

Pembina Pipeline Corporation Optimizes Operations with Geospatial Data from Altalis

PEMBINA PIPELINE CORPORATION, a leading North American provider of **energy transportation and midstream services**, plays a crucial role in the continent's energy infrastructure. Specializing in the **transportation and storage of crude oil, natural gas, and natural gas liquids (NGLs)**, Pembina ensures the safe and efficient delivery of these essential energy products. With operations extending from British Columbia to Saskatchewan and into the United States, Pembina's extensive network of pipelines and storage facilities handles large volumes of energy products, making them a critical player in meeting North America's energy needs.



CHALLENGES

Navigating Complexities in Pipeline Data Management

Pipeline companies like Pembina face a complex landscape when it comes to data integration, regulatory compliance, and environmental responsibility. Geospatial data plays a pivotal role in overcoming these hurdles, from maintaining pipeline integrity to responding to potential spills.

EFFICIENT DATA INTEGRATION AND MANAGEMENT TO SUPPORT PIPELINE INTEGRITY

Pembina must efficiently integrate and manage massive amounts of data from inspections, integrity digs, and other monitoring activities. This data must be seamlessly incorporated into their Geographic Information System (GIS) to ensure the safety and reliability of their pipeline network.

DIGITAL ELEVATION DATA FOR PIPELINE SPILL MODELLING AND ASSESSMENT

Elevation data is important for modelling potential pipeline spills, predicting spill paths, identifying vulnerable areas, and planning effective containment and cleanup strategies. **LiDAR15** is a cost-effective elevation dataset that is utilized for accurate elevation profiles and terrain modelling over large areas.

LAND DATA FOR HOLISTIC UNDERSTANDING

Pembina requires detailed land data to gain a holistic understanding of its operational areas. This includes **Enhanced Title Mapping (ETM)**, **Cadastral** data, and **Dispositions** data (DIDs+), which provide critical information on land ownership, land use, and the presence of other operators, particularly on Crown lands. This comprehensive land data supports various Pembina business units, from project planning and inspections to environmental monitoring and pipeline construction. Understanding land ownership and the presence of other operators is also key to avoiding conflicts and ensuring regulatory compliance.

"Our land management system at Pembina is now utilizing all the Altalis property data sets. With the integration of Enhanced Title Mapping, the Land group can create instant geospatial reports, like a line list of current stakeholders to contact prior to a pipeline construction project."

-MURRAY RYDMAN, SUPERVISOR, GIS,
ASSET INFORMATION MANAGEMENT AT
PEMBINA PIPELINE CORPORATION



SOLUTIONS

EMPOWERING PIPELINE OPERATIONS WITH ALTALIS' COMPREHENSIVE GEOSPATIAL DATA

Altalis equips Pembina Pipeline Corporation with a suite of geospatial data products designed to optimize pipeline management and enhance environmental stewardship.

LIDAR15 DEM HIGH-RESOLUTION ELEVATION DATA

Altalis provides Pembina with **LiDAR15 DEM**, a high-resolution elevation data product. This detailed topographical information is essential for accurate pipeline spill modelling and assessment. By simulating various spill scenarios with precision, Pembina can develop robust response plans, minimize environmental risks, and ensure faster, more effective spill response in case of an incident.

COMPREHENSIVE PROPERTY DATA — ENHANCED TITLE MAPPING (ETM), CADASTRAL, DISPOSITIONS (DIDS+)

Altalis' accurate and detailed property information is essential for Pembina's pipeline integrity management, as it serves as a foundational layer within their GIS applications. By integrating this property data with other datasets, such as pipeline attributes, inspection results, and environmental data, Pembina creates a comprehensive view of their assets and their surroundings. This integrated approach streamlines data management, enabling efficient monitoring of pipeline health, risk assessment, and informed decision-making. Moreover, the detailed property information aids in optimizing route planning, ensuring regulatory compliance, and enhancing overall operational efficiency.

RESULTS

DRIVING EFFICIENCY, SAFETY, AND COST SAVINGS FOR PEMBINA

Altalis' geospatial data solutions have delivered tangible benefits for Pembina Pipeline Corporation, including:

IMPROVED DATA ACCURACY

Enhanced Title Mapping data is current with extensive attributes, benefiting stakeholder relations.

INCREASED OPERATIONAL EFFICIENCY

Streamlined data integration reduces manual effort, accelerates data processing, and frees up resources for critical tasks.

REDUCED DOWNTIME

Faster access to accurate data minimizes operational delays, ensuring uninterrupted energy delivery.

ENHANCED SAFETY

High-accuracy **LiDAR15** data enhances spill modelling and pipeline integrity assessments, leading to more informed planning and risk mitigation.

COST SAVINGS

Efficient data management lowers labor and operational expenses.



“Altalis has allowed us to eliminate the need for costly third-party data brokers. We can directly access title and landowner information through their platform, which has saved us thousands of dollars on each project.”

—MICHELLE ROBINSON, SUPERVISOR,
LAND OPERATIONS & MAINTENANCE AT
PEMBINA PIPELINE CORPORATION

“LiDAR15 plays a crucial role in managing our data for pipeline integrity. We are able to create high resolution elevation models to cover our vast pipeline network to support spill modelling, pipeline assessments, and elevation profiling.”

—MURRAY RYDMAN, SUPERVISOR, GIS,
ASSET INFORMATION MANAGEMENT AT
PEMBINA PIPELINE CORPORATION



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Established in 1998, we have been the **authoritative source of spatial data and imagery in Alberta for over 25 years**. We are the leading data management, maintenance, and distribution company in Alberta, and ensure the continued updating, re-engineering, storage, distribution, value-added redistribution, and general management of primary provincial mapping datasets. Our goal is to **make mapping products more available, accessible, accurate, and affordable**. We are your trusted source of spatial data.

Our state-of-the-art webstore, Altalis.com, is powered by AWS enabling reliable, fast and secure data deliveries. **Customers can explore, view, and acquire spatial data products both paid and open data with the click of a button.** We take pride in providing exceptional customer service and building long-term relationships with our clients. Our experienced customer service team is available to answer any questions you may have about finding the right data to meet your needs.