

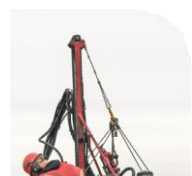
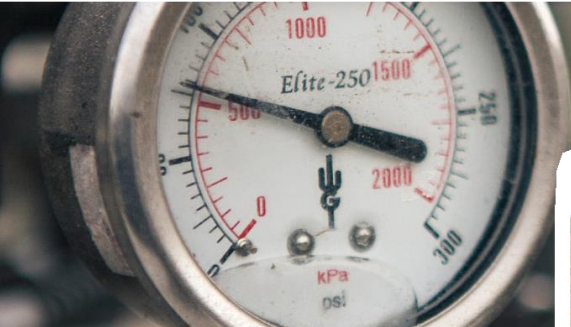


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Plan. Organize. Execute.



Turnkey Project Management

In-Line Piggig Solutions has the capabilities to plan, organize, and execute client ILI programs in both the office and field.

In our office we have Project Managers, Project Support, and GIS Specialists that support our clients and field crews to complete entire projects successfully. In the field we have AGM Surveyors, Trackers, ILI Coordinators, and Inspectors. Using these key resources, we can ensure a successful ILI project.

Why Us?

For 15 years In-Line Piggig has provided project management and field services for all types of piggig runs. We have worked with many of the largest oil and gas companies to complete over 150+ smart tool inspections over the past 15 years. This has included the planning, organizing, and executing some of the most difficult jobs such as UT inspections using diesel slugs.

Precision survey, professional tool tracking and effective ILI coordination can greatly increase the likelihood of a successful inline inspection, which in turn will enhance a dig program – lowering overall costs and allowing the operator to better manage risks. Integrity programs are necessary and expensive. Planning, organizing and executing your inspection tool run and dig program the right way, only makes good sense. Measure twice, cut once.

Our turnkey process is as follows:

OFFICE SUPPORT

- 1 Project review/planning
(logistics, equipment requirements, flow/pressure requirements, cleaning requirements, cleaning, tool selection, etc)
- 2 Execution plan development
- 3 JTA/JSA development
- 4 Project scheduling
- 5 3rd party contractor coordination
- 6 AGM survey planning/layout

FIELD SUPPORT

- 1 Site Visits
- 2 AGM Survey
- 3 Tool Tracking
- 4 ILI Coordination
(Coordinating all personnel on site, loading, launching, monitoring, & receiving tools)

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Who are we?

Located with our head office in Calgary, Alberta, Canada In-Line Piggig Solutions is a project management and field service company focused on pipeline integrity management solutions. We specialize in the Planning, Organizing and Execution of turnkey pipeline integrity management programs. Our strength as a company comes from our extensive operational and field experience and with approaching an internal inspection project from a pipeline operator's perspective.

Founded in 2003, In-Line Piggig Solutions started as a small pig tracking company with 3 personnel. Today, In-Line has grown to over 50 people and provides integrity management services to pipeline companies, refineries and oil and gas producers across Canada. The combination of experience, understanding, innovativeness and industry contacts allows us to provide your company with comprehensive project management and field support for your internal inspection projects.

98% SUCCESS RATE
✓ ILI PROGRAM

OVER 2000 
PIPELINES SERVICED IN OUR LAST 15 YEARS

Comprehensive Pig Tracking

Pig tracking is at the core of In-Line Piggig Solutions. We gained our reputation, trust, and competency through exhibiting an industry leading service in tracking tools. We are able to achieve this elite level of service through the combination of blue-chip techniques and knowledge gained through years of experience.

 **TOOL TRACKING**

 **ILI COORDINATION**

 **PIPELINE SURVEY & GIS**

 **PIPELINE PRODUCTS**

ADDITIONAL SOLUTIONS

- ⊕ Maintenance Piggig
- ⊕ Pipeline Cleaning
- ⊕ Contract Engineering Services
- ⊕ Relief Operators Support
- ⊕ 1st Call Management
- ⊕ Right of Way Patrols
- ⊕ Right of Way Maintenance
- ⊕ Station Checks
- ⊕ Site Monitoring

Piggig and Pipeline Integrity Solutions to Support the Safe and Reliable Flow of Energy Products



Don't see what you are looking for? Contact us to find out whether we can provide you with the service you require or we can recommend one of the many companies that we regularly work with on our projects.



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Element System

**Full Spectrum Integrity Services to Deliver
Program Cost Effectiveness & In-Line Inspection Success**

The Element System

Every tool run and pipeline integrity project from basic to complex presents its own unique characteristics & challenges. Our Element Web Tracking App provides a live view of the tool run for all project stakeholders to understand tool location, speeds, and important ETA's in real time. The Element App receives its information from live trackers reporting passages, communications from remote boxes, and portable pressure transmitters.

We have integrated remote tracking boxes to the Element App to have trackers live stream geophone, ELF, and magnetic data from cellular boxes. This capability allows In-Line trackers to track at locations that they are not physically at providing enhanced reliability and accuracy on tool runs. This precise detail provides operators with reliable information to make informed decisions during a tool run leading to greater first run success.



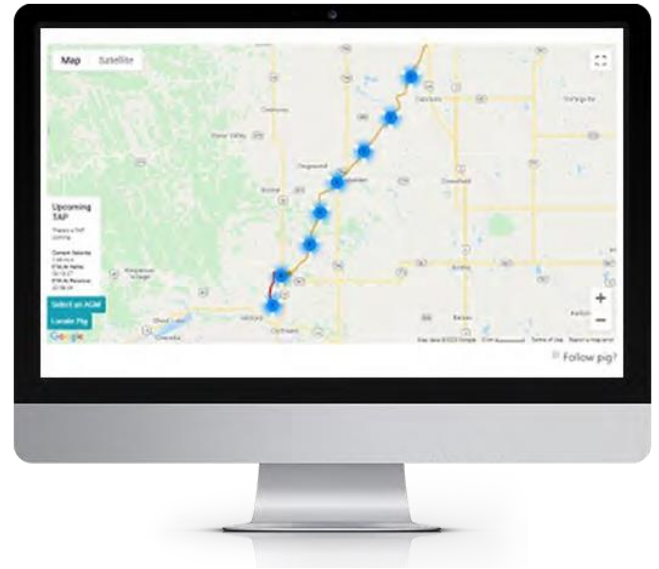


Tool Run Interface

The tool run interface is for all project stakeholders to stay connected and understand what is happening on a pigging project. Project information such as tool location, speed, and line pressures can all be viewed from the tool run interface for precise decision making.

The Element Web App archives all data sets from tool runs. This creates major planning, organizing, and execution efficiencies for when another tool run takes place in the future.

There are run reports detailing executions plans, tool speeds, controls, environmental landscape, and issues experienced during every tool run. Run information is stored and is easily accessible in one easy to navigate website which allows all new and existing pipeline integrity managers to make informed decisions to ensure first run success.



Benefits



Historical Data Storage
(Run reports, tracking sheets, execution plans)



Mobile and website friendly –no app required, and no installation required

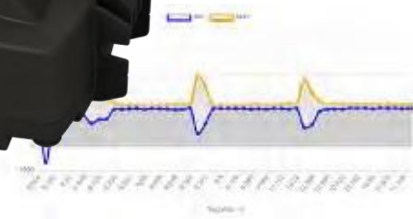


All stakeholders are aligned



Client Specific Log In

Specifications	Tool Run Interface
Functionality	User friendly web application for all stakeholders to use.
Quality	Passages audited by field personnel Works in conjunction with live tracking Multiple verification methods possible (magnetic and transmitter) Multiple pigs in the line supported
Web App Host	Amazon web services (AWS) in Canada Data encrypted in transit
Interface	No download required and cross platform compatible. (Chrome Browser Recommended)
Security Compliance	SOC 1/ISAE 3402, SOC 2, SOC 3 FISMA, DIACAP, and FedRAMP PCI DSS Level 1 ISO 9001, ISO 27001, ISO 27017, ISO 27018
Web App Security	Single user login or client specific log in (client discretion)
Number of Users	Unlimited



Pressure Transmitters

Our pressure transmitters can be deployed anywhere as they carry a Class 1 Div 1 Rating, and provide precision oversight to what is actively happening in the pipeline during any pipeline integrity project.

They are easily deployed with a standard sizing that plugs into any threaded valve. The pressure transmitters prove extremely effective as operators are receiving instantaneous pressure updates allowing them to make quick decisions on reliable information. Adaptive decision making can be the difference for executing projects the first time around and safely.

- Continuously captures second-by-second pressure data
- Temperature compensated for high accuracy
- Integrated 360 degree solar panel
- Sends immediate cry-out notifications of alarm conditions
- Time-synchronized to network

Best Deployed:

- Tool Runs (ILI, Purge, Line Fill, Batching)
- Hydrotests
- Up or Downstream during cut-outs
- Locating Stopped Tools

They are great for monitoring pressures in a liquid system that could indicate an issue. They are extremely effective for tracking pigs in a gas environment.



Call our Sales office (403-930-9149) or email us at sales@inlinepigging.com to obtain a quote.

Remote Tracking Boxes

Live trackers supported with remote boxes to provide heightened service at an effective price. This strategy allows for hands-on problem solving that a singular remote box can't do alone.

Real Time Updates • **Remote Tracking**
Live Web Application • **Live Problem Solving**

In-Line tracking crews ensure that the appropriate remote tracking boxes are deployed at AGM's that they will succeed in based on each AGM's unique environment. We can live stream geophone, ELF, & magnetic data in any AGM location that has cellular service. The ability to live stream into boxes ensure safety of our employees without compromising our commitment to tracking every location.

For example, tracking a highway location is inherently dangerous. The remote box allows our trackers to position themselves safely along the right of way without missing a passage. Each cellular and satellite passage from the boxes are complete with supporting data plots to confirm passages.

Specifications	APEX AGM
Battery Life	200 Hrs (Continuous), Much Better with Sleep Mode
Batteries	6 x D Cell
Internal Storage	64GB (almost unlimited raw data storage)
Devices Detected	22 Hz or any ELF frequency, Magnets, Acoustic
Internal GPS	3 m accuracy; 100 us time sync
Temperature Range	-40°C to +85 °C
Geophone	External Connector, Internal Amplifier & Signal Conditioning
Communications	3G Cellular, Iridium Satellite
Bluetooth	Class 1, Up to 100 m/300 ft.; Enabled for Configuration with Smartphone
User Interface	Smartphone, PC Software and Push Button/LED
Environmental	IP67; Sealed against Rain & Dust



Survey & GIS

At In-Line Piggings Solutions we have the in-house competencies to perform pipeline, above ground marker (AGM), and dig surveys while correlating geographic information services (GIS).

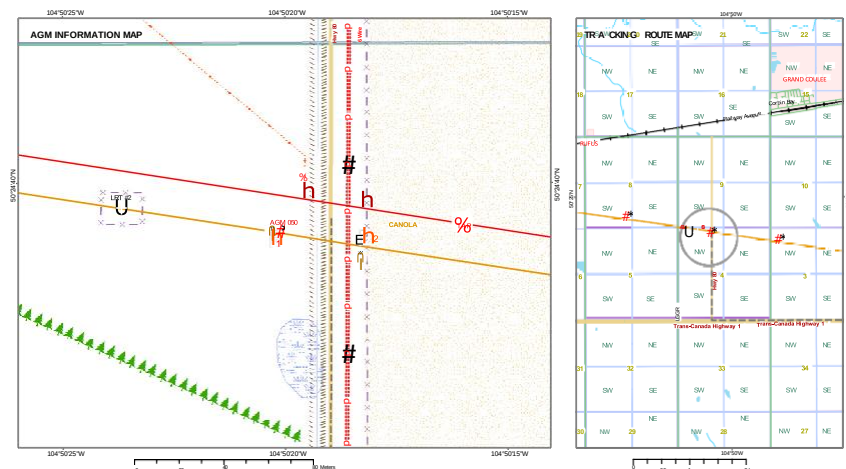
Why Us?

We collect, plot, scout, and render dig sites and AGM locations that match the data dictionary of your company's pipeline integrity system to sub-decimetres accuracy. Precise GPS coordinates are critical in understanding where anomalies are and if further investigations are necessary. Combined with photos and other information gathered in the field, we provide your pipeline engineers with a true picture of what they are up against on a dig site or AGM location.

We work closely with GIS specialists to accurately correlate all information.

Advantages

- 📍 Sub-decimetres survey increases anomaly precision
- 📍 Topographical mapping
- 📋 Increased data accuracy
- 💰 Avoid costs related to crop damage, environmental issues, and land owner requirements
- 📝 Increased information through detailed sketches



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Dig Inspectors

Our team of inspectors bring decades of experience, working across north america, and are supported by a project management team that prioritizes the safety of your assets and the environment. Our experience in coatings and repairs provides a wealth of knowledge in support of dig programs of all complexities.

Why Us?

A successful dig program begins in the planning phase. Our inspectors have the knowledge and understanding to review and advise on dig programs. Reviewing executions plans, and providing valuable feedback, prior to the mobilization of equipment and manpower.

Once onsite, the leadership and expertise that our team provides, ensures that programs are executed in a safe and efficient manner. Our years of experience working in different mediums, materials and environments, allows us to adapt to challenges as they occur. Directing manpower and equipment as required to ensure the program is successful.

We understand that at the end of the day, the integrity of your pipeline is paramount. As such we strive to contribute to every program in a direct and transparent manner. Advising and reviewing options, while working hand in hand with you to ensure your program is managed as efficiently as possible.

Capabilities

-  Infield personnel with project management, safety and leadership experience
-  Subject matter experts in integrity digs
-  Complete understanding of pipeline facilities
-  Knowledge of pipeline materials and repairs
-  Scope, schedule & cost management of infield activities
-  Full turnkey offline dig program experience
-  Complete understanding of material needed for full turnkey operations

Advantages

-  SME field personnel focused on safety and success
-  Competent and professional leadership
-  In office project support of field operations



ILI Inspectors

We have overseen the execution of thousands of miles of pipelines in North America, in every type of product, configuration and application. This includes; high and low flow rates, variable pressure differentials, heavy wall pipe and dual diameter lines. Put this wealth of experience to work for you on your next ILI run.

Why Us?

A successful smart tool is integral to the efficiency of a pipeline integrity program. Our ILI Inspectors have the experience, manpower, and project management capabilities to ensure operators are getting maximum data from their smart tool runs.

Unlike regular maintenance pigging programs, smart tool inspection programs require considerably more attention and care to ensure the smart tools perform effectively.

If the person in charge is not experienced with smart tool inspections, the pipeline operators can run the risk of not obtaining reliable information, resulting in cost overruns. More importantly, it can significantly impact the accuracy of ILI data.

To get the best results from a smart tool it is important that the ILI Inspector on-site can safely lead a dynamic work site, has a complete understanding of smart tools, can trouble shoot pipeline issues, and has the customer's best interest in mind when it comes to controlling costs.

Capabilities

- Infield personnel with project management, safety and leadership experience
- Subject matter experts on ILI execution
- Complete understanding of pipeline facilities
- Knowledge in pipeline dynamics for optimal ILI data collection
- Scope, schedule & cost management of infield activities
- Full turnkey offline ILI experience
- Complete understanding of material needed for full turnkey operations

Advantages

- ✓ SME field personnel driving first run success
- ✓ Complete understanding of ILI vendor equipment and feasibility of different applications
- ✓ In office project management support of field operations

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Pig Tracking

Pig tracking is at the core of In-Line Pigging Solutions. We gained our reputation, trust, and competency through exhibiting an industry leading service in tracking tools. We are able to achieve this elite level of service through the combination of elite techniques and knowledge gained through years of experience.

Why Us?

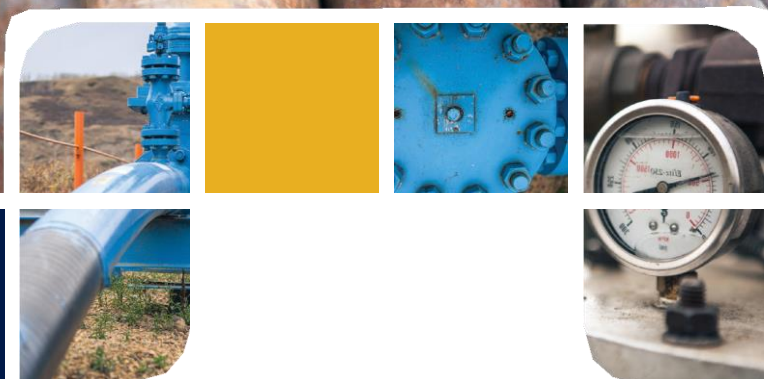
We have performed over a thousand tracking jobs in all types of products and pipe sizes. Tool speed, location, and always having an ear on the pipe is critical in ensuring a successful run. Our triple redundancy tracking procedure allows our staff to pinpoint down to the exact second a tool passes a GPS coordinate. Having this proper expertise is important because it enhances data and lowers the risk of having a stuck or lost pig in your pipeline.

We are tool tracking experts.
No matter the difficulty of the tool run, our industry-leading techniques and processes monitor the tool's location and speed at all times.

Advantages of Tracking

-  Provides instant data on the pipeline
-  Allows for proper planning and better coordination
-  Decreases the chance of a stuck or lost pig
-  Understand why tools are coming out damaged
-  Gain reliable information on the pipeline
-  Avoid corrective costs

Working in a remote area? No problem. In-Line Pigging Solutions will get the tool from launch to receive – even if it means using helicopters, argos, quads, snowmobiles, or moving by foot.



Pipeline Cleaning

Each pipeline is unique in its own way due to the product, location, pipe size, and pigability. Luckily, we are pipeline experts. We have the knowledge, expertise, and manpower to develop and execute cleaning program for your staff or the ability to clean it ourselves.

Why Us?

We have developed and executed numerous pipeline cleaning plans that clients could not forge themselves. We can supply you with standard sized poly, batch, foam and gauge pigs from one of our trusted suppliers. If you have a custom cleaning application we can supply you a custom built pig for whatever purpose you require. If you are looking for more information regarding pipeline cleaning ask for one of our staff members.

Advantages

- Save Time, Money, & Resources
- Project Management Support
- Customized Support
- Expert Advice
- Avoid Corrective Costs

CASE STUDY

ILPS assisted in the recovery of a pipeline that had not been pigged since its construction in 2012. Due to the pipelines lack of maintenance, what was originally planned to be a 3 day job, expanded to more than 50 days. Because the pipeline was in such a state it was necessary to send tools that would clean the line, push product, and not get stuck.

Over the duration of tool runs we ran 17 foam pigs and 7 polyurethane pigs with different cup densities. By the end of the runs it was estimated a total of 37m3 of build-up of debris was removed from the 10" 16.6km pipeline.

While pigging the pipeline, compared to historical throughput to the wells, flow momentarily decreased, but by the end of the job throughput to the well was higher than recorded at the time of pipeline installation.

During the process of restoring this pipeline to optimal operation, steps were removed from each run to simplify the process and slowly evolve it in a normal maintenance pigging program. The client rotated all of their field operations throughout this job in order to train them on the process and pigging procedures.



Call our Sales office (403-930-9149) or email us at sales@inlinepigging.com to obtain a quote for one of our standard pigs, custom built or rental pigs.

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The combination of experience, understanding, technology and industry contacts allows us to provide clients with comprehensive project management and field support for pipeline integrity projects.

**Whether you need full turnkey project management
or one component of our overall service offering,
you can trust your project to In-Line Pigging Solutions.**

98% SUCCESS RATE
✓ ILI PROGRAM

**“IN-LINE PIGGING was
exactly what we wanted...
and needed. They lived up
to their standard of first run
successes.”**



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