

October 10, 2014

In November 2013, the City of Edmonton (COE) retained Golder Associates Ltd. (Golder), to conduct a Phase I Environmental Site Assessment (ESA) at the former Edmonton City Centre Airport (ECCA). The COE required the Phase I ESA for re-zoning and redevelopment due-diligence purposes. The Phase I ESA was completed in general accordance with the national standards and was limited to: 1) identifying potential environmental concerns from available documented information sources; and 2) a site reconnaissance (visual inspection of the site).

Golder initially completed a review of the historical environmental investigations that had been completed at the ECCA. The review included approximately 50 Phase I/II ESA reports. The purpose of this review was to independently assess the soil and groundwater quality at the ECCA by comparing historical analysis to present environmental soil and groundwater quality guidelines. Between 1985 and 2013, approximately 186 boreholes have been advanced across the ECCA (refer to Figure 1). Many of these boreholes were used to assess individual issues of potential environmental concern at specific buildings or hangars. Generally, subsurface conditions consisted of fine-grained, high plastic clay soil.

Site visits were conducted at 18 of the 26 buildings/areas. Several of the buildings were used for aircraft storage and maintenance activities and office space. Other buildings were used for plastic tank manufacturing and occupation rehabilitation. There were two operational fuel storage tank farms on the ECCA. The environmental concerns associated with most buildings involved the storage and management of waste liquids, including domestic waste, waste oils, and other waste aviation fluids. In most cases, the waste fluids were either stored in aboveground storage tanks (ASTs) equipped with secondary containment or in 205 litre (L) drums. It should be anticipated that soil and groundwater quality impairment will be encountered below building footprints during redevelopment activities and that soil remedial works will be required at several buildings. Given the age of the buildings, hazardous materials may be present in some of the buildings. Hazardous material assessments should be completed on all the buildings prior to commencing any renovations or demolition of the buildings. In addition, several properties adjacent to the former ECCA represent a potential environmental concern. These issues relate to potential soil and groundwater quality impairment on the ECCA lands as a result of historical operations on adjacent lands. Follow-up environmental investigations should be completed in these areas.

Based on a review of the available information, 11 locations were interpreted to represent environmental risk based on data gaps or identified soil and/or groundwater impairment. It was recommended that additional investigation be undertaken at these locations as redevelopment proceeds and it was anticipated that this work would be conducted in conjunction with the proposed redevelopment.

In April 2014, Golder completed a Phase II ESA at Buildings 16 and 18, where the first stage of redevelopment will occur. The purpose of this work was to further investigate and delineate two areas where petroleum hydrocarbon (PHC) concentrations had been historically identified, and which exceeded current regulatory guidelines. Golder advanced six boreholes in the vicinity of Buildings 16 and 18 to collect soil samples. Based on the result of this Phase II ESA, it was estimated that approximately 650 m³ of soil located west of Building 16 and in the vicinity of the former Royal Canadian Air Force (RCAF) fuelling site exceeds the applicable Alberta Tier 2 Soil and Groundwater Remediation Guidelines. This soil will be remediated during Stage 1 of the redevelopment.