

Sub-Atlantic ROVs help Offshore Innovative Solutions explore the world's largest undeveloped uranium mine

A PAIR of Sub-Atlantic ROVs have been used to inspect and clear a flooded section of a huge mining facility in Saskatchewan Province, northern Canada, which is home to the largest undeveloped high-grade uranium deposit in the world.

Louisiana-based Offshore Innovative Solutions, Inc. was asked by Cameco to conduct video inspections and sonar surveys in a section of the Cigar Lake mine 420 meters below ground level, which had been flooded during an inflow in August 2008.

A Sub-Atlantic Super Mohawk was used to carry out initial survey work and locate the source of the inflow before the project scope was expanded to include construction and demolition, which necessitated the addition of a second ROV.

Offshore Innovative Solutions mobilized a Sub-Atlantic Mohican to assume the role of stand-by and second on-site ROV. A remediation plan was developed to stop the inflow by installing an inflatable grout bag to form a barrier.

Once the grout bag was positioned and filled the area of the inflow was backfilled with concrete. The plan required that the working level of the mine be free from any obstructions which could possibly puncture or damage the grout bag. As the job has progressed, Offshore Innovative Solutions has taken on additional tasks such as providing guidance and support to Cameco's engineering team in preparation for remediation and backfilling of the inflow location.

Ventilation pipes, water pipes, electrical conduit and rock bolts had to be removed to facilitate the installation of the grout bag. In addition, the entire inflow area had to be dredged to remove sand and rock located in the mine tunnel. The scope of the remediation work would normally require the use of a work class ROV system however, due to the restrictive size of the mine shaft, an inspection class had to be retrofitted to carry out the work.

The Sub-Atlantic Super Mohawk was outfitted with dual five-function manipulators, hydraulic grinders, water jet, hydraulic cutter, low visibility cameras and sonar. Offshore Innovative Solutions also designed and manufactured numerous specialty tools for the ROV to use to facilitate the remediation.

Offshore Innovative Solutions has been able to achieve the above with the help of Sub-Atlantic's superior customer service, technical support and quick response times.

The job has now been completed successfully with the ROVs on site completing more than 600 dives and over 4,000 in water hours performing everything from inspection to dredging to demolition, all while working in a high risk, low visibility environment. Due to a combined team effort between Offshore Innovative Solutions and Sub-Atlantic, Cameco's exacting standards are being met.

Sub-Atlantic is part of the Triton Group of companies.

ENDS (27/10/09)