

explore

Behind every explore experience, is **trust.**

Services |

Oil & Gas Surveys

▶ Wellsite

At Explore, we provide clients with the necessary survey plan required to complete the licensing process with provincial regulators. Our goal is to minimize impact on the environment and community while preserving the desired drill location.

▶ As-Built & Topographic Plans

Utilizing a combination of LiDAR, 3-D scanning, UAV photogrammetry and RTK/GNSS, Explore can provide a comprehensive plan representing a view of the site.

- ✘ Improvements
- ✘ Elevation & contours
- ✘ Vegetation & surface features
- ✘ Critical areas
- ✘ Proposed footprints
- ✘ Underground facilities

▶ Pipeline Construction Survey

Explore's experienced professionals can offer you an effective solution for all of your pipeline construction needs including:

- ✘ Pre-construction right of way staking
- ✘ Workspace and access staking
- ✘ As-built crossings and depth of cover
- ✘ Individual Ownership Plot (IOP)

▶ Line Locating and Facility Sweeps

Our crews located across Alberta are equipped with the best technology followed by industry leading training. This allows us to alleviate discrepancies for quality assurance.

▶ Pipeline Dig Site Survey

Allow Explore to give you the peace of mind required when excavating around utilities. With precise data we can also ensure that we minimize ground disturbance. As the saying goes, X marks the spot!

▶ AER & AEP Dispositions

Explore will prepare any variety of survey plans that are within public land. We can create encrypted PDF files and shapefiles for application submission. We have the ability to enhance these services with boundary demarcation, underground facility sweeps and as-built plans, ensuring that licensing proceeds efficiently and construction can be carefully planned.

▶ Above Ground Marker Survey

Explore prides itself with the relationships it has built within the In-line Inspection industry. Allow us to provide you with an effective and streamlined process for your AGM placements.

One-Call Management & Line Location Services

▶ One-Call Management

In partnership with GDM, we can simplify the process of One Call management for Alberta, BC and Saskatchewan by coordinating everything through a single point of contact.

GDM'S SERVICE

- ✘ Ensures your pipeline infrastructure is properly registered with the respective One Call organization.
- ✘ Processes and reviews ground disturbance notifications.
- ✘ Coordinates line locating services when required.
- ✘ Ensures appropriate documentation is supplied to contractors before work begins.

EXPLORE'S SERVICE:

- ✘ Review up to date survey drawings for the area.
- ✘ Obtain line list for line in the ground disturbance area.
- ✘ Notify and confirm with landowners of any unmarked or unregistered underground obstacles or utilities.
- ✘ Explore must do a title search for all effected pipelines in the ground disturbance area.
- ✘ Perform electronic line location for underground facilities and utilities.
- ✘ A strip of land 30m wide on each side of a pipeline, must be swept and confirmed as the "Safety Zone."
- ✘ Stake all electronically located lines using color coding.
- ✘ On Site Supervisor must verify all lines with Explore before leaving the area.

Construction Surveys Services

We offer drafting and planning assistance and survey crews for commercial and industrial infrastructure projects throughout Western Canada.

► Construction

Explore can provide our clients with quarry, borrow pits and stock pile volumes. This is completed by utilizing UAV and 3D scanning providing you with high resolution and minimizing errors.

► Volumetric

Explore can provide our clients with quarry, borrow pits and stock pile volumes. This is completed by utilizing UAV and 3D scanning providing you with high resolution and minimizing errors.

► Road Surveys

Our team can survey from topsoil stripping to final grading. From baseline staking to grade and slope staking, our survey professionals can provide any level of assistance pertaining to road construction.



Municipal Surveys ► Subdivision Services

SUBDIVISION APPLICATIONS

With a focus on the rural areas, we have become a leading firm in assisting clients in single and multi-lot subdivisions. The process can be challenging with land use bylaws, subdivision authorities and multiple agencies. Explore's expertise can streamline the process to reduce delays and unforeseen costs.

SUBDIVISION PLAN PREPARATION

Explore's experienced professionals can offer you an effective solution for all of your construction needs including:

✘ **SURVEY PLAN:** Extents of the property are surveyed and delineated on the ground; a legal plan is prepared to represent the field survey.

✘ **SUBDIVISION PLAN:** The plan is endorsed by the municipal authority, landowner, registered interest(s) and surveyor to obtain new title(s) for a property, by registering through Alberta Land Titles Office.

✘ **TENTATIVE PLAN:** Explore can provide our clients with quarry, borrow pits and stock pile volumes. This is completed by utilizing UAV and 3D scanning providing you with high resolution and minimizing errors.

✘ **DESCRIPTIVE PLAN PREPARATION:** A full survey may not be necessary to subdivide a parcel or consolidate multiple titles. A descriptive plan produces new title to new parcels, in a more economical manner than a traditional monumented survey.

► Stakeouts

Our experienced professionals can offer you an effective solution for all of your construction needs:

✘ **BOUNDARY STAKEOUT:** Explore can accurately and efficiently survey and mark the legal boundaries of private & public property, as well as delineate variety of interest within the parcel.

✘ **BUILDING STAKEOUT:** Positions of new buildings or additions, piles or grid lines can be placed within a property relative to the boundaries and existing structures on site. Explore can also assist in preplanning stage of development permit plans.

► Real Property Reports

A Real Property Report document is required when seeking compliance from a municipal authority and is often needed during the transaction of land & property.

► Road Plans

Our road plan service include survey and registration for new road right of ways, roadway diversions, as well as the widening of existing registered roads. Explore can assist a municipality with road closure bylaws.

► Natural Boundary Amendments

Over the course of time, a natural boundary location may change, Explore can assist the land owner to apply to Alberta Environment and Parks to update their title to the current location.

► Utility Right of Ways

Explore can survey, prepare and submit a right of way plan to Alberta Land titles and further assist in the preparation of any accompanying caveats or easements granting interests related to these plans.

Pipeline Integrity Management

▶ Pipeline Integrity Management Program

Explore has experienced Pipeline Integrity Specialists to work with your Operations staff for all for the required field and office support in executing your company's Pipeline Integrity Management (IMP) Program on an on-going basis, or task specific project.

We can help you to ensure IMP activities are being completed and documented in accordance with the applicable regulatory requirements of the jurisdiction your pipelines are located in.

▶ Pipeline Integrity Manual

Nothing is more important than developing a clear, sound, and comprehensive Pipeline Integrity Manual (PIM) that shows just how you plan to support and maintain your pipeline system in accordance with all provincial regulations and the most current version of CSA Z662. Explore can work with you to develop a new PIM, or revise and update an existing one.

▶ Risk Assessments

Our risk assessment services provide our clients with detailed insight into the risk of each pipeline and also brings to the attention of our clients a number of additional considerations that should be taken into account in regard to their larger operations and maintenance activities.

▶ Pipeline Field Validation

We conduct annual pipeline field reviews that include the preparation and completion of line by line reviews in accordance with provincial regulators, along with detailed mitigation and monitoring analysis and reporting to satisfy CSA Z662 Clause 9 and Clause 10.

Engineering Assessments

Designed to serve as a tool as part of a company's pipeline safety and loss management system

Designed to serve as a tool as part of a company's pipeline safety and loss management system, these assessments fulfill the requirement for a number of regulatory bodies in Canada, in accordance with CSA Z662. Our dedicated team of engineers provide

comprehensive engineering assessments to ensure that the integrity of your pipeline is exactly where it needs to be to not only function effectively and efficiently, but to ensure that your risk management strategy is well-implemented.

TYPES OF ENGINEERING ASSESSMENTS OFFERED BY EXPLORE:

- ✘ Fitness for Service
- ✘ Resumption
- ✘ H2S Increase
- ✘ Substance Change
- ✘ MOP Increase
- ✘ ILI Analysis
- ✘ Geohazard Management

*If you require a specific service that is not listed above, we kindly ask that you **contact us directly to inquire more about our services.** We are always willing to do everything we can to assist our clients.*

Pipeline Safety and Loss Management System

The provincial and federal regulators require companies to develop and implement a Pipeline Safety and Loss Management System.

WE HAVE EXPERIENCED PERSONNEL WITH A STRONG REGULATORY BACKGROUND THAT CAN ASSIST YOU WITH THE FOLLOWING:

- ✘ SLMS Audit Support
- ✘ Self Assessment Declaration
- ✘ GAP Analysis
- ✘ SLMS Development

OUR FIELD SERVICES COVER THE FOLLOWING AREAS:

- ✘ AGM Placement & Tool Tracking
- ✘ Integrity Digs/ILI Verification Digs
- ✘ Site Inspections
- ✘ Pipeline Decommissioning (Discontinuing or Abandoning Pipelines)
- ✘ Cut-Out Analyses
- ✘ Ground Disturbance Packages

Field Services

Water Crossing Depth of Cover Inspections

▶ Water Crossing Identification

Explore will assist in helping clients understand their crossing inventory. Using GIS software Explore will classify, prioritize, and then plot each crossing in a database.

▶ Inspection Prioritization

Taking into account numerous pipeline attributes and the associated hydrology, we aid with understanding water crossing related risk. Using this understanding of risk we help clients target their most pressing issues first, while staying within allocated budgets, then proceed to water crossing of lower risk.

▶ Depth of Cover Survey

An all encompassing verification of pipeline depth throughout the crossing including the channel thalweg, bed, banks, reasonable setback on either side, and the general area.

▶ Visual Inspections

Visual inspections can be used as a means of checking a crossing for major changes evident without surveying actual pipeline depth. They can be a cost effective way to monitor crossings that have had depth determined in previous inspections.

Risk Mitigation

▶ Scour Analysis & Hazard Identification

Don't wait until it's too late to spot a hazard. Here at Explore, we conduct comprehensive scour analyses and hazard identification reports to determine any potential hazard that could impact the long-term integrity of our clients' pipelines. From there, our experts help to assist in the risk mitigation planning for these hazards to ensure that no potential vulnerability turns into a crisis.

▶ Risk Management Plan

Our risk management strategies serve as helpful and comprehensive guidelines that allow pipeline owners and operators to do everything they can to aid their operations staff in a timely manner during a period of concern. Each plan is carefully crafted and designed unique to each location.

▶ High Flow Advisory

Explore is pleased to offer email notifications regarding high flow in Alberta. This can be used to determine if your pipeline areas might be affected by high flow events.

Remediation Design & Support

▶ Hydrotechnical Engineering Assessment

Hydrotechnical Assessments are intended to provide feasible remediation design options as found to be appropriate based on review and analysis by a Hydrotechnical Engineer. The report is completed on a site or crossing basis and involves a review of the site based on historical depth of cover inspection documentation and topographical water crossing profile.

Additional Water Crossing Services

▶ Sonar Bathymetric Surveys

Bathymetric Surveys allow us to measure the depth of a water body along with map the underwater features. This in conjunction with a hydrotechnical assessment will provide you with an understanding of your crossing and any areas of concern.

▶ 3D Scanning Technology

Explore is proud to utilize the latest technology within our practices. Due to the efficiency of our new scanning equipment, we are thrilled to pass on the time and cost-savings to our clients. By utilizing this 3D Scanning technology, Explore has the ability to capture the data you need in a flash.

Regulatory Services

Explore Offers A Full Suite of Pipeline Regulatory Services

With the ever-changing oil and gas sector, licensees are experiencing the importance of compliance across all disciplines. Explore's expert regulatory team has extensive understanding of pipeline, well and facility requirements set forth by the provincial and federal regulators. Our team of experts can assist with clarification and management of these requirements.

Pipeline Audit Support

Explore understands the efficiencies an Audit Response requires and has the ability to support clients with credible 'check lists,' and establish compliance history and understanding of area sensitivities.

- ✘ Integrity Management Program Audits/Self-Assessments
- ✘ Detailed Operations Inspection Assessments
- ✘ Pipeline Safety & Loss Management Audits/Assessments
- ✘ CER Program Audits
- ✘ Application Audits

Application Systems Administration

We have fulsome understanding of regulatory requirements necessary for all classifications of applications and can support pre application requirements, build application support files (audit package) and provide direction on managing and meeting compliance requirements.

- ✘ OneStop (Alberta Energy Regulatory)
- ✘ Application Management System (British Columbia Oil & Gas Commission)
- ✘ Integrated Resource Information System (Saskatchewan Ministry of Energy and Resources)

Surface Land Administration

Explore's surface land team can provide insight, direction and manage surface land administration for existing and new oil & gas operations. Our knowledgeable team has over 10 years experience navigating Freehold and Crown land dispositions and can effectively manage third party agreements, public lands regulation and First Nations consultation.

▶ Saskatchewan Ministry of Energy & Resources (ER)

Our sound abilities include achieving Freehold & Crown surface rights, navigating and submitting Integrated Resource Information Systems (IRIS) applications, reviewing pre-application Provincial Government requirements & regulations and management of retroactive licensing.

▶ Canadian Energy Regulatory (CER)

One of the main responsibilities of the CER is the regulation of interprovincial and international oil and gas pipelines. They ensure engineering, safety and environmental requirements are met by conducting audits and inspections on construction and operational activities of the pipelines.

▶ British Columbia Oil & Gas Commission (BCOGC)

Explore's regulatory team understands BCOGC regulations & requirements and can support new, compliance and decommissioning projects. Our awareness of the regulatory life cycle can provide fulsome support through the Knowledge, Enterprise, Resource, Management, Information and Technology (KERMIT) submission process.

▶ Alberta Energy Regulator (AER)

The AER serves as the single regulator of energy development in Alberta, the AER keeps energy companies in check as they develop resources across the province. They are involved at every stage of an energy project's life cycle.