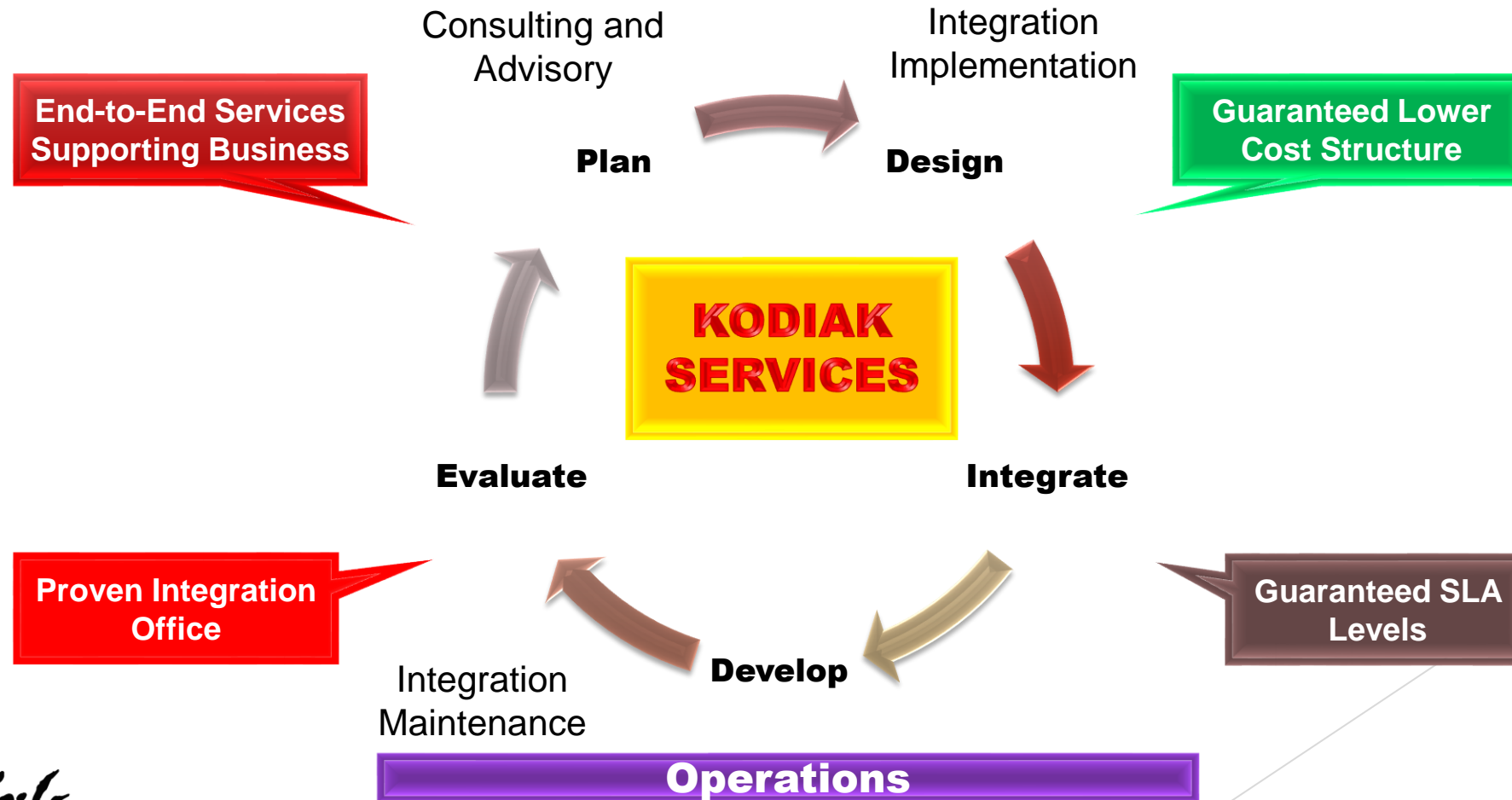


SUSTAINABILITY

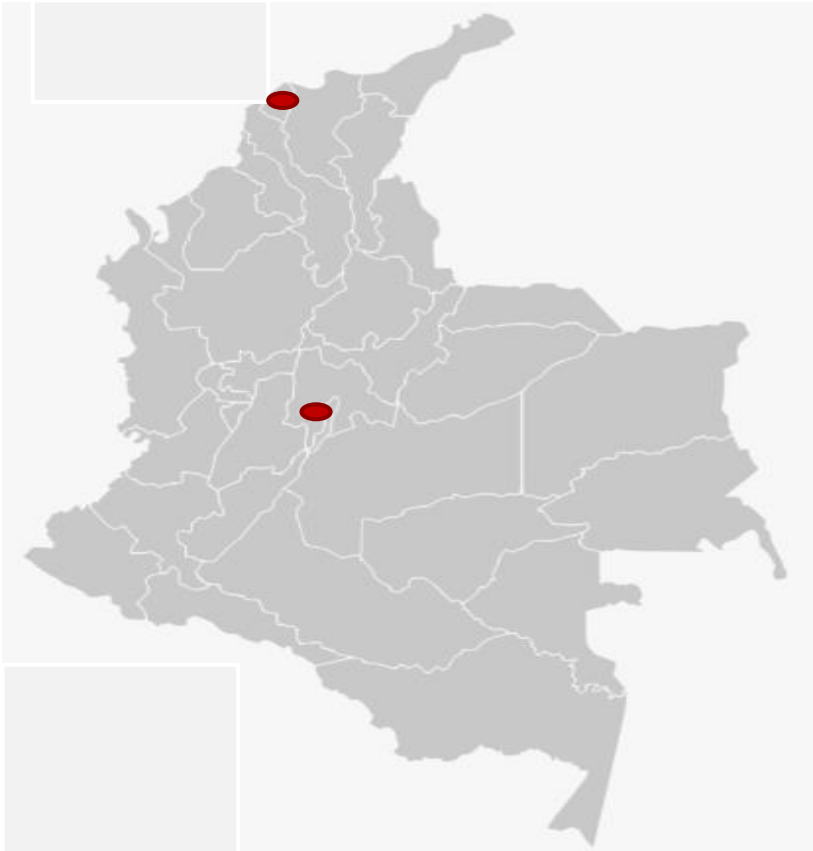


SERVICE

SQ – Project Involvement Cycle



Operating Base and Office – Colombia HQ



- Barranquilla, Atlántico
 - Zona express - CALLE 103 # a 8e-CL 47#81
- Bogota, Cundinamarca
 - ✓ Calle 124 #7-35 Of. 502

Kodick

Operational Experience...



Gas fields, high pressure operations, tailored solutions



Specialty pressure equipment, specialty services



Lewis Energy Colombia, Inc.®

Gas fields, high pressure operations, tailored solutions



Oil/Gas fields, remote operations, tailored solutions



Remote operations, tailored perforating solutions

Kodick

Solutions

Kodick



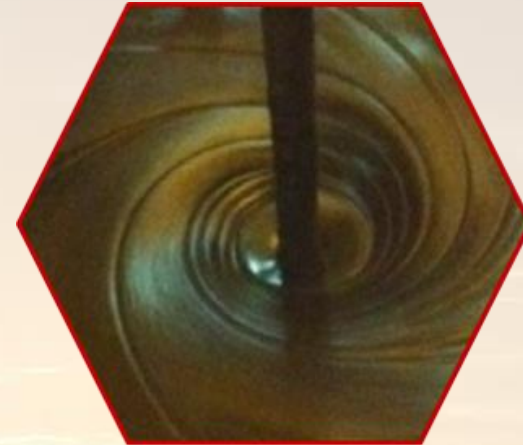
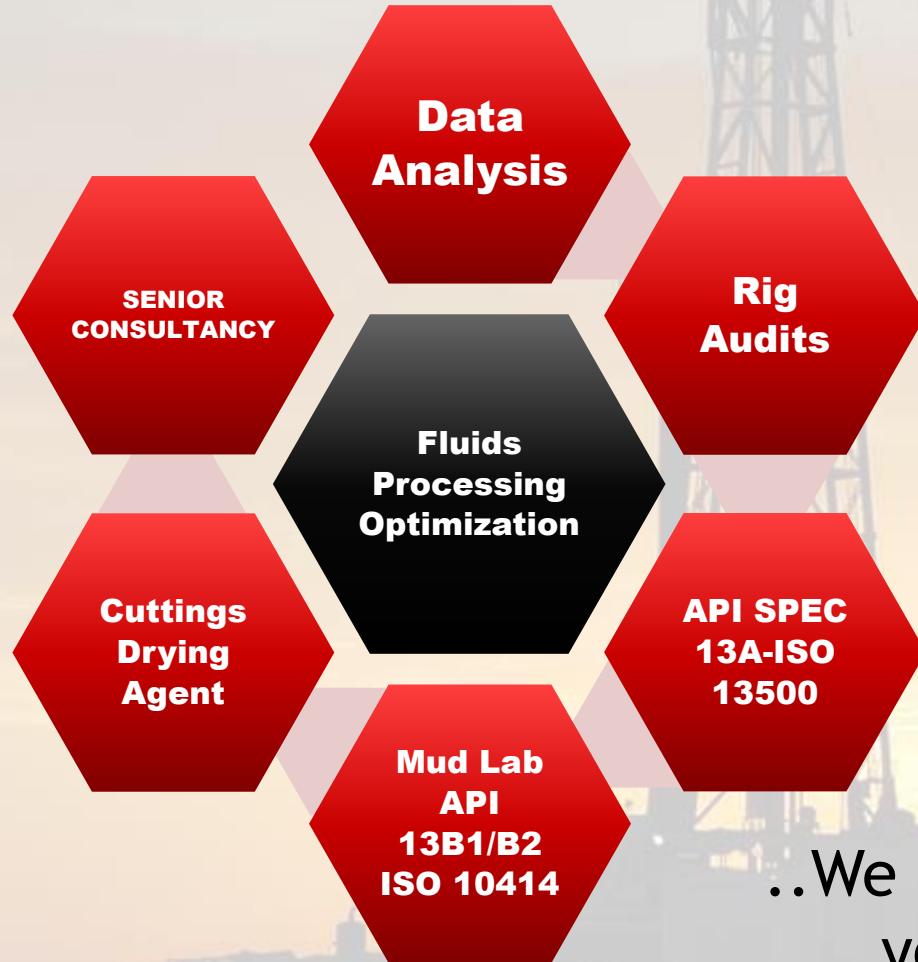
Portfolio of Solutions

- ✓ Fluids, Solids control and Cementation Consulting
- ✓ Cuttings Stabilizer
- ✓ Slickline / Braided Line / Wireline Interventions
- ✓ Pipe Recovery, Explosive and Non explosive solutions
- ✓ Wireline, TCP Perforating, Gas Gun, Remote triggers
- ✓ Tunnel PRO – Lateral Jet Drilling Treatment
- ✓ Cement Bond, Casing Thickness & Leak identification
- ✓ Shut in Tools, Surface and Downhole gauges
- ✓ Production Logs
- ✓ Magnetic Fluid Conditioner
- ✓ Completion Downhole tools & Accessories
- ✓ CARBIC – Satellite Monitoring Fluid system

Drilling Oriented

Kodiak

Fluids Processing Optimization



..We optimize fluid processing to reduce your waste stream and improve your drilling operations

DAK-1 Treatment



Standard Treatment



With DAK



- ✓ Environmentally Friendly
- ✓ No need of native soil
- ✓ Permanent solution

Wireline & Slickline/Braided Line Units

Kodiak

Specifications

- ✓ E-Line Drum 0.28" / 0.25" for Logging / Perforating operations
- ✓ 0.125" SS316 Slickline
- ✓ 1/4" Galvanized Braided Line
- ✓ Benchmark Digital Depth and Weight Systems
- ✓ As per standard working requirements for all environments

Availability

- 2 WIRELINE Units in Colombia
- 3 SLK/BL Units in Colombia



Pipe Recovery & Explosives Solutions



Large Operating Range:
1" CT up to 13 5/8 " Casing

Free Point:

- 0.75" OD / 500 degF
- 1.13" OD / 500 degF
- 1.44" OD / 375 degF

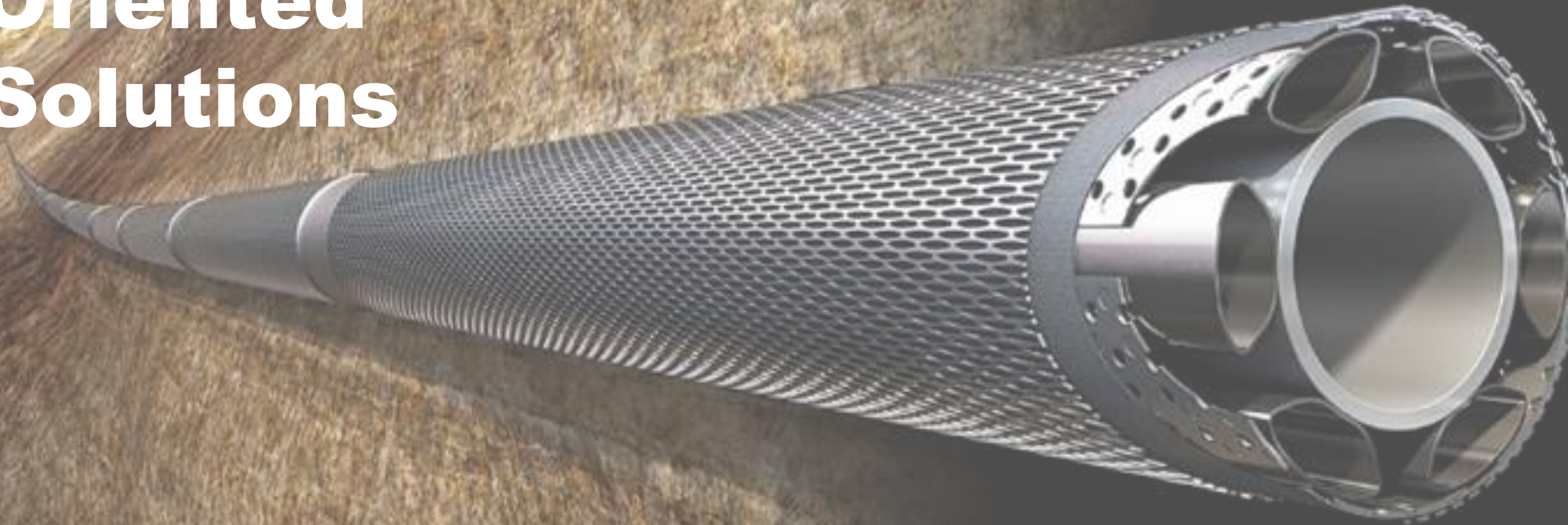
Explosive Cutters:

- Colliding Tool
- Split Shot
- Back off
- Jet Cutters



Completion Oriented Solutions

Kodiak



Solutions for Bridge Plugs, Cement Retainers and packer setting



- Different sizes of Setting Tools



Enhanced Oil Recovery

Kodiak



Tunnel PRO – EOR



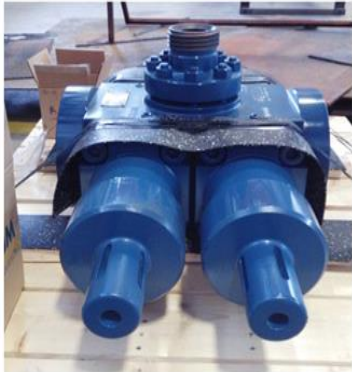
SERVICES

- Alternative well enhancement services centered around improvement and affordable lateral treatments.
- A viable alternative to traditional stimulation techniques.
- ✓ **HYDRAULICALLY DRILLED LATERALS WITH DIFFERENT GEOMETRIES IN BOTH CONVENTIONAL AND UNCONVENTIONAL RESERVOIRS**

- Lateral Jetting for Production increase on mature wells
- Well Cleaning
- Fracking Guidance through Lateral Jetting
- Water Injection improvement
- Direct reservoir treatment with Chemicals
- EOR Engineering Consultancy



▶ Riser



▶ B.O.P. – Blow Out Preventer



▶ Coil Assist



Tunnel PRO – EOR



What to Expect:

- ✓ Rigorous geoscience, engineering and economic analysis to explore the feasibility of the technology on certain reservoirs
- ✓ Portfolio and Technology to perform all involved services
- ✓ Teamwork with our customers to increase productivity, optimize operations and reduce total cost of ownership through game-changing technology, services, and innovative collaborative commercial models
- ✓ Tunnel Pro a FRAC LESS Solution

TUNNEL PRO

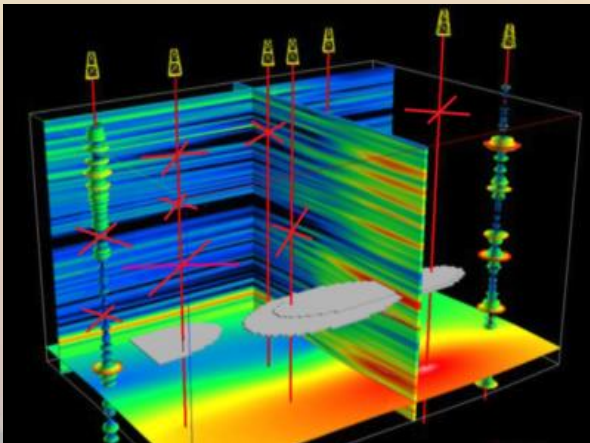
Technology designed for production enhancement of mature wells that can also be applied to new wells.

WELL CLEANING

Our well cleaning system is designed to deliver up to 16, 000 psi down a single hole. This cleaning process allows for a faster clean-out process.

FRACTURING GUIDANCE

The Laterals created helps the guidance of the fracking technology for the first 320ft after wellbore.



Production and Well Integrity

Kodiak

Perforating: Conventional / Gas Gun / T-T Guns

Kodiak

vs.

Hydraulic Fracturing

- Much lower cost
- Minimal vertical growth out of zone
- Multiple fractures provide superior near bore perm
- Fractures produced at every perforation
- Minimal equipment

vs.
Explosives

- No compaction zone
- Pressures last longer
- Energy not lost on crushing
- Maximum fracture penetration
- Used in casing
- Less clean-up
- Safer



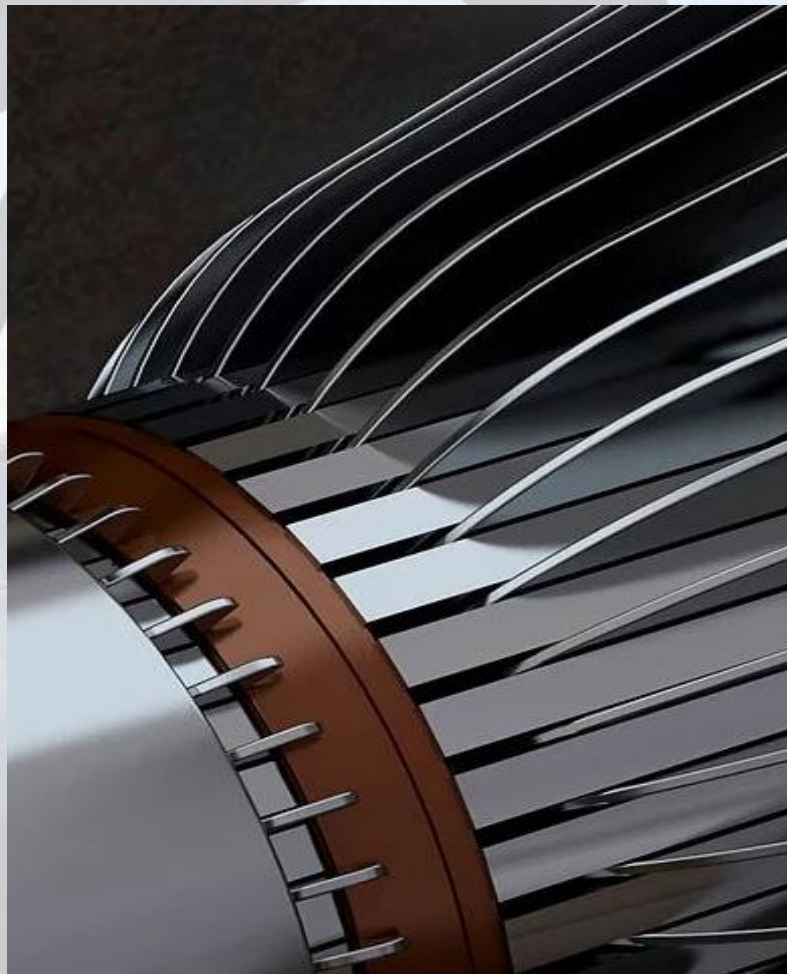
Well Integrity Evaluations



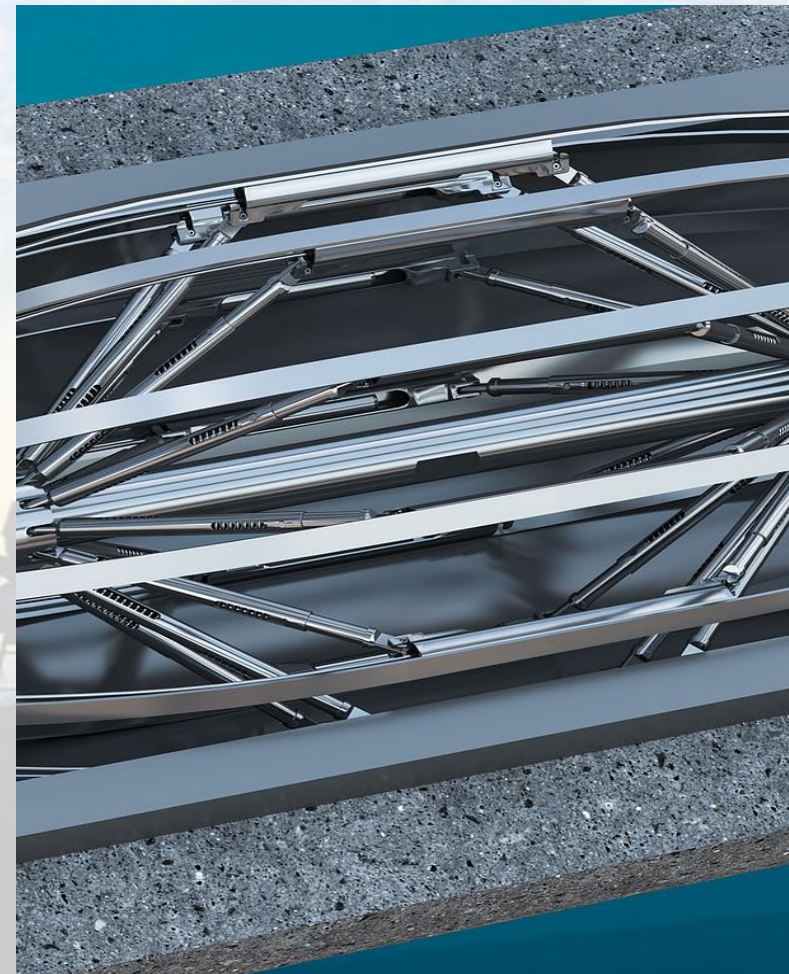
**Cement Bond Imager
Logs**



**Multifinger Caliper
Logs**



**Electromagnetic
Thickness Logs**



Radial Cement Bond Logging

Specifications

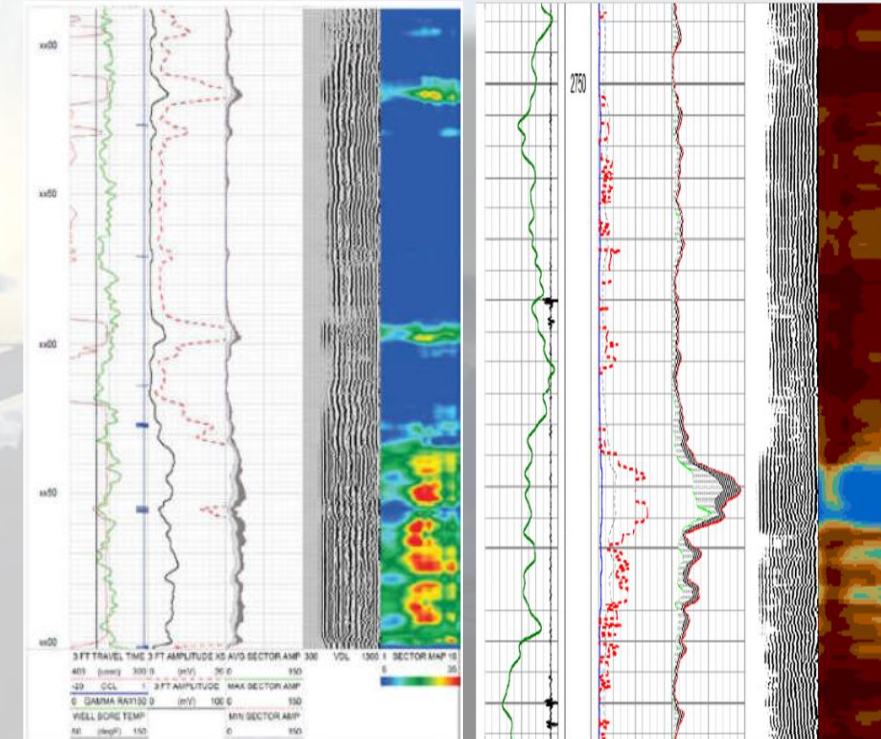


RBT Tool

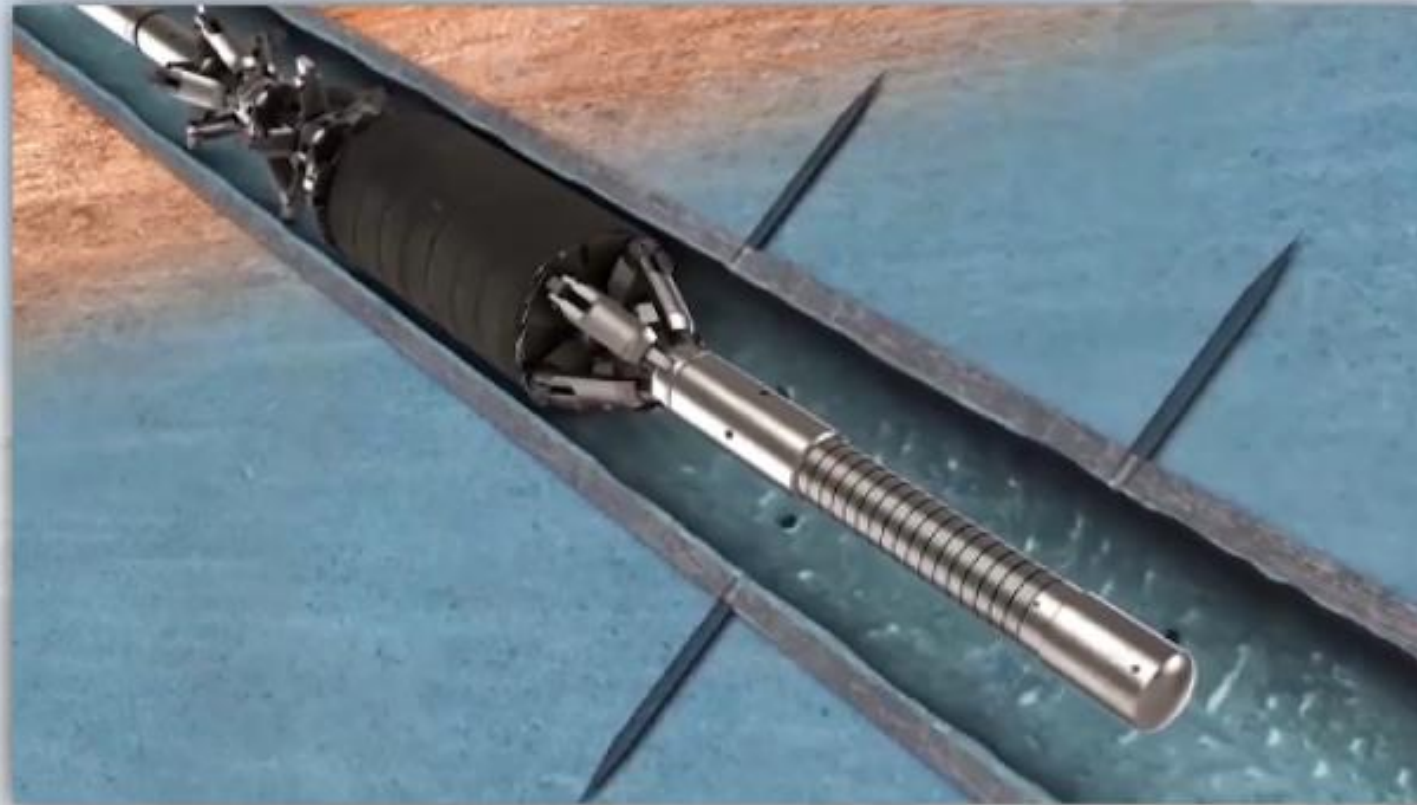
BENEFITS RIB & HD RIB

- Less fast formation interface in cement mapping
- 22.5° azimuthal resolution on cement maps
- Minimal flexing of tool body ensures optimum centralization in deviated well
- Temperature sensor allows real-time tool quality control
- VDL spacing ideal for large boreholes

	Radial Incremental Bond (RIB)		High Definition Radial Incremental Bond (HD RIB)	
	1-11/16 IN (43 MM)	2-3/4 IN (70 MM)	3-1/4 IN (83 MM)	4-1/2 IN (114 MM)
Measurements				
Vertical Resolution	1.5ft RIB 3 ft CBL and 5 ft VDL	1.5ft RIB 3 ft CBL and 5 ft VDL	1.5ft RIB 3 ft CBL and 5 ft VDL	3ft RIB 3 ft CBL and 6 ft VDL
Azimuthal Resolution	60 ° Cement map/ 6 Sector	45 ° Cement map/ 8 Sector	30° Cement map/ 12 Sector	22.5° Cement map/ 16 Sector
Logging Speed (ft/min)[m/min]	60 [18,3]	60 [18,3]	60 [18,3]	60 [18,3]
Environmental				
Temperature rating Standard (°F)[°C]	-25 to 400 [-32 to 204]	-25 to 400 [-32 to 204]	-25 to 400 [-32 to 204]	-25 to 400 [-32 to 204]
High Temperature (°F)[°C]	-25 to 450 [-32 to 232]	-25 to 450 [-32 to 232]	-25 to 450 [-32 to 232]	-25 to 450 [-32 to 232]
Pressure Rating (psi)[MPa]	20,000 [138]	20,000 [138]	20,000 [138]	20,000 [138]
Material	H ₂ S resistant construction	H ₂ S resistant construction	H ₂ S resistant construction	H ₂ S resistant construction
Mechanical				
Outside Diameter (in)[mm]	1.69 [42.9]	2.75 [69.9]	3.25 [82.6]	4.50 [114.3]
Max. Tension (lbf) [kN]	40,000 [178]	60,000 [267]	60,000 [267]	60,000 [267]
Min. • Max. Casng Size (in){mm}	2.38 [60]	4.50 [114]	5.50 [140]	8.63 [219]
Max. Casing Size (in)[mm]	5.50 [140] (RIB) 7.00 [178] (CBL/ VDL)	7.63 [194] (RIB) 9.63 [244] (CBL/ VDL)	10.75 [273] (RIB) 12.75 [324] (CBL/ VDL)	18.00 [457]



Thru Tubing Plugs and Dump Bailing Solutions



- ✓ Slickline / Wireline
- ✓ Non Explosive vented Thru Tubing Bridge Plugs
- ✓ Positive-sealing Elastomeric Plugs / High Differential Pressure Plugs
- ✓ Removable Plugs
- ✓ Non Explosive Positive Displacement Bailer Systems
- ✓ High Shear Bond Cement. 17 ppg, 70degF-350degF

Plug P/N	Casing Size	*T-TBP Length	*Run-In Diameter
0163-238-400-001-S1	2 3/8", 2 7/8", 3 1/2", & 4"	108 in.	1 5/8"
0163-450-700-001-S2	4 1/2", 5", 5 1/2", 6 5/8", & 7"	176 in.	1 5/8"
0163-763-001	7 5/8"	176 in.	1 5/8"
0200-963-001	9 5/8"	176 in.	2" & 2 1/4"

Non Explosive Punchers and Cutters

Kodiak



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

- Non-Explosive
- Radio Safe
- Operates in temperatures to 500°F (260°C) & pressures up to 10,000 psi (68.94 MPa)
- See XRT 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 muds and weighted drilling fluids
- Deployable within hours not days
- Minimizes downtime and associated costs
- Approved for all methods of transport



2-7/8" 8.7#
Hastalloy
RCT-1688-400 cut
@ 8,500 psi



5.00" 23.2#
13% Chrome
RCT-2937-300 cut
@ 5,600 psi 360°F



5-1/2" 26#
25% Chrome
RCT-3375-400 cut
@ 8,600 psi 360°F



1-3/4" Coil Tubing
0.120" wall thickness
RCT-0875-300 cut
@ 10,000 psi

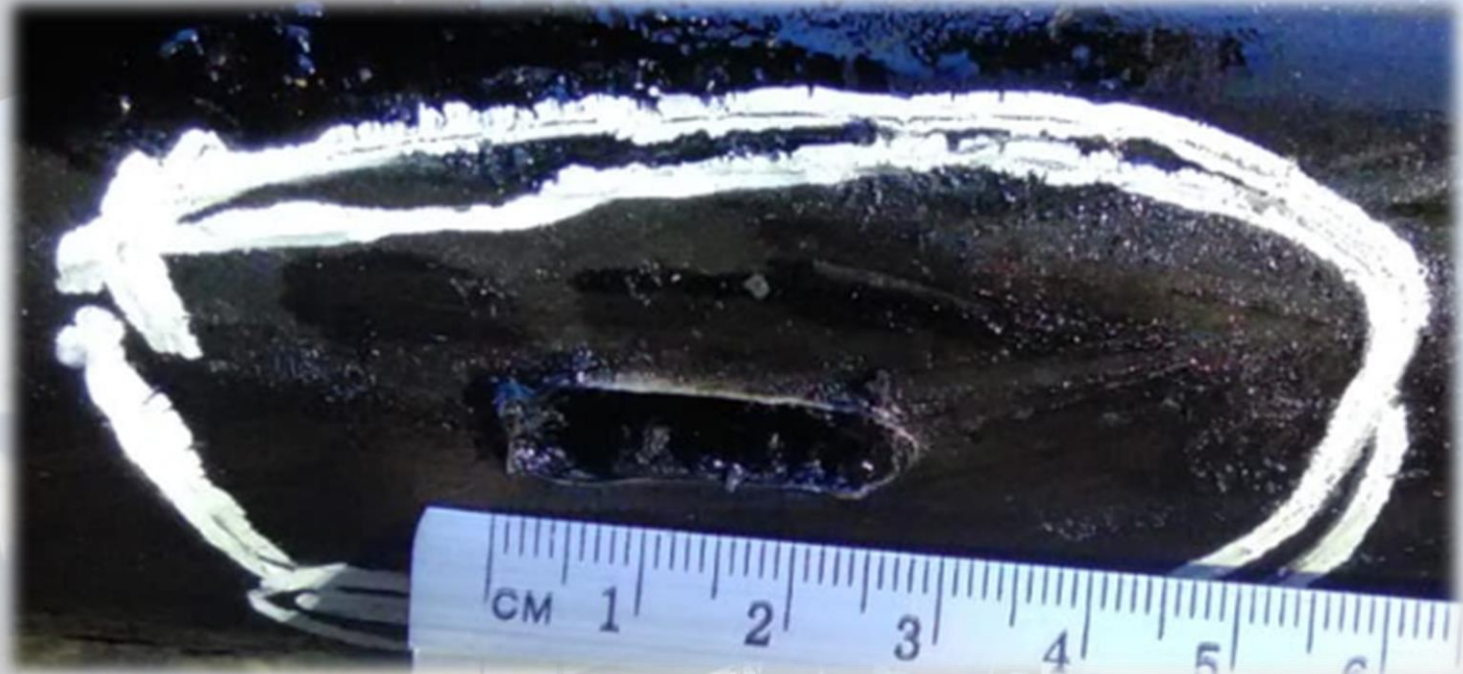
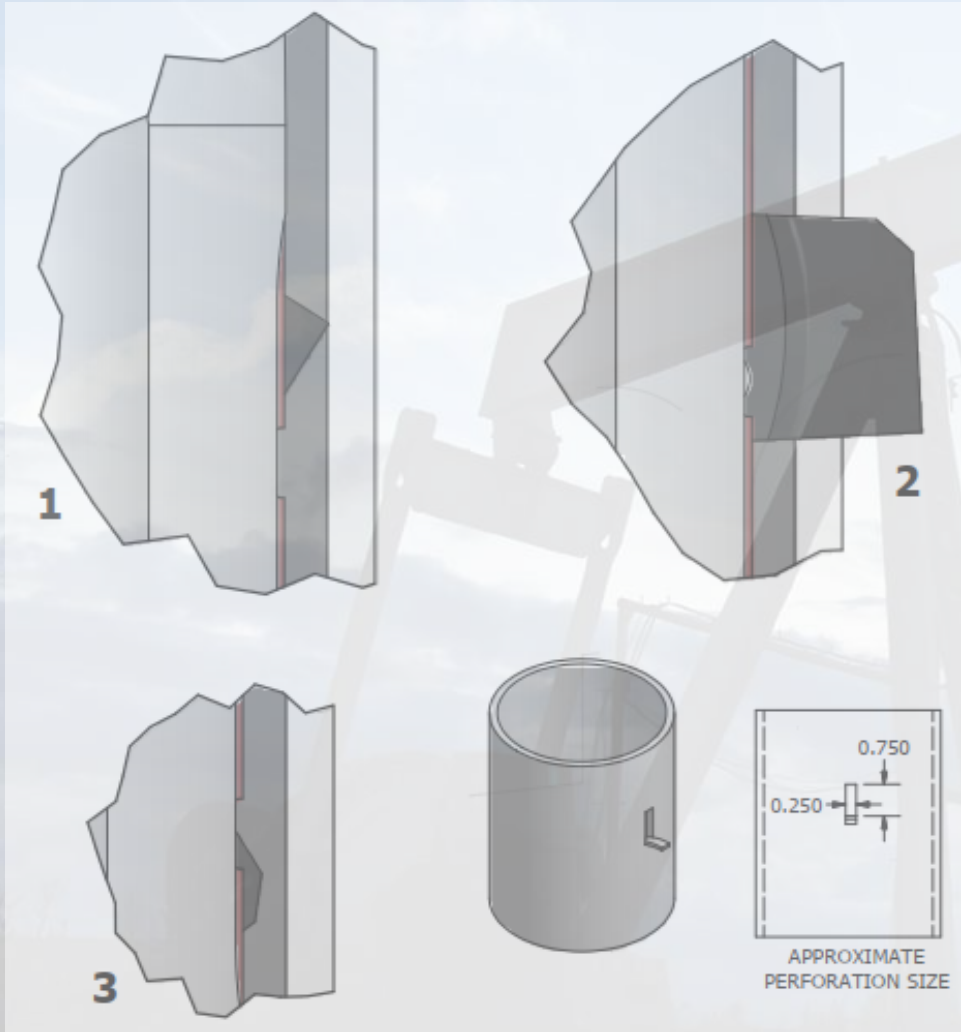


7-5/8" 33.7# L80
RCT-5000-300 cut
@ 8,400 psi



9-5/8" 59.4# L80
RCT-7000-300

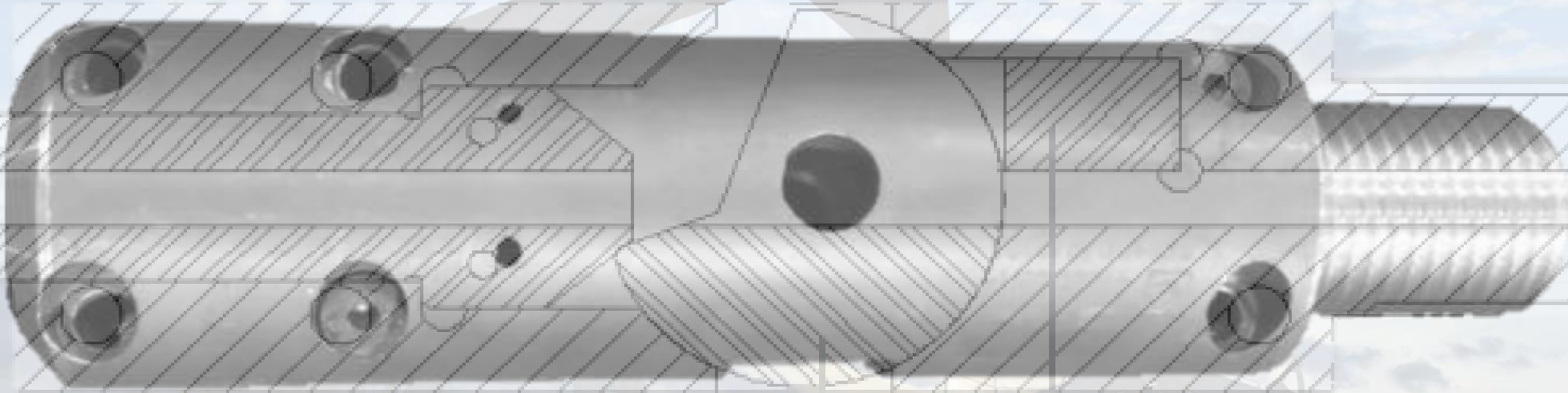
Heavy Duty Mechanical Punchers



All Tubing Types including P-110

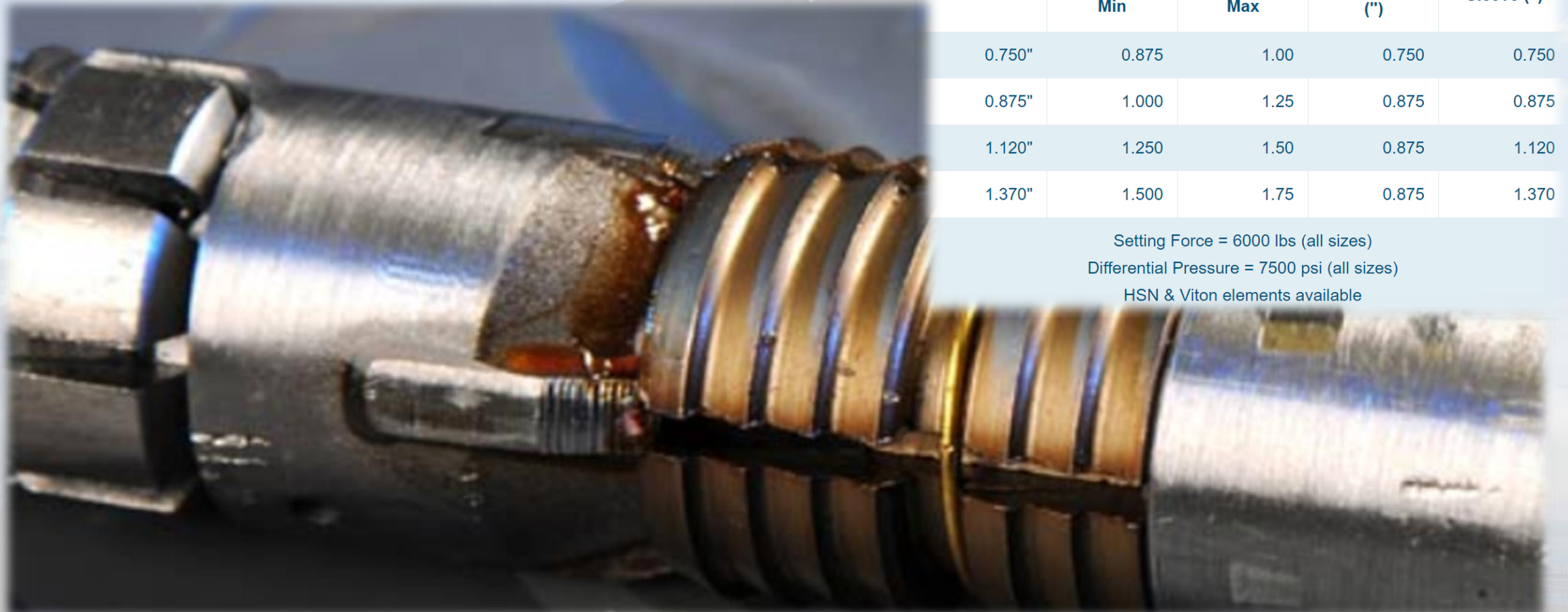
Heavy Duty Cable Cutters

Kodiak



- ✓ **Pressure Activated**
- ✓ **Mechanically Activated**
- ✓ **Up to 0.25" Line Size**

Coil Tubing Plugs

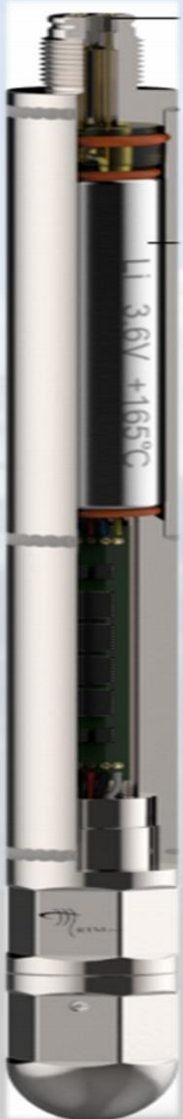


Plug Size	Setting Range Min O.D. (")		Wireline Setting Tool (")	Setting Sleeve (")
	Min	Max		
0.750"	0.875	1.00	0.750	0.750
0.875"	1.000	1.25	0.875	0.875
1.120"	1.250	1.50	0.875	1.120
1.370"	1.500	1.75	0.875	1.370

Setting Force = 6000 lbs (all sizes)
Differential Pressure = 7500 psi (all sizes)
HSN & Viton elements available

Ultra Reliable Gauges

Kodiak



Specification	
Battery Type	Lithium
Battery Capacity	13.0 A-h
Battery Voltage	3.67 V
Battery Life	4 years (Estimate based on average usage)
Memory Capacity	16 Million Samples
Sample Rate	1 Sample/Second to 1 Sample/Hour
Housing Material	17-4PH or 718 Inconel
Top Threaded	3/4 - 16 TPI (Amerada)



MECHANICAL

Standard Service	Oil / Gas / Water
Overall Height	13.0" (330 mm)
Overall Width	4.0" (102 mm)
Approximate Weight	5.5 lb (2.5 kg)

MEASUREMENT

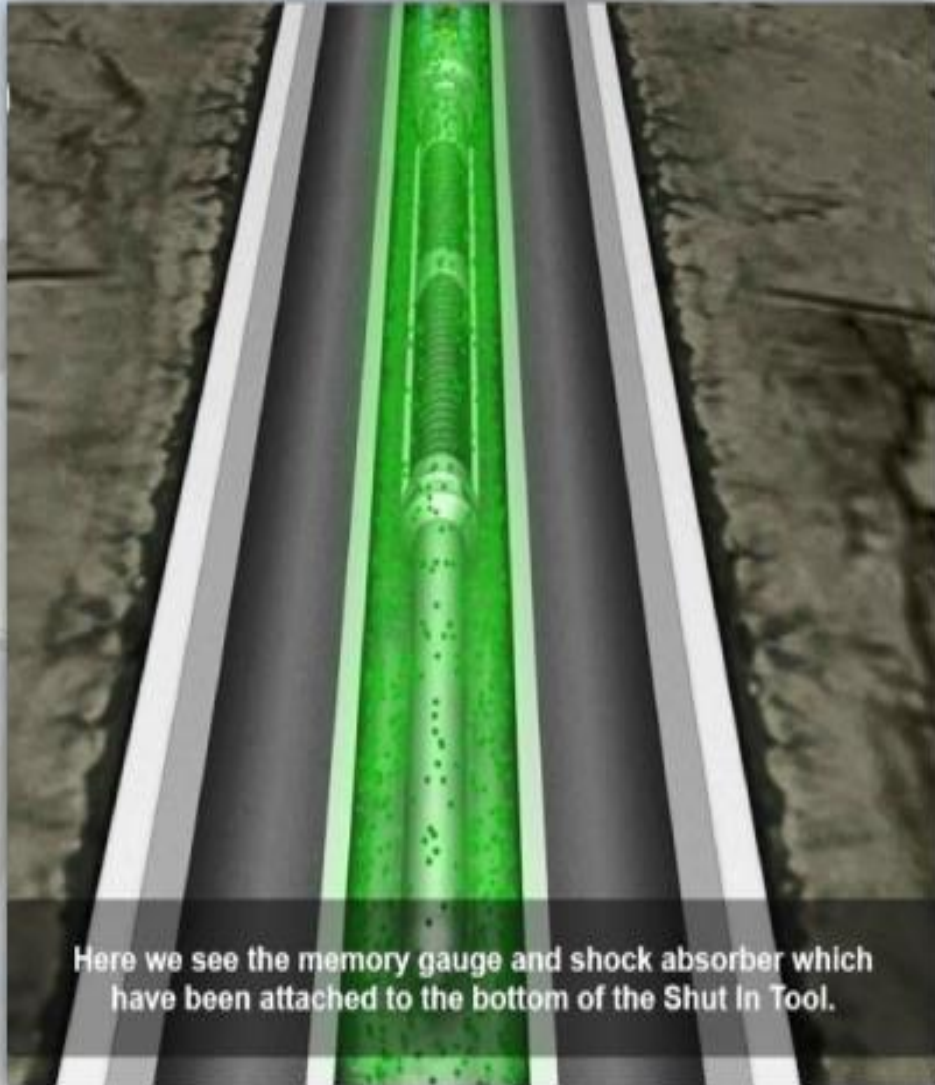
Memory Capacity	16 Million Samples	
Sample Rate	1 Second to 18 Hours	
Sensor Type	Piezo-Resistive Silicon	
	Pressure	Temperature
Accuracy	± 0.05 %FS	± 0.54°F (0.3°C)
Resolution	± 0.0003 %FS	± 0.018°F (0.01°C)
Drift / Year	< 2.9 psi (20 kPa)	< 0.18°F (0.1°C)

POWER SUPPLY

Cell Type	Lithium Metal	Alkaline
Manufacturer	Saft	Energizer or Duracell
Manufacturer Part #	LS33600	E95 or MN1300
Voltage	3.67 V	1.5 V
Battery Life ⁽¹⁾	6 to 8 Months	3 to 5 Months
Dangerous Goods	Yes (UN3091, Class 9)	No
Min Operating Temp	-40°F (-40°C)	0°F (-18°C)
Max Operating Temp	185°F (85°C)	130°F (55°C)



Downhole Shut-in Services



Here we see the memory gauge and shock absorber which have been attached to the bottom of the Shut In Tool.

The **SST-500** Downhole Electronic Shut-In Tool **Systems** automatically shuts-in your well near the sand face or perforations, removing wellbore storage effects that can reduce data quality while minimizing costly production downtimes.

Benefits

- ◆ Innovative flow passages are designed to optimize flow, virtually eliminating the "choke" effect.
- ◆ All Stainless-Steel construction for maximum corrosive resistance and durability
- ◆ Fast closing time - less than 60 seconds
- ◆ Internal test firmware delivers audible signal and valve movement to confirm proper operation prior to use downhole
- ◆ Switch selectable shut and open sequences without using a computer.
- ◆ Custom computer programming with up to 20 steps for test
- ◆ Mechanical Equalizer Provided
- ◆ Shock Reducing and Centralizing Hardware

Length	62.3 in. (1.6m) with short battery pack 72.8 in. (1.8m) with long battery pack
Outer Diameter	1.75 in. (4.5 cm) maximum
Inner Diameter	1.12 in. (2.84 cm)
Flow Area	1.0 in ² (2.5 cm ²)
Operating Temperature	32° F to 320° F* (0° C to 160° C)
Maximum Pressure	15,000 psi (103,000 kPa)
Maximum Differential Pressure	5,500 psi (38,000 kPa)
Power Supply	18V 5 'C' Lithium Pack – 20 cycles* 18V 5 'C-C' Lithium Pack – 40 cycles*
Weight	23 lbs. (10.4kg)
Top Connection	1.875 X-Lock Box (1-3/8" –14 UN Box)
Bottom Connection	5/8" Sucker Rod Box (15/16" - 10 UN Box)

* dependent on test conditions



Compact Production Evaluation Services

Kodiak

CCL	CONVENTIONAL COIL	MAGNETO RESISTIVE
Gamma	Acc: 2Api	Res: 1Api
Telemetry	5.12 Kb/sec	10 samples/sec
Memory	FLASH MEMORY 64MB	50 HOURS' LOG TIME
Deviation	Acc: 1Deg	Res: 0.5Deg
Temperature	Acc: +/-1 Deg C	Res: 0.001 Deg C
Acoustic Density	Acc: 0.03 g/cc	Res: 0.001 g/cc
Pressure	Acc: +/-3 Psi	Res: 0.05 Psi
Dielectric/ Water Hold Up	Acc: 2% & 4%	Res: 0.1%
Resistivity	Acc: 100 Ohm-m	Res: 10 hm-m

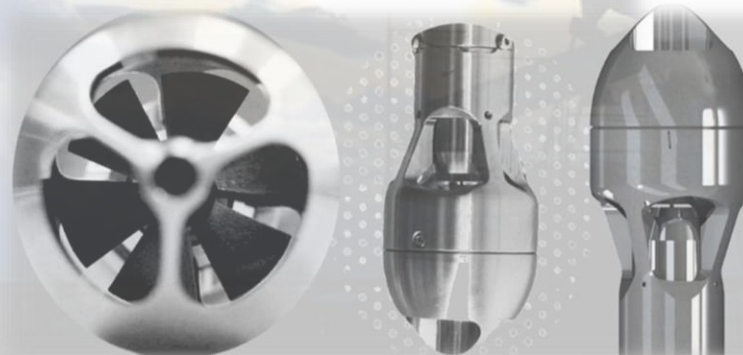


Caged Flowmeter

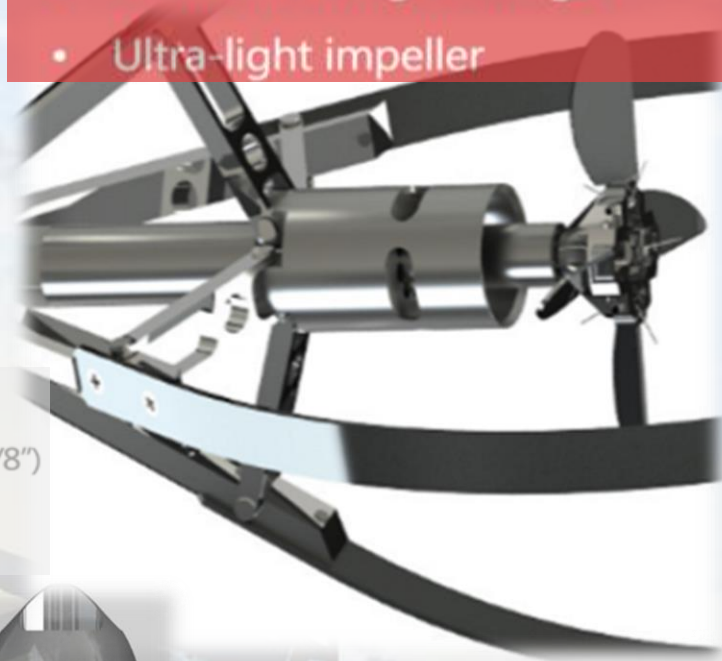
42.8mm OD (1 11/16") or 54 mm OD (2 1/8")

Near zero drag bearings

Ultra-light impeller



- FullBore Flowmeter
- Near zero drag bearings
- Ultra-light impeller



Quick Downhole Formation Tester

Kodiak



• Features

- Non well bore storage effect
- Non surface measurement need
- Slick line conveyed
- Fast result

• Technical Specifications

- For tubing/casing sizes: 2 3/8", 2-7/8", 3-1/2", 4-1/2", 5 -1/2"
- Pressure: 20 000 psi
- Temperature: 177 °C
- Tool O.D. (excluding seals): 1,75"
- Fluid sample: >600 cm³
- No. Samples: 1 Million
- Communication: USB



Alternative to carry out well testing to measure and calculate skin factor, capacity flow ($k \cdot h$), Initial Pressure (P_i) and Flow pattern for proper exploitation of one reservoir.

Advantages:

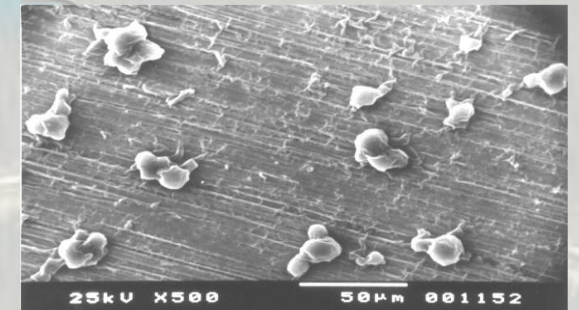
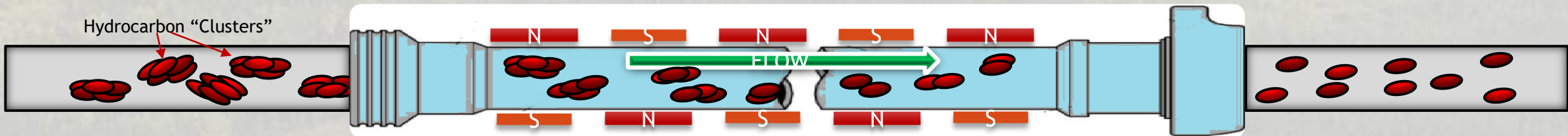
1. No rig of well testing equipment
2. No surface facilities
3. Cost reduction in operation
4. Control of Storage and non effect on the measurements.

Permanent Magnetic Fluid Conditioner

Kodiak

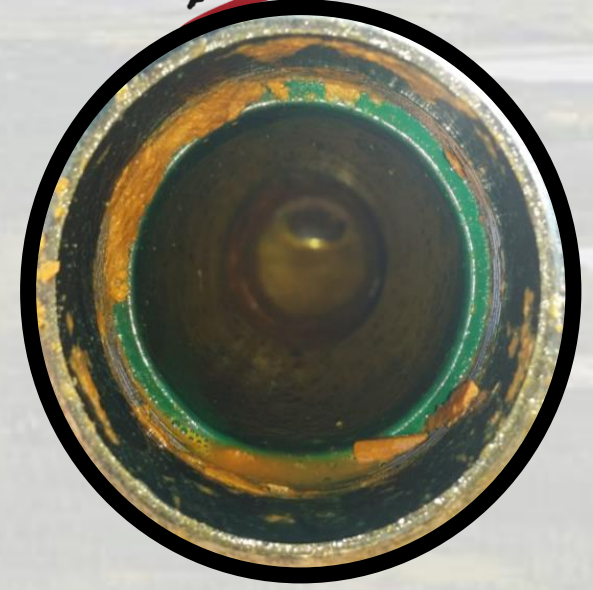
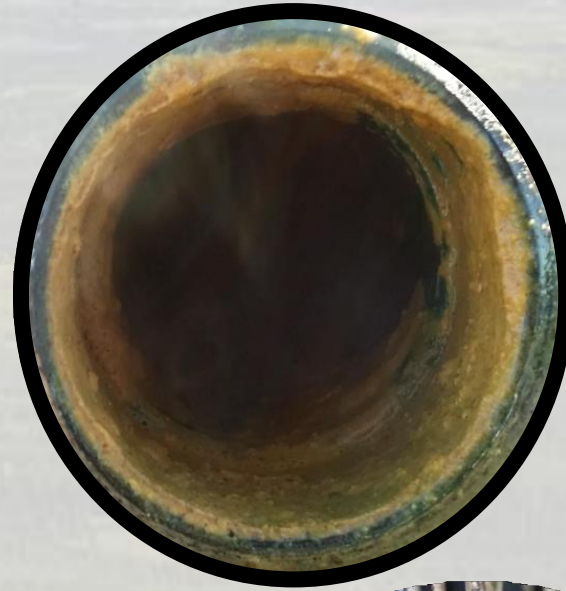
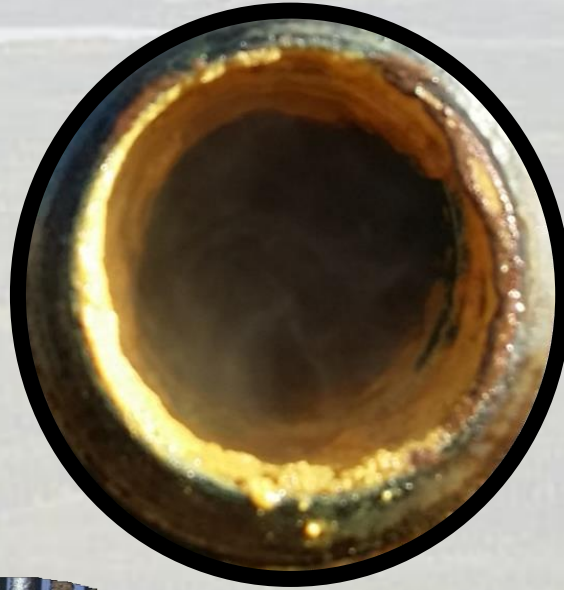
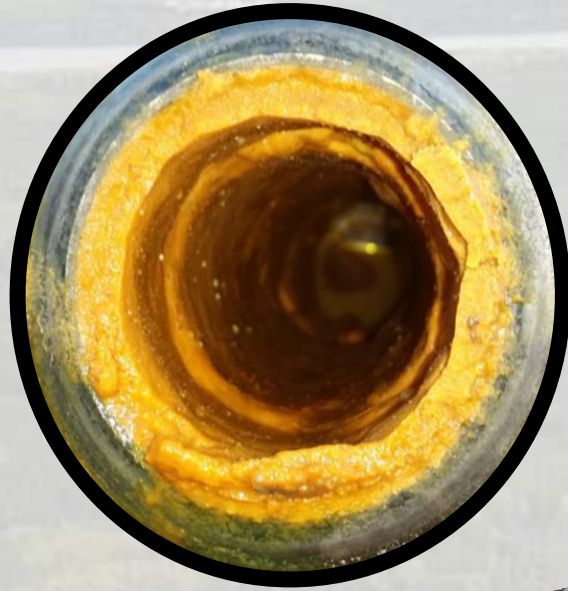


- **Minimize or eliminate:**
 - Chemical treatments for scale and paraffin deposition.
 - Hot oiling flowlines and production tubing.
 - Downhole paraffin or scale cutting.
- **Stabilize production rates.**
- **Minimize work overs and expensive treatments.**
- **Improve the quality of crude oil by eliminating emulsions in the storage tank or pipeline...thus, increasing value.**
- **Reduce corrosion by allowing inhibitor to reach pipe.**



Permanent Magnetic Fluid Conditioner

Kodiak



Rods pulled before the installation of a downhole unit.



Rods pulled after 10 weeks with the downhole unit installed.

Completion Packers & Accessories



RSB-1 LINER HANGER/PACKER

TECHNICAL DATA

CASING SIZE		CASING WEIGHT		MAX TOOL O.D.		MIN TOOL I.D.		THREAD CONNECTION	
in.	mm	lbs/ft	kg/m	in.	mm	in.	mm	in.	mm
7	177.8	29-32	43.15 - 47.62	5.875	149.23	3.875	98.42	4 1/2 LT&C	114.3
7	177.8	23-29	34.22-43.15	5.938	150.83	3.875	98.42	4 1/2 LT&C	114.3
7	177.8	17-23	25,30-34,22	6,188	157,18	3,875	98,42	4 1/2 LT&C	114,3



RSB HYDRAULIC SETTING TOOL

TECHNICAL DATA

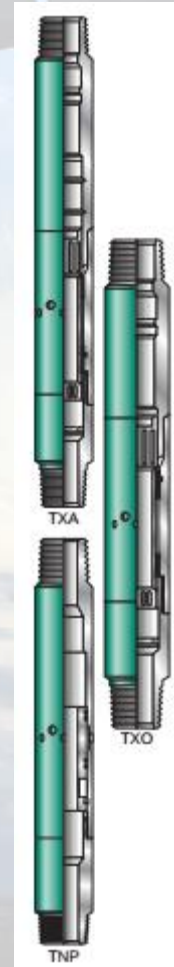
SETTING CHAMBER AREA		BASE TOOL O.D.		MAX TOOL LD.		THREAD CONNECTION	
Sq. In.	Sq. cm	in.	mm	in.	mm	in.	mm
21,3	137,43	5,500	139,70	1,750	44,45	3 1/2 IF	88,9



SLIDING SLEEVES

ON/OFF TOOL

LANDING NIPPLES



And more...

Satellite Fluid Monitoring



OPEX improvement

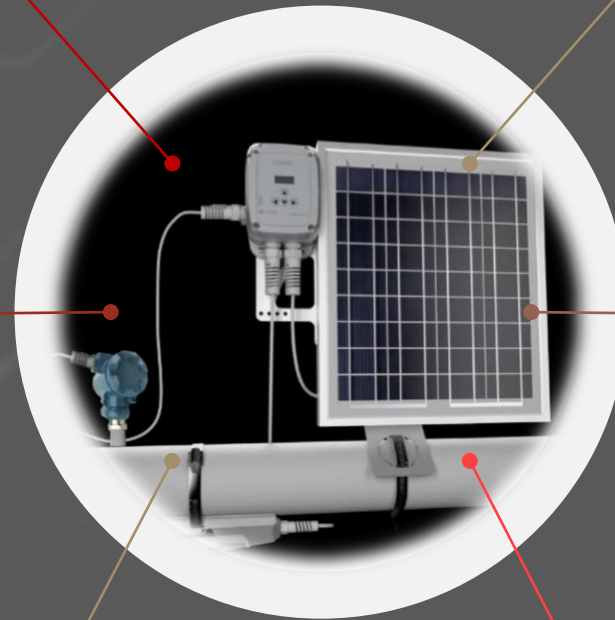
Enables OPEX improvement while keeping full production control

Integration

with any sensor for more data points and includes pipe temperature.

Other applications

Flowback
Water Management
Pipeline Leak Monitoring



Machine learning

Tracks well behaviors over time, brings increased understanding of production trends.

Dual transmission

From the sensor with a Smart internal control panel to monitor sensor

Remote and on-demand calibration

No physical maintenance after installation.



INSTALLATION

1. Clamp transducer and CPU/Solar mount onto pipe
2. Type initialization code into keypad
3. Send or upload reference data to Carbic system

STEP 02

EDGE COMPUTE + TRANSMIT

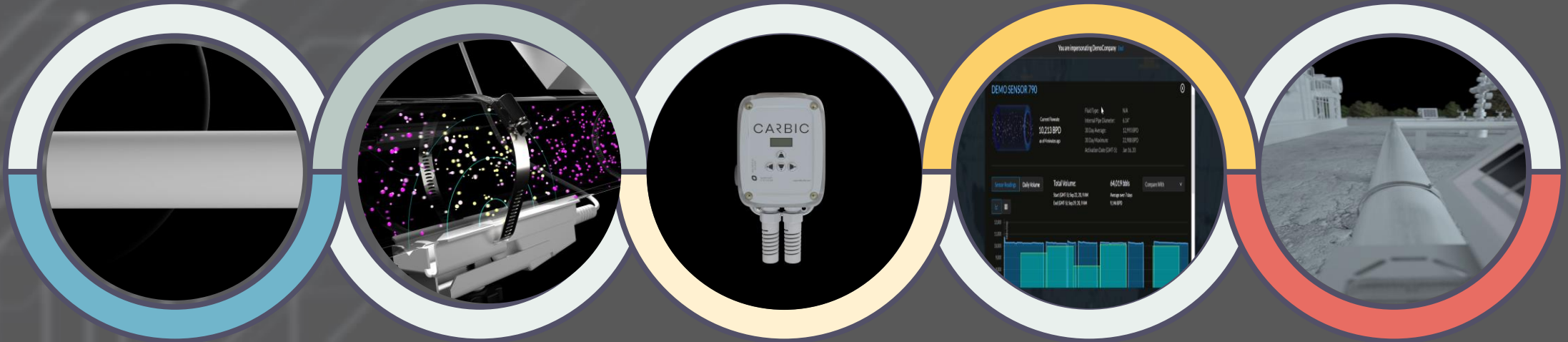
- Compile acoustic data
- Apply proprietary algorithm
- Compress and communicate
- Assess for signal quality
- Scan for signal quality
- Send remote updates if necessary

STEP 04

CUSTOMER SUPPORT

- Installation trainings
- Custom alerts and alarms
- Sensor diagnostics
- Performance updates

HOW IT WORKS



STEP 01

ACOUSTIC DATA

1. Speaker sends sound waves
2. Sound waves reflect off solids
3. Microphone records reflections
4. Data is back to the module for analysis

STEP 03

SONIC MACHINE LEARNING

- Cloud server receives encrypted data
- Sensor learns from the data it gathers and the data from other deployed sensors
- Cloud-based machine learning models flow rate

STEP 05

