

2012 BROWNIE AWARD **WINNER**

Category 2: Sustainable Remediation Technologies and Technical Innovation

200-250 Boulevard Marcel-Laurin, St-Laurent (Montréal), Québec

Sustainable Remediation of Former Aerospace Manufacturing Facility for Future Residential Use in a Montréal Suburb

TEAM | In 2009, the **Kilmer Brownfield Equity Fund L.P.** purchased the property in recognition of its clean-up potential and its optimized potential value as a mid-density residential site. Kilmer engaged **LVM/Dessau** as the environmental consultant on the project and **Biogenie** as the environmental contractor.

OPPORTUNITY | The property is located at the entrance to the Borough of Saint-Laurent in the City of Montréal in an area that has been transitioning from heavy industrial uses to mid-density residential uses over the last decade. The property is located within a kilometer of the Metro underground transit system. The neighbourhood has become popular for couples and young families. When the property is ultimately built-out, there will be 800-1,000 new residential condominiums, which will maximize existing infrastructure and services in the area and create a community that will complement and enhance the existing established neighbourhood.



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>> A neighbouring mid-rise development, typical of the transitioning area.

>> The 13-acre brownfield site was used since the 1950s for the production and maintenance of aircraft components for the aerospace industry. The facility was closed in 2008. Soil and ground water on the property were impacted by a range of organic and inorganic parameters, including petroleum hydrocarbons, solvents and metals. Given the age of a large part of the 215,000 ft² facility, asbestos-containing materials were also present and required abatement as part of the demolition.

SUSTAINABILITY | A focus on sustainability as it relates to brownfield remediation could potentially add a further degree of complexity and risk for brownfield redevelopers, who are concerned with certainty of outcomes, development timelines and project economics. Despite these potential hurdles, the team developed a Rehabilitation Plan for the property which incorporates the use of green technologies and principles of sustainability—while still maintaining acceptable timelines and economics. This integrated and sustainable approach was a shift in traditional contaminated site management commonly observed by the MDDEP in Québec. The MDDEP intends to use this particular project to expand its knowledge of and support for other brownfield redevelopment projects in the province of Québec. Through this, the acceptance of ecological principles will be promoted.



BIOREMEDIATION | 14,500 m³ of soils impacted by various organic parameters were treated using bio-remediation. Treated soils will be re-used on site.

RE-USE AND RECYCLING | More than 85% of demolition materials were recycled. For instance, 27,000 metric tonnes of crushed concrete were re-used on site.



PERMEABLE REACTIVE BARRIER | A PRB was installed around a portion of the property boundary to mitigate any migration of cVOC-impacted ground water.



ZVI AMENDMENT | Treated soils were backfilled with Zero-Valent Iron (ZVI)/sand layers in excavated areas. This technology received the generous support of Sustainable Development Technology Canada's (SDTC) Tech Fund.



KILMER BROWNFIELD EQUITY FUND L.P.
Canada's leading fund dedicated to the redevelopment of brownfields

