

## Data Driven – Risk Informed ARO Portfolio Management – Case Studies from the Orphan Well Association and CNOOC

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Challenged to do more with less, oil and gas asset managers are turning to technology to achieve the goal of efficiently and effectively attaining regulatory closure. One common method to achieve this goal is to adopt a portfolio approach that includes tens or hundreds of wellsites, facilities and pipelines of a single licensee. Expanding on this approach, the Alberta Energy Regulatory (AER) is encouraging licensees to work together to effect area based closure (ABC) campaigns to achieve economies of scale while reducing industry environmental liabilities. Portfolio approaches and ABC campaigns require significant planning that involves in-house (e.g. environmental assessments) and third party/public data. These data must be combined to inform closure strategies, management (including execution risk, site prioritization, and stakeholder-based risks etc.) and procurement efforts. In this presentation, we will demonstrate a web-enabled database and mapping tool that allows asset managers to efficiently inform key decisions regarding portfolio and ABC campaign strategy and execution planning including site prioritization, budgeting and schedule optimization. The presentation will also demonstrate how once a campaign is underway, the tool readily transitions to project management functions including cost and schedule tracking, stakeholder commitments (and approvals conditions) monitoring, and change management.

Using this tool, clients have significantly de-risked their closure programs from several environmental, social and governance (ESG) perspectives while maximizing capital efficiencies. Strong, demonstrable, environmental, social and governance (ESG) performance is now a market and societal expectation of oil and gas producers. Not limited to operations, ESG performance spans the entire lifecycle of oil and gas production including asset retirement obligations (AROs). While minimizing closure costs is a dominant consideration in ARO management, a well-developed and executed ARO strategy can meaningfully contribute to corporate ESG performance.

This presentation will go over two case studies of the use of the Azurite Insights tools. First will be a demonstration of the Orphan Well Association's (OWA) intake Risk Ranking and Prioritization tool to rapidly optimize the deployment of field staff to inspect sites for risk to human health and the environment. The second case study, will focus on CNOOC's Balzac abandonment and reclamation program and the capital efficiency, schedule optimization, and risk reduction that is resulting from the harmonization of subject matter experts with data-driven platforms.

### Michelle Taylor

Michelle Taylor is an engineer with over 25 years of liability management experience in Western Canada with a focus on contaminated site assessment and remediation; liability assessment; and acquisitions and divestitures. Working in-house as an environment advisor with several different producers, she experienced many ARO management systems and mapping tools before joining Waterline Resources Inc. where she now works with the Information Services team to create data management and mapping products specifically for energy asset managers.

### Wes Funk

Wes Funk has over 25 years of management consulting experience with a focus on the environmental and social aspects of resource and infrastructure developments. This experience has led to the development and implementation of corporate and public sector governance processes related to risk and opportunities management and decision quality. He has worked on energy and mining projects around the world and actively participated in the adoption of data driven strategies to optimize the environmental, social and financial trade-offs associated with resource development and closure projects.

Azurite Insights is a collaboration between DXD Consulting and Waterline Resources bringing together a deep bench of experience in environmental management with advanced web-enabled data and mapping technology.