

# STARTRAK PIGGING TECHNOLOGIES, INC.

## PIPELINE PIG MONITORING

BY LAND - SEA - AIR

“Pathfinder” magnetic pigs can now be monitored for all types of operations, world wide.

- Station Magnetometers - “Statics” for land service operations.
- Buoy systems - Offshore operations in water depth to 400-ft
- Acoustic systems - Offshore deep waters to 10,000-ft
- Satellite Monitoring utilizing Low Earth Orbit Satellite technology

**StarTrak Pigging Technologies**

**Katy, Texas, U.S.A.**

**(281) 599 7557**

**startrak@starpig.com**



# STARTRAK PIGGING TECHNOLOGIES, INC.

## “PATHFINDER” MAGNETIC PIGS.

### The World’s most Attractive Pigging System

The directors of StarTrak Pigging Technologies are the originators of the magnetic pigging technology. The system was developed and commercialized in 1970.

Today, we are still the leaders in the field, and hold patents on the magnetic circuitry system.

- Sizes from 2” - 48”
- Detectable through 15 meters of cover
- Operational in any type of product
- Land and Offshore Operations
- Magnetic detectable life - 100 years
- Robust Construction.
- Designed for disks, cups, brushes or blades
- Operations include Leak Detection



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# **STARTRAK PIGGING TECHNOLOGIES, INC.**

## **VIDEO INSPECTION PIGGING SYSTEM**

### **SYSTEM FEATURES:**

- Video Resolution Full Color at 525 lines
- Precision at 30 frames per second
- Design to traverse 3 x diameter bends
- Self contained recording system
- Internal timing frequency 1/10th.of second
- Distance traveled recorded in footage/mtrs
- Self contained lighting

### **SYSTEM USES:**

- Inspection for internal metal loss - Corrosion
- Verification of On-Line Inspection results
- Inspection of pipe prior to internally coating
- Inspection of Internal coating
- Internal inspection of newly constructed lines
- Riser Inspection services

Instantaneous downloading to VHS \* Hi 8 \* DVD



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# STARTRAK “JETSTREAM” WAX REMOVAL SYSTEM

**StarTrak Pigging Technologies, Inc..**  
has designed and patented a unique system for the removal of hardened wax from both land and off-shore pipelines.  
The Waxing up of crude oil pipelines has become a major problem for many operational companies, world wide.

There is an answer, The “Jetstream” System



## The system utilizes:

- A combination of chemicals which cause an exothermic reaction when mixed
- A “Pathfinder” Magnetic pig with jetting capabilities
- An agent to provide pacification and prevent crystallization
- The “Pathfinder” tracking system utilizing Low Earth Orbit Satellite technology

For further information please contact:

**StarTrak Pigging Technologies Katy,  
Texas. U.S.A**

**(281) 599 7557 \* [startrak@starpig.com](mailto:startrak@starpig.com)**

# STARTRAK PIGGING TECHNOLOGIES, INC.

## “DEEP -C” SUB-SURFACE MAGNETIC PIG SIGNALLING UNIT



This unit known under its trade name of “Deep C” consists of twin magnetic sensing system complete with associated circuitry, in order to identify the passage of “Pathfinder” type of magnetic pigs or spheres.

### FEATURES:

- Housed in a Super Duplex enclosure tested for use at ten thousand feet.
- Designed for underwater coupling and de-coupling.
- Umbilical or Acoustic transmission of signals
- Redundancy by twin sensing systems
- Output 4-20 Ma or closure
- Sensitivity 100 m/oe.
- Operational Voltage 12-36 v.dc.
- Accommodates pig speeds from 0.5-ft per minute upwards.

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**Katy, Texas. U.S.A. (281) 599 7557**

**startrak@starpig.com**



# PORT-A-SIG

## MAGNETIC PIG PASSAGE INDICATOR

### STARTRAK PIGGING TECHNOLOGIES, INC.

This tried, proven and tested pig signaling system out-dates all other passage indicators by light years.



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Katy, Texas. U.S.A. [startrak@starpig.com](mailto:startrak@starpig.com)

#### NON-INTRUSIVE FEATURES:

- Signaling by High Intensity Beacon
- Manual Reset or Auto Reset
- Low Power Consumption
- Elapsed Time Counter / Event Counter
- Little or no Maintenance
- Output to drive external devices (Satellite etc)
- For use on Land or Marine Systems

The "Port-A-Sig" pig passage indicator unit is a StarTrak manufactured product which has been developed from many years of pipeline field services. Once activated, the "Port-A-Sig" can be programmed to operate its strobe light an/or time delay between the passage of several pigs.. The unit can be reset either manually or programmed to reset automatically. A built in timer provides even lapsed time in the manual mod and event counting in the automatic mode

# “WATCHDOG”

## THE INTELLIGENT PIPELINE MARKER

StarTrak Pigging Technologies, Inc. introduce their patented “Watchdog” ® System.

This cost effective system is designed to increase efficiency, security and safety factors for pipeline operations personnel.

“Watchdog” functions are as follows:

- Provide pipe/soil potentials on either a weekly or monthly basis.
- Monitor pipeline travelers to GPS coordinates and atomic clock time.
- Provide alarms in the event that a pipe becomes damaged by either digging, drilling, illegal tapping or terrorism. Warning of potential damage.

The unit’s communication may be carried out using either Low Earth Orbit Satellite System, CDPD, Radio or GSM so linking the field units to pipeline control centers.



**StarTrak Pigging Technologies, Katy, Texas**  
**(281) 599 7557 \* [startrak@starpig.com](mailto:startrak@starpig.com)**

**VALVE MASTER**  
**STARTRAK PIGGING TECHNOLOGIES, INC.**  
**CHECK VALVE MONITORING SYSTEM**

*STATE OF THE ART TECHNOLOGY*



**FEATURES**

- Auto Check Valve Monitoring
- Permanent installation
- Magnetic Pig monitoring
- Fully programmable
- Sensitivity control
- Battery operated
  - Options include Solar Charging
  - Communication link - Satellite - CDPD - GSM
  - 110v / 240v Power

Valve Master is designed to monitor the operation of check valves under normal operational conditions. The system consists of an explosion proof sensor pack, a display module and cable coupling. The sensor is mounted directly on the check valve housing and senses a change in the magnetic field due to the closure of the valve.. The unit includes battery pack, function switch also RS 232 socket for programming of unit sensitivity and battery charging socket.

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# STARTRAK PIGGING TECHNOLOGIES

## INSPECTION PIG MONITORING

**StarTrak Pigging Technologies** has developed a monitoring system for Inspection pig surveys. This system utilizing Low Earth Orbit technology is less labor intensive..

- Monitors the crossover of the inspection pig's magnetic field.
- Records G.P.S. time to 1/10<sup>th</sup> Second
- Portable system. Can be installed prior to operation.
- All transmitted data is also internally recorded for downloading.
- Increases the operational safety factor.



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# STARTRAK PIGGING TECHNOLOGIES, INC

## PIPELINE RECTIFIER MONITORING SYSTEM

INCREASED SAFETY FACTOR \* SAVES MANPOWER \* ECONOMICAL



StarTrak Pigging Technologies, Inc. of Katy, Texas has developed master control monitoring stations that can communicate with satellite systems to provide operators with such capabilities as:

- Acquisition of pipeline operating data including inline devices,
- cathodic protection information, and pipeline security systems.

Reliable data transmission, even in severe weather conditions.

Utilizing Low Earth Orbit Satellite (LEO) Technology, StarTrak Pigging Technologies has developed a unique system for monitoring Cathodic Rectifiers transmitting data weekly which includes

- Voltage monitoring
- Meter monitoring
- Current flow
- Pipe to soil potentials
- Alarms
- Weekly reporting or by exception
- Options include pig passage data, (GPS time & Location)

For an extremely small outlay, per month, clients enjoy with weekly reports directly to their office desk

STARTRAK PIGGING TECHNOLOGIES, INC. \* KATY \* TEXAS \* USA

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# INLAND WATERWAY INSPECTION SERVICES, LLC.

## “ONE-PASS” SYSTEM

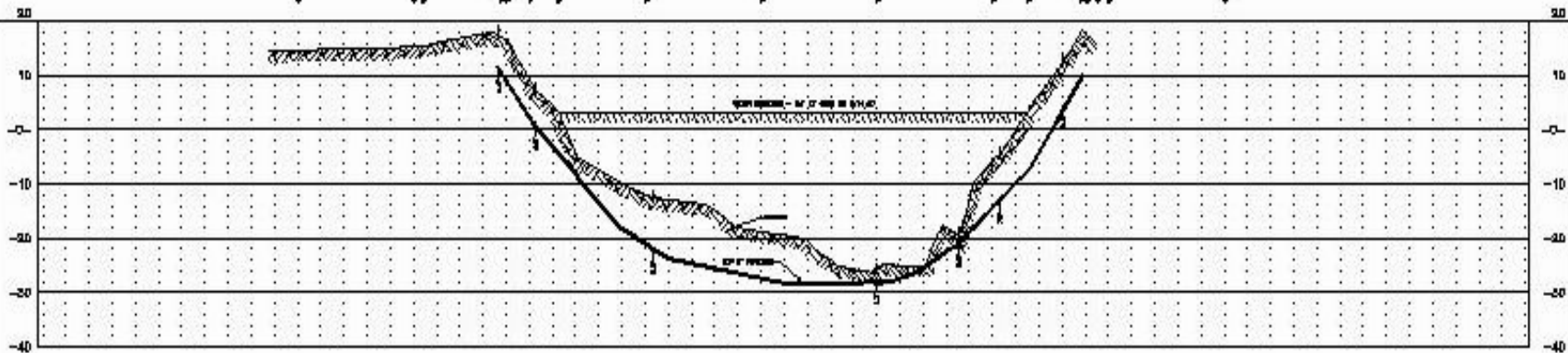
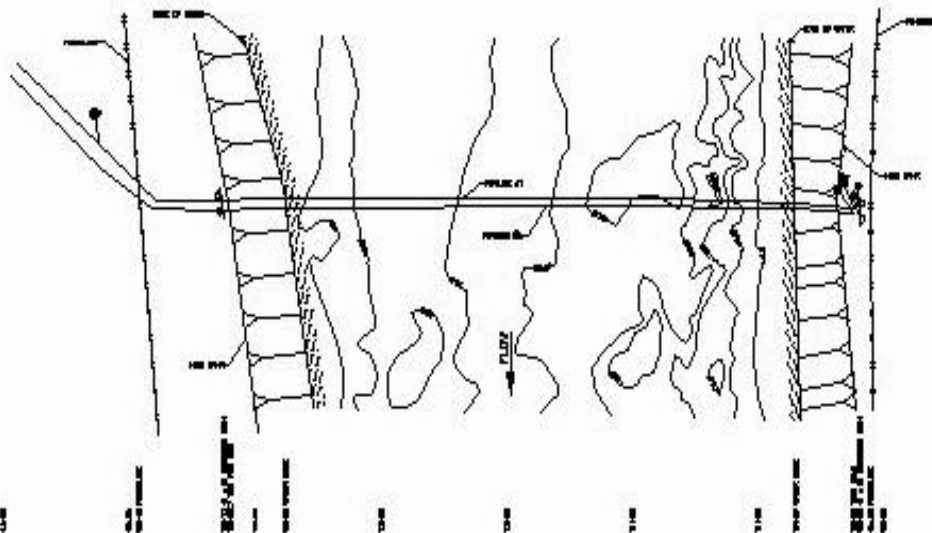
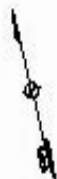
This unique electronic system has been developed and is operated by IWIS technical personnel. The advantages are:

- Safety - Complete diverless system.
- Accurate measurement of pipe depth, to 130-ft. water depth & differential global positioning (RTK) on one plane.
- All data collected from surface
- Multiple shots, gathering river contour data
- Side Imaging Sonar
- Speedy turnaround of drawings & reports



**Inland Waterway Inspection Services, LLC**  
**Katy, Texas, U.S.A.**  
**(281) 599 7557 [startrak@starpig.com](mailto:startrak@starpig.com)**

BRAZOS RIVER  
HARRIS COUNTY, TEXAS



<b>NOTES:</b>  DATE: 12/15/10 DRAWN BY: J. J. JONES CHECKED BY: J. J. JONES						<b>LEGEND:</b> X BENCH MARK O BENCH MARK Δ BENCH MARK □ BENCH MARK ○ BENCH MARK ○ BENCH MARK ○ BENCH MARK	SHEET NO. 1 TOTAL SHEETS 1		<b>SCALE:</b> 1" = 20'	
							PROJECT NO. 10101 DRAWING NO. 10101-01		<b>DATE:</b> 12-15-10	
							CLIENT: ABC PIPE LINES, INC. PROJECT: BRAZOS RIVER AT ANYWHERE 8" PIPELINE #1 LOCATION: HARRIS COUNTY, TEXAS		SCALE: 1" = 20' SHEET NO. 1 of 1	