

80,000 tonnes remediated + millscale recovery.

Oily mill scale treated inside a live eastern Canadian steel plant, recovering 3.8 million litres of oil and returning every tonne of iron-bearing material to production.

OPERATING STEEL FACILITY · QUEBEC

80K t	3.83M L	<1 %
Oily mill scale treated	Oil recovered for reuse	Residual oil

THE WORK

The feed was a fine ferrous oxide sludge carrying 10 to 20 per cent oil and a similar moisture load. Nelson ran indirect thermal desorption rather than a direct-fire soil train so the iron could be preserved while the oil was driven off and captured.

Material handling, including a long-reach excavator on the stockpiles, ran inside an operating steel mill for four years without interrupting plant production.

PROJECT RECORD

CLIENT	National steel producer
SITE	Operating steel production facility, Quebec
EQUIPMENT	Indirect Thermal Desorption (ITD) train with oil recovery
SCHEDULE	A four-year program, including a one-year COVID shutdown
PERMITTING	Three Quebec ministry permits

NELSON ROLE	On-site thermal processing inside a live production facility
CONTAMINANTS	Oily mill scale, 10 to 20%+ oil and 10 to 20%+ moisture
VOLUME	Approx. 80,000 tonnes, 5 t/hr average (approx. CAD $13 million)
CRITERIA	Client QA/QC under 1% oil and 5% water
RESULT	Under 1% residual oil, 3,828,163 L recovered, 100% of ferrous back to production