

Technical Memorandum

Status Update – January 2018

Former International Malleable Iron Company (IMICo) Site 200 Beverley Street, Guelph

Prepared For: Mr. Prasoon Adhikari, City of Guelph
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Prepared By: Jacobs (formerly CH2M)
Date: January 16, 2018
Project Number: 694757.01.07.01 KWO//475636/400/020/004

1. Introduction

This technical memorandum provides an update of the activities and interpretation of information from the Phase One Environmental Site Assessment (ESA) and ongoing Phase Two ESA for the former International Malleable Iron Company (IMICO) facility located at 200 Beverley Street, in Guelph, Ontario ('Site' or 'Property'). CH2M HILL Canada Limited ('CH2M') was retained in 2017 to provide environmental services to support the filing of a record of site condition ('RSC') for the Property, for potential redevelopment from industrial to residential/parkland/institutional and commercial land use.

2. Background

The Site is approximately 5.2 hectares in size and is located east of the downtown portion of the City of Guelph ('Guelph'), north of the intersection of Stevenson Street South and Beverley Street. The Site is surrounded by a mix of commercial, industrial and residential properties. The Guelph Junction Railway lines and other commercial/industrial land uses border the Site to the north. Industrial/commercial properties border the Site to the east. Beverley Street and Stevenson Street South border the Site to the south and west, with additional commercial/industrial facilities south of Beverly Street, and commercial/industrial and residential properties west of Stevenson Street South.

The Site previously housed an iron-jobbing foundry owned by IMICO, which was active from approximately 1913 until closure in 1989. Subsequent uses were limited to that of a commercial and non-industrial nature. In 1997, the City took over the Site, and all on-Site buildings were razed between 1998 and 1999, with concrete floor slabs and footings still in place. The Site has been vacant from 1999 to the current time.

Several environmental investigations have been conducted at the Site from 1989 to 2017. Additional Phase One and Phase Two ESA work is currently occurring.

3. Phase One Environmental Site Assessment

A draft Phase One ESA was completed in the fall of 2017. The objective of the Phase One ESA was to review the historical information for the Site and determine the Areas of Potential Environmental Concern ('APECs'), potential Contaminants of Concern ('COCs'), and potentially affected media (i.e. soil and/or groundwater).

As part of the Phase One ESA, publicly available environmental records and databases were reviewed, including previous environmental reports, and historical reference materials such as aerial photographs, historical mapping, fire insurance plans, and street directories. A Site Inspection was completed, and persons familiar with historical site operations were interviewed. The available environmental information was summarized in a draft Phase One ESA report meeting the requirements of Ontario Regulation 153/04. An abbreviated summary of findings from the Phase One ESA is shown below.

Previous Owners: IMICO (1913 – 1989), other non-industrial or commercial owners (1989-1997), City of Guelph (1997 to present)

Previous Investigation Locations:

- >150 soil samples from approx. 100 locations
- 38 existing groundwater monitoring wells

Contaminants of Concern: Metals/Inorganics, Volatile Organic Compounds (VOCs), Petroleum Hydrocarbons (PHCs), Polycyclic Aromatic Hydrocarbons (PAHs), and PCBs

Potential Sources: 33 Areas of Potential Environmental Concern including: foundry operations, plating/galvanizing, petroleum hydrocarbon use and storage, machine/electrical shops, PCB-containing equipment and storage, and more.

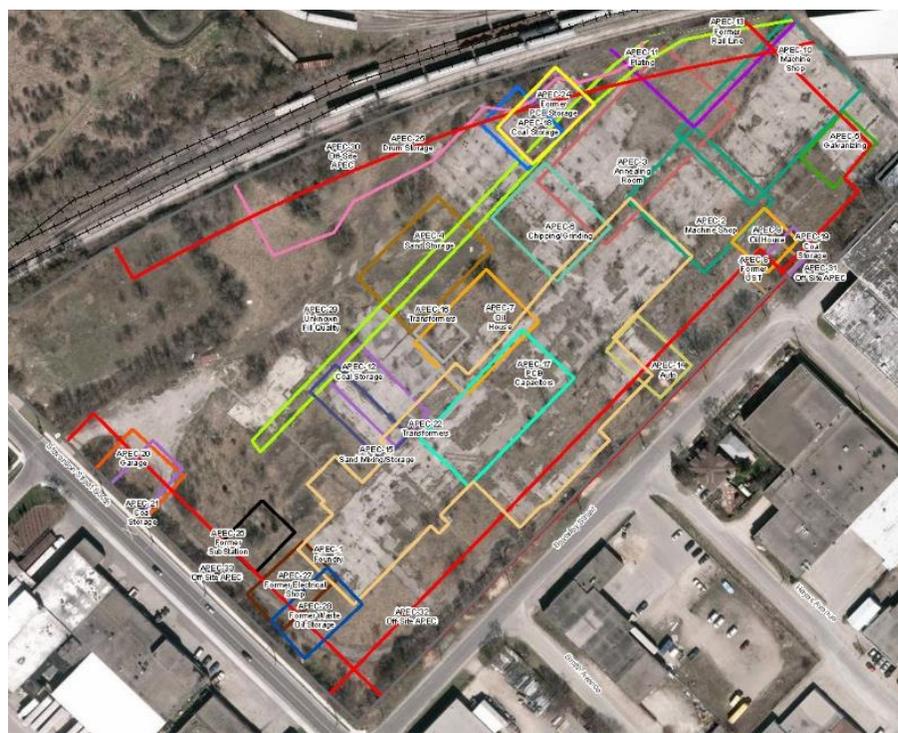


Figure 1. Areas of Potential Environmental Concern
Draft Phase One Environmental Site Assessment

Phase Two ESA Activities Completed:

- Groundwater sampling of all existing wells on Site
- Initial round of drilling including: 12 monitoring wells, 4 boreholes, 9 test pits
- Groundwater elevation snapshot including newly installed wells

Summary of known issues:

- Trichloroethylene (TCE) and degradation products in groundwater at the northeast corner of the Site
- Oil/Light non-aqueous phase liquid (LNAPL) on the groundwater in the northeast side of the Site
- Widespread metals (primarily zinc) in soil and groundwater
- Localized impacts of other contaminants of concern

4. Phase Two Environmental Site Assessment

The objective of the Phase Two ESA is to verify the presence or absence of contamination, of COCs, within the soil and/or groundwater of each APEC. As per Ontario Regulation 153/04 exceedances of the applicable regulatory standards require full depth and lateral delineation. The focus of current Phase Two ESA work is to build on the work historically completed, to finish the identification and delineation of contaminants. Completion of the Phase Two ESA is anticipated later in 2018.

Soil and groundwater quality data is being compared to the Ministry of Environment and Climate Change (MOECC) Table 6 Standards for future Residential/Parkland/ Institutional ('RPI') land use. The Table 6 standards are applicable for areas where groundwater is used for drinking purposes, and the depth to bedrock is shallow.

5. Additional Investigations / Next Steps

Work anticipated in the future includes:

- i. Completion of the Phase Two ESA, with investigation within all Phase One ESA APECs, identification of COCs, including where applicable, depth and lateral delineation of COCs
- ii. Remedial Options Evaluations to manage the environmental risk resulting from the identified contaminants
- iii. Site Remediation and completion of a Risk Assessment
- iv. Complete Documentation, Regulatory Review Process