

ONTARIO
**KNOW-HOW
IN ACTION**

BELZONA[®]
GREAT LAKES

016/2021

**POWER
TRANSFORMER
LEAK SEALING**



BELZONA[®]
Repair • Protect • Improve
AUTHORIZED DISTRIBUTOR

THE PROJECT

TRANSFORMER OIL LEAK
MARCH, 2021

A transformer station in Northwestern Ontario, was having issues with the bushing of a transformer that was leaking oil. The leaks were causing an environmental hazard as well as the inconvenience of having to top up the oil in the transformer every couple weeks. There was no way of sealing these leaks, welding was not an option due to the environment.

Transformer leaks are commonly caused by degrading gaskets or holing as a result of corrosion and impact in the radiator fins or steel tanks. Often these leaks present as slow drips but, over time, large volumes of oil can be lost, spilling hundreds of gallons of mineral oil into the environment.

EMERGENCY REPAIR

They needed a product that could effectively seal without the need for specialist tools. They were planning to replace the unit in the near future but needed something that could help them extend the service life until its replacement .

One of the technical supervisors had experience using Belzona in the past and he was told Belzona products can be used to repair oil leaks. He decided to give it a try.



THE SOLUTION

Belzona 9611 (ES-Metal) and Belzona 1161 (Super UW-Metal) were used to repair the equipment. Belzona 9611 (ES-Metal) is a rapid curing putty grade system which is ideal for sealing low pressure live leaks prior to application of additional Belzona systems to create a more permanent repair.

The surface was first cleaned with Belzona 9111 (Cleaner Degreaser). Then, the leaks were first stemmed using Belzona 9611 (ES-Metal). The surface was then roughen up with hand tools.

SURFACE TOLERANT



Belzona 1161 (Super UW-Metal) was then applied in conjunction with Belzona 9341 (Reinforcement Tape) around the bushing to provide a more permanent repair. The bolts of the bottom flange were also sealed.

Belzona 1161 (Super UW-Metal) is a surface tolerant, paste grade system for repairing and rebuilding machinery and equipment. This product displaces fluid from the substrate and therefore can be applied to wet and oily surfaces as well as for underwater applications. This material does not shrink, expand or distort during curing and can be used to repair either thin or thick sections.