

US Upstream Operator

A DEDICATED INTEGRITY MANAGEMENT PROGRAM

In 2017, a US-based upstream operator completed a major acquisition of assets in Colorado. The infrastructure consisted of over 3,500 wells and 1,000 miles of pipelines and associated infrastructure. The pipeline system acquired had little to no documented history of integrity management. In particular, there was no documented testing program in place for produced water or gathering lines. The operator began evaluating potential solutions to enable it to implement a comprehensive integrity management program. The company needed a better process for managing its gathering asset data; the process needed to complement its existing internal infrastructure and be easily managed by its integrity team. The key business drivers focused on improved integrity data collection and management, support of newly acquired pipeline and facility assets, adherence to state regulations, and ensuring the safety and protection of workers and environment.



Following its asset transaction in 2017, the operator sought to improve its existing Integrity Management System to effectively manage these newly acquired assets. While the operator had a GIS and a risk program, these systems were not linked, so the operator lacked a cohesive and streamlined approach to data management and risk assessments.

Additionally, in February 2018 and November 2019, the Colorado Oil and Gas Conservation Commission (COGCC) introduced dozens of new flowline regulations requiring operator compliance. The Commission established comprehensive Integrity Management program requirements; additional registration, record keeping and reporting conditions; and additional abandonment requirements. These changes resulted in Colorado having the nation's most stringent, comprehensive regulatory program for oil and natural gas operations.

The operator's Integrity Management team quickly realized the need to have a dedicated risk and data management system in place as one source of truth to ensure its gathering system assets were managed with the highest standards in place to meet its business objectives from a regulatory, environmental and commercial perspective.

CLIENT

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CHALLENGE

Determining the best approach to manage newly acquired gathering system assets

SOLUTION

Leveraging technology for a dedicated integrity management program

BENEFITS

- Proactively track inspection dates, cathodic protection (CP), and project due dates
- Data transparency and detailed analysis to support informed decision-making
- Analyze ILI data and anomalies to help mitigate potential risk

“Having a dedicated data management program instills **transparency, accountability** and **trust** to support decision making.”

PARTNERING WITH DYNAMIC RISK

The company went to RFP in 2018 in search of a robust technology solution that could integrate its defined workflows, meet corporate business objectives and serve them well into the future.

As stated by Bernard Comeau, Principal Technology Consultant at Dynamic Risk, “Our client has always aimed to stay ahead of the curve and be well prepared for a potential regulatory audit. They understand the value of having all information records and data sets complete and accurate for reporting purposes for a smooth review process and instill confidence with state regulators. This impacted their urgency to find a proven and reliable technology solution to effectively manage their gathering system assets to mitigate potential risk and reduce uncertainties.”

UPSTREAM SOFTWARE AS A SERVICE (SAAS) IMPLEMENTATION

In October 2018, the operator kicked-off the SaaS implementation of Dynamic Risk’s upstream software applications, Explorer and ILIAnalyst. Dynamic Risk met with the client at the client’s field office to review the implementation plan, key goals and objectives, and pipeline integrity management methodologies. This meeting was instrumental in establishing the overall project success criteria.

The implementation included compiling and populating all the operator’s data into Explorer to get them up and running more quickly and able to start viewing its information. Once the data was fully loaded, working with Dynamic Risk the operators were able to start running risk assessments, providing valuable insight into the health of its gathering system assets and flagging potential risks.

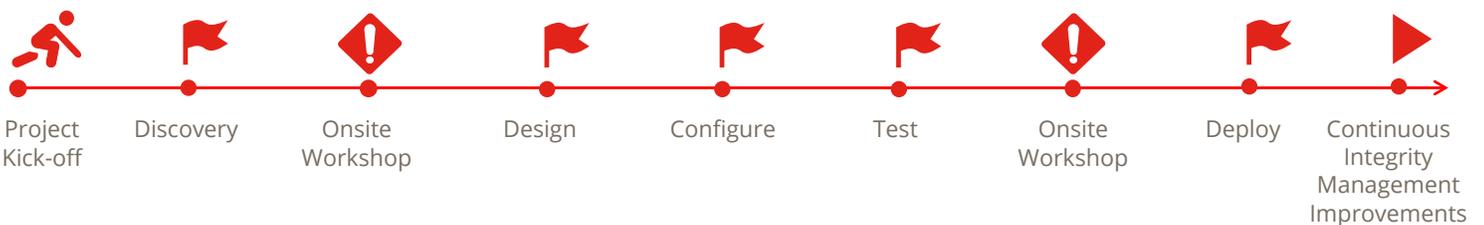
Some of the most challenging tasks with a SaaS project implementation are finding the resources and time required for the collection and consolidation of data. It requires determining which data sets are most current, tracking down missing information, and finalizing a standard file format and management system. The operator did not have a standardized process in place to collect data or standardized data source formatting to feed its data model. With the programmatic task of loading the data into Explorer, the operator seized the opportunity to develop a standardized process for data collection across all its operational divisions. Effective data collection and documentation required working closely with and engaging field operations to obtain their buy-in. Having a dedicated line of communication between the field and office to ensure the new standards were in place and being adhered to increased operational efficiency.

A member of the team at the operating company commented on the process: “The importance of data collection and documentation from the field is critical. Often, if there is no data or record of an activity or potential risk, there is no proof of occurrence. Having a dedicated data management program instills transparency, accountability and trust to support decision making, from field to office.”

WHY PARTNER WITH DYNAMIC RISK?

Dynamic Risk’s technology and consulting services optimize risk-informed decision making to manage risk through an asset’s entire life cycle. Our software models pipeline systems to proactively determine where they are most likely to fail and the corresponding consequences of unintended releases. From gathering systems, midstream pipelines, transmission pipelines, and distribution networks, we have software applications and in-house expertise to provide complete pipeline risk assessment, data management and compliance reporting.

AGILE IMPLEMENTATION WORKFLOW DIAGRAM



OUTCOME

The first phase of the project was rolled out in the summer of 2019, just 8 months after project kick-off and deemed a success by both Dynamic Risk and the operator. The operator has received very positive feedback both from internal and external stakeholders, including positive feedback from agencies with respect to the implementation.

Using Explorer, the operator is now able to proactively track inspection dates, cathodic protection (CP) readings, and project due dates to ensure it is on schedule with compliance tracking. Having a dedicated and efficient data management system in place has provided data transparency and detailed analysis that has directly impacted operations by mitigating potential risks.

In addition, the integrity team also took an innovative approach in leveraging Explorer to maintain data for their facilities

LOOKING FORWARD

Moving forward into 2020, one of the company's key objectives is to leverage Dynamic Risk's easy-to-use software tools and become as self-sufficient as possible as it moves into maintaining and further strengthening its pipeline data and integrity program management. The second phase of the project, is focused on In-line Inspection (ILI) data integration and analysis. The ability to analyze ILI data and anomalies in other key pipeline attributes and program data will enable the operator to make risk-based decisions on potential areas for digs and resulting pipeline maintenance and repairs.

The proactive and innovative approach the operator has taken to developing a robust integrity management program and leveraging that system across other divisions aligns well with its corporate vision of identifying and capturing opportunities and will enable the company to continue its proven history of outperformance.

KEY BENEFITS

- Improved Processes for Data Gathering and Management
- Improved Audit Analysis and Compliance Tracking
- Advanced Analytics of ILI Data
- Field Operations Accountability and Engagement
- Less Un-scheduled Downtime
- Reduced leaks and mitigating risk
- Facilitate risk-based decision making

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