REVISED

Phase One Environmental Site Assessment

500 Coventry Road
Ottawa, Ontario

Prepared for:

Morguard REIT c/o Morguard Investments Limited
55 City Centre Drive, Suite 800
Mississauga, ON L5B 1M3

April 19, 2024

Morguard Investments Limited
PN: 18061p01

Pinchin File: 319674

© 2024 Pinchin Ltd.

Issued To:	**Morguard REIT c/o Morguard Investments Limited**
Issued On:	**April 19, 2024**
Pinchin File:	**319674**
Issuing Office:	**Kanata, ON**

Author: Alex Kelly, M.Sc.
Project Coordinator
613.592.3387
akelly@pinchin.com

Reviewer: Alicia McDonald, P.Eng., QP$_{ESA}$
Senior Project Manager
613.840.6147
amcdonald@pinchin.com

Reviewer: Scott Mather, P.Eng., QP$_{ESA}$
Director, Eastern Ontario
613.592.3387
smather@pinchin.com

© 2024 Pinchin Ltd.

TABLE OF CONTENTS

1.0 EXECUTIVE SUMMARY 1
2.0 INTRODUCTION 3
2.1 Phase One Property Information 4
3.0 SCOPE OF INVESTIGATION 5
4.0 RECORDS REVIEW 6
4.1 General 6
4.1.1 Phase One Study Area Determination 7
4.1.2 First Developed Use Determination 7
4.1.3 Local and Municipal Government 7
4.1.4 Fire Insurance Plans 9
4.1.5 Chain of Title 10
4.1.6 Environmental Reports 10
4.1.6.1 Previous Environmental Report Summary 20
4.2 Environmental Source Information 21
4.2.1 Environmental Database Search – ERIS 21
4.2.1.1 National Pollutant Release Inventory 21
4.2.1.2 Ontario Inventory of PCB Storage Sites 21
4.2.1.3 National PCB Inventory 22
4.2.1.4 Certificates of Approval 22
4.2.1.5 Environmental Compliance Approvals, Permits To Take Water and Certificates of Property Use 23
4.2.1.6 Inventory of Coal Gasification Plants 23
4.2.1.7 Environmental Incidents, Orders, Offences and Spills 23
4.2.1.8 Waste Management Records 25
4.2.1.9 Fuel Storage Tanks 28
4.2.1.10 Notices and Instruments 29
4.2.1.11 Areas of Natural Significance 29
4.2.1.12 Landfill Information 29
4.2.2 Ministry of the Environment, Conservation and Parks Freedom of Information Search 29
4.2.3 Technical Standards and Safety Authority Search 31
4.2.4 Property Underwriters' Reports and Plans 32
4.2.5 City Directories 32
4.3 Physical Setting Sources 33
4.3.1 Aerial Photographs 33
4.3.2 Topography, Hydrology and Geology 35
4.3.3 Fill Materials 35
4.3.4 Water Bodies, Areas of Natural Significance and Groundwater Information 36
4.3.5 Well Records 36
4.4 Enhanced Investigation Property 37
4.4.1 Site Operations 37
4.4.2 Products Manufactured On-Site 38
4.4.3 Processing Manufacturing Operations/Equipment 38
4.4.4 Hazardous Materials, Raw Materials Handling and Storage On-Site 38
4.4.5 By-Products and Wastes Produced On-Site 38
4.4.6 Locations and Contents of Drums, Totes and Bins 39
4.4.7 Oil-Water Separators 39

© 2024 Pinchin Ltd.

4.4.8 Vehicle and Equipment Maintenance Area (Hydraulic Lift Equipment) 39
4.4.9 Historical Spills and Leaks 40
4.4.10 Other On-Site Operations and Concerns 40

5.0 INTERVIEWS 40

6.0 SITE RECONNAISSANCE 41

6.1 General Requirements 41
6.2 Specific Observations at Phase One Property 42
6.2.1 Description of Buildings and Structures 42
6.2.2 Description of Below-Ground Structures 42
6.2.3 Description of Tanks 42
6.2.4 Potable and Non-Potable Water Sources 42
6.2.5 Description and Location of Underground Utilities 42
6.2.6 Details of Heating System 42
6.2.7 Details of Cooling System 43
6.2.8 Details of Drains, Pits and Sumps 43
6.2.9 Unidentified Substances within Buildings and Structures 43
6.2.10 Details of Staining and Corrosion 43
6.2.11 Details of On-Site Wells 43
6.2.12 Details of Sewage Works 43
6.2.13 Details of Ground Cover 43
6.2.14 Details of Current or Former Railways 44
6.2.15 Areas of Stained Soil, Vegetation and Pavement 44
6.2.16 Areas of Stressed Vegetation 44
6.2.17 Areas of Fill and Debris Materials 44
6.2.18 Potentially Contaminating Activities 44
6.2.19 Unidentified Substances Outside Buildings and Structures 44
6.2.20 Surrounding Land Uses 44
6.3 Written Description of Investigation 46
6.3.1 Phase One Property 46
6.3.2 Phase One Study Area Outside of Phase One Property 47

7.0 REVIEW AND EVALUATION OF INFORMATION 48

7.1 Current and Past Uses 48
7.2 Potentially Contaminating Activities 48
7.3 Areas of Potential Environmental Concern 49
7.4 Phase One Conceptual Site Model 50

8.0 CONCLUSIONS 51

8.1 Signatures 52
8.2 Terms and Limitations 52

9.0 REFERENCES 53

© 2024 Pinchin Ltd.

APPENDICES

APPENDICES

APPENDIX A	Tables
APPENDIX B	Figures
APPENDIX C	Photographs
APPENDIX D	Survey Plan
APPENDIX E	Historical Land Use Inventory
APPENDIX F	Opta Records
APPENDIX G	Chain of Title Search Results
APPENDIX H	ERIS Report
APPENDIX I	MECP FOI Search Results
APPENDIX J	TSSA Search Results
APPENDIX K	Aerial Photographs
APPENDIX L	Maps

TABLES

Table 1	Table of Current and Past Uses of the Phase One Property
Table 2	Table of Potentially Contaminating Activities
Table 3	Table of Areas of Potential Environmental Concern

FIGURES

Figure 1	Key Map
Figure 2	Phase One Property
Figure 3	Phase One Study Area
Figure 4	Potentially Contaminating Activities – On-Site
Figure 5	Potentially Contaminating Activities – Off-Site
Figure 6	Areas of Potential Environmental Concern

© 2024 Pinchin Ltd.

1.0 EXECUTIVE SUMMARY

Pinchin Ltd. (Pinchin) was retained by Morguard REIT c/o Morguard Investments Limited (Client) to complete a Phase One Environmental Site Assessment (Phase One ESA) of the property located at 500 Coventry Road in Ottawa, Ontario (hereafter referred to as the Site or Phase One Property). The Phase One Property is approximately 3.5 hectares in size and exists as vacant land partially utilized as a parking lot and snow stockpiling area for the St. Laurent Shopping Centre.

Pinchin conducted this Phase One ESA in accordance with Part VII and Schedule D of the Province of Ontario's *Environmental Protection Act R.S.O. 1990, c. E.19* and *Ontario Regulation 153/04: Records of Site Condition – Part XV.1 of the Act*, and last amended by Ontario Regulation 362/23 on January 1, 2024 (O. Reg. 153/04). The purpose of the Phase One ESA was to assess the potential presence of environmental impacts at the Phase One Property due to activities at and near the Phase One Property.

This Phase One ESA was conducted at the request of the Client as a condition for the future redevelopment of the Phase One Property. It is Pinchin's understanding that the Phase One Property will be redeveloped from its current commercial land use to residential land use. Given that this constitutes a change to a more sensitive land use, a Record of Site Condition (RSC) for the Phase One Property is required, as per the Ontario Ministry of the Environment, Conservation and Parks (MECP) O. Reg. 153/04. As such, this Phase One ESA report has been prepared in accordance with O. Reg. 153/04 to support the filing of an RSC for the Phase One Property.

The scope of work for this Phase One ESA was consistent with O. Reg. 153/04 in support of filing an RSC and was comprised of the following:

- A Records Review: Reviewed available current and historical information sources pertaining to the Phase One Property and the surrounding properties within the Phase One Study Area including the use of, but not limited to, aerial photographs, city directories, a Fire Insurance Plan, a Property Underwriters' Report, historical environmental assessments relevant to the Phase One Property and a regulatory data base search. Regulatory agencies were also contacted to identify if any records of environmental non-compliance or other information associated with the environmental condition of the Phase One Property exists, including searches of Provincial (MECP) and municipal records, and Technical Standards and Safety Authority (TSSA) records.
- Interviews: Conducted interviews with a Site Representative (see Section 5.0) to determine if any current or historical operations have caused a concern with respect to the environmental condition of the Phase One Property and the surrounding properties within the Phase One Study Area.

© 2024 Pinchin Ltd.

- Site Reconnaissance: Completed a visual assessment of the Phase One Property and the surrounding properties within the Phase One Study Area (from publicly-accessible areas) including any associated buildings and/or facilities for the purpose of identifying the presence of potentially contaminating activities (PCAs).
- Evaluation: Evaluated the information gathered from the records review, interviews and Site reconnaissance.
- Reporting: Prepared a Phase One ESA report.
- Submission: Submitted the Phase One ESA report to the Client.

The Phase One Property consists of one legal lot situated at the municipal address of 500 Coventry Road, Ottawa, Ontario and is currently owned by 1339895 Ontario Limited. The Phase One Property is located on the south side of Coventry Road, approximately 235 meters (m) east of the intersection between Coventry Road and Belfast Road. The current and past land uses of the Phase One Property are summarized in Table 1 (all Tables are provided in Appendix A and all appendices are provided in Section 10.0).

Based on Pinchin's review of the previous reports in combination with the 1958 and 1962 aerial photographs, the Phase One Property is believed to have been developed with the former Site Building shown in the 1962 aerial photograph. The Phase One Property was occupied by Coca-Cola, a light industrial building used as a beverage bottling and distribution facility. Therefore, it is Pinchin's opinion that the first developed use of the Phase One Property was for industrial purposes in 1962.

No other information was reviewed by Pinchin during the records review, or obtained during the Site reconnaissance or interviews which would have resulted in a different interpretation of the date of first developed use of the Phase One Property.

Based on the findings of this Phase One ESA, Pinchin identified 13 PCAs at the Phase One Property (i.e., on-Site) and 15 PCAs within the Phase One Study Area outside of the Phase One Property (i.e., off-Site). The off-Site PCAs are not considered to result in APECs at the Phase One Property, based on their distance from the Phase One Property and/or their downgradient or transgradient location with respect to the inferred groundwater flow direction at the Phase One Property. It is Pinchin's opinion that the 13 on-Site PCAs may have caused contamination of soil and/or groundwater at the Phase One Property and, as such, the identified APECs at the Phase One Property warrant further investigation prior to the submission of an RSC.

The COPCs associated with each APEC were determined based on several sources of information including, but not limited to, Pinchin's experience with environmental contamination and hazardous substances, common industry standards for analysis of such contaminants and point sources, literature

© 2024 Pinchin Ltd.

reviews of COPCs and associated hazardous substances, and evaluations of contaminant mobility and susceptibility for migration in the subsurface.

A Phase Two ESA is recommended and should be conducted at the Phase One Property as an "assessment of property conducted in accordance with the regulations by or under the supervision of a qualified person to determine the location and concentration of one or more contaminants in the land and/or water on and/or beneath the property". Pinchin concludes that one or more contaminants originating from PCAs located on the Phase One Property may have affected land or water on, in, or under the Phase One Property. Therefore, Pinchin recommends that a Phase Two ESA be conducted prior to filing an RSC for the Phase One Property.

This Executive Summary is subject to the same standard limitations as contained in the report and must be read in conjunction with the entire report.
This report has been issued without having received responses from the Ontario MECP regarding Pinchin's Freedom of Information request or the Technical Standards & Safety Authority. Once responses from these regulatory bodies are received, the information will be incorporated into a revised version of this report. Our conclusions and recommendations may be amended based on this information.

2.0 INTRODUCTION

A Phase One ESA is defined as a systematic qualitative process to determine whether a particular property is, or may be subject to, actual or potential contamination. Under the Province of Ontario's *Environmental Protection Act R.S.O. 1990, c. E.19* (EPA) and *Ontario Regulation 153/04: Records of Site Condition – Part XV.1 of the Act*, and last amended by Ontario Regulation 362/23 on January 1, 2024 (O. Reg. 153/04), the purpose of a Phase One ESA is two-fold:

- To obtain and review records that relate to the Phase One Property regarding the current and past uses of and/or activities on the Phase One Property, in order to determine if areas of potential environmental concern (APECs) exist on the Phase One Property; and
- To obtain and review records that relate to properties within the Phase One Study Area, other than the Phase One Property, in order to determine if potentially contaminating activities (PCAs) exist and interpret whether any such PCAs result in APECs on the Phase One Property.

This Phase One ESA was conducted at the request of the Client as a condition for the future redevelopment of the Phase One Property. It is Pinchin's understanding that the Phase One Property will be redeveloped from its current commercial land use to residential land use. Given that this constitutes a change to a more sensitive land use, the filing of a Record of Site Condition (RSC) for the Phase One Property with the Ontario Ministry of the Environment, Conservation and Parks (MECP) is a mandatory requirement of O. Reg. 153/04.

© 2024 Pinchin Ltd.

It should be noted that an RSC was filed and acknowledged by the Ministry of Environment (MOE, now MECP) in 2001. However, since 2002, the Phase One Property has been used for commercial purposes, and as such, the 2001 RSC is no longer valid for the Phase One Property, as it is outdated from the 2011 MECP Site Condition Standards. Therefore, this Phase One ESA report has been prepared in accordance with O. Reg. 153/04 to support the filing of a new RSC for the Phase One Property.

A Phase One ESA does not include sampling or testing of environmental media or building materials. The study period for this assessment was from December 2023 to January 2024, which included the records review, Site reconnaissance, interviews and reporting.

2.1 Phase One Property Information

The Phase One Property consists of one legal lot situated at the municipal address of 500 Coventry Road, Ottawa, Ontario and is currently owned by 1339895 Ontario Limited. The Phase One Property is located on the south side of Coventry Road, approximately 235 metres (m) east of the intersection between Coventry Road and Belfast Road, as shown on Figure 1 – Key Plan which is provided in Appendix B – Figures. A plan showing the Phase One Property is provided as Figure 2 – Phase One Property, and the Phase One Study Area for which this Phase One ESA applies to is outlined on Figure 3 – Phase One Study Area. Photographs of the Phase One Property and surrounding properties are presented in Appendix C - Photographs. A current legal survey of the Phase One Property is included in Appendix D – Survey Plan.

Pertinent details of the Phase One Property are provided in the following table:

Detail	Source / Reference	Information
Legal Description	Legal Survey Drawing provided by the Client, Service Ontario Parcel Register	Lot 1 of Registered Plan No. 747, City of Ottawa
Municipal Address	Client	500 Coventry Road Ottawa, ON K1A 0T1
Parcel Identification Number (PIN)	Client	04254-0063 (LT)
Current Owner	Client	1339895 Ontario Limited
Owner Contact Information	Client	1339895 Ontario Limited 55 City Centre Drive, Suite 800 Mississauga, ON L5B 1M3

© 2024 Pinchin Ltd.

Detail	Source / Reference	Information
Current Occupants	Client	Commercial use – the northwest portion is leased for bus parking; the northeast portion used for vehicular parking; southeast portion used for stockpiling snow; and southwest portion remains vacant and undeveloped land
Client	Authorization to Proceed Form for Pinchin Proposal	Morguard REIT c/o Morguard Investments Limited
Client Contact Information	Authorization to Proceed Form for Pinchin Proposal	Mark Bradley c/o Morguard Corporation 55 City Centre Drive, Suite 800 Mississauga, ON L5B 1M3
Site Area	Client	3.47 hectares (8.57 acres)
Current Zoning	GeoOttawa https://maps.ottawa.ca/geoottawa/	TD Zoning – Transit Oriented Development, subzone TD3 (residential)
Centroid UTM Co-ordinates	Google Earth	449662 Easting
		5029930 Northing
		Zone 18T

3.0 SCOPE OF INVESTIGATION

Pinchin conducted this Phase One ESA in accordance with O. Reg. 153/04, in particular Part VII and Schedule D of O. Reg. 153/04. The Phase One ESA scope of work consisted of the following:

- A Records Review: Pinchin reviewed available current and historical information sources pertaining to the Phase One Property and surrounding properties within the Phase One Study Area, including the use of, but not limited to, aerial photographs, city directories, a Fire Insurance Plan (FIP), a Property Underwriters' Report (PUR), previous environmental reports completed for the Phase One Property, available Site operating records and a regulatory data base search. Regulatory agencies were also contacted to identify if any records of environmental non-compliance or other information associated with the environmental condition of the Phase One Property exist, including the MECP's Freedom of Information (FOI) and Protection of Privacy Office, the Technical Standards and Safety Authority (TSSA) and the City of Ottawa's Historical Land Use Inventory (HLUI) database

© 2024 Pinchin Ltd.

- Interviews: Pinchin conducted interviews with a Site Representative (see Section 5.0) to determine if any current or historical operations have caused a concern with respect to the environmental condition of the Phase One Property and the surrounding properties within the Phase One Study Area.
- Site Reconnaissance: Pinchin completed a visual assessment of the Phase One Property and the surrounding properties within the Phase One Study Area (from publicly accessible areas) including any associated buildings and/or facilities for the purpose of identifying the presence of significant environmental concerns.
- Evaluation: Pinchin evaluated the information gathered from the records review, interviews and Site reconnaissance.
- Reporting: Pinchin prepared a Phase One ESA report summarizing the findings of this assessment.
- Submission: Pinchin submitted the Phase One ESA report to the Client.

4.0 RECORDS REVIEW

4.1 General

Identified on-Site and off-Site PCAs described in this, and subsequent report Sections are summarized in Table 2 and their locations are shown on Figure 4 – Potentially Contaminating Activities (On-Site) and Figure 5 - Potentially Contaminating Activities (Off-Site). APECs at the Phase One Property are illustrated on Figure 6 – Areas of Potential Environmental Concern.

Each on-site PCA is associated with an APEC on the Phase One Property. Each off-Site PCA was characterized as to whether it resulted in an APEC on the Phase One Property. In making this determination, the proximity, location relative to the inferred groundwater flow direction, nature of operations and potential contaminants were considered. In general, PCAs that were relatively close and/or situated on properties upgradient relative to the inferred groundwater beneath the Site were considered PCAs resulting in APECs on the Phase One Property. Conversely, PCAs that were distant from the Phase One Property and/or were at properties downgradient or transgradient relative to the inferred groundwater beneath the Site were not considered to result in APECs on the Phase One Property. The type of operations and potential contaminants associated with the PCAs were also evaluated. Factors such as whether the PCA had a high probability of contamination (e.g., dry cleaners, retail fuel outlets (RFOs), automotive service garages, etc.) and the subsurface mobility of the potential contaminants were considered during the evaluation.

© 2024 Pinchin Ltd.

4.1.1 Phase One Study Area Determination

Based on a review of the available historical information and observations made during the Site reconnaissance for the properties greater than 250 meters (m), but less than 1 kilometre (km), from the Phase One Property boundary, Pinchin did not note or observe any significant potentially contaminating properties that should be included as part of this assessment (e.g., landfills, large industrial manufacturers, etc.). As such, the Phase One Study Area consisted of the Phase One Property, as well as all properties situated wholly, or partly, within 250 m from the nearest point of a boundary of the Phase One Property, in order to meet the minimum requirements, set forth in O. Reg. 153/04.

4.1.2 First Developed Use Determination

The first developed land use of the Phase One Property is defined by O. Reg. 153/04 to be the earlier of:

- The first use of a Phase One Property in or after 1875 that resulted in the development of a building or structure on the property; and
- The first potentially contaminating use or activity on the Phase One Property.

Based on Pinchin's review of the previous reports in combination with the 1958 and 1962 aerial photographs, the Phase One Property is believed to have been developed with the former Site Building shown in the 1962 aerial photograph. The Phase One Property was occupied by Coca-Cola, a light industrial building used as a beverage bottling and distribution facility. Therefore, it is Pinchin's opinion that the first developed use of the Phase One Property was for industrial purposes in 1962.

No other information was reviewed by Pinchin during the records review, or obtained during the Site reconnaissance or interviews which would have resulted in a different interpretation of the date of first developed use of the Phase One Property.

4.1.3 Local and Municipal Government

Inquiries were made to the City of Ottawa to conduct a search within their Historical Land Use Inventory (HLUI) database for information regarding the Phase One Property and properties within the Phase One Study Area. The HLUI provides historical information regarding the type and location of land uses (or activities) for properties within the City of Ottawa that may results in PCAs, including historical ASTs and USTs that were registered, dating back to the 1950s, former landfills, environmental infractions, and Environmental Risk Management Areas (ERMAs).

Based on Pinchin's review of the HLUI search results, the following historical PCAs were identified on the Phase One Property:

- Coca-Cola Bottling Ltd. operated on-Site from approximately 1964 until 2004;

© 2024 Pinchin Ltd.

- One gasoline UST, one diesel UST and one waste oil UST were installed on-Site in 1962, registered under Coca-Cola Ltd.; and
- A private fuel outlet (PFO) for gasoline and diesel fuel was installed on-Site in 1983, registered under TCC Bottling Ltd.

Given that these activities occurred on-Site in support of the industrial beverage bottling operations (i.e., operating a PFO and fuel storage), these PCAs are considered to represent areas of potential concern (APECs) on the Phase One Property.

Based on Pinchin's review of the HLUI report, the following off-Site PCAs were identified on properties within the Phase One Study Area:

- Various taxi companies (i.e., Capital Taxi, Blueline Taxi Ltd., and Redline Taxi Ltd.) located at 455 Coventry Road were registered as PFOs with permits for both a gasoline and a diesel UST as well as a waste oil UST. This property is located approximately 70 m northwest of the Phase One Property, and is situated hydraulically downgradient based on the inferred groundwater flow direction. Pinchin reviewed the 1991 aerial photograph and determined that the former pump island and UST nest were situated approximately 110 m northwest of the Phase One Property. Based on the distance between this property and the Phase One Property, as well as the inferred groundwater flow direction, it is Pinchin's opinion that this PCA does not represent an APEC at the Phase One Property;
- Bell Canada registered as a PFO with a permit for a gasoline UST and a waste oil UST located at 465 Coventry Road, approximately 30 m north of the Phase One Property (1962-1993). Based on Pinchin's review of the 1991 aerial photograph, the former pump island and UST nest were situated approximately 115 m northwest and hydraulically transgradient/downgradient of the Phase One Property. Based on the distance between this property and the Phase One Property, as well as the inferred groundwater flow direction, it is Pinchin's opinion that this PCA does not represent an APEC at the Phase One Property;
- In approximately 1964, Rad Runner Automotive Garage was listed as a permit holder for a gasoline UST located at 401 Coventry Road, approximately 225 m northwest of the Phase One Property. Based on the distance between this property and the Phase One Property, it is Pinchin's opinion that this PCA does not represent an APEC at the Phase One Property;

© 2024 Pinchin Ltd.

- Hydro One Networks Inc. operated a transformer station located at 419 Coventry Road, approximately 215 m north of the Phase One Property from approximately the early 1970s until 1998. Based on the distance between this property and the Phase One Property, it is Pinchin's opinion that this PCA does not represent an APEC at the Phase One Property;
- From 1970 to 1980, Dominion Loose-Leaf Company Ltd. (a commercial printing business) was located at 525 Coventry Road, approximately 65 m north of the Phase One Property. Based on the distance between this property and the Phase One Property, as well as the inferred groundwater flow direction, it is Pinchin's opinion that this PCA does not represent an APEC at the Phase One Property; and
- The St. Laurent Shopping Centre, located on the east adjacent property (i.e. 1200 St. Laurent Boulevard), listed a dry cleaning facility, a commercial print shop, and a photo centre as commercial tenants between 1998 to 2012. The shopping centre was also listed as a permit holder of a fuel oil UST. Based on the distance between the building on this property and the Phase One Property, it is Pinchin's opinion that this PCA does not represent an APEC at the Phase One Property.

A copy of the HLUI report is provided in Appendix E.

4.1.4 Fire Insurance Plans

Pinchin contacted Opta Information Intelligence (Opta) to obtain copies of Fire Insurance Plans (FIPs) related to the Phase One Property and other properties within the Phase One Study Area. Opta provided Pinchin with copies of the following:

- A FIP dated 1948 for the area south of the Phase One Property. It should be noted that the Phase One Property was not included in the 1948 FIP.

The Opta response and a copy of the FIP are provided in Appendix F.

The following general information, including details regarding the Phase One Property, was noted in the FIP:

- The Phase One Property was not included in the 1948 FIP; and
- The surrounding area to the south of the Phase One Property appeared to consist primarily of residential and vacant land uses.

Based on Pinchin's review of the information provided in the 1948 FIP, no PCAs were identified within the Phase One Study Area.

© 2024 Pinchin Ltd.

4.1.5 Chain of Title

Pinchin retained freelance land title search professional Mr. Stewart Davey to complete a chain of title search for the Phase One Property. The chain of title search was completed from the earliest record of land ownership for the Phase One Property (i.e., patent) to the present to determine if ownership information would infer any PCAs at the Phase One Property that should be evaluated.

Based on Pinchin's review of the chain of title search, the following was identified with respect to the previous or current ownership that is considered a PCA at the Phase One Property:

- Between 1961 and 1987, the Phase One Property was owned by 'Coca-Cola Limited' which then became 'T.C.C. Bottling Limited' and 'Coca-Cola Bottling Limited', which is a beverage bottling and distribution company.

The results of the chain of title search are provided in Appendix G. No chain of title search was conducted for the other properties located within the Phase One Study Area.

4.1.6 Environmental Reports

The following previous environmental reports for the Phase One Property were reviewed by Pinchin:

- Report entitled "*Environmental Site Assessment, 500 Coventry Road, Ottawa, Ontario*" prepared by Jacques Whitford Environmental Limited (JWEL) for Provigo Distribution Inc., and dated August 22, 1996 (1996 JWEL ESA Report);
- Report entitled "*Decommissioning Report, Coca-Cola Beverages Limited Distribution Plant, 500 Coventry Road, Ottawa, Ontario*" prepared by Arcturus Environmental (Arcturus) for Coca-Cola Beverages Ltd., and dated October 1996 (1996 Arcturus Decommissioning Report);
- Report entitled "*Phase II Environmental Site Assessment, 500 Coventry Road, Ottawa, Ontario*" prepared by Golder Associates Ltd. (Golder) for Acktion Corporation, and dated February 23, 2000 (2000 Golder Phase II ESA Report);
- Report entitled "*Phase I Environmental Site Assessment, 500 Coventry Road, Ottawa, Ontario*" prepared by Golder for Acktion Corporation c/o Morguard Investments Limited and Morguard Real Estate Investment Trust, and dated April 2000 (2000 Golder Phase I ESA Report);
- Report entitled "*On-Site Soil Remediation Program, 500 Coventry Road, Ottawa, Ontario*" prepared by JWEL for Morguard Real Estate Investment Trust, and dated August 9, 2001 (2001 JWEL Soil Remediation Report);

© 2024 Pinchin Ltd.

- Report entitled "*Phase I Environmental Site Assessment and Asbestos/mould reconnaissance Survey, 500 Coventry Road, Ottawa, Ontario*" prepared by Golder for Morguard Real Estate Investment Trust, and dated February 2005 (2005 Golder Phase I ESA Report);
- Report entitled "*Phase I Environmental Site Assessment Update, 500 Coventry Road, Ottawa, Ontario*" prepared by Golder for Morguard Investment Limited, and dated August 2010 (2010 Golder Phase I ESA Update Report);
- Report entitled "*Phase I Environmental Site Assessment, 1135, 1200 & 1400 St. Laurent Boulevard and 500 Coventry Road, Ottawa, Ontario*" prepared by Golder for Morguard Investment Limited, and dated October 2013 (2013 Golder Phase I ESA Report);
- Report entitled "*Phase II Environmental Site Assessment, 1200 St. Laurent Boulevard and 500 Coventry Road, Ottawa, Ontario*" prepared by Golder for Morguard Investment Limited, and dated November 2013 (2013 Golder Phase II ESA Report);
- Report entitled "*Screening Level Risk Assessment, St. Laurent Shopping Centre and 500 Coventry Road, Ottawa, Ontario,"* prepared by Golder for Morguard Investment Limited, and dated August 2014 (2014 Golder Screening Level Risk Assessment Report);
- Report entitled "*Phase I Environmental Site Assessment, 1135, 1200 and 1400 St. Laurent Boulevard and 500 Coventry Road, Ottawa, Ontario*" prepared by Golder for Morguard Investment Limited, and dated October 2018 (2018 Golder Phase I ESA Report);
- Report entitled *"Phase I Environmental Site Assessment, 1130, 1200 and 1400 St. Laurent Boulevard and 500 Coventry Road, Ottawa ON"* prepared by ECOH Management Inc., and dated September 11, 2023 (2023 ECOH Phase I ESA Report); and
- Report entitled "Well Condition, 500 Coventry Road, Ottawa ON' prepared by Geosyntec Consultants, and dated June 2, 2023 (2023 Geosyntech Well Conditions).

Pinchin reviewed the available soil and groundwater sample analytical data provided in the above-referenced reports to assess whether there are any known soil and groundwater impacts at the Phase One Property or on properties within the Phase One Study Area.

© 2024 Pinchin Ltd.

Given the available information on the characteristics of the Phase One Property and its future land use (i.e., residential), the applicable Site Condition Standards, as defined by the MECP in the document *"Soil, Ground Water and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act"*, dated April 15, 2011, are:

- *Table 3: Full Depth Generic Site Condition Standards in a Non-Potable Groundwater Condition* (*Table 3 Standards*) for residential property use (i.e., the proposed future use of the Phase One Property) and coarse-textured soils.

As such, the analytical data provided in the previous reports were compared with the *Table 3 Standards* to assess whether there are any known areas on the Phase One Property where soil or groundwater has parameter concentrations exceeding the *Table 3 Standards.*

A summary of the salient information identified in the aforementioned reports is provided below.

<u>1996 Arcturus Decommissioning Report</u>

The 1996 Arcturus Decommissioning Report detailed the on-Site remediation program in the immediate area of a former pump island and underground storage tanks (UST) nest (Two USTs), located on the west side of the Site Building.

The remediation program consisted of the bioremediation of 10,000 tonnes of Total Petroleum Hydrocarbons (TPHs) and benzene, toluene, ethylbenzene and xylene (BTEX)-contaminated soil identified in the vicinity of the two former USTs, and a former pump island. TPH and BTEX contamination was identified in a report entitled "Site Assessment and Evaluation of Remedial Alternatives, 500 Coventry Road, Ottawa, Ontario" prepared by Arcturus in December 1994; it should be noted that this report was not provided for Pinchin's review. Between October 1995 and August 1996, the 10,000 tonnes of TPH and BTEX contaminated soil was remediated in the ex-situ bioremediation cell (EBC) situated on southwest portion of the Site. In addition, a total of 2,726,627-Litres (L) of contaminated groundwater was pumped, treated and discharged off-site. Several representative soil and groundwater samples were collected from the EBC throughout the bioremediation process and submitted for laboratory analyses of TPHs and BTEX. Criteria used for the evaluation of soil and groundwater laboratory analysis results were the *1996 Table B Standards*. The results of the laboratory analysis for the soil and groundwater samples indicated that the concentrations of the parameters tested (TPHs and BTEX) were below the *1996 Table B Standards*.

Approximately 10,000 tonnes of impacted soil were treated, and 2,726,627 L of contaminated groundwater was treated during the program. The EBC operation was decommissioned, and the Site grade was restored by backfilling the remediation excavations.

© 2024 Pinchin Ltd.

Based on the results of the 1996 Arcturus Decommissioning Report, the Site was remediated to the applicable site standards at that time, and as such, no further remedial work was considered necessary.

Pinchin compared the values reported in the 1996 Arcturus Decommissioning Report to the Pinchin compared the values reported in the 1996 JWEL ESA Report to the *Table 3 Standards*. There is no direct correlation as to how the measured concentrations of TPH (gas/diesel) compared to the *Table 3 Standards*, as the revised *2011 Table 3 Standards* utilizes carbon fractions F1 – F4 in PHCs to characterize soil and groundwater. The *2011 Table 3 Standards* for PHCs (F2) in soil (which represents diesel fuels) is 98 ug/g. Several confirmatory soil samples along the floor and east wall of the excavations exceeded the applicable standards. It is Pinchin's opinion that the Phase One Property would not comply with the *2011 Table 3 Standards*.

<u>1996 JWEL ESA Report</u>

The ESA completed by JWEL in August 1996 consisted of historical reviews, a review of surrounding properties, a regulatory database search, interviews, an exterior assessment of the Site and a Phase II ESA.

The following summarizes the findings of the Phase I ESA portion of the 1996 JWEL ESA Report:

- A 2,100 imperial gallon aboveground storage tank (AST) containing bunker oil was observed adjacent to the west exterior wall of the former Site Building, next to the boiler room;
- An ex-situ bioremediation process was utilized on the southwest corner of the Site;
- Two 250-gallon waste oil ASTs, one 250-gallon supply oil AST, and two 125-gallon supply oil ASTs were observed in the vehicle and equipment maintenance area within the former on-Site building; and
- Significant oil staining was observed on the concrete floor surface in the vicinity of the above-noted ASTs. In addition, an oily sheen and sediment was observed in the water in the floor drain catch basin. An oil/water separator was reported to be on the Site, however, one was not located during the JWEL Site reconnaissance.

The Phase II ESA completed by JWEL in August 1996 was conducted in order to investigate potential subsurface contamination associated with the above-noted concerns. The Phase II ESA portion of the 1996 JWEL ESA report detailed the advancement of 11 boreholes; nine of which were placed across the Site, while the remaining two were placed/drilled in the interior, south portion of the existing Site Building. Three of the exterior boreholes were completed as groundwater monitoring wells. 11 soil samples and three groundwater samples were collected from the boreholes and submitted for laboratory analyses of TPHs, BTEX and metals.

© 2024 Pinchin Ltd.

Criteria used for the evaluation of soil and groundwater laboratory analysis results were the generic Table B Standards (industrial/commercial/community land use in a non-potable groundwater environment), as stipulated in the former MECP document entitled "*Guideline for Use at Contaminated Sites in Ontario*", and dated June 1996 (*1996 Table B Standards*).

JWEL reported that the results of the laboratory analysis for the soil and groundwater samples indicated that the concentrations of the parameters tested (TPHs, BTEX and metals) were below the *1996 Table B Standards*.

Based on the results of the 1996 JWEL ESA Report, JWEL recommended that the area in the vicinity of the ex-situ bioremediation process be investigated, and any subsurface contamination be remediated to ensure soil and groundwater remediation levels satisfy the *1996 Table B Standards*.

Pinchin compared the values reported in the 1996 JWEL ESA Report to the revised *Table 3 Standards*. There is no direct correlation as to how the measured concentrations of TPH (gas/diesel) compared to the revised *2011 Table 3 Standards*, as the revised *2011 Table 3 Standards* utilizes carbon fractions F1 – F4 in petroleum hydrocarbons (PHCs) to characterize soil and groundwater. The *2011 Table 3 Standards* for residential land use of PHCs (F2) concentration in soil (which represents diesel fuels) is 98 ug/g. Several confirmatory soil samples along the floor and east wall excavations on-Site, exceeded the applicable standards. It is Pinchin's opinion that the Phase One Property would not comply with the *2011 Table 3 Standards*.

<u>2000 Golder Phase I ESA Report</u>

The ESA completed by Golder in April 2000 consisted of historical reviews, a review of surrounding properties, a regulatory database search and interviews as well as an exterior assessment of the Site.

The 2000 Golder Phase I ESA Report identified the following potential environmental concerns:

- The presence of a former PFO consisting of two fuel USTs and a pump island situated on the west exterior portion of the southern end of the former Site Building (circa 1987). The USTs and associated ancillary equipment of the PFO, was decommissioned in 1994;
- The potential presence of a historical PFO from circa 1965, situated on the western side of the former Site Building, slightly more north than the 1987 PFO;
- The presence of a former waste oil UST situated on the eastern side of the former Site Building;
- The former on-Site bioremediation cell used to treat PHC-impacted soil;
- The presence of a former engine (truck) repair and maintenance garage within the former Site;

© 2024 Pinchin Ltd.

- Derelict vehicles, barrels and pails of oil and other chemicals, and scrap mechanical debris located on the east and south exterior portions of the Phase One Property were noted to be leaking or have potential to leak and should be contained and removed from the Site;
- Presence of fill and a pile of asphalt pile of situated on the southern portion of the Phase One Property; and
- Potential on-Site soil and/or groundwater impact along the western property boundary as a result of the on-Site historical PFO (USTs and pump island), including potential off-site impacts on Public Works property to the adjacent west.

Based on the findings noted above, Golder recommended completing a Phase II ESA at the Phase One Property.

<u>2000 Golder Phase II ESA Report</u>

The Phase II ESA completed by Golder in February 2000 was conducted in order to investigate the potential environmental concerns identified in a 2000 Golder Phase I ESA Report. The 2000 Golder Phase II ESA detailed the advancement of 25 boreholes, 25 test pits and 26 groundwater monitoring wells. 44 soil samples and 14 groundwater samples were collected from the boreholes and submitted for laboratory analyses of TPHs, BTEX, volatile organic compounds (VOCs) and metals.

Criteria used for the evaluation of soil and groundwater laboratory analysis results were the *1996 Table B Standards*.

The results of the laboratory analysis for the soil and groundwater samples indicated that the concentrations of the parameters tested (TPHs, BTEX, VOCs and metals) were below the *1996 Table B Standards*, with the exception of TPH, BTEX and VOC contamination in the vicinity of the former on-Site USTs, pump islands, waste oil AST, decommissioned bioremediation cell and former vehicle and equipment maintenance area. In addition, TPH and VOC contamination was identified in groundwater samples collected from the above-noted areas.

Based on the results of the 2000 Golder Phase II ESA Report, Golder recommended soil remediation in the vicinity of the former on-site USTs, pump islands, waste oil AST, decommissioned bioremediation cell and former vehicle and equipment maintenance area.

Pinchin compared the values reported in the 2000 Golder Phase II ESA Report to the *2011 Table 3 Standards*. There is no direct correlation as to how the measured concentrations of TPH (gas/diesel) compared to the revised *2011 Table 3 Standards*, as the revised *2011 Table 3 Standards* utilizes carbon fractions F1 – F4 in PHCs to characterize soil and groundwater. The *2011 Table 3 Standards* for residential land use of PHCs (F2) concentration in soil (which represents diesel fuels) is 98 ug/g. Several

© 2024 Pinchin Ltd.

soil samples on-Site exceeded the applicable standards. It is Pinchin's opinion that the Phase One Property would not comply with the *2011 Table 3 Standards*.

2001 JWEL Soil Remediation Report

The Soil Remediation completed by JWEL in August 2001 was conducted in order to remediate soil contamination identified in the 2000 Golder Phase II ESA Report. TPH, BTEX and VOC contamination was identified in the vicinity of the former on-Site USTs, pump islands, waste oil AST, decommissioned bioremediation cell and former vehicle and equipment maintenance area. Contaminated soil was removed from the above-noted areas on the west exterior portion of the Phase One Property and disposed of at an off-Site waste facility. A total of 41 soil samples were collected from the walls and floors of the excavation areas and submitted for laboratory analyses of TPHs, BTEX and metals.

Criteria used for the evaluation of soil laboratory analysis results were the *1996 Table B Standards*.

The results of the laboratory analysis for the soil and groundwater samples indicated that the concentrations of the parameters tested (TPHs, BTEX and metals) were below the *1996 Table B Standards*.

Based on the results of the 2001 JWEL Soil Remediation Report, no further remedial work was warranted with respect to the environmental concerns associated with the excavation areas.

Pinchin compared the values reported in the 2001 JWEL Soil Remediation Report to the *2011 Table 3 Standards*. There is no direct correlation as to how the measured concentrations of TPH (gas/diesel) compared to the *Table 3 Standards*, as the *Table 3 Standards* utilizes carbon fractions F1 – F4 in PHCs to characterize soil and groundwater. The *2011 Table 3 Standards* for residential land use of PHCs (F2) concentration in soil (which represents diesel fuels) is 98 ug/g. Several confirmatory soil samples on-Site exceeded the applicable standards. It is Pinchin's opinion that the Phase One Property would not comply with the *2011 Table 3 Standards*.

2005 Golder Phase I ESA and 2010 Golder Phase I ESA Update Reports

The Phase I ESA and Phase I ESA Update completed by Golder in February 2005 and August 2010 consisted of historical reviews, a review of surrounding properties, a regulatory database search, and interviews as well as an exterior assessment of the Site. In addition, Golder reviewed the above-noted reports prepared for the Site.

The results of the 2005 Golder Phase I ESA and 2010 Golder Phase I ESA Update Reports indicated that there were no significant potential environmental concerns associated with the current and historical use of the Site and adjacent properties and as such, no further environmental assessment work was recommended.

© 2024 Pinchin Ltd.

2013 Golder Phase I ESA Report

The Phase I ESA completed by Golder in October 2013 consisted of historical reviews, a review of surrounding properties, a regulatory database search, and interviews as well as an exterior assessment of the Site and properties located at 1135, 1200 and 1400 St, Laurent Boulevard. In addition, Golder reviewed the above-noted reports prepared for the Site.

The following summarizes the findings of the 2013 Golder Phase I ESA Report:

- Fill material of unknown origin was present at 1200 St. Laurent Boulevard, located adjacent to the east elevation of the Phase One Property;
- A former oil UST, with on-going PHC clean-up, was present at the property located at 1200 St. Laurent Boulevard;
- Fill material of unknown origin was present throughout the Phase One Property;
- The south exterior portion of the Phase One Property was utilized for snow stockpiling, which may have resulted in on-Site road salt impacts; and
- An RSC was accepted by the MOE (now, MECP) for the Phase One Property in 2001; however, since 2002, the Phase One Property has been utilized for commercial purposes, and as such, the former RSC is no longer valid.

Based on the findings noted above, Golder did not provide a recommendation.

2013 Golder Phase II ESA Report

The Phase II ESA was conducted by Golder in 2013 in order to investigate the potential environmental concerns outlined in the 2013 Golder Phase I ESA Report for the Phase One Property and the adjacent property to the east, addressed 1200 St. Laurent Boulevard.

The 2013 Golder Phase II ESA program detailed the advancement of 10 boreholes, four (13-7 through 13-10) of which were placed across the northern side of 1200 St. Laurent Boulevard, while the remaining six (13-1 through 13-6) were placed across the Phase One Property.

The scope of work for 1200 St. Laurent Boulevard consisted of placing four boreholes along the northern portion of the property as well as resample the existing groundwater monitoring wells. Four soil samples were submitted for BTEX, PHCs (F1-F4), and PAHs. All of the soil samples complied with the selected *Table 3 Standards,* with the exception of one soil sample, in which several PAH parameter concentrations were in excess of the applicable standards.

© 2024 Pinchin Ltd.

Four groundwater samples were collected from the existing monitoring wells and submitted for laboratory analyses of BTEX and PHCs (F1-F4). All of the groundwater samples, with the exception of one at location 13-9 were in compliance with the *2011 Table 3 Standards.* Fraction, F3 concentration was in excess of the selected standards, approximately 200 m northeast of the Phase One Property. As such, any groundwater impact identified beneath 1200 St. Laurent Boulevard is not considered to pose any risk to the Phase One Property.

The scope of work for the Phase One Property consisted of placing six boreholes (13-1 through 13-6) across the Phase One Property, all of which were completed as groundwater monitoring wells. The general soil profile reportedly consisted of granular/engineered fill, followed by fill material (sand, silty-sand or silt, and some gravel), overlying glacial till, followed by shale bedrock. Bedrock was encountered at depths ranging from 2.21 to 3.12 mbgs.

Seven soil samples were collected from boreholes BH13-1 through BH13-6 and submitted for laboratory analyses of BTEX, PHCs (F1-F4), VOCs, PAHs, and metals. Two soil samples retrieved from borehole BH13-3 situated on the southwest portion of the Site contained concentrations of PHCs (F1-F2), benzene, ethylbenzene, xylenes and several PAH parameters in excess of the current *Table 3 Standards* for residential land use, while the remaining soil samples met the selected standards.

Soil samples from boreholes BH13-3 and BH13-4 were analyzed for electrical conductivity (EC) and sodium adsorption ratio (SAR); both samples exceeded the *Table 3 Standards* residential land use.

Five groundwater samples including a field duplicate were collected from monitoring wells 13-1 through 13-6, and submitted for laboratory analyses of BTEX, PHCs (F1-F4), VOCs, PAHs, and metals. All of the analyzed groundwater samples on the Phase One Property complied with the *Table 3 Standards.*

Groundwater samples retrieved from the monitoring wells 13-3 and 13-4 were submitted for sodium chloride (salt); both groundwater samples exceeded the *Table 3 Standards.*

<u>2014 Golder Screening Level Risk Assessment Report</u>

The Screening Level Risk Assessment (SLRA) was conducted for the properties located at 1200 St. Laurent Boulevard (St. Laurent Shopping Centre) and 500 Coventry Road (Phase One Property) by Golder in August 2014.

The SLRA was conducted to evaluate the human health and ecological risks associated with the soil and groundwater impacts that were identified in the 2013 Golder Phase II ESA. As previously discussed, the impacted soil and groundwater at 1200 St. Laurent Boulevard was not considered to pose any risk to the Phase One Property, based on the relative separation distance, coupled with the 2013 groundwater results at the Phase One Property, specifically at locations BH13-1, BH13-2, BH13-5 and BH13-6.

© 2024 Pinchin Ltd.

Therefore, for the purpose of this assessment, the SLRA report has been summarized in relation to the Phase One Property only.

The results of the 2013 Golder Phase II ESA identified fill material impacted with PHCs (F1 and F2), benzene and benzo(a)pyrene in excess of the *Table 3 Standards* for commercial land use on the southwest part of the Site (BH13-3). In addition, fill material with elevated EC and SAR and groundwater impacted with sodium and chloride were identified along the southern part of the Site (BH13-3 and BH13-4). It should be noted that the SLRA was conducted based on the aforementioned contaminants of potential concern (COPCs) in excess of the commercial *Table 3 Standards,* and as such, was limited to these COPCs only.

Based on Golder's SLRA report, the findings of the human health and ecological risks at the Phase One Property with regard to the COPCs in excess of the *Table 3 Standards* for commercial land use, were considered acceptable based on the following risk management considerations:

- Prevent human access by maintaining the barricades that separate the parking lot area and snow dump stockpile area; and
- Should construction activities occur in the future, workers on-Site should wear appropriate personal protective equipment.

It was recommended by Golder that the SLRA for the Phase One Property would need to be re-evaluated if the Site conditions changed from the time in which the assessment was completed.

<u>2018 Golder Phase I ESA Report</u>

The Phase I ESA completed by Golder in October 2018 consisted of historical reviews, a review of surrounding properties, a regulatory database search, and interviews as well as an exterior assessment of the Phase One Property and the properties located at 1135, 1200 and 1400 St. Laurent Boulevard. In addition, Golder reviewed the above-noted reports prepared for the Phase One Property.

The results of the 2018 Golder Phase I ESA Report indicated that there were no significant potential environmental concerns associated with the current and historical use of the Site and adjacent properties and as such, no further environmental assessment work was recommended.

<u>2023 Geosynthetic Consultants Well Condition Report</u>

The Well Condition Report was prepared in June 2023 by Geosynthetic Consultants to assess the conditions of the six groundwater monitoring wells drilled on the Phase One Property in 2013, as part of the 2013 Golder Phase II ESA.

© 2024 Pinchin Ltd.

According to the Well Condition Report, four of the six monitoring wells (13-1, 13-2, 13-5, and 13-6) were located and viable for future resampling, while the two remaining wells situated along the southern side of the Site appeared to be covered by gravel and/or fill material. Upon the review of this well report, a fuel AST was noted adjacent to the temporary salt storage shed located on the southeastern corner of the Phase One Property. The presence of a fuel AST on-site was considered a PCA that represents an APEC.

4.1.6.1 Previous Environmental Report Summary

Based on Pinchin's review of the above-referenced previous environmental reports, the following on-site PCAs were identified, as per Table 2 of the O. Reg. 153/04, and considered to result in APECs on the Phase One Property:

- Former presence of a 2,100 imperial gallon AST containing bunker oil to was located adjacent to the west exterior wall (of the boiler room) of the of the former Site Building;
- Former operations of a motor vehicle (truck) and equipment maintenance garage in the interior south of the former Site Building;
- Former presence of Two, 250 gallon waste oil ASTs, situated on the eastern interior wall of the vehicle and equipment maintenance garage;
- Former presence of one, 250 gallon supply oil AST and two, 125 gallon supply oil ASTs, situated on the eastern interior wall of the vehicle and equipment maintenance garage;
- Former presence of a waste oil UST situated on the central east side of the former Site Building;
- Former presence of a PFO (including USTs and associated ancillary equipment) on the northwestern side of the former Site Building in the 1960s;
- Former presence of a PFO (including USTs and associated ancillary equipment) on the western side of the former Site Building in the late 1980s/early 1990s;
- Presence of fill material of unknown origin/quality used to backfill remedial excavations including the grading of the Site;
- Presence of potentially impacted soil/fill as a result of the ex-situ bioremediation cell situated on the southwestern portion of the Phase One Property;
- Presence of fill material of unknown origin/quality was present across the western and southern portions of the Phase One Property;
- Use of the southern portion of the Phase One Property for snow stockpiling and bulk storage of road salt;

© 2024 Pinchin Ltd.

- Historical operations, activities, and wastes associated with former on-Site industrial operations; and
- Potential on-Site soil and/or groundwater impact along the western property boundary as a result of the on-Site historical PFO (UST leak, as reported in the Ontario Spills database), including potential off-Site impacts on the west adjacent Public Works.

4.2 Environmental Source Information

Pinchin reviewed the historical use of the Phase One Study Area through the use of publicly available archives and databases, as well as through requesting information from regulatory agencies. The following provides a summary of the information obtained from these sources.

4.2.1 Environmental Database Search – ERIS

Pinchin retained Environmental Risk Information Services (ERIS) to search all available federal, provincial and private source databases for information pertaining to the Phase One Study Area.

Unless otherwise noted, information obtained from the ERIS database search was reviewed for the entire Phase One Study Area. A copy of the ERIS report is provided in Appendix H and the results of the database search are described in the following sections.

4.2.1.1 National Pollutant Release Inventory

ERIS completed a search of the federal databases for information regarding the National Pollutant Release Inventory (NPRI). This database contains comprehensive national data regarding releases to air, water, or land, and waste transfers for recycling for more than 300 listed substances and identifies information such as the approximate location, type and quantity of contaminant, date of release, and media impacted.

Pinchin reviewed the ERIS report for NPRI information and found no records regarding the Phase One Study Area.

4.2.1.2 Ontario Inventory of PCB Storage Sites

The MECP's Waste Management Branch maintains an inventory of PCB storage sites within Ontario. Ontario Regulation 11/82 and Ontario Regulation 347 (O. Reg. 347), made under the EPA, require the registration of inactive PCB storage equipment and/or disposal sites of PCB waste with the MECP. This database contains information on waste quantities, major and minor sites storing liquid or solid waste, and a waste storage inventory.

The ERIS search of the Ontario Inventory of PCB Storage Sites found no information regarding the Phase One Property.

© 2024 Pinchin Ltd.

1200 St. Laurent Boulevard was identified as having stored PCBs or PCB-containing equipment (including transformers, capacitors, ballasts, soil and free liquids). Based on the nature of the waste and its reported location, approximately 80 m or more away from the Phase One Property, it is Pinchin's opinion that this PCA does not represent an APEC at the Phase One Property.

4.2.1.3 National PCB Inventory

Environment Canada maintains an inventory of in-use PCB-containing equipment at federal, provincial and private facilities in Canada, and of out-of-service PCB-containing equipment and PCB waste owned by the federal government or federally regulated industries.

The ERIS search of the National PCB Inventory indicated that the Phase One Property was previously registered as a PCB storage site in 1991, containing five drums of light ballasts with high levels of PCBs weighing approximately 800 kilograms. According to the ERIS report, the drums were removed from the Phase One Property for off-Site disposal between 1995 and 1998.

In addition, 1200 St. Laurent Boulevard was identified as having stored PCBs or PCB-containing equipment (including transformers, capacitors, ballasts, soil and free liquids). This property is located adjacent to the east elevation of the Phase One Property, however, the building associated with this property (i.e., where the wastes were likely stored) is located approximately 80 m east of the Phase One Property. Based on the above-noted information, as well as the low mobility of PCBs, it is Pinchin's opinion that this PCA does not represent an APEC at the Phase One Property.

4.2.1.4 Certificates of Approval

ERIS completed a search of the MECP database for information regarding Certificates of Approval (CoAs). The MECP maintains a database of approved CoAs for Air & Noise, Industrial Sewage, Municipal & Private Sewage, Waste Management Systems and Renewable Energy Approvals. Prior to November 1, 2011, the MECP mandated that any facility that released emissions to the atmosphere, discharged contaminants to ground or surface water, provided potable water supplies, or stored, transported or disposed of waste, must have a CoA before it could operate lawfully. The MECP no longer issues CoAs, which were replaced by Environmental Compliance Approvals (ECAs) as of November 1, 2011. O. Reg. 153/04 indicates that information from the CoA database only needs to be obtained for the Phase One Property and properties adjacent to the Phase One Property.

The ERIS search of the CoA database identified two Cs-of-A for the Phase One Property and one C-of-A for the property adjacent to the west elevation of the Phase One Property. All of these CoAs were for air emissions, and municipal sewage and water works. No CoAs were issued for discharge to groundwater, which is considered the primary pathway of concern for contaminant impacts on the Phase One Property.

© 2024 Pinchin Ltd.

As such, Pinchin does not consider the activities related to CoAs at the Phase One Property and adjacent properties to represent PCAs.

4.2.1.5 Environmental Compliance Approvals, Permits To Take Water and Certificates of Property Use

ERIS completed a search of the MECP database for information regarding ECAs, permits including Permits To Take Water (PTTWs) and Certificates of Property Use (CPUs). O. Reg. 153/04 indicates that information from these databases only needs to be obtained for the Phase One Property and properties adjacent to the Phase One Property. Details regarding these databases are provided in the ERIS report in Appendix H.

Based on the ERIS search results, no ECAs, PTTWs or CPUs were identified for the Phase One Property.

The ERIS search of the ECA database identified three ECAs for properties adjacent to the Phase One Property. All of these ECAs pertained to air emissions, and no ECAs were identified for discharge to groundwater, which is considered the primary pathway of concern for contaminant impacts on the Phase One Property. As such, Pinchin does not consider the activities related to ECAs at the Phase One Property and properties adjacent to the Phase One Property to represent PCAs.

The ERIS search of the PTTW and CPU databases identified no information regarding PTTWs or CPUs for the properties adjacent to the Phase One Property.

4.2.1.6 Inventory of Coal Gasification Plants

ERIS searched the following publications prepared for the MECP by Intera Technologies Inc. for information on industrial sites that formerly operated as coal gasification plants, and industrial sites that produced or used coal tar and other related tars:

- "*Inventory of Coal Gasification Plant Waste Sites in Ontario*", dated April 1987; and
- "*Inventory of Industrial Sites Producing or Using Coal Tar and Related Tars in Ontario*", dated November 1988.

The ERIS search yielded no records of former coal gasification plants or the production or use of coal tar and related tars within the Phase One Study Area.

4.2.1.7 Environmental Incidents, Orders, Offences and Spills

ERIS completed a search of the various provincial and federal databases for information regarding environmental incidents, orders, offences and spills. O. Reg. 153/04 indicates that information from these databases only needs to be obtained for the Phase One Property and properties adjacent to the Phase One Property. Details regarding the searched databases are provided in the ERIS report in Appendix H.

© 2024 Pinchin Ltd.

The ERIS database search of records of environmental incidents, orders, offences or spills revealed the following for the Phase One Property and properties adjacent to the Phase One Property:

- No records were found of environmental incidents, orders, offences or spills for the Phase One Property except for the following:
  - The Ontario Spills database indicated that a UST leak due to corrosion occurred at 440 Coventry Road, under the company name “Coca-Cola,” resulting in confirmed, off-site soil impacts. The incident was reported to authorities on November 2, 1994. No other information was provided in this record.

    It should be noted that Coca-Cola occupied the Phase One Property (500 Coventry Road), not the adjacent west property (440 Coventry Road) from approximately 1962 to 1998. Based on the limited information provided in this record, it is Pinchin’s interpretation that the reported owner of the corroded UST was Coca-Cola. The spill record indicated that fuel was released and potentially migrated off-Site, which is suspected to have been downgradient onto the west adjacent property (Public Works property).

    The reported UST leak was associated with the presence and operation of the historical on-Site PFO from approximately 1987 to 1994, which has already been identified as an on-Site PCA and resulting APEC. As such, the corroded UST and the associated Ontario Spills database record has not been identified as a separate PCA on the Phase One Property.

    No other environmental incidents, orders, offenses or spill records pertaining to the Phase One Property were identified.
- The Ontario Spills database indicated that the following historical spills occurred on the neighbouring property to the east at 1200 St. Laurent Boulevard:
  - 4.5-L of hydraulic oil was spilled to the ground surface of this property on September 27, 2004;
  - 100-L of glycol/water solution was spilled to the ground surface of this property on September 25, 2012;
  - 1-L of hydraulic oil was spilled to the ground surface of this property on May 2, 2016;
  - 0.5-L of diesel was spilled to the ground surface of this property on September 7, 2016; and
  - 2-L of oil was spilled to the ground surface of this property on September 8, 2016.

© 2024 Pinchin Ltd.

This property is located adjacent to the east elevation of the Phase One Property. Based on the type and quantity of spills, it is Pinchin's opinion that this PCA does not represent an APEC at the Phase One Property.

4.2.1.8 Waste Management Records

Waste Generators

ERIS completed a search of the O. Reg. 347 Waste Generators database for information regarding waste generation. O. Reg. 347 defines a waste generation site as any site, equipment and/or operation involved in the production, collection, handling and/or storage of regulated wastes. A generator of regulated waste is required to register the waste generation site and each waste produced, collected, handled, or stored at the site. This database contains the registration number, company name and address of registered generators including the types of hazardous wastes generated. It includes data on waste generating facilities such as drycleaners, waste treatment and disposal facilities, machine shops, electric power distribution, etc. The database search results provide a summary of available waste generation information for the registered sites for all years from 1986 to the present.

O. Reg. 153/04 indicates that information from the Waste Generator database only needs to be obtained for the Phase One Property and properties adjacent to the Phase One Property. However, in addition to the Phase One Property and adjacent off-Site properties, Pinchin reviewed the database for waste generators within 50 m transgradient and 100 m upgradient of the Phase One Property with respect to the inferred groundwater flow direction. The area reviewed will be referred to as the Waste Generator Database Review Area.

The ERIS search of the O. Reg. 347 Waste Generators database found the following information regarding the Phase One Property:

- Coca-Cola Ltd. TTC Bottling Ltd. and Cirque du Soleil Inc., located on-Site, had been registered with the MECP as generators (Generator #s ON0381005 and ON8320593) of various hazardous wastes from 1986 to 2008. Based on a review of Pinchin's in-house MECP Waste Generator database, approximately 48,075 kilograms (kg) of various hazardous wastes (i.e., petroleum distillates, aliphatic solvent, halogenated solvents, aromatic solvents, light fuels and waste oils and lubricants) were generated on-Site from 1987 to 2008. The waste generation is likely associated with the former industrial operations on-Site, as well as the subsequent environmental investigations and remediation, and as such, the waste generation itself is not considered a PCA;

© 2024 Pinchin Ltd.

- Various operations/tenants at the St. Laurent Shopping Centre (i.e., Black Photo Corporation, Cadillac Fairview Corporation Ltd., Japan Camera Centre, Career Canada College, The Forzani Group Ltd., Devan Properties Ltd., Shoppers Drug Mart, 7139490 Ontario limited, 713949 Ontario Limited, Lens Crafters, Everest College of Business, Cindy Changoor Pharmacy Limited, Herzing College, St. Laurent Dental Center, FGL Sports Limited, Ben Gunter Pharmacy Inc., Morguard Real Estate Investment Trust and LCBO) located at 1200 St. Laurent Boulevard, had been registered with the MECP as generators (Generator #s ON0074368, ON0733507, ON0733604, ON0772000, ON1338120, ON1776701, ON2010401, ON2259500, ON2530720, ON9634909, ON8845420, ON6481594, ON6759537, ON5006290, ON5012892, ON2971904, ON7569372 and ON6013736) of various hazardous wastes from 1986 to 2022. Based on a review of Pinchin's in-house MECP Waste Generator database, approximately 147,988 kg of various hazardous wastes were generated at this property from 1987 to 2021. This property is located adjacent to the east elevation of the Phase One Property. Based on the nature of the various operations (retail commercial), it is Pinchin's opinion this PCA does not represent an APEC at the Phase One Property;
- Sears Canada Incorporated, located at 1250 St. Laurent Boulevard, had been registered with the MECP as generators (Generator #s ON0215614, ON7104231 and ON5274838) of various hazardous wastes from 1988 to 2018. Based on a review of Pinchin's in-house MECP Waste Generator database, approximately 20,952 kg of various hazardous wastes were generated at this property from 1988 to 2010. This property is located adjacent to the east elevation of the Phase One Property. Based on the limited annual quantities of hazardous wastes generated at this property, it is Pinchin's opinion this PCA does not represent an APEC at the Phase One Property;
- Dollco Printing, Bell Canada and Premier Environmental Services, located at 525 Coventry Road, had been registered with the MECP as generators (Generator #s ON0366500, ON0473816, ON0771300 and ON5281057) of various hazardous wastes from 1986 to 2015. Based on a review of Pinchin's in-house MECP Waste Generator database, approximately 26,505 kg of various hazardous wastes were generated at this property from 1988 to 2015. This property is located approximately 25 m north of the Phase One Property, while the building associated with this property is located approximately 50 m north of the Phase One Property. In addition, this property is situated hydraulically transgradient of the Phase One Property relative to the inferred groundwater flow direction. Based on the distance between the building on this property and the Phase

© 2024 Pinchin Ltd.

One Property, as well as the inferred groundwater flow direction, it is Pinchin's opinion this PCA does not represent an APEC at the Phase One Property;

- Bell Canada, located at 469 Coventry Road, approximately 25 m north/northwest of the Phase One Property was registered with the MECP as a waste generator (Generator # ON0473807) of various hazardous wastes from 1986 to 2022. Based on a review of Pinchin's in-house MECP Waste Generator database, approximately 189,452 kg of various hazardous wastes were generated at this property from 1987 to 2021. The hazardous waste produced at this property is considered a PCA. However, based on the inferred groundwater flow direction, the former waste generator was located downgradient from the Phase One Property, and as such, it is Pinchin's opinion that this off-site PCA does not represent an APEC; and
- In addition, this property was noted as an automotive repair/servicing facility and a private fuel outlet, located approximately 110 m north/northwest away from the Phase One Property. Based on separation distance and inferred groundwater direction relative to the Phase One Property, this off-site PCA is not considered to represent an APEC at the Phase One Property.

Waste Receivers

ERIS completed a search of the O. Reg. 347 Waste Receivers database for information regarding waste receivers. O. Reg. 347 defines a waste receiving site as any site or facility to which waste is transferred by a waste carrier. A receiver of regulated waste is required to register the waste receiving facility. This database contains registered receivers of regulated wastes, identified by registration number, company name and address, and includes receivers of waste such as landfills, incinerators, transfer stations, PCB storage sites, sludge farms and water pollution control plants.

O. Reg. 153/04 indicates that information from the Waste Receivers database only needs to be obtained for the Phase One Property and properties adjacent to the Phase One Property. However, in addition to the Phase One Property and adjacent off-Site properties, Pinchin reviewed the database for waste generators within 50 m transgradient and 100 m upgradient of the Phase One Property with respect to the inferred groundwater flow direction. The area reviewed will be referred to as the Waste Receivers Database Review Area.

The ERIS search of the O. Reg. 347 Waste Receivers database found no information regarding the Waste Receivers Database Review Area.

© 2024 Pinchin Ltd.

4.2.1.9 Fuel Storage Tanks

ERIS completed a search of various private, provincial and federal databases for information regarding chemical storage tanks, as well as private and retail fuel storage tanks. Details regarding the searched databases are provided in the ERIS report in Appendix H.

The ERIS search of the chemical and fuel storage tank databases found the following information regarding the Phase One Property:

- The Private and Retail Fuel Storage database in combination with the TSSA report, indicated that Coca Cola had two licensed PFOs in 1987 for dispensing diesel fuel and gasoline fuel with registered USTs, each with a 20,000-L capacity. Both licenses were terminated once the former PFO (USTs and associated ancillary equipment) was decommissioned in March 1995.

The ERIS search of the chemical and fuel storage tank databases identified the following other properties within the Phase One Study Area with records of fuel storage tanks:

- 455 Coventry Road was listed in the Fuel Storage Tank database as a former PFO with one 31,822-L gasoline UST, one 7,000-L gasoline UST, three 22,730-L gasoline USTs and one 31,822-L diesel UST. All of the above-noted USTs were registered to this property in 1990. As discussed in Section 4.1.3, based on Pinchin's review of the 1991 aerial photograph, the former pump island and UST nest associated with this database record is located approximately 110 m northwest of the Phase One Property. Based on the distance between this property and the Phase One Property, as well as the inferred groundwater flow direction, Pinchin considers that the likelihood of potential impact due to this off-site PCA is low. As such, this PCA is not considered to represent an APEC on the Phase One Property.
- 469 Coventry Road property was listed in the Fuel Storage Tank database as a former PFO with one 22,700-L gasoline UST and one 22,700-L "other" UST registered to this property in 1991 and 1993, respectively. As discussed in Section 4.1.3, based on Pinchin's review of the 1991 aerial photograph the former pump island and UST nest associated with this database record are located approximately 115 m north of the Phase One Property. Based on the separation distance and transgradient orientation with respect to the Phase One Property, Pinchin considers that the likelihood of potential impact due to this off-site PCA is low. As such, this PCA is not considered to represent an APEC on the Phase One Property.

© 2024 Pinchin Ltd.

4.2.1.10 Notices and Instruments

ERIS completed a search of the provincial Environmental Registry for records pertaining to proposals, decisions, and exceptions regarding policies, Acts, instruments, or regulations that could significantly affect the environment. ERIS also searched the Record of Site Condition database for filed RSCs.

The ERIS database search of the Environmental Registry and Record of Site Condition database found no records for the Phase One Property and the Phase One Study Area.

4.2.1.11 Areas of Natural Significance

ERIS reviewed available databases and records to assess whether any parks, wetlands, conservation areas, or other areas of natural significance, are located within the Phase One Study Area. The Area of Natural & Scientific Interest map is included in the ERIS report in Appendix G. In addition, Pinchin reviewed information provided on the Ministry of Natural Resources and Forestry's (MNRF) Natural Heritage Information Centre (NHIC) website. No areas of natural significance were identified within the Phase One Study Area from these information sources.

4.2.1.12 Landfill Information

ERIS reviewed available private and provincial databases for records of any current or inactive landfills and waste disposal sites within the Phase One Study Area. Details regarding the searched databases are provided in the ERIS report in Appendix H.

The ERIS search of the landfill and waste disposal sites databases found no information regarding the Phase One Study Area.

4.2.2 Ministry of the Environment, Conservation and Parks Freedom of Information Search

The MECP Freedom of Information (FOI) and Protection of Privacy Office in Toronto, Ontario was contacted to determine if records exist for environmental matters such as orders, spills, previous investigations, prosecutions, registered PCB waste storage sites, waste generators, waste receivers, Cs-of-A and ECAs associated with the Phase One Property.

Based on the MECP FOI search results, several environmental records were identified for the Phase One Property. These records have been summarized below:

- Letter correspondences between the Client, Arcturus and JWEL, and the MECP, formerly the Ministry of Environment (MOE), pertaining to the environmental site conditions post-decommissioning of the former on-Site USTs.

  Based on our review of these letters, no new information was determined to result in a PCA.

© 2024 Pinchin Ltd.

- Minute meetings with Arcturus and Raven Beck Environmental Ltd. (Raven Beck) in c/o Public Works was held at 440 Coventry Road, Ottawa, Ontario, dated March 15, 1995. The meeting details pertained to the on-Site remediation action plan (RAP) activities at the Phase One Property. The RAP outlined the excavation of approximately 350 m^3 of impacted soil from the former UST nest, and treat impacted using an ex-situ bioremediation cell with the aim of backfilling the nest with clean soil. The groundwater treatment program included a pump and treat system to collect and treat groundwater using granular activated carbon with the aim of discharging treated groundwater into the on-Site sanitary sewer. Arturus recommended Raven Beck to be present during these activities. Raven Beck presented results from their off-Site subsurface program at 440 Coventry Road. The analytical results for the off-Site groundwater monitoring program showed a continuous decrease in contaminant (PHC) concentrations from January to March of 1995. It was agreed upon by both parties that groundwater monitoring continue off-Site by installing additional groundwater monitoring wells down-gradient from the ex-situ bioremediation cell until the remediation criteria are met on the Phase One Property.
- Copies of various remediation and environmental reports (i.e., 1996 Arcturus Decommissioning Report, 1996 JWEL ESA Report, and 2001 JWEL Soil Remediation Report), and the RSC submission completed by JWEL in 2001 and revised in 2003, followed by the MOE acknowledgement of the RSC for the land use change of the Phase One Property (i.e., industrial to commercial) in 2003.
- Several Certificates of Approvals (CoAs) for air emissions and a Permit to Take Water (PTTW) associated with the ex-situ soil bioremediation program and an on-Site portable pump and treat system, respectively. A review of the CoAs and PTTW did not reveal any new information regarding the current condition of the Phase One Property.
- Permits and municipal approvals dating back to 1962, for the installation of furnace oil boilers, USTs and associated piping. A review of the municipal issued permits did not reveal any new information regarding the current condition of the Phase One Property.
- MECP issued Waste Generator Number (Generator No. ON8320593) for wastes produced on the Phase One Property. A review of this record did not reveal any new information regarding the current condition of the Phase One Property. As discussed in Section 4.2.1.8, the waste generated is not considered an APEC, but rather the resultant industrial use of the Phase One Property.

© 2024 Pinchin Ltd.

- Five MOE Occurrence Reports associated with Coca-Cola Bottling Ltd. and TCC Bottling Ltd., were filed between 1991 to 2001. This included:
  - In 1991, an occurrence report was filed for failure to submit supplementary documentation for additional glycol waste storage on-Site.
  - In 1992, a review of audit reports from May to August of 1992 identified that recyclables (containers) did not meet the targeted 22.5%.
  - In 1994, petroleum waste produced on-Site were not registered at the time of disposal. An emergency waste generator number ON0381005 was issued.
  - In 1997, an emergency waste generator was issued for the removal and disposal of ethylene glycol from the Site and noted that no further storage and/or ethylene glycol waste would be stored on-Site.
  - In 2001, an emergency waste generator was issued for the removal and disposal of oily water from the Site during site remediation activities.

The occurrence reports identified the bulk storage of glycol waste on-Site, which was not identified in other records/databases reviewed as part of this Phase One ESA. As such, glycol has been identified as a COPC associated with the former on-Site industrial operations. The remainder of the occurrence reports did not reveal any new information or PCAs associated with the Phase One Property.

A copy of the MECP response is provided in Appendix I of this report.

4.2.3 Technical Standards and Safety Authority Search

The TSSA is the regulatory body that governs the safe handling and storage of fuel in Ontario. All storage of gasoline, diesel and fuel oil is subject to the Technical Standards and Safety Act. The Technical Standards and Safety Act and its relevant documents and regulations (e.g., *Liquid Fuels Handling Code*, *Ontario Regulation 213/01 – Fuel Oil*, *Ontario Regulation 217/01 – Liquid Fuels*) require that all fuel storage devices such as ASTs and USTs be registered with the TSSA.

Pinchin contacted the TSSA to determine whether any ASTs or USTs are, or were, registered for the Phase One Property and to determine whether any records of regulatory non-compliance exist. At the time of writing this report, no response had been received from the TSSA. When a formal response is received, it will be reviewed by Pinchin. If there is any information that represents a potential issue of environmental concern, a copy of the response will be forwarded to the Client under separate cover. Our conclusions and recommendations may be amended based on this information. A copy of Pinchin's request submitted to the TSSA is provided in Appendix J of this report.

© 2024 Pinchin Ltd.

4.2.4 Property Underwriters' Reports and Plans

Property Underwriters' Reports (PURs) provide detailed information on a site-specific basis, including descriptions of building construction, heating sources, production processes, and the presence of any hazardous chemicals or materials which may have been historically stored on the Phase One Property. They also indicate the presence of environmental hazards such as electrical rooms, transformers, boilers and storage tanks. Information provided on Property Underwriters' Plans (PUPs) includes the location, capacity, and contents of ASTs, USTs, chemical storage and other forms of environmental hazards.

Pinchin contacted Opta to obtain copies of PURs and PUPs related to the Phase One Property. Opta provided Pinchin with a copy of a PUR dated 1998 (see Appendix F).

Based on Pinchin's review of the PUR, the following was noted:

- The former Site Building was constructed in approximately 1970; however, based on Pinchin's review of the previous reports and review of the 1958 and 1962 aerial photographs of the Phase One Property, the former Site Building was constructed circa 1962;
- The former Site Building was vacant in 1998; and
- Heating was provided by natural gas-fired hot water boilers and natural gas-fired forced-air furnaces.

Based on Pinchin's review of the information provided by the PUR, no PCAs were identified that are considered to result in APECs at the Phase One Property.

4.2.5 City Directories

City directories for the years 1954 to 2010 were reviewed by Pinchin at the Library and Archives of Canada in Ottawa, Ontario. It should be noted that no city directories were available for the Phase One Property and surrounding area prior to 1954 and subsequent to 2010. A summary of information obtained with respect to the Phase One Property is provided in the following table:

Year(s)	Occupant Listings for Site Address
1954-1962.	Phase One Property not listed.
1963-1979.	Coca-Cola Ltd. Carbonated Beverages.
1988.	Coca-Cola Ltd. Carbonated Beverages and TCC Bottling Ltd.
1995-2010.	Phase One Property not listed.

© 2024 Pinchin Ltd.

In general, the city directories indicated that the surrounding area has historically consisted of residential, light industrial and commercial land uses since at least 1954. No historical dry-cleaning operations, RFOs or other operations of potential environmental concern were identified, with the exception of the following:

- An automotive repair/servicing facility (i.e., Tire Plus) was listed at 455 Coventry Road in the 2001 to 2010 city directories. This property is located approximately 70 m northwest of the Phase One Property, and hydraulically downgradient relative to the inferred groundwater flow direction. As previously discussed in this report, PCAs that were identified at 455 Coventry Road are not considered APECs, based on the distance between the property and the Phase One Property.

4.3 Physical Setting Sources

4.3.1 Aerial Photographs

Pinchin reviewed aerial photographs of the Phase One Property and surrounding properties within the Phase One Study Area to assess the potential for historical PCAs. Copies of aerial photographs dated 1933 and 1988 were obtained from the National Air Photo Library in Ottawa, Ontario and reviewed by Pinchin. In addition, copies of digital aerial photographs dated 1958, 1965, 1976, 1991, 2002, 2011 and 2022 were reviewed on the City of Ottawa e-map website (https://maps.ottawa.ca/geoOttawa/) by Pinchin. The 1933 aerial photograph was the earliest available aerial photograph of the Phase One Study Area.

Efforts were made by Pinchin to obtain aerial photographs that:

- Illustrated the period between initial development of the Phase One Property to the present.
- Identified buildings and structures present on the Phase One Property since initial development.
- Identified PCAs within the Phase One Study Area.
- Identified APECs on the Phase One Property.

It should be noted that accurate details could not be determined from some of the aerial photographs due to the large reference scale and the low resolution of the photographs.

© 2024 Pinchin Ltd.

A summary of information obtained with respect to the Phase One Property from a review of the available aerial photography is provided in the following table:

Year of Photograph	Phase One Property
1933 and 1958.	The Phase One Property consisted of vacant undeveloped land.
1965-1991.	The Phase One Property was developed with an industrial building. A PFO occupied the northwestern side of the building, as seen with a pump island and the UST nest in the 1962 and 1965 photographs. An upgraded PFO, presumably replacing the former, can be seen in a new location, slightly south, relative of the original PFO in the 1991 aerial photograph.
2002-2022.	The Phase One Property consisted of vacant land utilized as a parking lot. It should be noted that the commercial building was demolished prior to 2002, and no longer evident on the Site. Placement of fill material was evident along the western and southern portions of the Site.

Based on the aerial photographs reviewed for the Phase One Property and the surrounding area, it appears that the Phase One Property was developed between 1958 and 1965.

The review of aerial photographs identified the following PCAs on the Phase One Property:

- A PFO showing the location of the pump island and UST nest situated on the west side of the former Site Building in 1962; and
- A PFO showing the location of a pump island situated approximately 15 south of the 1962 pump island, which is no longer present on the Site in 1991.

The former presence of two PFOs represent two PCAs that each result in an APEC on the Phase One Property.

Two off-site PCAs were identified in the aerial photographs on the neighbouring north properties:

- A PFO located on the property of 455 Coventry Road, approximately 110 m northwest of the Phase One Property; and
- A PFO located on the property of 469 Coventry Road, approximately 115 m north of the Phase One Property.

Based on the distances between these properties and the Phase One Property, as well as the inferred groundwater flow direction, it is Pinchin's opinion that these off-Site PCAs do not represent APECs at the Phase One Property. The PCAs are summarized in Table 2 – Potentially Contaminating Activities, in Appendix A – Tables.

© 2024 Pinchin Ltd.

Copies of the aerial photographs of the Phase One Property and surrounding area are provided in Appendix K – Aerial Photographs.

4.3.2 Topography, Hydrology and Geology

The elevation of the Phase One Property, based on information obtained from the Ontario Base Map series, is approximately 68 m above mean sea level (mamsl). The general topography in the local and surrounding area is generally flat and the Phase One Property is at a similar elevation to the adjacent/surrounding properties. No bedrock outcrops were observed on-Site or in the surrounding area.

A review of the available physiographical data indicates that the Phase One Property and the surrounding properties located within the Phase One Study Area are located within alluvial deposits consisting of stratified gravel, sand, silt and clay, with an overburden thickness ranging from 2 to 5 mbgs. Bedrock is expected to consist of sedimentary rocks consisting of limestone, dolomite, shale, argillite, sandstone, quartzite, and/or grit. The topography is considered to be mainly flat to rolling low local relief with dry surface water drainage conditions.

Based on general hydrogeological principles, in combination with the 2013 borehole logs (Golder, 2013) Pinchin's familiarity with subsurface conditions beneath the Phase One Property and the surrounding properties within the Phase One Study Area, inferred the unconfined groundwater flows in a westerly-northwesterly direction. The nearest surface water body is the Ottawa River located approximately 1.5 kilometers (km) west of the Phase One Property at an elevation of approximately 60 mamsl.

Copies of pertinent maps, illustrating local topographical, hydrogeological and drainage features are provided in Appendix L.

4.3.3 Fill Materials

Based on Pinchin's review of previous environmental reports in combination with the aerial photographs from 2002 to 2022, fill of unknown quality and/or origin is expected to be present on the Phase One Property, particularly on the western and southern portions of the Phase One Property.

A review of the boreholes logs from the 2013 Golder Phase II ESA Report, fill material across the Site generally consisted of sand, silty sand and/or silt in some locations, and some gravel. Fill was encountered beneath an asphalt concrete structure and/or granular/engineer fill and extended to depths of approximately 1.21 to 2.13 mbgs. The analytical results from the 2013 Golder Phase II ESA identified impacted fill material (i.e., BTEX, PHC (F1-F3), and PAH parameters as well as EC and SAR) along the southern side of the Phase One Property at boreholes BH13-3 and BH13-4. As such, the impacted fill material on the southern portion of the Site, including the backfilled remediation excavations in 1995, represent on-site PCAs that result in APECs on the Phase One Property.

© 2024 Pinchin Ltd.

4.3.4 Water Bodies, Areas of Natural Significance and Groundwater Information

The nearest surface water body is the Ottawa River located approximately 1.5 km west of the Phase One Property at an elevation of approximately 60 mamsl.

A review of the Area of Natural & Scientific Interest map prepared by ERIS (see Appendix L) and information provided on the MNRF's NHIC website did not identify any provincial parks, wetlands, conservation areas, or other areas of natural significance, within the Phase One Study Area.

The records review did not identify the presence of wells within the Phase One Study Area that supply water for human consumption or for agricultural purposes. Details regarding these wells are provided in the ERIS report in Appendix G.

4.3.5 Well Records

A review of the Water Well Information System database by ERIS and a search for Well Records registered with the MECP was conducted for all drilled wells within 250 m search radius of the Phase One Property.

No well records were identified in the database or the well record search on the Phase One Property. However, as previously discussed, in 2013, Golder installed six boreholes (BH13-1 to BH13-6) instrumented with groundwater monitoring wells across the Phase One Property. According to the 2023 Geosyntec Well Condition Report, four of the six monitoring wells were located and appear to be viable for resampling in the future. The remaining two wells (BH13-3 and BH13-4) were not located as they were likely covered by leftover snow dump debris and fill material.

Based on the review of the borehole logs included in the 2013 Golder Phase II ESA Report, the general stratigraphy encountered at the Phase One Property consisted of granular fill, followed by fill material (sand, silty sand or silt, and some gravel), overlying glacial till, followed by shale bedrock. Bedrock was encountered at depths ranging from approximately 2.21 to 3.12 mbgs. Groundwater was encountered in the overburden beneath the Phase One Property at depths ranging from approximately 0.9 to 2.64 mbgs from the east to west, respectively. The inferred groundwater flow direction is considered to flow in a northwesterly to westerly direction.

The well record search returned six well records for off-Site properties within the Phase One Study Area. A review of these records indicated that two records were associated with domestic wells, while the remaining four were associated with monitoring wells.

© 2024 Pinchin Ltd.

Two domestic well records were identified for properties located more than 150 m southwest of the Phase One Property. According to these records, the wells were drilled in 1948 and 1949 to depths of approximately 22.2 mbgs and 15.2 mbgs, respectively. No abandonment well records were identified for these potable wells, however, it is expected that these wells have long been abandoned as the Phase One Study Area is serviced by the municipality.

Four monitoring well records were identified for the neighbouring properties across Coventry Road at 465 and 455 Coventry Road, which were both equipped with a PFO, as shown in the 1991 aerial photograph, approximately 115 m north and 110 m northwest of the Phase One Property, respectively. It is expected that these monitoring wells were installed to assess the site conditions due to these PCAs; however, no pertinent information was provided in these monitoring well records.

As previously mentioned, these off-site PCAs are not considered to represent APECs on the Phase One Property, based on the distances between these properties and the Phase One Property, as well as the inferred groundwater flow direction. A copy of these well records has been included in Appendix H.

4.4 Enhanced Investigation Property

The O. Reg. 153/04 defines an “Enhanced Investigation Property” as a property that is being used or has been used, in whole or in part, in the following manner:

- For an industrial use; or
- For any of the following commercial uses:
  - As a garage;
  - As a bulk liquid dispensing facility, including a gasoline outlet; or
  - For the operation of dry cleaning equipment.

During this Phase One ESA, Pinchin has documented that the Phase One Property was formerly used as beverage distribution facility (Coca-Cola Bottling Limited) from circa 1962 to 1994. As result, the Phase One Property is considered an Enhanced Investigation Property.

There are no Site operating reports available for review. Pinchin reviewed all of the available records including provincial and municipal, previous engineering and ERIS database to carry out this Enhanced Investigation Property and summarized the historical operations that were known to have occurred on the Phase One Property.

4.4.1 Site Operations

The Phase One Property operated as a beverage bottling and distribution facility circa from 1962 to 1994. Based on the available records reviewed as part of this assessment, the operations on-site included bulk

© 2024 Pinchin Ltd.

storage of fuel, bunker oil, supply oil and waste oils. From 1962 to 1994, the Phase One Property consisted of a PFO in two separate locations on the west side of the former Site Building, and an engine (truck) repair and maintenance garage. The former repair garage was located in the southern portion of the former Site Building. No other site operations were documented or known.

4.4.2 Products Manufactured On-Site

Based on the available information and/or records, bottled beverages were produced on the Phase One Property. No other information is known with regard to products manufactured on the Phase One Property.

4.4.3 Processing Manufacturing Operations/Equipment

Based on the available information and/or records, the operations of the beverage bottling and distribution facility are unknown; however, it is known that the distribution end of the operations included fueling, and repair and maintenance of the transportation vehicles/trucks. In 1962 to1987, a single pump PFO operated on-Site, followed by an upgraded PFO, situated slightly more south of the original pump island from 1987 to 1994. There is no information with regard to the equipment (i.e., USTs) or decommissioning of the earlier PFO in the 1960s. Details pertaining to the PFO from the 1987 to1994 was licenced and registered with the TSSA. Two licenses were issued for a diesel fuel outlet and a gasoline fuel outlet, consisting of two 20,000-L capacity USTs. The USTs and associated ancillary equipment were decommissioned and subsequently removed in 1994.

The former engine repair and maintenance garage operated in the southern end of the former Site Building. Based on the available information, the garage appeared to consist of one service bay. Oil changes, greasing and other general vehicle maintenance activities were expected to have taken place on the Phase One Property. No other activities and/or operations are known to have occurred on the Phase One Property.

4.4.4 Hazardous Materials, Raw Materials Handling and Storage On-Site

Based the review of the previous engineering reports, hazardous material stored on the Site included, bunker oil (containing PCBs), gasoline and diesel fuel, ethylene glycol/glycol, waste oils and lubricants associated with the repair garage, and likely industrial-grade cleaning products and degreasing chemicals.

4.4.5 By-Products and Wastes Produced On-Site

Based on the available information and/or records, waste oils and lubricants, light fuels, aromatic and aliphatic solvents, petroleum distillates, ethylene glycol, and halogenated solvents were produced on the Phase One Property. Waste oil produced on-site was stored in a 250-gal AST inside the repair and

© 2024 Pinchin Ltd.

maintenance garage, and an exterior waste oil UST of unknown capacity situated on the eastern side of the former Site Building. No other information is known regarding any other wastes or by-products formerly produced on-site.

4.4.6 Locations and Contents of Drums, Totes and Bins

Based the review of the previous engineering reports, the TSSA and ERIS search results, the former storage tanks on-site included:

- An exterior 2,100-gal AST containing bunker oil;
- Two 250-gal waste oil ASTs located inside the garage along the eastern interior wall;
- Three supply oil ASTs (i.e., two 125-gal AST and a 250-gal AST), located inside the garage along the eastern interior wall, adjacent to the waste oil ASTs;
- One exterior waste oil UST situated on the eastern side of the former Site Building;
- Two 20,000-L capacity USTs containing diesel fuel in one, and gasoline in the other, located on the west exterior side of the former Site Building; and
- Unknown number of USTs associated with the 1962 PFO.

All known locations of the former fuel oil and gasoline USTs, waste oil UST and AST, supply oil ASTs and furnace oil AST as well as the former pump island, including any current storage tanks on the Phase One Property are illustrated in Figure 4 – Potentially Contaminating Activities (On-Site). It should be noted that information regarding the 1960s PFO was unavailable (i.e., not documented), other than the location of the former pump island (deduced from aerial photographs) and the contents likely being diesel fuel. The location of the former UST nest associated with the 1960s PFO is unknown. No records of excavation were noted either.

4.4.7 Oil-Water Separators

Based the review of the previous engineering reports, an oil-water separated was reportedly on the Site, however, it was noted in the previous reports that an oil-water separator was not observed on the Phase One Property.

4.4.8 Vehicle and Equipment Maintenance Area (Hydraulic Lift Equipment)

Based the review of the previous engineering reports, the repair garage consisted of a service bay with underground hydraulic hoists. Two, 250-gallon waste oil ASTs, and two, 250-gallon ASTs and a 125-gallon AST containing supply/engine oil were reportedly stored inside the garage along the eastern wall. As previously mentioned, an oil-water separated was reported on the Site. The location of the former oil-water separator is unknown.

© 2024 Pinchin Ltd.

4.4.9 Historical Spills and Leaks

Based on the ERIS report, the Ontario Spills database indicated that a UST leak, due to corrosion, occurred (presumably) on the Phase One Property in 1994 that resulted in confirmed, off-Site soil impact to the west adjacent property located at 440 Coventry Road.

The reported UST leak was associated with the presence and operation of the historical on-Site PFO from approximately 1987 to 1994, which has already been identified as an on-Site PCA and resulting APEC. As such, the corroded UST and the associated Ontario Spills database record has not been identified as a separate PCA on the Phase One Property.

It is possible that there were additional historical fuel releases/spills that went unreported during the time when the former 1962 PFO was commissioned/in-use.

4.4.10 Other On-Site Operations and Concerns

With the exception of the ex-situ bioremediation operation on the Phase One Property discussed in the previous environmental reports section (refer to Section 4.1.5), no other information is known about any other historical operations.

No other potential environmental concerns. (i.e., sources of incoming and outcoming effluent discharges, waste management handling, and vehicle equipment storage areas, etc.,).

All reasonable inquiries were made to carried out this Enhanced Investigation Property, as specified in clause 32(1)(b) of the O. Reg 153/04. Details pertaining to the Enhanced Investigation Property are illustrated in Figure 4 – Potentially Contaminating Activities (on-Site).

5.0 INTERVIEWS

Pinchin interviewed an individual knowledgeable of the Phase One Property and its history to obtain and/or confirm information regarding the environmental condition of the Phase One Property. The following individual provided information regarding the history of the Phase One Property and the surrounding properties within the Phase One Study Area to the best of their knowledge:

Person Interviewed	Relationship to Phase One Property	Date and Place of Interview	Interview Method
Angela Wilson	Manager, Environmental Affairs for Morguard Corporation	January 15, 2024 (email correspondence)	Email correspondence following Site reconnaissance.

© 2024 Pinchin Ltd.

Angela Wilson was chosen to be interviewed given that they are most familiar with the recent operational history of the Phase One Property. This individual is hereafter referred to as the “Site Representative” and assisted the Pinchin representative (Mr. Alex Kelly) following the Site reconnaissance via email correspondence.

Pinchin compared the information obtained from the interview with information obtained from the historical records. The information provided by the interviewee was corroborated by the available historical records. As such, Pinchin has no concerns regarding the validity of the information provided by the individual interviewed for the Phase One ESA.

With respect to PCAs and APECs, no additional information was obtained from the interviews other than that documented elsewhere in this report.

6.0 SITE RECONNAISSANCE

6.1 General Requirements

A visual assessment of the Phase One Property and the surrounding properties within the Phase One Study Area was conducted for the purpose of identifying the presence of possible PCAs and associated APECs.

An initial Site reconnaissance was completed on December 19, 2023, by a Pinchin representative (Mr. Alex Kelly), under the direct supervision of Pinchin’s QP overseeing this project. Alex Kelly is an Environmental Project Coordinator with more than three years of environmental consulting experience. Pinchin visited the Phase One Property and surrounding properties within the Phase One Study Area to document environmental conditions. During the Site reconnaissance, Pinchin viewed all accessible areas within the Phase One Property and viewed publicly-accessible portions of the adjacent lands for the presence of actual or potential issues of environmental concern. It should be noted that at the time of the initial Site reconnaissance in December of 2023, the ground surface was snow-covered. As a result, a recent Site reconnaissance to supplement any Site observations that could not be assessed at the time of the original Site visit was completed on March 26, 2024.

The recent Site reconnaissance was conducted between the hours of 9:30 AM and 11:30 AM. During the Site reconnaissance, the ground surface was free of snow and the weather was overcast, and the ambient temperature was approximately 5° Celsius. The Phase One Property reconnaissance was conducted on foot. During the Site reconnaissance, Pinchin accessed all exterior areas of the Phase One Property Coventry Road. Details regarding the current land use of the Phase One Property are provided throughout Section 6.2 of this report.

© 2024 Pinchin Ltd.

Photographs taken during the Site reconnaissance that illustrate the Phase One Property and Phase One Study Area are provided in Appendix C.

6.2 Specific Observations at Phase One Property

6.2.1 Description of Buildings and Structures

Two building structures were present on the Phase One Property at the time of the Site reconnaissance. One temporary outbuilding and a small office trailer were noted the southeast corner and the northwest corner of the Phase One Property, respectively.

The outbuilding was built sometime in 2013/2014 with concrete block walls that supported a metal roof frame covered by tarp-like canopy. This temporary outbuilding was noted to be used for the bulk storage of road salt at the Site reconnaissance.

The small office trailer was noted on the northwest side of the Phase One Property and used to support administrative operations associated with the school bus parking lot/storage lot since 2023.

6.2.2 Description of Below-Ground Structures

There were no below-ground structures present on the Phase One Property at the time of the Site reconnaissance.

6.2.3 Description of Tanks

During the Site reconnaissance, Pinchin noted a 250-gallon diesel fuel AST adjacent to the salt storage shed on the southeast corner of the Phase One Property. Surficial staining, accompanied by a strong olfactory odour was noted in the immediate area of the AST.

6.2.4 Potable and Non-Potable Water Sources

The Phase One Property and the surrounding properties within the Phase One Study Area rely upon municipal water.

6.2.5 Description and Location of Underground Utilities

The northeast portion of the Phase One Property was partially developed and used for vehicular parking associated with the neighbouring commercial retail shopping centre at 1200 St. Laurent Boulevard. Underground utilities on this portion of the Site included buried electrical lines that service the parking lot lights. No other underground utilities were noted at the time of the Site reconnaissance.

6.2.6 Details of Heating System

The Phase One Property is presently occupied by a parking lot and as such, no heating systems are present on-Site.

© 2024 Pinchin Ltd.

6.2.7 Details of Cooling System

The Phase One Property is presently occupied by a parking lot and as such, no cooling systems are present on-Site.

6.2.8 Details of Drains, Pits and Sumps

No drains, pits or sumps were observed at the Phase One Property.

6.2.9 Unidentified Substances within Buildings and Structures

During the Site reconnaissance, Pinchin did not observe any unidentified substances or storage containers holding unidentified substances at the Phase One Property.

6.2.10 Details of Staining and Corrosion

During the Site reconnaissance, Pinchin observed surficial ground staining in the immediate area of the diesel AST on the southeast corner of the Phase One Property.

6.2.11 Details of On-Site Wells

Based on the previous reports reviewed, Golder installed a total of six groundwater monitoring wells on the Phase One Property in 2013 as part of the Phase Two ESA program. In 2023, a Well Condition assessment was completed by Geosynthetic, in which only four of the six groundwater monitoring wells were considered serviceable at that time; however, at the time of the most recent Site reconnaissance, only two monitoring wells were located on the northern half (i.e., bus storage and parking lot) of the Phase One Property. No groundwater monitoring wells were located along the southern portion of the Phase One Property.

6.2.12 Details of Sewage Works

During the Site reconnaissance, Pinchin did not observe any sewage works or evidence of sewage disposal on the Phase One Property.

6.2.13 Details of Ground Cover

The majority of the ground surface of the Phase One Property was either paved concrete or gravel covered. Landscaped areas were noted on the northern side of the property fronting Coventry Road with small areas along the northeastern side and tall brush along the southeastern side of the Site.

At the time of the Site reconnaissance, Pinchin noted a relatively large pile of topsoil and left over debris from snow dumping on the southeast and southwest corners of the Phase One Property, respectively. of was observed on the southern half of the Phase One Property.

© 2024 Pinchin Ltd.

6.2.14 Details of Current or Former Railways

No current or former railway infrastructure was observed on the Phase One Property.

6.2.15 Areas of Stained Soil, Vegetation and Pavement

During the Site reconnaissance, Pinchin observed staining on the gravelled covered ground in the immediate area of the diesel fuel AST on the southeast corner of the Phase One Property. No other surficial ground staining was observed.

6.2.16 Areas of Stressed Vegetation

During the Site reconnaissance, Pinchin did not observe any areas of stressed vegetation on the Phase One Property.

6.2.17 Areas of Fill and Debris Materials

During the Site reconnaissance, Pinchin observed a large pile of fill material on the southwestern corner of the Phase One Property. Left over debris from snow dumping was also observed across the majority of the south half of the Phase One Property.

6.2.18 Potentially Contaminating Activities

A PCA is defined by O. Reg. 153/04 as a “use or activity set out in Column A of Table 2 of Schedule D that is occurring or has occurred in a Phase One Study Area” including the Phase One Property.

A 250-gallon diesel fuel AST situated immediately north of the salt storage shed on the southeast corner of the Site, and presence of fill material on the southwestern corner are considered PCAs that result in APECs at the Phase One Property.

The PCAs identified on the Phase One Property during the Site reconnaissance are included in Table 2. Details regarding this PCA (e.g., location, potential contaminants of concern, and rationale for inclusion) are provided in the preceding sections of this report and are further summarized in Section 7.2.

6.2.19 Unidentified Substances Outside Buildings and Structures

During the Site reconnaissance, Pinchin did not observe any unidentified substances or storage containers holding unidentified substances on the exterior of the Phase One Property.

6.2.20 Surrounding Land Uses

During the Site reconnaissance, Pinchin conducted a visual assessment of publicly-accessible portions of the Phase One Study Area for the presence of PCAs. The properties in the Phase One Study Area have various land uses, including residential, commercial, light industrial and vacant. Land use types within the Phase One Study Area are presented on Figure 3 – Phase One Study Area.

© 2024 Pinchin Ltd.

The following table summarizes the land use on adjacent properties at the time of the Site reconnaissance:

Direction Relative to Phase One Property	Location Relative to Inferred Groundwater Flow Direction	Description of Property Use	Property Use	Potential Contribution to PCA and/or APEC
North	Transgradient	Commercial developments, a light industrial development, a hydro station, vacant undeveloped land and associated roadways to beyond 200 m from the Phase One Property.	Commercial/ Hydro station/ Vacant	Land uses are considered to represent PCAs.
East	Upgradient	Commercial developments and associated roadways to beyond 200 m from the Phase One Property.	Commercial	Land uses are not considered to represent PCAs.
South	Transgradient	Residential dwellings, two railway lines and associated roadways to beyond 200 m from the Phase One Property.	Residential/ Railway	Land uses are considered to represent PCAs.
West	Downgradient	Commercial developments and associated roadways to beyond 200 m from the Phase One Property.	Commercial	Land uses are not considered to represent PCAs.

Pinchin observed the following PCAs at the time of the Site reconnaissance within the rest of the Phase One Study Area:

- Two railway lines were observed to be oriented in an east-west direction approximately 70 m south of the Phase One Property. Based on the distance between these railway lines and the Phase One Property, it is Pinchin's opinion that this PCA does not represent an APEC on the Phase One Property;
- An automotive repair/servicing facility was observed approximately 110 m northwest of the Phase One Property. This property is situated hydraulically down/transgradient of the Phase One Property relative to the inferred groundwater flow direction. Based on the distance between this property and the Phase One Property, as well as the inferred groundwater flow direction, it is Pinchin's opinion that this off-Site PCA does not represent an APEC at the Phase One Property;

© 2024 Pinchin Ltd.

- A hydro station is located approximately 170 m northwest of the Phase One Property. Based on the separation distance between this property and the Phase One Property, it is Pinchin's opinion that this off-Site PCA does not represent an APEC at the Phase One Property; and
- Two pad-mounted and three pole-mounted oil-cooled transformers were observed within 250 m of the Phase One Property; however, no evidence of spills or historical spills (i.e., staining) was observed in the vicinity of these transformers and no issues of potential environmental concern (i.e., spills) were noted for these transformers within the ERIS report. Based on the above-noted information, as well as the distance between these transformers and the Phase One property, these PCAs do not represent APECs at the Phase One Property.

Based on the distances between these off-Site PCAs and the Phase One Property, as well as the inferred groundwater flow direction, it is Pinchin's opinion that these PCAs do not represent APECs at the Phase One Property.

6.3 Written Description of Investigation

The Phase One ESA completed by Pinchin included investigations of the Phase One Property and the Phase One Study Area outside of the Phase One Property pursuant to Sections 13 and 14 of Schedule D of O. Reg.153/04. The main objective of these investigations was to identify PCAs at the Phase One Property or within the Phase One Study Area outside of the Phase One Property that could have resulted in APECs at the Phase One Property.

6.3.1 Phase One Property

The investigation of the Phase One Property consisted of the following components:

- Review of available historical records, including a FIP, previous environmental reports, ERIS regulatory search, information obtained through MECP FOI and TSSA requests, a PUR, city directories, aerial photographs and Site operating records.
- A Site reconnaissance completed on December 19, 2023, by Alex Kelly of Pinchin that included an assessment of the exterior of the Phase One Property. Pinchin notes that the ground surface was snow-covered at the time of this Site visit.
- A secondary Site reconnaissance completed on March 26, 2024, by Mandy Witteman of Pinchin included an assessment of the exterior of the Phase One Property, in the absence of snow coverage on the ground surface.

© 2024 Pinchin Ltd.

- Interviews with individuals knowledgeable of the history and operations at the Phase One Property.
- Review of mapping provided by ERIS and information provided on-line by the MNRF for the presence of areas of natural significance.

Pinchin's investigation of the Phase One Property identified 13 on-Site PCAs. The descriptions and locations of these PCAs are provided in Table 2. As per O. Reg. 153/04, all identified on-Site PCAs at the Phase One Property represent 13 APECs that will require investigation through the completion of a Phase Two ESA.

No areas of natural significance were identified at the Phase One Property.

Pinchin's investigation did not identify the presence of wells at the Phase One Property that currently supply water for human consumption or for agricultural purposes.

6.3.2 Phase One Study Area Outside of Phase One Property

The investigation of the Phase One Study Area outside of the Phase One Property consisted of the following components:

- Review of available historical records, including a FIP, previous environmental reports, ERIS regulatory search, city directories and aerial photographs.
- Visual inspection of properties from publicly-accessible areas for evidence of PCAs and water bodies.
- Review of mapping provided by ERIS and information provided on-line by the MNRF for the presence of areas of natural significance.

A total of 27 additional PCAs were identified within the Phase One Study Area outside of the Phase One Property. These off-Site PCAs are not considered to result in APECs at the Phase One Property given the distance from the PCAs to the Phase One Property, and their downgradient or transgradient orientations relative to the inferred groundwater flow direction in the Phase One Study Area and/or the nature of operations and potential contaminants related to these operations. The descriptions and locations of these PCAs are provided in Table 2.

No areas of natural significance were identified within the Phase One Study Area outside of the Phase One Property.

The records review did not identify the presence of wells within the Phase One Study Area that supply water for human consumption or for agricultural purposes.

© 2024 Pinchin Ltd.

Based on a cursory review of the properties greater than 250 m (i.e., outside of the Phase One Study Area), but less than 1 km, from the Phase One Study Area, Pinchin did not note or observe any significant contaminating properties that should be included as part of this assessment (i.e., landfills, large industrial manufacturers, etc.).

Plans identifying the locations of the off-Site PCAs for this Phase One ESA are provided on Figure 5 – Off-site Potentially Contaminating Activities.

7.0 REVIEW AND EVALUATION OF INFORMATION

7.1 Current and Past Uses

Based on Pinchin's review of the previous reports in combination with the 1958 and 1962 aerial photographs, the Phase One Property is believed to have been developed with the former Site Building shown in the 1962 aerial photograph. The Phase One Property was occupied by Coca-Cola, a light industrial building used as a beverage bottling and distribution facility. Therefore, it is Pinchin's opinion that the first developed use of the Phase One Property was for industrial purposes in 1962.

No other information was reviewed by Pinchin during the records review, or obtained during the Site reconnaissance or interviews which would have resulted in a different interpretation of the date of first developed use of the Phase One Property.

7.2 Potentially Contaminating Activities

Table 2 summarizes the descriptions and locations of all PCAs as defined by O. Reg. 153/04 that were identified by Pinchin within the Phase One Study Area. The following presents a summary of these PCAs:

- A total of 13 PCAs were documented to have occurred at the Phase One Property. These on-Site PCAs represent APECs at the Phase One Property; and
- A total of 15 PCAs were documented to have occurred within the Phase One Study Area outside of the Phase One Property. Based on the distances between these off-Site PCAs and the Phase One Property and/or their downgradient or transgradient location with respect to the inferred groundwater flow direction at the Phase One Property, it is Pinchin's opinion that the PCAs identified on these properties do not represent APECs at the Phase One Property.

© 2024 Pinchin Ltd.

7.3 Areas of Potential Environmental Concern

Table 3 summarizes all APECs identified during the Phase One ESA, as well as their respective PCAs, COPCs and the media which could potentially be impacted. As noted in Table 3, the Phase One ESA identified a total of 13 APECs at the Phase One Property.

The rationale used by the qualified person (QP) in assessing the available information to determine whether PCAs exist or have existed within the Phase One Study Area, including the Phase One Property, that represent an APEC at the Phase One Property has been provided in the preceding report sections. In general, the potential for environmental impacts to the Phase One Property was evaluated using a combined probability for a source to contaminate, and the ability of contaminants to migrate on, or to the Phase One Property. For example, a gasoline UST located on the Phase One Property, or on a property in close proximity and/or upgradient of the Phase One Property, would exhibit a high potential for contamination (and is therefore considered a PCA resulting in an APEC at the Phase One Property) since gasoline is highly mobile in the subsurface. In contrast, shallow soil/fill with metals impacts located on a property adjacent to the Phase One Property would be considered to have a low potential for contamination given that metals generally have low mobility in the subsurface (and would not be considered a PCA resulting in an APEC at the Phase One Property). Furthermore, non-adjacent properties with PCAs located downgradient or transgradient of the Phase One Property generally do not result in APECs at the Phase One Property. Groundwater is the media through which contaminants typically migrate from property to property, and if the source of the contaminant is downgradient or transgradient of the Phase One Property, contaminated groundwater from this source cannot migrate to the Phase One Property and the downgradient or transgradient PCA would not be considered to result in an APEC at the Phase One Property.

The COPCs listed in Table 3 are APEC-specific and were determined based on several sources of information, including but not limited to, Pinchin's experience with environmental contamination and hazardous substances, common industry standards for analysis of such contaminants and point sources, literature reviews of COPCs and associated hazardous substances, and an evaluation by Pinchin of the mobility and susceptibility for migration of the COPCs in the subsurface.

The evaluation of the presence/absence of APECs at the Phase One Property was based upon the analysis of available documents, records and drawings, and personal interviews. In evaluating the Phase One Property and Phase One Study Area, Pinchin has relied in good faith on information provided by other individuals or sources as noted in this report. Pinchin has assumed that the information provided is factual and accurate, and has no reason to believe that any of the information provided in the available documentation or obtained through interviews is not factual or inaccurate.

© 2024 Pinchin Ltd.

7.4 Phase One Conceptual Site Model

A conceptual site model (CSM) has been created to provide a summary of the findings of the Phase One ESA. The Phase One CSM is summarized in Figures 1 through Figure 4, which illustrate the following features within the Phase One Study Area, where present:

- Existing buildings and structures.
- Water bodies located in whole or in part within the Phase One Study Area.
- Areas of natural significance located in whole or in part within the Phase One Study Area.
- Groundwater monitoring wells located at the Phase One Property.
- Land use of adjacent properties.
- Roads within the Phase One Study Area.
- PCAs and APECs on the Phase One Property.
- PCAs within the Phase One Study Area, including the locations of tanks.

The following provides a narrative summary of the Phase One CSM:

- The Phase One Property consists of one legal lot situated at the municipal address of 500 Coventry Road, Ottawa, Ontario and is currently owned by 1339895 Ontario Limited. The Phase One Property is located immediately south of Coventry Road, approximately 235 m east of the intersection between Coventry Road and Belfast Road. The Phase One Property is approximately 3.5 hectares in size and presently consists of vacant undeveloped land utilized as a parking lot and snow stockpiling area for the St. Laurent Shopping Centre;
- The nearest surface water body is the Ottawa River located approximately 1.5 km west of the Phase One Property at an elevation of approximately 60 mamsl;
- No areas of natural significance were identified within the Phase One Study Area;
- No drinking water wells were located on the Phase One Property;
- The adjacent and surrounding properties in the vicinity of the Site consist of commercial, residential, institutional and vacant land uses. The properties located east and west of the Phase One Property consist of commercial developments and associated roadways to beyond 200 m from the Phase One Property; the properties located north of the Phase One Property consist of commercial developments, a light industrial development, vacant undeveloped land and associated roadways to beyond 200 m from the Phase One Property; and the properties located south of the Phase One Property consist of

© 2024 Pinchin Ltd.

residential dwellings, railway lines and associated roadways to beyond 200 m from the Phase One Property;

- A total of 28 PCAs were identified within the Phase One Study Area, consisting of 13 PCAs on the Phase One Property and 15 off-Site PCAs within the Phase One Study Area. As shown on Figure 4 – On-Site Potentially Contaminating Activities, all on-site PCAs resulted in APECs, while none of the off-site PCAs were considered to generate APECs on the Phase One Property, as shown in Figure 5 – Off-Site Potentially Contaminating Activities;
- Groundwater flow beneath the Phase One Property and properties within a 250 m search radius, is considered to flow in a north/northwesterly direction towards the Ottawa River. Any off-Site PCAs inferred to be upgradient or transgradient with respect to the Site are not considered to represent APECs on the Phase One Property. Figure 6 – Areas of Potential Environmental Concern provides a detailed summary of the APECs and associated PCAs and COPCs;
- The Phase One Property and the surrounding properties located within the Phase One Study Area are located within alluvial deposits consisting of stratified gravel, sand, silt and clay with an overburden thickness ranging from approximately 2 to 5 mbgs. Bedrock is expected to consist of sedimentary rocks consisting of limestone, dolomite, shale, argillite, sandstone, quartzite, and/or grit; and
- The Phase One Property is relatively flat. Local groundwater flow is inferred to be to the north/northwest, based on the topographic map and nearest surface water body.

There were no deviations from the Phase One ESA requirements specified in O. Reg. 153/04 or absence of information that have resulted in uncertainty that would affect the validity of the Phase One CSM.

8.0 CONCLUSIONS

Pinchin conducted this Phase One ESA in accordance with Part VII and Schedule D of O. Reg. 153/04. The purpose of the Phase One ESA was to assess the potential presence of environmental impacts at the Phase One Property due to activities at and near the Phase One Property in support of filing an RSC in accordance with O. Reg. 153/04.

Based on the findings of this Phase One ESA, Pinchin identified 13 PCAs on the Phase One Property (i.e., on-site) and 15 off-Site PCAs on properties within the Phase One Study Area. None of the identified off-Site PCAs were considered to represent APECs on the Phase One Property, based on the distances between them and the Phase One Property and/or their downgradient or transgradient location with respect to the inferred groundwater flow direction at the Phase One Property.

© 2024 Pinchin Ltd.

The 13 on-Site PCAs may have impacted soil and groundwater quality on and/or beneath the Phase One Property. As such, these PCAs are considered to result in APECs at the Phase One Property. Additionally, as defined by the O. Reg .153/04, the former use and operations carried out on the Phase One Property has been evaluated as an Enhanced Investigation Property. A Phase Two ESA is required at an Enhanced Investigation Property to support the filing of an RSC.

Pinchin recommends that a Phase Two ESA be conducted on the Phase One Property as an "assessment of property conducted in accordance with the regulations by or under the supervision of a QP to determine the location and concentration of one or more contaminants in the land or water on, in or under the property". Pinchin concludes that one or more contaminants originating from PCAs located on the Phase One Property may have affected land or water on, in, or under the Phase One Property. Therefore, Pinchin recommends that a Phase Two ESA be conducted prior to filing an RSC for the Phase One Property.

It should be noted that the references and sources for the information used in evaluating the Phase One Property are provided in the relevant sections of this report. Specific references are also summarized in Section 9.0.

8.1 Signatures

This Phase One ESA was undertaken under the supervision of Scott Mather, P.Eng., QP_{ESA} in accordance with the requirements of O. Reg. 153/04 to support the future filing of an RSC for the Phase One Property. The conclusions and recommendations provided in this report represent the best judgement of the assessors based on the Site conditions observed on March 23, 2024, and a review of available historical information and information obtained from interviews.

We trust that the information provided in this report meets your current requirements.

8.2 Terms and Limitations

This Phase One ESA was performed in order to identify potential issues of environmental concern associated with the property located at 500 Coventry Road, Ottawa, Ontario (Site), at the time of the Site reconnaissance. This Phase One ESA was performed in general compliance with currently acceptable practices for environmental site investigations, and specific Client requests, as applicable to this Site. This report was prepared for the exclusive use of Morguard Corporation (Client) subject to the terms, conditions and limitations contained within the duly authorized proposal for this project. Any use which a third party makes of this report, or any reliance on or decisions to be made based on it, is the sole responsibility of such third parties. Pinchin accepts no responsibility for damages suffered by any third party as a result of decisions made or actions conducted.

© 2024 Pinchin Ltd.

If additional parties require reliance on this report, written authorization from Pinchin will be required. Such reliance will only be provided by Pinchin following written authorization from the Client. Pinchin disclaims responsibility of consequential financial effects on transactions or property values, or requirements for follow-up actions and costs. No other warranties are implied or expressed. Pinchin will not provide results or information to any party unless disclosure by Pinchin is required by law.

The information provided in this report is based upon analysis of available documents, records and drawings, and personal interviews. In evaluating the Site, Pinchin has relied in good faith on information provided by other individuals noted in this report. Pinchin has assumed that the information provided is factual and accurate. In addition, the findings in this report are based, to a large degree, upon information provided by the current owner/occupant. Pinchin accepts no responsibility for any deficiency, misstatement or inaccuracy contained in this report as a result of omissions, misinterpretations or fraudulent acts of persons interviewed or contacted, or contained in reports that were reviewed. The scope of work for this Phase One ESA did not include a visual or intrusive investigation for designated substances (e.g., asbestos, mould, PCB-containing electrical equipment, etc.) and, therefore, these materials may be present at the Site.

Pinchin makes no other representations whatsoever, including those concerning the legal significance of its findings, or as to other legal matters touched on in this report, including, but not limited to, ownership of any property, or the application of any law to the facts set forth herein. With respect to regulatory compliance issues, regulatory statutes are subject to interpretation and these interpretations may change over time.

Ontario Regulation 153/04 does not apply to environmental auditing or environmental management systems. Therefore, with respect to Site operations and conditions, compliance with applicable federal, provincial or municipal acts, regulations, laws and/or statutes was not evaluated as part of the Phase One ESA.

9.0 REFERENCES

The following documents, persons or organizations provided information used in this report:

- Angela Wilson, Manager, Environmental Affairs with Morguard Corporation [Site Representative].
- ERIS reported entitled “500 Coventry Road, Ottawa, Ontario”, and dated January 11, 2024 (ERIS Project # 24010800331).
- Opta Information Intelligence.

© 2024 Pinchin Ltd.

- The Atlas of Canada – Surficial Materials: http://atlas.nrcan.gc.ca/site/english/maps/environment/land/surficialmaterials/1.
- The Atlas of Canada – Bedrock Geology: http://atlas.gc.ca/site/english/maps/archives/3rdedition/environment/land/016?w=4&h=4&l=6&r=4&c=12.
- Toporama – Topographic Maps: http://atlas.gc.ca/site/english/maps/topo/map.
- Province of Ontario. Environmental Protection Act R.S.O. 1990, c. E.19 and Ontario Regulation 153/04: Records of Site Condition – Part XV.1 of the Act. Last amended by Ontario Regulation 333/13 on December 13, 2013.
- Canadian Standards Association (CSA) Standard. CSA Z768-01, Phase I Environmental Site Assessment, Canadian Standards Association International, November 2001, reaffirmed in 2012.
- Ministry of the Environment, Conservation and Parks.
- MECP Brownfields Environmental Site Registry.
- National Air Photo Library, Ottawa, Ontario.
- Technical Standards and Safety Authority.
- Intera Technologies Inc. *Inventory of Coal Gasification Plant Waste Sites in Ontario.* April 1987.
- Intera Technologies Inc. *Inventory of Industrial Sites Producing or Using Coal Tar and Related Tars in Ontario*. November 1988.
- "*Environmental Site Assessment, 500 Coventry Road, Ottawa, Ontario*" prepared by Jacques Whitford Environmental Limited for Provigo Distribution Inc., and dated August 22, 1996.
- "Decommissioning Report, Coca-Cola Beverages Limited Distribution Plant, 500 Coventry Road, Ottawa, Ontario" prepared by Arcturus Environmental for Coca-Cola Beverages Ltd., and dated October 1996.
- "*Phase II Environmental Site Assessment, 500 Coventry Road, Ottawa, Ontario*" prepared by Golder Associates Ltd. for Acktion Corporation, and dated February 23, 2000.

© 2024 Pinchin Ltd.

- "*Phase I Environmental Site Assessment, 500 Coventry Road, Ottawa, Ontario*" prepared by Golder Associates Ltd. for Acktion Corporation c/o Morguard Investments Limited and Morguard Real Estate Investment Trust, and dated April 2000.
- "*On-Site Soil Remediation Program, 500 Coventry Road, Ottawa, Ontario*" prepared by Jacques Whitford Environmental Limited for Morguard Real Estate Investment Trust, and dated August 9, 2001.
- "Phase I Environmental Site Assessment and Asbestos/mould reconnaissance Survey, 500 Coventry Road, Ottawa, Ontario" prepared by Golder Associates Ltd. for Morguard Real Estate Investment Trust, and dated February 2005.
- "*Phase I Environmental Site Assessment Update, 500 Coventry Road, Ottawa, Ontario*" prepared by Golder Associates Ltd. for Morguard Investment Limited, and dated August 2010.
- "Phase I Environmental Site Assessment, 1135, 1200 & 1400 St. Laurent Boulevard and 500 Coventry Road, Ottawa, Ontario" prepared by Golder Associates Ltd. for Morguard Investment Limited, and dated October 2013.
- "Phase II Environmental Site Assessment, 1200 St. Laurent Boulevard and 500 Coventry Road, Ottawa, Ontario" prepared by Golder Associates Ltd. for Morguard Investment Limited, and dated November 2013.
- "Screening Level Risk Assessment, St. Laurent Shopping Centre and 500 Coventry Road, Ottawa, Ontario," prepared by Golder Associates Ltd. for Morguard Investment Limited, and dated August 2014.
- "Phase I Environmental Site Assessment, 1135, 1200 and 1400 St. Laurent Boulevard and 500 Coventry Road, Ottawa, Ontario" prepared by Golder Associates Ltd. for Morguard Investment Limited, and dated October 2018.
- *"Well Condition, 500 Coventry Road, Ottawa ON'* prepared by Geosyntec Consultants, and dated June 2, 2023.

© 2024 Pinchin Ltd.

APPENDICES

APPENDIX A

Tables

Table 1 - Table of Current and Past Uses of the Phase One Property

Year	Name of Owner	Description of Property Use	Property Use	Other Observations from Aerial Photographs, Fire Insurance Plans, etc.
Pre-1810	Crown	Assumed to be vacant, undeveloped land	Agricultural or other use	None.
1810-1832	Daniel Burritt	Assumed to be vacant, undeveloped land	Agricultural or other use	None.
1832-1849	Lewis P. Sherwood	Assumed to be vacant, undeveloped land	Agricultural or other use	None.
1849-1893	John Whillans and Mary Whillans	Assumed to be vacant, undeveloped land	Agricultural or other use	None.
1893-1896	Thomas Whillans, John Whillans and Mary Whillans	Assumed to be vacant, undeveloped land	Agricultural or other use	None.
1893-1901	Thomas Whillans, Robert Whillans, John Whillans, John Whillans Sr., and Mary Whillans	Assumed to be vacant, undeveloped land	Agricultural or other use	None.
1901-1937	Thomas Whillans and Zephyrien Robert Sr.	Assumed to be vacant, undeveloped land	Agricultural or other use	Based on the 1933 aerial photograph, the Phase One Property existed as undeveloped vacant land.
1937-1940	Horace Whillian and Zephyrien Robert Sr.	Assumed to be vacant, undeveloped land	Agricultural or other use	None.
1940-1946	Horace Whillian and Zephyrien Robert Jr.	Assumed to be vacant, undeveloped land	Agricultural or other use	None.

Year	Name of Owner	Description of Property Use	Property Use	Other Observations from Aerial Photographs, Fire Insurance Plans, etc.
1946-1947	Joseph W. Barclays and Zephyrien Robert Jr.	Assumed to be vacant, undeveloped land	Agricultural or other use	None.
1947-1954	Zephyrien Robert Jr. and The Roman Catholic Episcopal Corporation of Ottawa	Assumed to be vacant, undeveloped land	Agricultural or other use	None.
1951-1954	Federal District Commission, Zephyrien Robert Jr. and The Roman Catholic Episcopal Corporation of Ottawa	Assumed to be vacant, undeveloped land	Agricultural or other use	None.
1954-1957	Federal District Commission, Zephyrien Robert Jr. and Her Majesty the Queen in Right of Canada	Assumed to be vacant, undeveloped land	Agricultural or other use	None.
1957-1959	Federal District Commission, Alphonse Robert and Her Majesty the Queen in Right of Canada	Assumed to be vacant, undeveloped land	Agricultural or other use	Based on the 1958 aerial photograph, the Phase One Property was undeveloped vacant land.
1959-1959	Federal District Commission, Ernest Robert and Her Majesty the Queen in Right of Canada	Assumed to be vacant, undeveloped land	Agricultural or other use	None.

Year	Name of Owner	Description of Property Use	Property Use	Other Observations from Aerial Photographs, Fire Insurance Plans, etc.
1959-1960	Federal District Commission, A. P. Freiman Limited and Her Majesty the Queen in Right of Canada	Assumed to be vacant, undeveloped land	Agricultural or other use	None.
1960-1961	National Capital Commission	Assumed to be vacant, undeveloped land	Agricultural or other use	None.
1961-1987	Coca-Cola Limited (became T.C.C. Bottling Limited and then Coca-Cola Bottling Limited)	One single-storey industrial bottling facility, truck repair and maintenance garage, and private fuel outlet	Industrial use	Based on the 1962 aerial photograph, the Phase One Property is occupied with an industrial building and a private fuel outlet (PFO). From 1963 to 1979, the city directories listed the Phase One Property as being occupied by 'Coca-Cola Ltd. Carbonated Beverages'.
1987-1995	157050 Canada Limited	One single-storey industrial bottling facility, truck repair and maintenance garage, and private fuel outlet	Industrial use	In 1988, the city directories listed the Phase One Property as being occupied by 'Coca-Cola Ltd. Carbonated Beverages' and 'T.C.C. Bottling Limited'. Based on the 1991 aerial photograph, the Phase One Property is occupied by a different/new PFO located slightly south of the former PFO.
1995-2000	Kaysush Developments Ltd.	One single-storey industrial bottling facility, truck repair and maintenance garage, and private fuel outlet	Industrial use	The Phase One Property was not listed in available city directories between 1995 and 2000.
2000-Present	1339895 Ontario Limited	Parking lot and snow dump	Commercial use	The Phase One Property was not listed in available city directories between 2000 and 2010. The industrial building was not present in the 2002 aerial photograph; the Phase One Property appeared to be occupied by an asphalt paved parking lot.

Notes:

1 - for each owner, specify one of the following types of property use (as defined in O.Reg. 153/04) that applies: Agriculture or other use
Commercial use
Community use Industrial use
Institutional use Parkland use
Residential use

2 - when submitting a record of site condition for filing, a copy of this table must be attached.

Table 2 - Table of Potentially Contaminating Activities

PCA Designation	Location of Potentially Contaminating Activity	Potentially Contaminating Activity	Location of PCA (On-Site or Off-Site)	Distance from Phase One Property (metres)	Location Relative to Inferred Groundwater Flow Direction[1]	Contributing to an APEC at the Site (Yes/No)	Media Potentially Impacted (Ground Water, Soil and/or Sediment)
PCA-1	One former 2,100 gallon bunker oil AST located along the west exterior elevation of the former Site Building	Item 28 - Gasoline and Associated Products Storage in Fixed Tanks	On-Site	NA – On-Site PCA	NA - On-Site PCA	Yes	Soil
PCA-2	Former engine (truck) repair and maintenance garage located in the south end interior of the former Site Building	Item 27 - Garages and Maintenance and Repair of Railcars, Marine Vehicles and Aviation Vehicles	On-Site	NA – On-Site PCA	NA – On-Site PCA	Yes	Soil
PCA-3	Two former 250 gallon waste oil ASTs located within the former vehicle and equipment maintenance area within the former Site Building	Item 28 - Gasoline and Associated Products Storage in Fixed Tanks	On-Site	NA – On-Site PCA	NA - On-Site PCA	Yes	Soil
PCA-4	Two former 125 gallon and one 250 gallon supply oil ASTs located within the former vehicle and equipment maintenance area within the former Site Building	Item 28 - Gasoline and Associated Products Storage in Fixed Tanks	On-Site	NA – On-Site PCA	NA - On-Site PCA	Yes	Soil
PCA-5	One former waste oil UST was located on the east exterior portion of the Phase One Property and removed in 2004	Item 28 - Gasoline and Associated Products Storage in Fixed Tanks	On-Site	NA – On-Site PCA	NA – On-Site PCA	YES	Soil and Groundwater
PCA-6	Former private fuel outlet located on the west side Phase One Property (circa 1962)	Item 28 - Gasoline and Associated Products Storage in Fixed Tanks	On-Site	NA – On-Site PCA	NA - On-Site PCA	Yes	Soil and Groundwater
PCA-7	Former private retail fuel outlet with a 20,000-L gasoline UST and a 20,000-L diesel UST (1987-1994), and associated UST fuel release in 1994 as documented in the Ontario Spills database.	Item 28 - Gasoline and Associated Products Storage in Fixed Tanks	On-Site	NA – On-Site PCA	NA - On-Site PCA	Yes	Soil and Groundwater
PCA-8	Importation of fill of unknown quality used to backfill the remediation excavations, located on the western and portions of the Phase One Property	Item 30 - Importation of Fill Material of Unknown Quality	On-Site	NA – On-Site PCA	NA - On-Site PCA	Yes	Soil
PCA-9	Importation of fill of unknown quality used to backfill the remediation excavations, located on the eastern portion of the Phase One Property	Item 30 - Importation of Fill Material of Unknown Quality	On-Site	NA – On-Site PCA	NA - On-Site PCA	Yes	Soil

PCA Designation	Location of Potentially Contaminating Activity	Potentially Contaminating Activity	Location of PCA (On-Site or Off-Site)	Distance from Phase One Property (metres)	Location Relative to Inferred Groundwater Flow Direction[1]	Contributing to an APEC at the Site (Yes/No)	Media Potentially Impacted (Ground Water, Soil and/or Sediment)
PCA-10	Fill of unknown quality from ex-situ bioremediation cell located on the southwestern portion of the Phase One Property	Item 30 - Importation of Fill Material of Unknown Quality	On-Site	NA – On-Site PCA	NA - On-Site PCA	Yes	Soil and Groundwater
PCA-11	Existing bulk storage of road salt and (former) stockpiling of snow on the Phase One Property.	Item 48 - Salt Manufacturing, Processing and Bulk Storage	On-Site	NA – On-Site PCA	NA - On-Site PCA	Yes	Soil and Groundwater
PCA-12	Historical industrial operations associated with the on-Site Coca-Cola distribution plant	Other – Industrial Operations	On-Site	NA – On-Site PCA	NA - On-Site PCA	Yes	Soil and Groundwater
PCA-13	Current presence of a 2,320-L diesel AST	Item 28 - Gasoline and Associated Products Storage in Fixed Tanks	On-Site	NA – On-Site PCA	NA - On-Site PCA	Yes	Soil and Groundwater
PCA-14	Historical PCB storage at 1200 St. Laurent Boulevard	Item 55 - Transformer Manufacturing, Processing and Use	Off-Site	20	Transgradient	No	Not Applicable
PCA-15	Blue Line Taxi Co. Ltd., located at 455 Coventry Road, historically operated as an automotive repair and maintenance facility	Item 27 - Garages and Maintenance and Repair of Railcars, Marine Vehicles and Aviation Vehicles	Off-Site	110	Upgradient/ Transgradient	No	Not Applicable
PCA-16	The Retail Fuel Storage Tanks database indicated that Blue Line Taxi Co. Ltd., located at 455 Coventry Road was registered as a PFO equipped with one 31,822-L gasoline UST, one 7,000-L gasoline UST, three 22,730-L gasoline USTs and one 31,822-L diesel UST	Item 28 - Gasoline and Associated Products Storage in Fixed Tanks	Off-Site	110	Upgradient/ Transgradient	No	Not Applicable
PCA-17	The National PCB Inventory indicated that the west adjacent property was registered as having stored PCBs or PCB-containing equipment (including transformers, capacitors, ballasts, soil and free liquids)	Item 55 - Transformer Manufacturing, Processing and Use	Off-Site	60	Transgradient	No	Not Applicable
PCA-18	Two railway lines were observed to be oriented in an east-west direction approximately 330 m south of the Phase One Property, south of Highway 417	Item 46 - Rail Yards, Tracks and Spurs	Off-Site	330	Downgradient	No	Not Applicable

PCA Designation	Location of Potentially Contaminating Activity	Potentially Contaminating Activity	Location of PCA (On-Site or Off-Site)	Distance from Phase One Property (metres)	Location Relative to Inferred Groundwater Flow Direction[1]	Contributing to an APEC at the Site (Yes/No)	Media Potentially Impacted (Ground Water, Soil and/or Sediment)
PCA-19	The Retail Fuel Storage Tanks database indicated that Bell Canada located at 465 - 469 Coventry Road had 22,700-L gasoline UST and a 22,700-L UST (unknown contents) registered to the Site in 1991 and 1993, respectively	Item 28 - Gasoline and Associated Products Storage in Fixed Tanks	Off-Site	115	Upgradient/ Transgradient	No	Not Applicable
PCA-20	An automotive repair/servicing facility was observed at 469 Coventry Road, approximately 110 m northwest of the Phase One Property, during the Phase One Site reconnaissance	Item 27 - Garages and Maintenance and Repair of Railcars, Marine Vehicles and Aviation Vehicles	Off-Site	110	Transgradient/ Downgradient	No	Not Applicable
PCA-21	Dominion Loose-Leaf Company Ltd. (a commercial printing business) was listed in the City of Ottawa's HLUI database at 525 Coventry Road, approximately 65 m north of the Phase One Property.	Item 31 - Ink Manufacturing, Processing and Bulk Storage	Off-Site	65	Transgradient/ Downgradient	No	Not Applicable
PCA-22	A registered UST was listed in the City of Ottawa's HLUI database at 401Coventry Road, approximately 215 m northwest of the Phase One Property	Item 28 - Gasoline and Associated Products Storage in Fixed Tanks	Off-Site	215	Transgradient/ Downgradient	No	Not Applicable
PCA-23	An automotive repair/servicing garage was listed in the City of Ottawa's HLUI database at 401Coventry Road, approximately 215 m northwest of the Phase One Property	Item 27 - Garages and Maintenance and Repair of Railcars, Marine Vehicles and Aviation Vehicles	Off-Site	215	Transgradient/ Downgradient	No	Not Applicable
PCA 24 to PCA-28	Two pad-mounted, three pole-mounted oil-cooled transformers and one hydro station are located within 250 m of the Phase One Property	Item 55 - Transformer Manufacturing, Processing and Use	Off-Site	250	Transgradient/ Downgradient	No	Not Applicable

Notes:

APEC – Area of Potential Environmental Concern

PCA – Potentially Contaminating Activity

1 – Location of PCA relative to the Phase One Property in relation to the inferred groundwater flow direction in the Phase One Study Area

Table 3 - Table of Areas of Potential Environmental Concern

Area of Potential Environmental Concern[1]	Location of Area of Potential Environmental Concern on Phase One Property	Potentially Contaminating Activity[2]	Location of PCA (On-Site or Off-Site)	Contaminants of Potential Concern[3]	Media Potentially Impacted (Ground Water, Soil and/or Sediment)
APEC-1 Former presence of a 2,100-gallon bunker oil AST.	Located along the west exterior wall of the former Site Building situating on the Phase One Property.	Item 28 - Gasoline and Associated Products Storage in Fixed Tanks	On-Site	PHCs BTEX PAHs PCBs	Soil and Groundwater
APEC-2 Former presence of a motor vehicle (truck) repair garage.	Located in the south end of the former Site Building of the Phase One Property.	Item 27 - Garages and Maintenance and Repair of Railcars, Marine Vehicles and Aviation Vehicles	On-Site	PHCs BTEX PAHs VOCs Metals As, Sb, Se B-HWS Cr (VI) Hg PCBs	Soil and Groundwater
APEC-3 Former presence of two 250-gallon waste oil ASTs.	Located in the south end of the former Site Building of the Phase One Property.	Item 28 - Gasoline and Associated Products Storage in Fixed Tanks	On-Site	PHCs BTEX PAHs VOCs PCBs	Soil
APEC-4 Former presence of one 250 gal and two 125-gallon supply oil ASTs.	Located within the former vehicle and equipment maintenance area within the former Site Building situating on the Phase One Property.	Item 28 - Gasoline and Associated Products Storage in Fixed Tanks	On-Site	PHCs BTEX PAHs	Soil

Area of Potential Environmental Concern[1]	Location of Area of Potential Environmental Concern on Phase One Property	Potentially Contaminating Activity[2]	Location of PCA (On-Site or Off-Site)	Contaminants of Potential Concern[3]	Media Potentially Impacted (Ground Water, Soil and/or Sediment)
APEC-5 Former presence of a waste oil UST.	Located on the east exterior portion of the Phase One Property and removed in 2004	Item 28 - Gasoline and Associated Products Storage in Fixed Tanks	On-Site	PHCs BTEX PAHs VOCs PCBs	Soil and Groundwater
APEC-6 Former presence of a Private Fuel Outlet (circa 1962).	Located on the western side of the Phase One Property.	Item 28 - Gasoline and Associated Products Storage in Fixed Tanks	On-Site	PHCs BTEX PAHs VOCs Metals	Soil and Groundwater
APEC-7 Former presence of a Private Fuel Outlet, which including a pump island, one 20,000-litre gasoline UST, and one 20,000-litre diesel UST (circa 1987-1990), and associated UST fuel release in 1994 as documented in the Ontario Spills database.	Located on the western side of the Phase One Property	Item 28 - Gasoline and Associated Products Storage in Fixed Tanks	On-Site	PHCs BTEX PAHs VOCs Metals	Soil and Groundwater
APEC-8 Importation of fill material of unknown quality to backfill remediation excavations.	Located on the southern and western portions of the Phase One Property.	Item 30 - Importation of Fill Material of Unknown Quality	On-Site	PHCs BTEX PAHs Metals As, Sb, Se B-HWS Cr (VI) Hg	Soil

Area of Potential Environmental Concern[1]	Location of Area of Potential Environmental Concern on Phase One Property	Potentially Contaminating Activity[2]	Location of PCA (On-Site or Off-Site)	Contaminants of Potential Concern[3]	Media Potentially Impacted (Ground Water, Soil and/or Sediment)
APEC-9 Fill material of unknown quality.	Located on the central and southern portions of the Phase One Property.	Item 30 - Importation of Fill Material of Unknown Quality	On-Site	PHCs BTEX PAHs Metals As, Sb, Se B-HWS Cr (VI) Hg	Soil
APEC-10 Unknown quality of soil used for the former ex-situ	Located on the southwest portion of the Phase One Property.	Other – On-Site Bioremediation	On-Site	PHCs BTEX	Soil and Groundwater
APEC-11 Bulk storage of road salt and (former) stockpiling of snow.	Located on the southern portion of the Phase One Property.	Item 48 - Salt Manufacturing, Processing and Bulk Storage	On-Site	Electrical conductivity, SAR Na, Cl-	Soil and Groundwater
APEC-12 Historical operations and storage of supplies, and waste associated with an Industrial site (Coca-Cola distribution plant).	Located on the central portion of the Phase One Property around the footprint of the former Site Building.	Other - Industrial Operations	On-Site	PHCs BTEX PAHs VOCs PCBs Metals As, Sb, Se B-HWS Cr (VI) Hg Glycol	Soil and Groundwater

Area of Potential Environmental Concern[1]	Location of Area of Potential Environmental Concern on Phase One Property	Potentially Contaminating Activity[2]	Location of PCA (On-Site or Off-Site)	Contaminants of Potential Concern[3]	Media Potentially Impacted (Ground Water, Soil and/or Sediment)
APEC 13 Presence of a 2,320-L diesel AST.	Located on the southeast portion of the Phase One Property, adjacent to the salt storage areas	Item 28 - Gasoline and Associated Products Storage in Fixed Tanks	On-Site	PHCs BTEX PAHs VOCs Metals As, Sb, Se B-HWS Cr (VI) Hg	Soil and Groundwater

Notes:

1 - Areas of potential environmental concern means the area on, in or under a phase one property where one or more contaminants are potentially present, as determined through the phase one environmental site assessment, including through,
(a) identification of past or present uses on, in or under the phase one property, and
(b) identification of potentially contaminating activity.

2 - Potentially contaminating activity means a use or activity set out in Column A of Table 2 of Schedule D that is occurring or has occurred in a phase one study area

3 - When completing this column, identify all contaminants of potential concern using the Method Groups as identified in the Protocol for in the Assessment of Properties under Part XV.1 of the Environmental Protection Act, March 9, 2004, amended as of July 1, 2011, as specified below:

List of Method Groups:

ABNs	PCBs	Metals	Electrical Conductivity
CPs	PAHs	As, Sb, Se	Cr (VI)
1,4-Dioxane	THMs	Na	Hg
Dioxins/Furans, PCDDs/PCDFs	VOCs	B-HWS	Methyl Mercury
OCs	BTEX	Cl-	Low or high pH,
PHCs	Ca, Mg	CN-	SAR

4 - When submitting a record of site condition for filing, a copy of this table must be attached

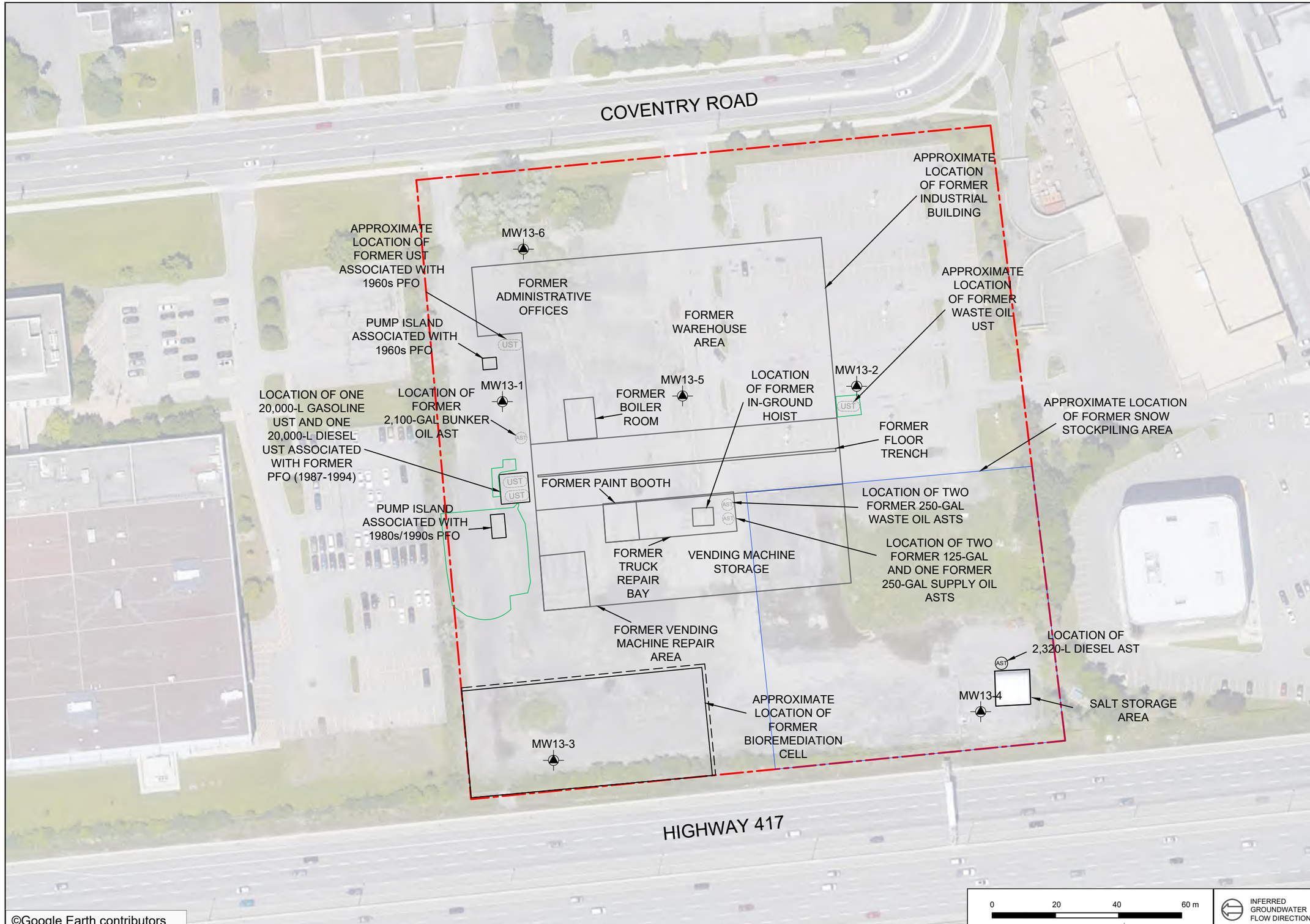
APPENDIX B

Figures

PINCHIN

PROJECT NAME:	PHASE I ENVIRONMENTAL SITE ASSESSMENT
CLIENT NAME:	MORGUARD REIT C/O MORGUARD INVESTMENTS LIMITED
PROJECT LOCATION:	500 COVENTRY ROAD, OTTAWA, ONTARIO
FIGURE NAME:	KEY MAP
FIGURE NUMBER	1

PROJECT NUMBER:	SCALE:	DRAWN BY:	REVIEWED BY:	DATE:
319674	1:15,000	NJ	AK	APRIL 2024



N

LEGEND

- SITE BOUNDARY
- LIMITS OF FORMER REMEDIAL EXCAVATIONS (BY OTHERS)
- RAILWAY LINE
- AST — ABOVEGROUND STORAGE TANK
- AST — FORMER ABOVEGROUND STORAGE TANK
- UST — UNDERGROUND STORAGE TANK
- UST — FORMER UNDERGROUND STORAGE TANK
- P — PARKING
- MONITORING WELL BY OTHERS

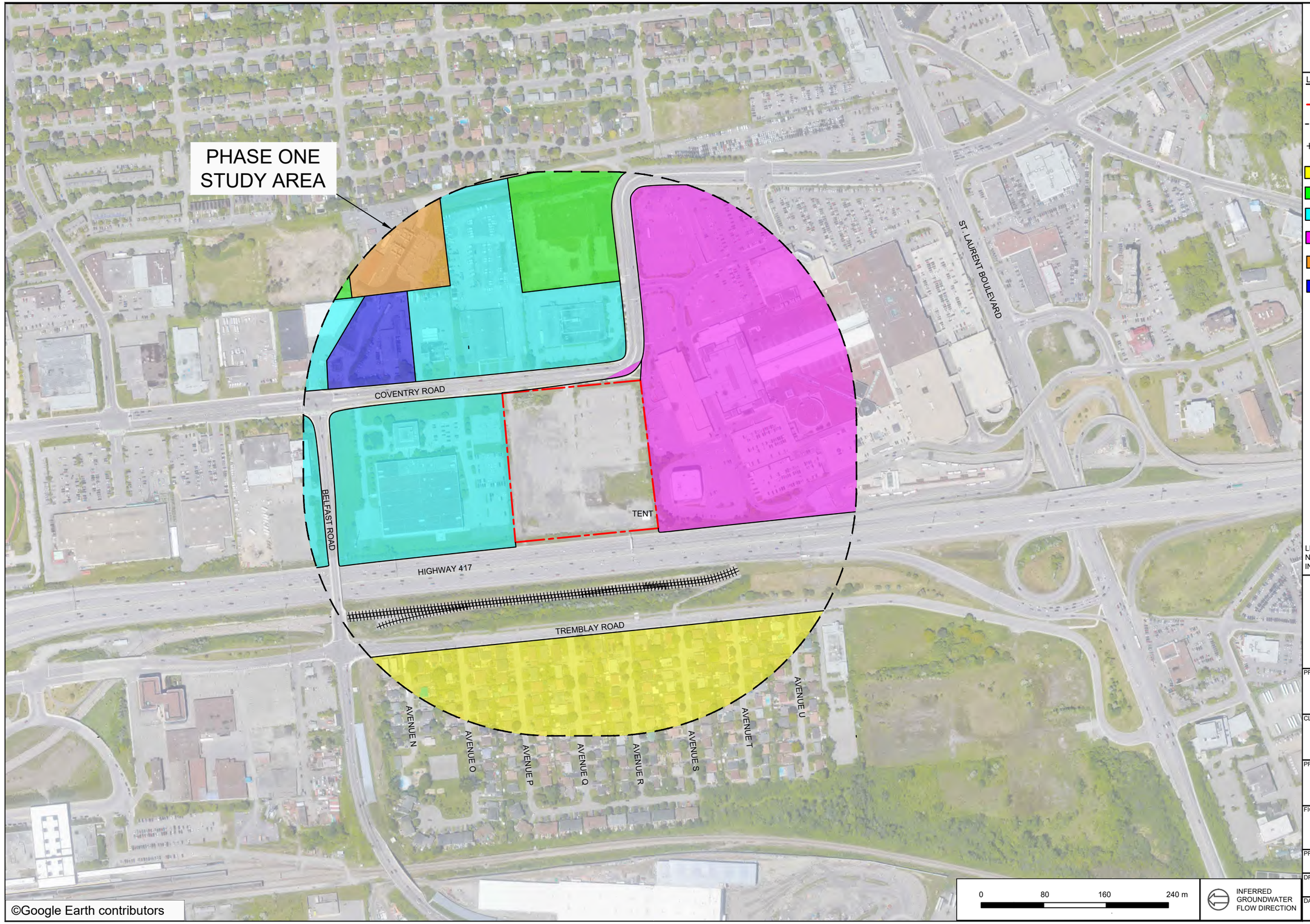
LEGEND IS COLOUR DEPENDENT. NON-COLOUR COPIES MAY ALTER INTERPRETATION.

0 20 40 60 m

INFERRED GROUNDWATER FLOW DIRECTION

PINCHIN

PROJECT NAME: PHASE ONE ENVIRONMENTAL SITE ASSESSMENT	
CLIENT NAME: MORGUARD CORPORATION C/O MORGUARD INVESTMENTS	
PROJECT LOCATION: 500 COVENTRY ROAD, OTTAWA, ONTARIO	
FIGURE NAME: PHASE ONE PROPERTY	
PROJECT NUMBER: 319674	SCALE: AS SHOWN
DRAWN BY: NJ	REVIEWED BY: AK
DATE: APRIL 2024	FIGURE NUMBER: 2



©Google Earth contributors

N

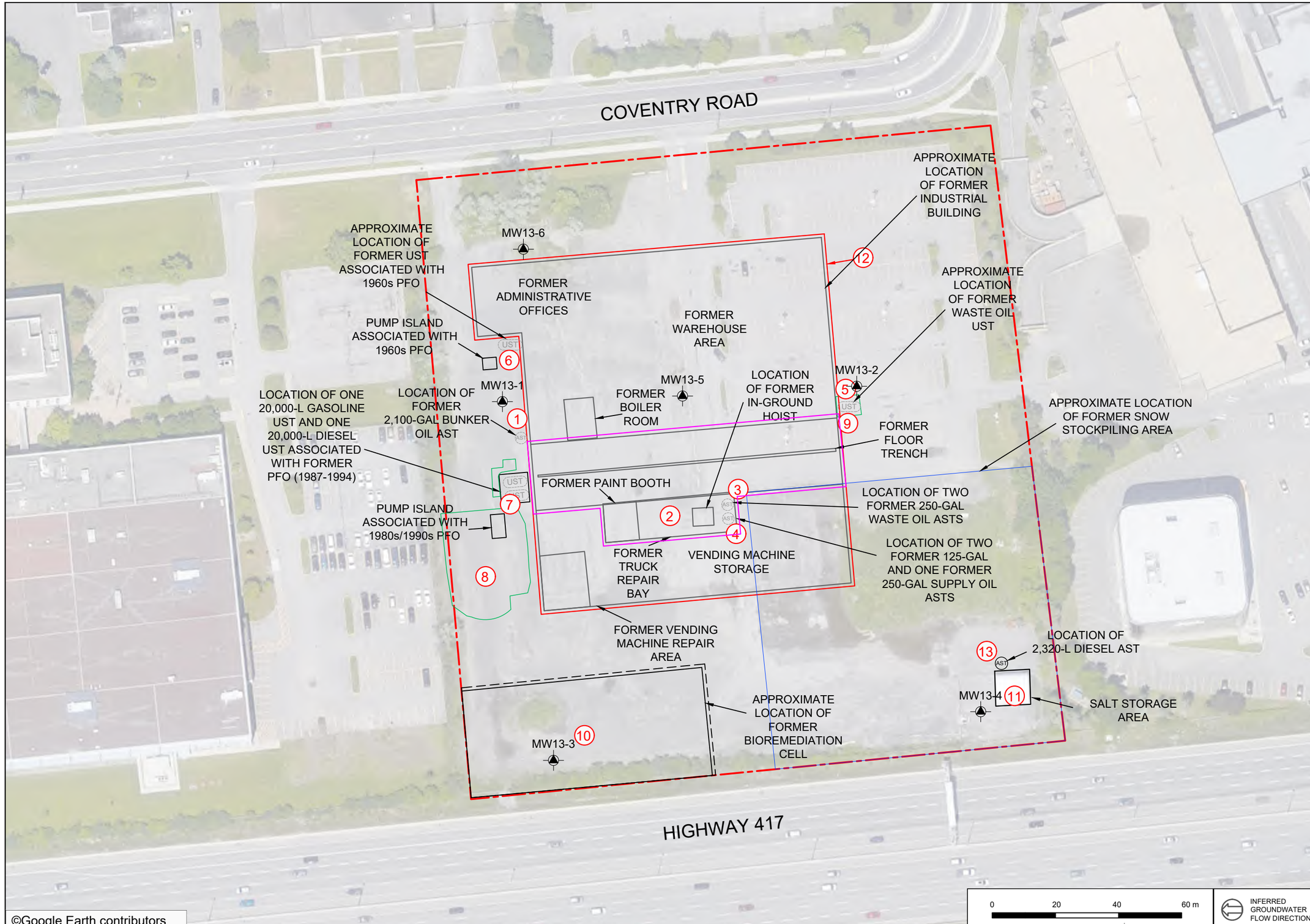
LEGEND

- SITE BOUNDARY
- PHASE ONE STUDY AREA BOUNDARY
- RAILWAY LINE
- RESIDENTIAL
- VACANT/GREEN SPACE
- COMMERCIAL
- MULTI-TENANT COMMERCIAL
- HYDRO STATION
- AUTOMOTIVE REPAIR/SERVICING FACILITY

LEGEND IS COLOUR DEPENDENT. NON-COLOUR COPIES MAY ALTER INTERPRETATION.

PINCHIN

PROJECT NAME: PHASE ONE ENVIRONMENTAL SITE ASSESSMENT	
CLIENT NAME: MORGUARD REIT C/O MORGUARD INVESTMENTS LIMITED	
PROJECT LOCATION: 500 COVENTRY ROAD, OTTAWA, ONTARIO	
FIGURE NAME: PHASE ONE STUDY AREA	
PROJECT NUMBER: 319674	SCALE: AS SHOWN
DRAWN BY: NJ	REVIEWED BY: AK
DATE: APRIL 2024	FIGURE NUMBER: 3



N

LEGEND

- SITE BOUNDARY
- LIMITS OF FORMER REMEDIAL EXCAVATIONS (BY OTHERS)
- RAILWAY LINE
- AST — ABOVEGROUND STORAGE TANK
- AST — FORMER ABOVEGROUND STORAGE TANK
- UST — UNDERGROUND STORAGE TANK
- UST — FORMER UNDERGROUND STORAGE TANK
- P — PARKING
- MONITORING WELL BY OTHERS
- # — PCA CONTRIBUTES TO AN APEC
- # — PCA DOES NOT CONTRIBUTE TO AN APEC
- PCA — POTENTIALLY CONTAMINATING ACTIVITY

LEGEND IS COLOUR DEPENDENT. NON-COLOUR COPIES MAY ALTER INTERPRETATION.

PINCHIN

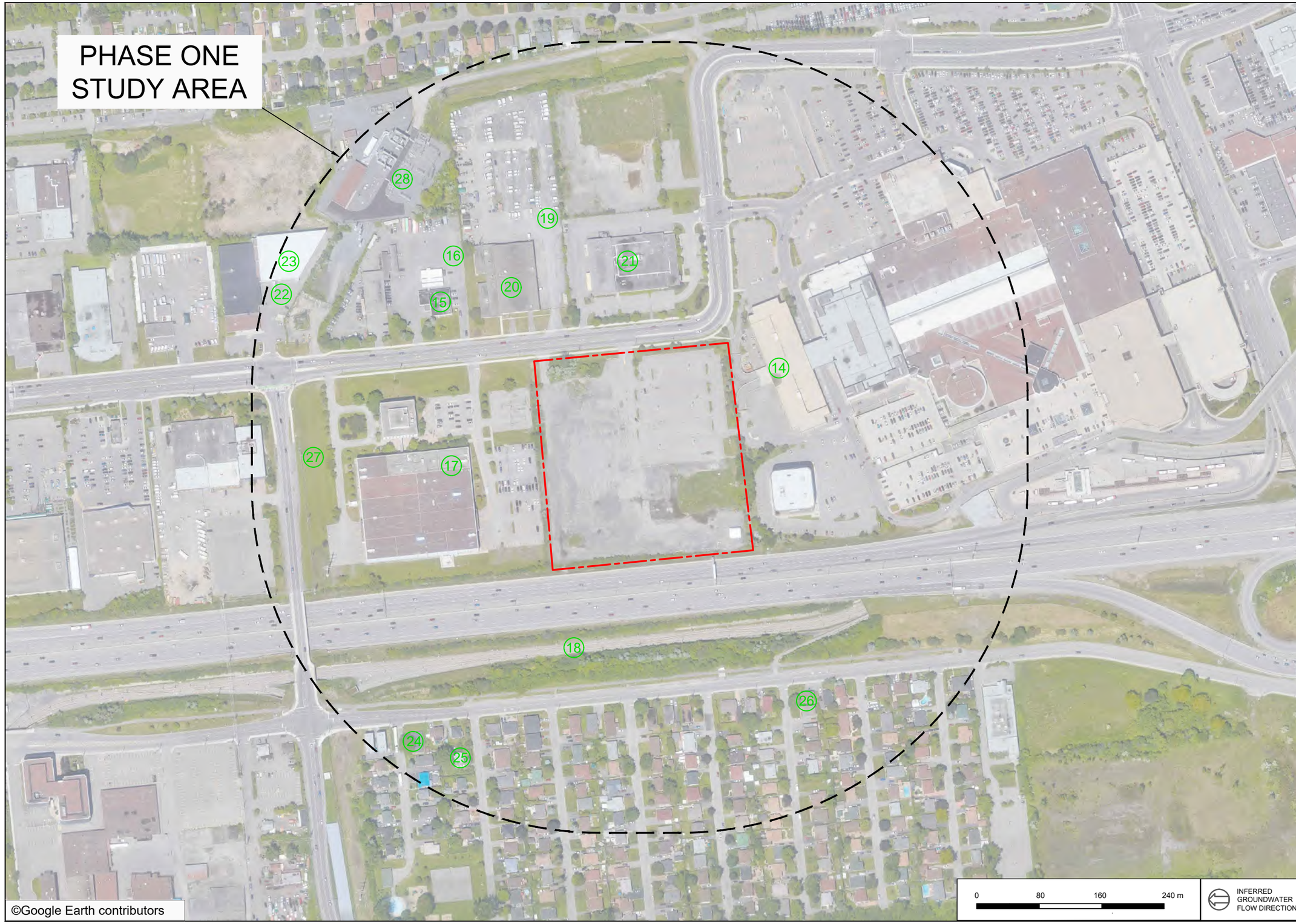
PROJECT NAME: PHASE ONE ENVIRONMENTAL SITE ASSESSMENT

CLIENT NAME: MORGUARD REIT C/O MORGUARD INVESTMENTS LIMITED

PROJECT LOCATION: 500 COVENTRY ROAD, OTTAWA, ONTARIO

FIGURE NAME: POTENTIALLY CONTAMINATING ACTIVITIES (ON-SITE)

PROJECT NUMBER:	SCALE:
319674	AS SHOWN
DRAWN BY: NJ	REVIEWED BY: AK
DATE: APRIL 2024	FIGURE NUMBER: 4



©Google Earth contributors

N

LEGEND

SITE BOUNDARY

PHASE ONE STUDY AREA BOUNDARY

PCA CONTRIBUTES TO AN APEC

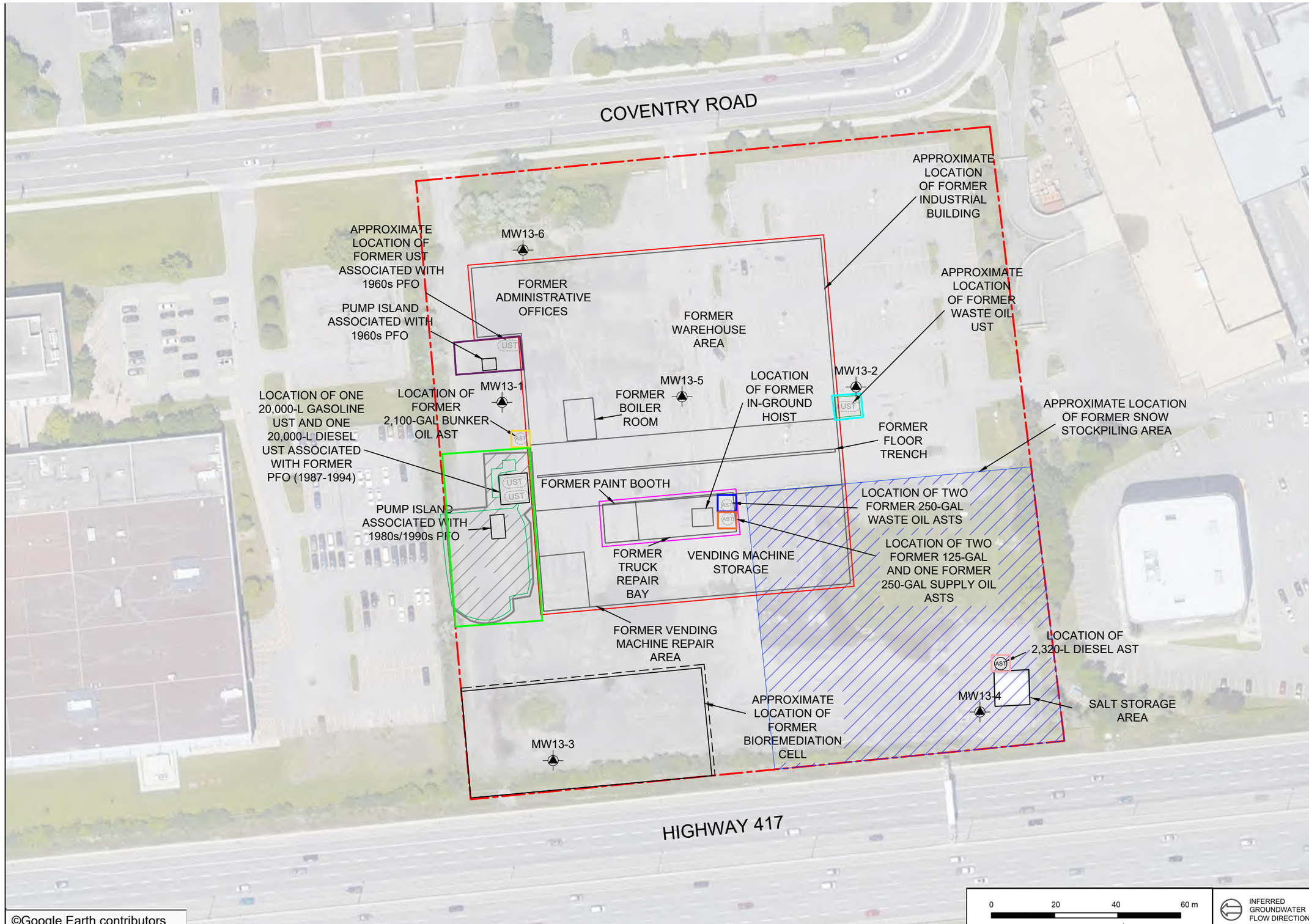
PCA DOES NOT CONTRIBUTE TO AN APEC

PCA POTENTIALLY CONTAMINATING ACTIVITY

LEGEND IS COLOUR DEPENDENT. NON-COLOUR COPIES MAY ALTER INTERPRETATION.

PINCHIN

PROJECT NAME: PHASE ONE ENVIRONMENTAL SITE ASSESSMENT	
CLIENT NAME: MORGUARD REIT C/O MORGUARD INVESTMENTS LIMITED	
PROJECT LOCATION: 500 COVENTRY ROAD, OTTAWA, ONTARIO	
FIGURE NAME: POTENTIALLY CONTAMINATING ACTIVITIES (OFF-SITE)	
PROJECT NUMBER: 319674	SCALE: AS SHOWN
DRAWN BY: NJ	REVIEWED BY: AK
DATE: APRIL 2024	FIGURE NUMBER: 5



N

LEGEND

- SITE BOUNDARY
- LIMITS OF FORMER REMEDIAL EXCAVATIONS (BY OTHERS)
- RAILWAY LINE
- AST ABOVEGROUND STORAGE TANK
- AST FORMER ABOVEGROUND STORAGE TANK
- UST UNDERGROUND STORAGE TANK
- UST FORMER UNDERGROUND STORAGE TANK
- APEC-1
- APEC-2
- APEC-3
- APEC-4
- APEC-5 AND APEC-9
- APEC-6
- APEC-7
- APEC-8
- APEC-10
- APEC-11
- APEC-12
- APEC-13

LEGEND IS COLOUR DEPENDENT. NON-COLOUR COPIES MAY ALTER INTERPRETATION.

PINCHIN

PROJECT NAME: PHASE ONE ENVIRONMENTAL SITE ASSESSMENT

CLIENT NAME: MORGUARD REIT C/O MORGUARD INVESTMENTS LIMITED

PROJECT LOCATION: 500 COVENTRY ROAD, OTTAWA, ONTARIOP

FIGURE NAME: AREAS OF POTENTIAL ENVIRONMENTAL CONCERN

PROJECT NUMBER:	SCALE:
319674	AS SHOWN
DRAWN BY: NJ	REVIEWED BY: AK
DATE: APRIL 2024	FIGURE NUMBER: 6

APPENDIX C
Photographs

Photo 1 – View from the north portion of the Phase One Property, looking south.

Photo 2 – View from the east portion of the Phase One Property, looking west.

Photo 3 – View from the south portion of the Phase One Property, looking north.

Photo 4 – View from the west portion of the Phase One Property, looking east.

Photo 5 – Properties located north of the Phase One Property.

Photo 6 – Properties located south of the Phase One Property.

Photo 7 – Properties located east of the Phase One Property.

Photo 8 – Properties located west of the Phase One Property.

APPENDIX D

Survey Plan

LOT 1
REGISTERED PLAN 747
CITY OF OTTAWA

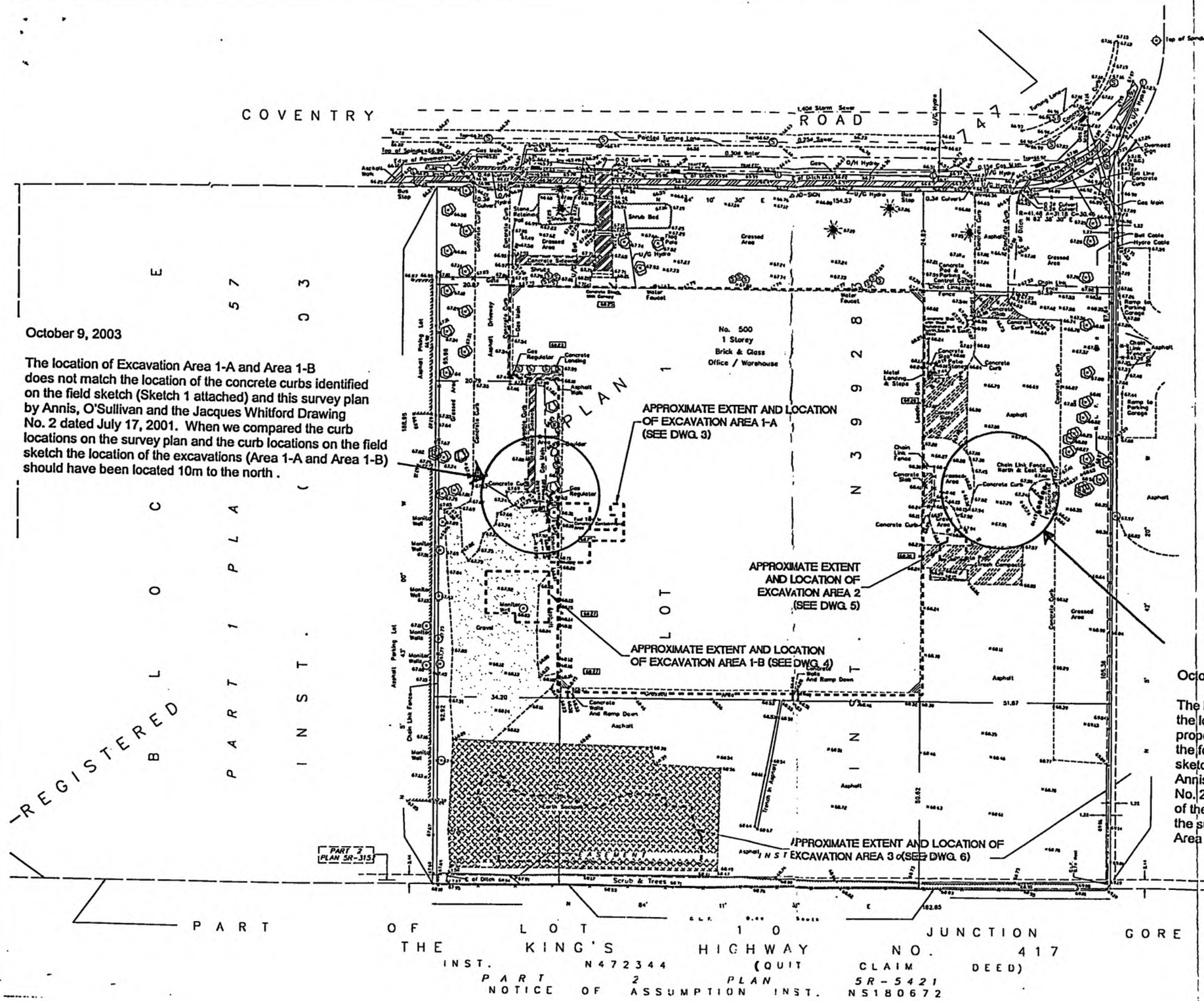
REGIONAL MUNICIPALITY OF OTTAWA

Scale 1 : 500

35 17.5 0

METRIC : Distances shown on this plan are in metres . be converted to feet by dividing by 0.3048.

Surveyed by Annis, O'Sullivan, Va
1996



October 9, 2003

The location of Excavation Area 1-A and Area 1-B does not match the location of the concrete curbs identified on the field sketch (Sketch 1 attached) and this survey plan by Annis, O'Sullivan and the Jacques Whitford Drawing No. 2 dated July 17, 2001. When we compared the curb locations on the survey plan and the curb locations on the field sketch the location of the excavations (Area 1-A and Area 1-B) should have been located 10m to the north .

NOTES AND LEGEND

1. ELEVATIONS ARE REFERRED TO GEODETIC DATUM.
2. DENOTES LAMP POST & HYDRO
3. DECIDUOUS TREE
4. SIGN
5. MAINTENANCE HOLE (SANITARY)
6. MAINTENANCE HOLE (HYDRO)
7. MAINTENANCE HOLE (WATER VALVE)
8. MAINTENANCE HOLE (STORM)
9. WATER VALVE
10. CATCH BASIN
11. FIRE HYDRANT
12. CONIFEROUS TREE
13. GUY WIRE
14. BOLLARD
15. ELEVATIONS ON FLOOR
16. U/G UNDERGROUND
17. O/H OVERHEAD
18. BELL PEDESTAL
19. LOCATION OF ELEVATIONS
20. BOUNDARY INFORMATION TAKEN FROM SURVEYOR'S REAL PROPE ANNIS, O'SULLIVAN, VOLLEBEKK LTD. DATED JUNE 8, 1996.
21. UTILITY INFORMATION WAS VERIFIED IN THE FIELD WHERE POSS INDIVIDUAL UTILITY COMPANIES SHOULD BE CONTACTED FOR CI OF EXISTENCE AND LOCATION OF THE UTILITIES.

October 9, 2003

The location of Excavation Area 2 does not match the the location of the concrete slab on the east side of the property and the concrete curb next to the east side of the former on-site building as identified on both the field sketch (Sketch 2 attached) and this survey plan by Annis, O'Sullivan and the Jacques Whitford Drawing No. 2 dated July 17, 2001. When we compared the location of the concrete curb and the location of the concrete slab on the survey plan and field sketch the location of the excavation Area 2 should have been located 10 m to the north

FROM THE OFFICE OF
ANNIS, O'SULLIVAN VOLL
ONTARIO LAND SURVEYORS
NEPEAN (Ottawa) ONTARIO

© Annis, O'Sullivan, Vollebekk Ltd. , 199
THIS PLAN IS PROTECTED BY COPYRIGHT

APPENDIX E

Historical Land Use Inventory

ACTIVITY_NAME	FACILITY_TYPE	SOURCE_UPDATE_SORTED	YEAR	YEAR_1	ST_NUM	ST_NAME	ST_SUFFIX	CITY	POSTAL_CODE2017	PIN2017
PEST PATROL INC	Administrative and support, waste management and remediation services	2012-ES			444	TREMBLAY	RD		K1G0C9	42560173
CAPITAL TAXI	Transportation and warehousing	2006-ES; 2012-ES			455	COVENTRY	RD		K1K2C5	42540066
DJ'S TAXI	Transportation and warehousing	2006-ES; 2012-ES			455	COVENTRY	RD		K1K2C5	42540066
TIRE PLUS	Other services (except public administration)	2012-ES			455	COVENTRY	RD		K1K2C5	42540066
PROGISTIX	Wholesale trade	2012-ES			469	COVENTRY	RD		K1K2C5	42540065
HYDRO ONE NETWORKS INC	Transformer Station	1941-Topo; 1957-Topo; 1968-Topo; 1979-Topo; 2016-PID	1941-2016	1941-2016	419	COVENTRY	RD	OTTAWA	K1K2C5	42540068
BLACK'S PHOTO CENTRE	Camera and Photographic Supply Stores	1998-SC; 2000-PID; 2006-ES; 2012-ES	1998		1200	ST. LAURENT	BLVD	OTTAWA		42540086
JAPAN CAMERA CENTRE 1 HOUR PHOTO	Camera and Photographic Supply Stores	1998-SC; 2001-ES; 2005-SelectPhone; 2006-ES; 2012-ES	1998-2005		1200	ST. LAURENT	BLVD	OTTAWA		42540086
STAR	Combined Publishing and Printing Industries	2005-SelectPhone	2005		1400	ST. LAURENT	BLVD			42540086
WEEKLY JOURNAL	Combined Publishing and Printing Industries	2005-SelectPhone	2005		1400	ST. LAURENT	BLVD			42540086
CONSUMERS GAS NATRUAL GAS VEHICLE CONVERSIONS	Gas Distribution Systems Industry	1998-SC	1998		400	COVENTRY	RD	OTTAWA		42550084
DOMINION LOOSE-LEAF CO LTD	Commercial Printing Industries	1970-1980-M	1970-1980		525	COVENTRY	RD	OTTAWA		42540064
VANDERBELT METAL WORKS LIMITED	Ornamental and Architectural Metal Products Industries	1960-M; 1961-M; 1961-S	1960-1961	c. 1960-1961	1315	AVENUE D	AVE	OTTAWA		42550001
CITY OF OTTAWA		2016-PID	2016	PID2016	210	TREMBLAY	RD	OTTAWA		42550001
BLUE LINE TAXI COMPANY LIMITED	Other Transportation Industries	1980-M; 1994-PID; 2000-PID; 2001-ES; 2003-PID; 2006-ES; 2012-ES;	1980-2016	1980-2016	455	COVENTRY	RD	OTTAWA	K1K2C5	42540066
COCA-COLA BOTTLING LIMITED	Soft Drink Industry	1964/1965-S; 1964-M; 1970/71-S; 1970-M; 1971-M; 1980-M; 2000-PID; 2004-GWStudy	1964-2004	1964-2004	500	COVENTRY	RD	OTTAWA		42540063
SHEPHERD OF GOOD CLEANERS	Dry Cleaning and Laundry Services	2001-ES; 2006-ES; 2012-ES	2001-2012	ES 2001; ES 2006; ES 2012	1200	ST LAURENT	BLVD		K1K3B8	42540086
QUAD CONSTRUCTION LTD	Residential Building Construction	2001-ES; 2006-ES; 2012-ES	2001-2012	ES 2001; ES 2006; ES 2012	1200	ST LAURENT	BLVD		K1K3B8	42540086
MUN-OC TRANSPO	Transportation and warehousing	2001-ES	2001	ES 2001	1300	ST LAURENT	BLVD		K1K3B8	42540086
PARKER CLEANERS AND DYERS	Laundries and Cleaners	1970-M; 1980-M; 2001-ES; 2006-ES; 2012-ES; 2017-SalesGenie	1970-1980	c. 1970-1980	1200	ST LAURENT	BLVD	OTTAWA	K1K3B8	42540086
PRINTWELL CANADA	Industrial Machinery, Equipment and Supplies, Wholesale	2005-SelectPhone; 2006-ES	2005	c. 2005	1200	ST LAURENT	BLVD		K1K3B8	42540086
CADILLAC FAIRVIEW CORPORATION LIMITED	Other Storage and Warehousing Industries	1995-MOEE-PCB-Inventory; 2004-GWStudy	1995-2004	1995-2004	1200	ST LAURENT	BLVD	OTTAWA	K1K3B8	42540086
ELLIS-DON CONSTRUCTION	Residential Building and Development	2001-ES; 2005-SelectPhone; 2006-ES; 2012-ES	2001-2012	2001-2012	1200	ST LAURENT	BLVD		K1K3B8	42540086
IBM CANADA	Electrical and Electronic Machinery, Equipment And Supplies, Wholesale	2001-ES	2001	c. 2001	1400	ST LAURENT	BLVD	OTTAWA	K1K3B8	42540086
L'EXPRESS	Combined Publishing and Printing Industries	2005-SelectPhone	2005	c. 2005	1400	ST LAURENT	BLVD		K1K3B8	42540086
713949 ONTARIO LIMITED	Real estate and rental and leasing	2016-PID	2016	PID2016	1200	ST LAURENT	BLVD	OTTAWA	K1K3B8	42540086
BEAVER CONSTRUCTION GROUP INC	Sewer Contractors	2001-ES; 2006-ES; 2012-ES; 2017-SalesGenie	2001-2017	2001-2017	1200	ST LAURENT	BLVD	OTTAWA	K1K3B8	42540086
BELL CANADA	Telecommunication Carriers Industry	1967-EMR-SMB-NTS-31/5-7thed; 1970-M; 1980-M; 1985-EMR-SMB-NTS-31/5-11thed; 2000-PID; 2016-PID	1967-2016	1967-2016	469	COVENTRY	RD	OTTAWA	K1K2C5	42540065
ENBRIDGE CONSUMERS GAS	Gas Distribution Systems Industry	1970-M; 1980-M; 1994-PID; 1998-SC; 2000-PID; 2001-ES; 2006-ES; 2012-ES	1970-2016	1970-2016	400	COVENTRY	RD	OTTAWA	K1K2C7	42550084
PUBLIC WORKS AND GOVERNMENT SERVICES CANADA	General Administrative Services	2005-PropertyAssessment	2005	c. 2003; c. 2005	440	COVENTRY	RD	GLOUCESTE	K1K2C4	42540062
FED - ROYAL CANADIAN MOUNTED POLICE	Public administration	2001-ES; 2006-ES; 2012-ES; 2016-PID	2016	PID2016	440	COVENTRY	RD	OTTAWA	K1K2C4	42540062
BELL CANADA	Telecommunication Carriers Industry	1994-PID; 2000-PID	1994-2000	c. 1994; c. 2000	525	COVENTRY	RD	OTTAWA	K1K2C5	42540064
DOLLCO PRINTING AND PACKAGING	Commercial Printing Industries	1970/71-S; 1970-M; 1971-M; 1980-M; 1994-PID	1970-1980	c. 1970-1971; c. 1970-1980	525	COVENTRY	RD	OTTAWA	K1K2C5	42540064
EMCO LIMITED DISTRIBUTION	Plumbing Supplies, Heating Supplies, Industrial Supplies	1980-M; 2001-ES; 2004-GWStudy; 2005-SelectPhone	1974-2005	1974-2005	535	COVENTRY	RD	OTTAWA	K1K2C5	42540067
RAD RUNNER	Air Conditioning Parts, Automotive Parts, Alarms (Vehicular)	2004-GWStudy	2004	GW Study 2004 Scotts	401	COVENTRY	RD	OTTAWA	K1K2C5	42540101
LECAVALIER G PARTS & SERVICE	Motor Vehicles, Wholesale	1998-SC; 2001-ES; 2005-SelectPhone; 2006-ES	1998-2005	c. 1998; c. 2001; c. 2005	401	COVENTRY	RD		K1K2C5	42540101
ONTARIO DEPARTMENT OF HIGHWAYS	Motor Vehicles, Wholesale	1960-M	1960	c. 1960	458	TREMBLAY	RD	OTTAWA	K1G0E3	42560196
FENTON'S BAKERY	Bakery Products Industries	1964-M; 1964-S; 1965-S	1964-1965	c. 1964 -1965	466	TREMBLAY	RD	OTTAWA	K1G3R1	42560205

ACTIVITY_NAME	FACILITY_TYPE	TANK_LOCATION	TANK_CONTENT	TANK_SIZE	TANK_TYPE	TANK_STATUS	SOURCE	INSTALLED_ST_NUM	INSTALLED_ST_NAME	INSTALLED_ST_ABR	COMMENT	TANK_MATERIAL	TANK_ID	TANK_LEAKING	TANK_REMOVED	REMOVED_DATE	DATE_INSTALLED	NATURE_OF_BUSINESS	SCANNED_DRAWING	TEMPREcordID	CAPACITY_UOM
BELL CANADA AUTOMOTIVE MGR	Gasoline Station - Self Serve	UST	other	2270	Licensed	Active	TSSA	469	COVENTRY	RD		Fiberglass (FRP	ST8302				1993				
BELL CANADA AUTOMOTIVE MGR	Gasoline Station - Self Serve	UST	gasoline	22700	Licensed	Active	TSSA	469	COVENTRY	RD		Fiberglass (FRP	ST8303				1991				
ST LAURENT SHOPPING CENTRE LTD		UST	fuel oil	22700	Permit		Bylaw No. 304-60 VAH6001; COVE 00640 P2313	1200	ST LAURENT	BLVD	address verified from dwg & geoottawa, 640 Coventry Rd		ST3907				30/03/1967		Yes		
LANGLIER LTD		UST	gasoline	9080	Permit		Bylaw No. 304-60 VAH6000; COVE 00401 P2058	401	COVENTRY	RD	installation to be made by bp canada ltd, 401 Coventry Rd, Ottawa ON		ST4395				01/05/1964		Yes		
COCA-COLA LTD		UST	no 6 fuel oil	54480	Permit		Bylaw No. 304-60 VAH6000; COVE 00500 P1897	500	COVENTRY	RD	and pump, 500 Coventry Rd Ottawa		ST4614				28/06/1962		Yes		
COCA-COLA LTD		UST	gasoline	22700	Permit		Bylaw No. 304-60 VAH6000; COVE 00500 P1897	500	COVENTRY	RD	and pump, 500 Coventry Rd Ottawa		ST5101				28/06/1962		Yes		
COCA-COLA LTD		UST	waste oil	2270	Permit		Bylaw No. 304-60 VAH6000; COVE 00500 P1897	500	COVENTRY	RD	and pump, 500 Coventry Rd Ottawa		ST5404				28/06/1962		Yes		
COCA-COLA LTD		AST	propane	4540	Permit		Bylaw No. 304-60 VAH6000; COVE 00500 P1935	500	COVENTRY	RD			ST4699				16/11/1962		Yes		
THE BELL TELEPHONE CO OF CANADA LTD		UST	gasoline	22700	Permit		Bylaw No. 304-60 VAH6100; 0015 - P1942	469	COVENTRY	RD	and pump address verified from dwg & geoottawa, Coventry Rd Ottawa ON		ST4391				23/11/1962		Yes		
THE BELL TELEPHONE CO OF CANADA LTD		UST	interceptor oil	2270	Permit		Bylaw No. 304-60 VAH6100; 0015 - P1942	469	COVENTRY	RD	and pump address verified from dwg & geoottawa, Coventry Rd Ottawa ON		ST5574				23/11/1962		Yes		
BELL		UST	waste oil	2270	Permit		Bylaw No. 304-60 VAH6000; COVE 00469 P2710	469	COVENTRY	RD			ST4733				19/12/1972		Yes		
BELL		UST	waste oil	2270	Existing	Not active-removed	Bylaw No. 304-60 VAH6000; COVE 00469 P2710	469	COVENTRY	RD			ST5544	N	Y	1972-012-1	23/11/1962		Yes		
BELL CANADA LTD		UST	fuel oil	13620	Permit		Bylaw No. 304-60 VAH6000; COVE 00469 P2766	496	COVENTRY	RD			ST3905				21/02/1974		Yes		
BELL CANADA LTD		UST	fuel oil	13620	Existing	Not active-removed	Bylaw No. 304-60 VAH6000; COVE 00469 P2766	496	COVENTRY	RD			ST5113	N	Y	1974-002-2	23/11/1962		Yes		
BELL CANADA LTD		UST	fuel oil	2270	Existing	Not active-removed	Bylaw No. 304-60 VAH6000; COVE 00469 P2766	496	COVENTRY	RD			ST5371	N	Y	1974-002-2	23/11/1962		Yes		
RED LINE TAXI LTD		UST	fuel oil	6810	Permit		Bylaw No. 304-60 VAH6000; COVE 00455 P2162	455	COVENTRY	RD	dwg shows tanks from permit 2155, 455 Coventry Rd		ST3906				08/07/1965		Yes		
RED LINE TAXI LTD		UST	waste oil	2270	Existing	Active	Bylaw No. 304-60 VAH6000; COVE 00455 P2162	455	COVENTRY	RD	dwg shows tanks from permit 2155, 455 Coventry Rd		ST5155	N	N		28/06/1965		Yes		
RED LINE TAXI LTD		UST	gasoline	22700	Existing	Active	Bylaw No. 304-60 VAH6000; COVE 00455 P2452	455	COVENTRY	RD	and pump, 455 Coventry Rd		ST4392	N	N		28/06/1965		Yes		
BLUE LINE TAXI LTD		UST	gasoline	22700	Permit		Bylaw No. 304-60 VAH6000; COVE 00455 P2633	455	COVENTRY	RD	and pump, 455 Coventry Rd		ST5031				18/10/1971		Yes		
BLUE LINE TAXI LTD		UST	gasoline	22700	Permit		Bylaw No. 304-60 VAH6000; COVE 00455 P2633	455	COVENTRY	RD	and pump, 455 Coventry Rd		ST5326				18/10/1971		Yes		
BLUE LINE TAXI LTD		UST	gasoline	22700	Permit		Bylaw No. 304-60 VAH6000; COVE 00455 P2633	455	COVENTRY	RD	and pump, 455 Coventry Rd		ST5498				18/10/1971		Yes		
RED LINE TAXI LTD		UST	fuel oil	6810	Existing	Active	Bylaw No. 304-60 VAH6000; COVE 00455 P2155	455	COVENTRY	RD	and pump dwg shows tanks from permit 2162, 455 Coventry Rd		ST5708	N	N				Yes		
BLUE LINE TAXI LTD		UST	gasoline	22700	Existing	Not active-removed	Bylaw No. 304-60 VAH6000; COVE 00455 P2633	455	COVENTRY	RD	and pump, 455 Coventry Rd		ST4393	N	Y	1971-010-1			Yes		
BLUE LINE TAXI LTD		UST	gasoline	22700	Existing	Not active-removed	Bylaw No. 304-60 VAH6000; COVE 00455 P2633	455	COVENTRY	RD	and pump, 455 Coventry Rd		ST4394	N	Y	1971-010-1			Yes		

MCNAMARA CONST - IMPERIAL OIL		UST	gasoline	9080	Permit		Bylaw No. 8022 - P1582, 1583	353	TREMBLAY	RD	temporary permit between avenues n & o; 150 ft n of tremblay rd, McNamara Rd Construction Ltd under contract No 59-111, approx 150 ft N of Tremblay Rd between Avenues N & O, 100 ft S of Queensway		ST1543				21/09/1959	1 - 2000 gal gas			
MCNAMARA CONST - IMPERIAL OIL		UST	fuel oil	13620	Permit		Bylaw No. 8022 - P1582, 1583	353	TREMBLAY	RD	150 ft n of tremblay rd, McNamara Rd Construction Ltd under contract No 59-111, approx 150 ft N of Tremblay Rd between		ST1833				21/09/1959	1 - 2000 gal gas			
UHAUL CENTER OTTAWA	Private Fuel Outlet		gasoline	10000	Cancelled	Current	GW Study 2004	383	COVENTRY	RD	383 COVENTRY RD						19830401	Private		1148	L
BLUE LINE TAXI CO LTD	Private Fuel Outlet		gasoline	7000	Cancelled	Current	GW Study 2004	455	COVENTRY	RD	455 COVENTRY RD						19830401	Private		1149	L
BLUE LINE TAXI CO LTD	Private Fuel Outlet		gasoline	22730	Cancelled	Current	GW Study 2004	455	COVENTRY	RD	455 COVENTRY RD						19830401	Private		1150	L
BLUE LINE TAXI CO LTD	Private Fuel Outlet		gasoline	22730	Cancelled	Current	GW Study 2004	455	COVENTRY	RD	455 COVENTRY RD						19830401	Private		1151	L
BLUE LINE TAXI CO LTD	Gasoline Station-FS		gasoline	31822	Cancelled	Current	GW Study 2004	455	COVENTRY	RD	455 COVENTRY RD						19830401	Retail		1152	L
BLUE LINE TAXI CO LTD	Gasoline Station-FS		diesel	31822	Cancelled	Current	GW Study 2004	455	COVENTRY	RD	455 COVENTRY RD						19830401	Retail		1153	L
BLUE LINE TAXI CO LTD	Gasoline Station-FS		gasoline	22730	Cancelled	Current	GW Study 2004	455	COVENTRY	RD	455 COVENTRY RD						19830401	Retail		1154	L
BELL CANADA	Private Fuel Outlet		gasoline	22700	Licenced	Current	GW Study 2004	469	COVENTRY	RD	469 COVENTRY RD						19830401	Private		1155	L
TCC BOTTLING LTD	Private Fuel Outlet		gasoline	20000	Licenced	Current	GW Study 2004	500	COVENTRY	RD	500 COVENTRY RD						19830401	Private		1156	L
TCC BOTTLING LTD	Private Fuel Outlet		diesel	20000	Licenced	Current	GW Study 2004	500	COVENTRY	RD	500 COVENTRY RD						19830401	Private		1157	L
TCC BOTTLING LTD	Private Fuel Outlet		gasoline	20000	Licenced	Current	GW Study 2004	500	COVENTRY	RD	500 COVENTRY RD						19830401	Private		1158	L
TCC BOTTLING LTD	Private Fuel Outlet		diesel	20000	Licenced	Current	GW Study 2004	500	COVENTRY	RD	500 COVENTRY RD						19830401	Private		1159	L
BELL CANADA	Private Fuel Outlet		other	2270	Licenced	Current	GW Study 2004	469	COVENTRY	RD	469 COVENTRY RD						19830401	Private		2591	L

APPENDIX F

Opta Records

opta
INFORMATION INTELLIGENCE

enviroscan

175 Commerce Valley Drive W
Markham, Ontario L3T 7Z3

T: 1 877 244 9437
W: optaintel.ca

Nate

Site Address:

500 Coventry Road, Ottawa, ON

Project No:
24010800331

Opta Order ID:

138761

Requested by:
Eleanor Goolab
ERIS

Date Completed:
1/16/2024 2:22:26 PM

Project Name: 500 Coventry Road Ottawa Ontario

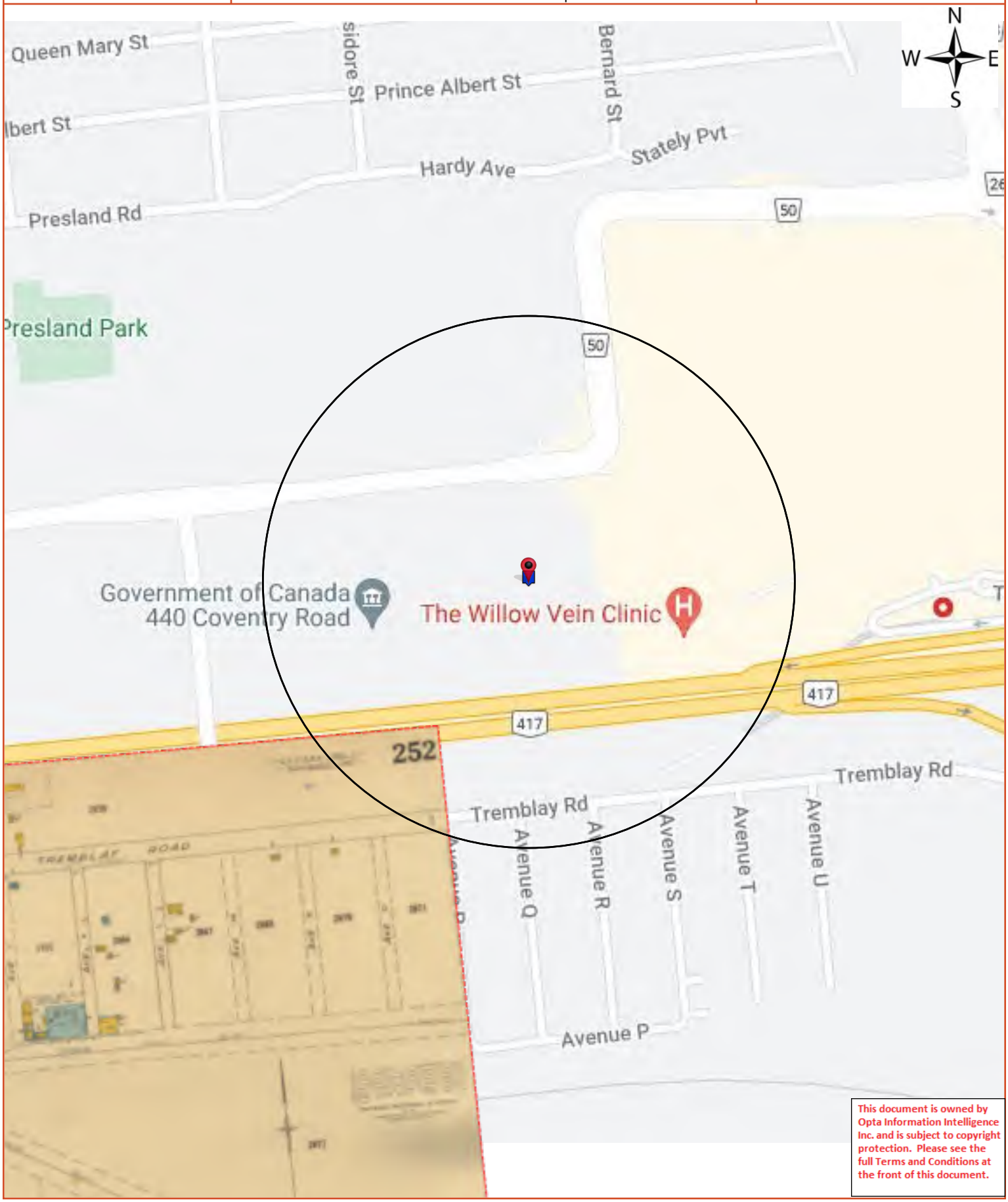
Project #: 24010800331
P.O. #: 319674

ENVIROSCAN Report

Search Area: 500 Coventry Road, Ottawa, ON

Requested by:
Eleanor Goolab
Date Completed: 01/16/2024 14:22:26

enviroscan
OPTA INFORMATION INTELLIGENCE



This document is owned by Opta Information Intelligence Inc. and is subject to copyright protection. Please see the full Terms and Conditions at the front of this document.

Opta Historical Environmental Services Enviroscan™ Terms and Conditions

Report

The documents (hereinafter referred to as the "Documents") to be released as part of the report (hereinafter referred to as the "Report") to be delivered to the purchaser as set out above are documents in Opta's records relating to the described property (hereinafter referred to as the "Property"). Opta makes no representations or warranties respecting the Documents whatsoever, including, without limitation, with respect to the completeness, accuracy or usefulness of the Documents, and does not represent or warrant that these are the only plans and reports prepared in association with the Property or in Opta's possession at the time of Report delivery to the purchaser. The Documents are current as of the date(s) indicated on them. Interpretation of the Documents, if any, is by inference based upon the information which is apparent and obvious on the face of the Documents only. Opta does not represent, warrant or guarantee that interpretations other than those referred to do not exist from other sources. The Report will be prepared for use by the purchaser of the services as shown above hereof only.

Disclaimer

Opta disclaims responsibility for any losses or damages of any kind whatsoever, whether consequential or other, however caused, incurred or suffered, arising directly or indirectly as a result of the services (which services include, but are not limited to, the preparation of the Report provided hereunder), including but not limited to, any losses or damages arising directly or indirectly from any breach of contract, fundamental or otherwise, from reliance on Opta Reports or from any tortious acts or omissions of Opta's agents, employees or representatives.

Entire Agreement

The parties hereto acknowledge and agree to be bound by the terms and conditions hereof. The request form constitutes the entire agreement between the parties pertaining to the subject matter hereof and supersedes all prior and contemporaneous agreements, negotiations and discussions, whether oral or written, and there are no representations or warranties, or other agreements between the parties in connection with the subject matter hereof except as specifically set forth herein. No supplement, modification, waiver, or termination of the request shall be binding, unless confirmed in writing by the parties hereto.

Governing Document

In the event of any conflicts or inconsistencies between the provisions hereof and the Reports, the rights and obligations of the parties shall be deemed to be governed by the request form, which shall be the paramount document.

Law

This agreement shall be governed by and construed in accordance with the laws of the Province of Ontario and the laws of Canada applicable therein.

Report Index

Requested by:
Eleanor Goolab
Date Completed: 01/16/2024 14:22:26

OPTA INFORMATION INTELLIGENCE

Page	Report Title
6	(1948) Volume: Ottawa Firemap: 252
7	(1998) COMMERCIAL PROPERTY SURVEY Report - 1998 OTTAWA HONDA, DIVISION OF 501548 ONTARIO LTD 500 Coventry Road Ottawa ON K1A0T1 (distance = 0 metres*)

This document is owned by Opta Information Intelligence Inc. and is subject to copyright protection. Please see the full Terms and Conditions at the front of this document.

N
W E
S

Project Name: 500 Coventry Road Ottawa Ontario

Project #: 24010800331
P.O. #: 319674

ENVIROSCAN Report

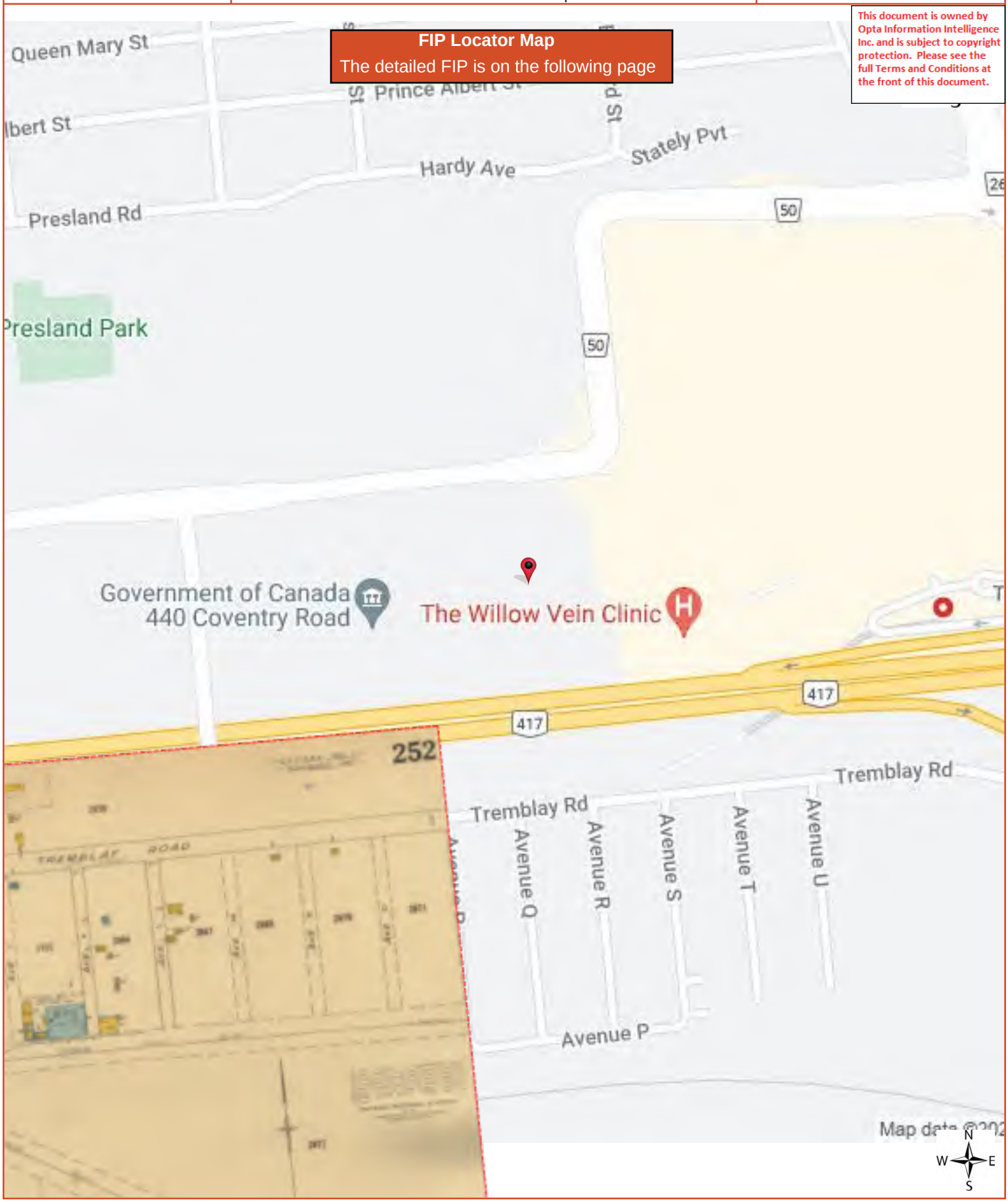
1948 Volume: Ottawa Firemap: 252
Ottawa Plan: 2992 (1948)
Sheet: 252 (1948)

Requested by:
Eleanor Goolab
Date Completed: 01/16/2024 14:22:26

enviroscan
OPTA INFORMATION INTELLIGENCE

This document is owned by Opta Information Intelligence Inc. and is subject to copyright protection. Please see the full Terms and Conditions at the front of this document.

FIP Locator Map
The detailed FIP is on the following page

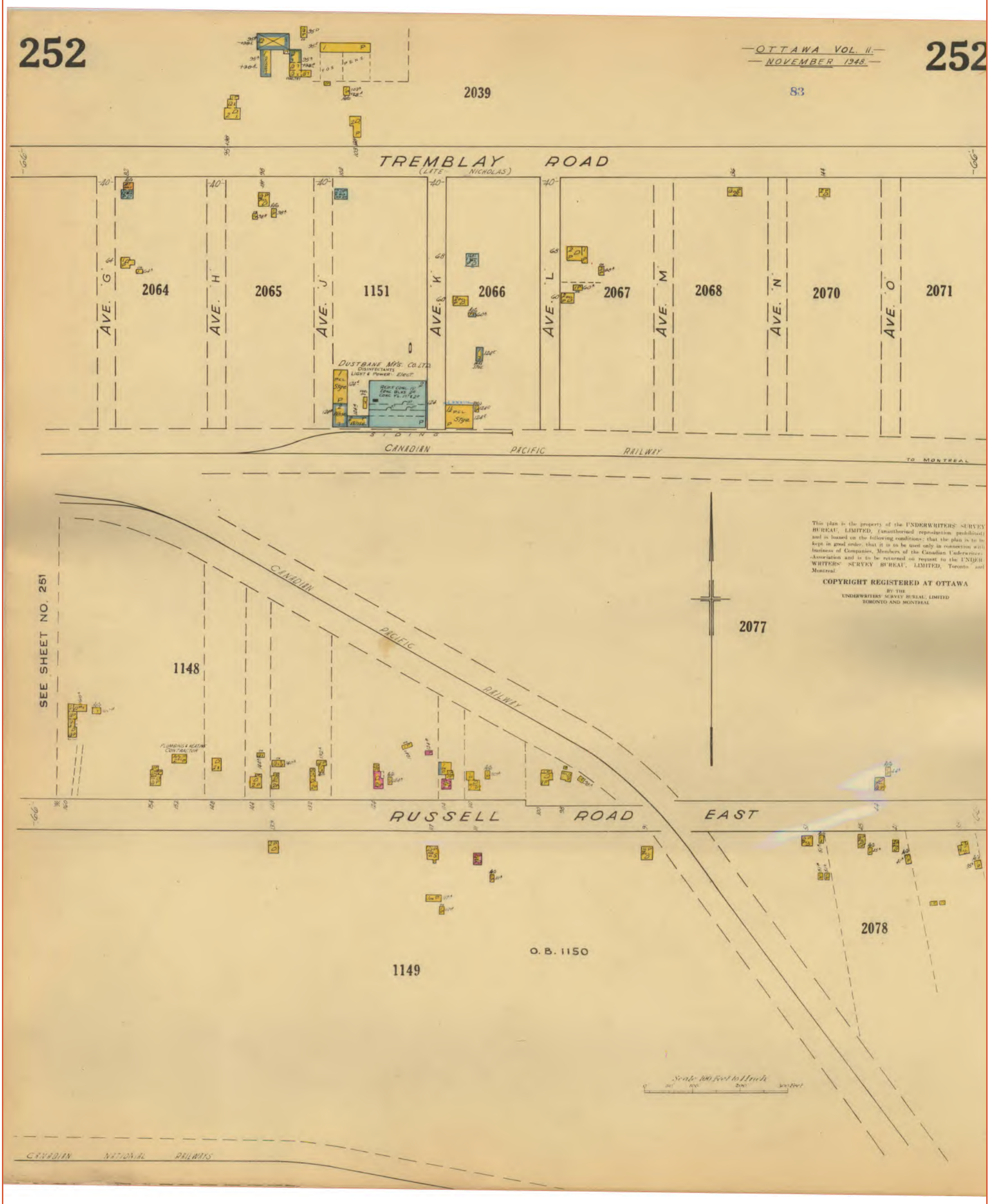


ENVIROSCAN Report

1948 Volume: Ottawa Firemap: 252
Ottawa Plan: 2992 (1948)
Sheet: 252 (1948)

Requested by:
Eleanor Goolab
Date Completed: 01/16/2024 14:22:26

opta
INFORMATION INTELLIGENCE
OPTA INFORMATION INTELLIGENCE



COMMERCIAL PROPERTY SURVEY Report - 1998 OTTAWA HONDA, DIVISION OF 501548 ONTARIO LTD 500 Coventry Road Ottawa ON K1A0T1

This document is owned by Opta Information Intelligence Inc. and is subject to copyright protection. Please see the full Terms and Conditions at the front of this document.

N
W E
S

The
DOMINION OF CANADA
General Insurance Company - *the Insurer*

HEAD OFFICE: 165 UNIVERSITY AVENUE, TORONTO, ONTARIO M5H 3B9

Commercial Property Survey

This document is owned by Opta Information Intelligence Inc. and is subject to copyright protection. Please see the purchase order relating to the release of this document for complete terms and conditions.

Insured: OTTAWA HONDA, DIVISION OF 501548 ONTARIO LTD

Policy Number _____ Broker: _____ Stat. No.: _____

Location Surveyed: 500 COUNTRY ROAD

City: OTTAWA Province: ONTARIO

Completed by: B. YOUNG Date: APRIL 2/98

Interviewed: K. DALAWRY Title: OWNER

Mailing Address: N/A

General

Use of property: Wholesale ☐ Retail ☐ Manufacturing ☐ Other* ☒ VACANT

Building suitable for use: Yes ☐ No* ○ N/A Modified for use:* ○

Neighbourhood: Habitational ☐ Mercantile ☒ Industrial ☐ Other* ○

Improving ☐ Static ☒ Deteriorating* ○

Location suitable: Yes ☒ No* ○

Building

Year built: 1970 Actual ☐ Estimated ☒ Additions Yes* ○ No ☒ *Year _____

Basement area: Finished ☐ Partially finished ☐ Unfinished ☐ Open ☐ No Basement ☒

Building area: Basement — 1st. 9302 m² 2nd. — 3rd. — Total 9302 m²

Maintenance of Building: Good ☒ Poor* ○ *(describe in narrative)

Construction Details

Type of Construction: Fire-Resistive ☒ Non-Comb. ☐ Heavy Timber/Mill ☐

Brick Joist (masonry) ☐ Brick Veneer ☐ Frame ☐

Mixed* ○ *(provide details and %)

Floors: Basement: concrete ☐ other* ○

Grade: concrete ☒ wood ☐ other* ○

2nd floor: concrete ☐ wood ☐ other* ○

3rd floor: concrete ☐ wood ☐ other* ○

Exterior Walls: Poured concrete ☐ Pre-Stressed ☐ Concrete Block ☐ Steel ☐

Brick ☐ Brick faced concrete block ☒ Frame ☐

Mixed* ○ *(provide details and % of each)

Roof: Concrete ☒ concrete/exposed steel ☐ steel deck ☐ wood/steel joists ☐

wood/wood joist ☐ other* ○ *(provide details)

Roof Covering: Clay tiles ☐ tar & gravel ☒ asphalt shingles ☐ other* ○

Condition of Roof: Good ☒ Poor* ○

Interior Finish:

Base Masonry ..... Bm
Combustible C
Non-Combustible ..... NC
Open Finish/no finish ..... NF
Direct Plaster ..... DP
Suspended mineral tile ..... SMT

Floor	Walls	Ceiling
Basement		
First Floor	NC; NF	SMT; NF
Second Floor		
Third Floor		
		—

5416 (05/95)

Protection: Public

Distance from Firehall: Km/Mi. .5 Km Number of Hydrants within 300 ft. 2 within 500 ft. _____

Hindrances to fire fighting: Yes* ○ No ☒ Published class 3 (IAO)

Protection: Private

☒ None
○ Guard Service*
☐ Private Hydrants
☐ Dry Standpipes
*○ Fire detection systems
☐ Portable Extinguishers (adequate / NFPA #10)
☐ Standpipes and hose
☐ Automatic extinguishing system
☐ Manual alarms

Hazards: Common

Smoking controlled: Yes ☒ No* ○

Housekeeping adequate: Yes ☒ No* ○ *(provide sufficient details below)

BUILDING PRESENTLY VACANT

Heating	Fuel G/O	Good	Poor*	Original	Updated*	Replaced
Hot Water	GAS	✓		✓		
Steam						
Hot Air	GAS	✓		✓	(ROOF MOUNTED).	
Electrical						
Infra Red						

*(provide heating details) BOILER LOCATED IN SEPARATE ROOM. THE HEATING SYSTEM IS NOT BEING UTILIZED AT THE PRESENT TIME.

Electrical	Good	Poor*	C/B – Fuses	Original	Updated*	Replaced
Box Cable						
Non metal						
Conduit	✓		C/B	✓		

*(provide electrical details) STANDARD EQUIPMENT. THERE IS NO HYDRO SERVICE TO THE BUILDING AT THE PRESENT TIME.

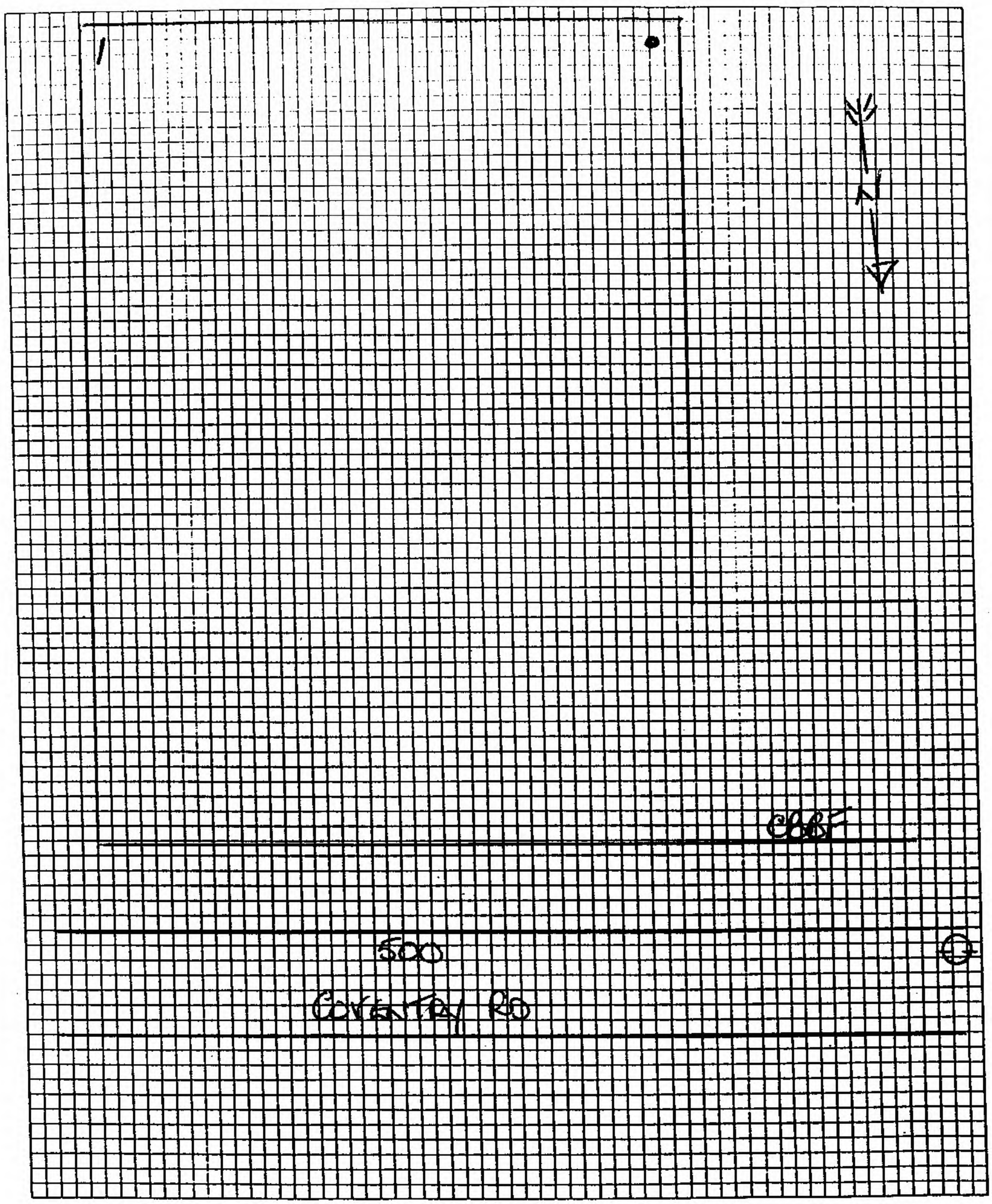
Stock Storage *(provide sufficient details including commodity, storage, method, & stock susceptibility)

N/A

Mangement Profile/Company History *(provide summary, including experience, & growth)

THE INSURED HAS OWNED THIS BUILDING FOR 3 YRS.

Diagram (Indicate North, also show firewalls, nearby bodies of water, and relative positions of adjacent buildings and exposures.)
(Draw diagram to scale fo 1" = 50 ft. otherwise indicate scale or actual measurements.)



Scale: 1:50

Occupancy/Insured/Process Description

Discuss insured's process mentioning all "special hazards" and concluding with your opinion whether the hazards are adequately controlled.

THIS BUILDING IS LOCATED IN AN ESTABLISHED COMMERCIAL AREA OF EAST OTTAWA.
PREVIOUSLY OCCUPIED BY COCA COLA AS A BOTTLING PLANT, THE PREMISES HAVE BEEN VACANT FOR THE PAST 18 MONTHS.
THE CONTACT ADVISED THAT THERE ARE TWO POTENTIAL TENANTS THAT WOULD USE THE BUILDING AS A WAREHOUSE FACILITY. THERE WAS NO INDICATION AS TO WHEN OCCUPANCY WOULD TAKE PLACE.
THE BUILDING IS SPRINKLERED. HOWEVER, DURING VACANCY THE SYSTEM HAS BEEN DRAINED AND IS NOT OPERATIONAL AT THE PRESENT TIME. IN ADDITION, ALL OTHER SERVICES TO THE BUILDING, IE GAS AND HYDRO, ARE PRESENTLY DISCONNECTED.
ALTHOUGH THE PREMISES ARE VISITED REGULARLY, THERE IS AN ONGOING PROBLEM WITH VANDALISM. IT COULD NOT BE DETERMINED IF COVERAGE FOR THE DAMAGE IS AFFORDED OR IF A CLAIM/CLAIMS WOULD BE PRESENTED.
THERE WERE NO UNUSUAL PREMISES LIABILITY EXPOSURES NOTED.

Additional tenants

Premises Liability

Exterior Exposures

Adequate Controls

Yes ☒	No* ○	Roof in good condition
Yes ☒	No* ○	Chimneys, signs, skylights marques gutters or spouts well maintained
Yes ☒	No* ○	Sidewalks, entrances, parking lots, in good repair
Yes ☒	No* ○	Exterior grounds generally well kept
Yes ☐	No* ○ N/A	Parking lots with lines marked, traffic directed (provide sq. footage _____)
Yes ☐	No* ○ N/A	Recreational equipment, eg. playground swimming pool well kept*
Yes ☒	No* ○	Exterior stairways, ramps well maintained, with adequate handrails
Yes ☐	No* ○ N/A	Lighting sufficient, provides even illumination, all areas included

Interior Exposures

Adequate Controls

Yes ☐	No* ○ N/A	Stairways standard riser, and tread lengths
Yes ☐	No* ○ N/A	Stairways well maintained and non slip surfaces
Yes ☐	No* ○ N/A	Handrails provided where necessary, proper height, spacing or rails
Yes ☐	No* ☒	Elevators provided, (if so state number of passengers _____ freight _____)
Yes ☐	No* ○ N/A	Elevators on a service contract / regular maintenance
Yes ☐	No* ○ N/A	Elevator level to floor, and is electronically interlocked
Yes ☐	No* ○ N/A	Elevator inspected by city, certificates current
Yes ☐	No* ○ N/A	Emergency lights provided, are they sufficient in number any generators NONE

General Details

Indicate use of premises by public, Heavy ○ Moderate ○ Light ○ None ☒

Food service on premises, if so indicate gross receipts $ —

Any liquor legal liability exposure, Yes ○ No ☒ if so gross receipts $ —

Employees properly trained for serving food and drink, Yes ☐ No* ○ N/A

Sanitation and food preparation satisfactory Yes ☐ No* ○ N/A

Adequate exits provided, and kept free from obstacles Yes ☒ No* ○

Adequate fire detection systems provided, tested on regular basis, Yes ☐ No* ○ N/A

Emergency plan established, including evacuation provisions, drills held on regular basis, Yes ☐ No* ○ N/A

Is risk a place of assembly, Yes ☐ No ☒ if so, state maximum seating capacity —

Are floor coverings safe, well maintained and slip free Yes ☒ No* ○

Narrative

(provide a general description and specific comments on above asnwers with a * also provide brief description of products manufactured, distributed, or handled)

NO UNUSUAL PREMISES LIABILITY EXPOSURES WERE NOTED

Photographs

Front

Comments:

Rear

Comments:

Crime Survey

General

Insured occupies 0 floor(s) of a 1 storey building.

Business operates N/A hours/day

District well lighted, Yes ☒ No* ○

Risk isolated Yes* ○ No ☒

Any losses during past three (3) years Yes* ☒ No ☐ If yes, describe details in narrative.

Merchandise/Stock Burglary

Description of Merchandise and approximate value (in total or per floor) $

N/A

What merchandise or stock is particularly attractive to buglars (target items)

N/A

Precautions taken for safekeeping of valuable items at night.

N/A

Physical Protection

Yes	No	Protection	Yes	No	Access readily gained from
N/A		Interior/Exterior lighting		✓	Fire escapes
✓		Police patrols in area		✓	Stairways
	✓	Merchant patrols		✓	Elevator shafts
	✓	Security guards		✓	Roof openings
✓		Physical security sufficient		✓	Doors
N/A		Alarms security sufficient		✓	Windows

Alarm Protection

Is a burglary alarm provided, Yes ☐ No ☒ If yes complete the following section.

Local Yes ☐ No ☐

Remote Yes ☐ No ☐

Central Station Yes ☐ No ☐

Perimeter Yes ☐ No ☐

Area Yes ☐ No ☐

Spot protection Yes ☐ No ☐

Off premises monitoring Yes ☐ No ☐

Supervised/Reporting Yes ☐ No ☐

Serviced on a regular basis Yes ☐ No ☐

U.L.C. certified alarm system, Yes ☐ No ☐ If so extent of protection and line security _____

State the alarm servicing company _____

Safe Burglary

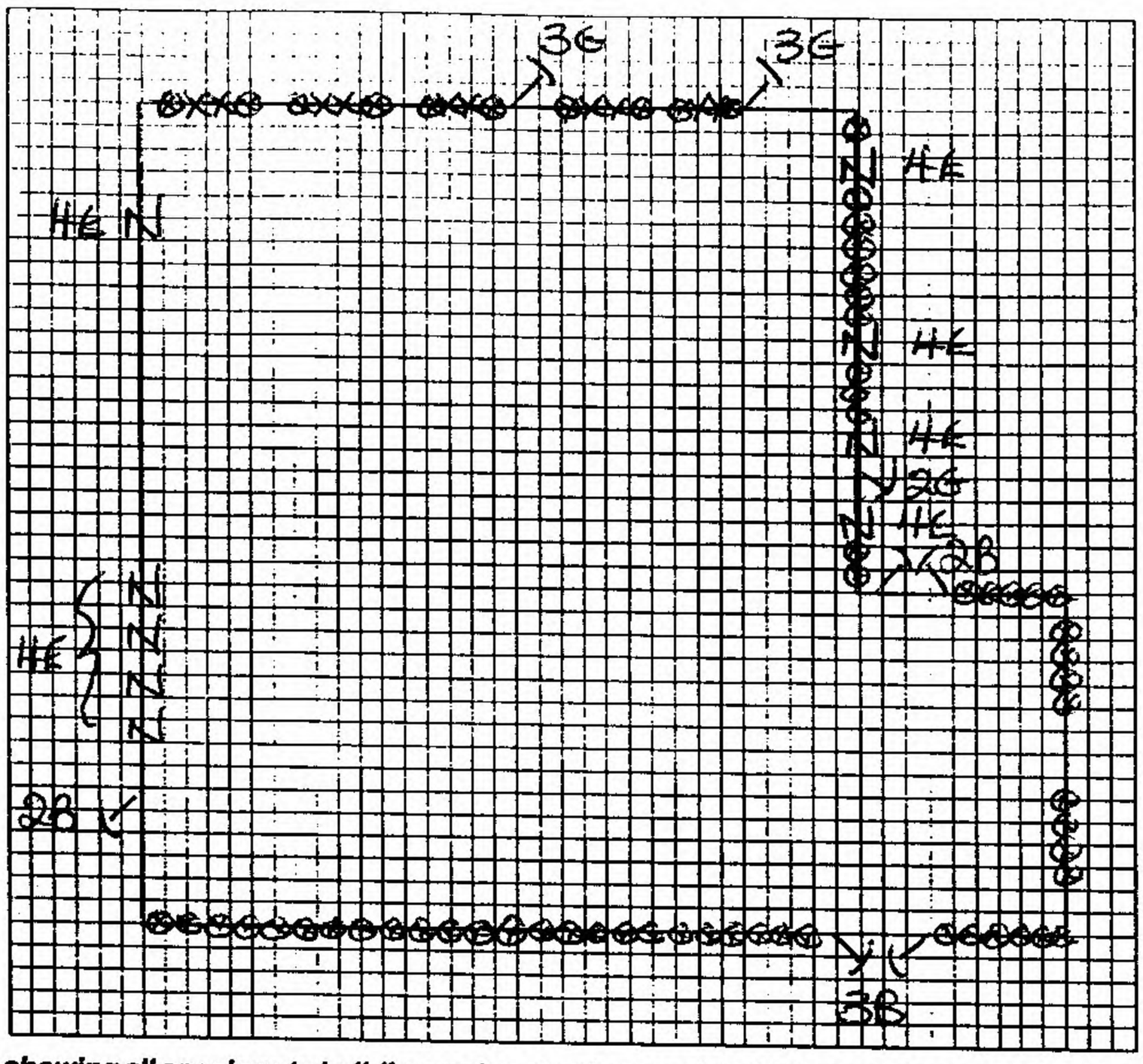
Safe	Manufacturer	Class	Labels	Safe in Safe	Anchored	Combination	Alarm
#1							
#2	N/A.						
#3							

Safe Burglary (con't.)

Safe is N/A

Well lighted	Yes ☐	No ☐	Armoured car service has access	Yes ☐	No ☐
Plainly visible from sidewalk	Yes ☐	No ☐	Locked when not in use	Yes ☐	No ☐
Set in concrete/anchored	Yes ☐	No ☐	Combination change plan used	Yes ☐	No ☐

Diagram



Provide a diagram showing all openings to building and protection provided. Diagram does not need to be to scale, but should use following symbols:

Doors

1. Pedestrian ✓ overhead N
2. Metal & Glass
3. Metal
4. Wood & Glass
5. Wood
6. Wood metal covered
7. Glass only

Windows

⊗ Permanent

X Sashlock

Locks

A. Double cylinder dead bolt
B. Single cylinder dead bolt
C. Jimmy proof (drop bolt)
D. Spring latch
E. Slide bar
F. Padlock
G. Brace bar

Protection

H. Steel sheet
I. Cross bar
J. Steel bars
K. Heavy wire mesh/screen
L. Alarm contact
M. Interior motion detector
N. Other (please specify)

Narrative *(Use additional sheets if required)*

THE PHYSICAL PROTECTION OF THE BUILDING APPEARS ADEQUATE FOR THE RISK

APPENDIX G

Chain of Title Search Results

PINCHIN PROJECT # 319674

#500 COVENTRY ROAD

PIN 04254-0063

LOT 1 ; REGISTERED PLAN NO. 747

CITY OF OTTAWA

REGIONAL MUNICIPALITY OF OTTAWA-CARLETON

YEAR	**NAME OF OWNER**	**DESCRIPTION OF PROPERTY**	**PROPERTY USE**	**OTHER OBSERVATIONS FROM AERIAL PHOTOGRAPHS FIRE INSURANCE PLANS ETC**
PRE- AUGUST 30 1810 **CROWN PATENT**	**CROWN**	**LOT 10** **JUNCTION GORE** **GEOGRAPHIC TOWNSHIP OF GLOUCESTER**		
1810 TO 1832	DANIEL BURRITT			
1832 TO 1849	LEWIS P. SHERWOOD			
1849 TO 1893 **CHAIN #1 and #3** & 1849 TO 1896 **CHAIN #2**	JOHN WHILLANS MARY WHILLANS			
	CHAIN #1			

1893 TO 1901	ROBERT WHILLANS JOHN WHILLIANS JR. **default of mortgage**			
1901 TO 1901	THE METROPOLITAN LOAN & SAVINGS COMPANY **as mortgagee**			
1901 TO 1940	ZEPHYRIEN ROBERT (SR)			
1940 TO 1957	ZEPHYRIEN ROBERT (JR)			
1957 TO 1959	ALPHONSE ROBERT			
1959 TO 1959	ERNEST ROBERT			
1959 TO 1960	A.P. FREIMAN LIMITED			
1960 TO 1961	NATIONAL CAPITAL COMMISSION			
	MERGE OF CHAINS			
	CHAIN #2			
1896 TO 1937	THOMAS WHILLIAN			
1937 TO 1946	HORACE WHILLIAN			
1946 TO 1947	JOSEPH W. BARCLAYS			

1947 TO 1954	THE ROMAN CATHOLIC EPISCOPAL CORPORATION OF OTTAWA			
1954 TO 1960	HER MAJESTY THE QUEEN IN RIGHT OF CANADA			
1960 TO 1961	NATIONAL CAPITAL COMMISSION			
	MERGE OF CHAINS			
	CHAIN #3			
1893 TO 1901	ROBERT WHILLANS JOHN WHILLIANS JR. **default of mortgage**			
1901 TO 1901	THE METROPOLITAN LOAN & SAVINGS COMPANY **as mortgagee**			
1901 TO 1940	ZEPHYRIEN ROBERT (SR)			
1940 TO 1951	ZEPHYRIEN ROBERT (JR)			
1951 TO 1961	FEDERAL DISTRICT COMMISSION **became** NATIONAL CAPITAL COMMISSION			

	MERGE OF CHAINS			
NOVEMBER 14 1960	**REGISTERED PLAN NO. 747**			
1960	THE CORPORATION OF THE CITY OF OTTAWA THE HYDRO ELECTRIC COMMISSION OF THE CITY OF OTTAWA THE BELL TELEPHONE CO. OF CANADA **EASEMENTS**			
1961 TO 1987	COCA-COLA LIMITED **became** T.C.C. BOTTLING LIMITED **became** COCA-COLA BOTTLING LIMITED			
1987 TO 1995	157050 CANADA LIMITED			

1989	T. C. C. SOFT DRINK PRODUCTS INC. **LEASE** T.C.C BOTTLING LIMITED **ADDED AS LESSOR**			
1995 TO 2000	KAYSUSH DEVELOPMENTS LTD.			
FEBRUARY 14 2000 TO PRESENT **AS OF JANUARY 8 2024**	**1339895 ONTARIO LIMITED**			

APPENDIX H

ERIS Report

DATABASE REPORT

Project Property:	*500 Coventry Road, Ottawa, Ontario* *500 Coventry Road* *Ottawa ON K1A 0T1*
Project No:	*319674*
Report Type:	*Quote - Custom-Build Your Own Report*
Order No:	*24010800331*
Requested by:	*Pinchin Ltd.*
Date Completed:	*January 11, 2024*

Environmental Risk Information Services
A division of Glacier Media Inc.
1.866.517.5204 | info@erisinfo.com | erisinfo.com

Table of Contents

Table of Contents....2
Executive Summary....3
Executive Summary: Report Summary....4
Executive Summary: Site Report Summary - Project Property....7
Executive Summary: Site Report Summary - Surrounding Properties....23
Executive Summary: Summary By Data Source....35
Map....61
Aerial....62
Topographic Map....63
Detail Report....64
Unplottable Summary....202
Unplottable Report....204
Appendix: Database Descriptions....218
Definitions....228

Notice: IMPORTANT LIMITATIONS and YOUR LIABILITY

Reliance on information in Report: This report DOES NOT replace a full Phase I Environmental Site Assessment but is solely intended to be used as a database review of environmental records.

License for use of information in Report: No page of this report can be used without this cover page, this notice and the project property identifier. The information in Report(s) may not be modified or re-sold.

Your Liability for misuse: Using this Service and/or its reports in a manner contrary to this Notice or your agreement will be in breach of copyright and contract and ERIS may obtain damages for such mis-use, including damages caused to third parties, and gives ERIS the right to terminate your account, rescind your license to any previous reports and to bar you from future use of the Service.

No warranty of Accuracy or Liability for ERIS: The information contained in this report has been produced by ERIS Information Limited Partnership ("ERIS") using various sources of information, including information provided by Federal and Provincial government departments. The report applies only to the address and up to the date specified on the cover of this report, and any alterations or deviation from this description will require a new report. This report and the data contained herein does not purport to be and does not constitute a guarantee of the accuracy of the information contained herein and does not constitute a legal opinion nor medical advice. Although ERIS has endeavored to present you with information that is accurate, ERIS disclaims, any and all liability for any errors, omissions, or inaccuracies in such information and data, whether attributable to inadvertence, negligence or otherwise, and for any consequences arising therefrom. Liability on the part of ERIS is limited to the monetary value paid for this report.

Trademark and Copyright: You may not use the ERIS trademarks or attribute any work to ERIS other than as outlined above. This Service and Report (s) are protected by copyright owned by ERIS Information Limited Partnership. Copyright in data used in the Service or Report(s) (the "Data") is owned by ERIS or its licensors. The Service, Report(s) and Data may not be copied or reproduced in whole or in any substantial part without prior written consent of ERIS.

Executive Summary

Property Information:

Project Property:	*500 Coventry Road, Ottawa, Ontario* *500 Coventry Road Ottawa ON K1A 0T1*
Project No:	*319674*

Coordinates:

Latitude:	*45.4208475*
Longitude:	*-75.6431841*
UTM Northing:	*5,029,904.13*
UTM Easting:	*449,679.74*
UTM Zone:	*18T*

Elevation:	*227 FT* *69.18 M*

Order Information:

Order No:	*24010800331*
Date Requested:	*January 8, 2024*
Requested by:	*Pinchin Ltd.*
Report Type:	*Quote - Custom-Build Your Own Report*

Historical/Products:

ERIS Xplorer	*ERIS Xplorer*
Insurance Products	*Fire Insurance Maps/Inspection Reports/Site Plans*
Topographic Map	*ANSI Map & Ontario Base Map (OBM)*

Executive Summary: Report Summary

Database	Name	Searched	Project Property	Within 0.25 km	Total
AAGR	Abandoned Aggregate Inventory	Y	0	0	0
AGR	Aggregate Inventory	Y	0	0	0
AMIS	Abandoned Mine Information System	Y	0	0	0
ANDR	Anderson's Waste Disposal Sites	Y	0	0	0
AST	Aboveground Storage Tanks	Y	0	0	0
AUWR	Automobile Wrecking & Supplies	Y	0	0	0
BORE	Borehole	Y	0	6	6
CA	Certificates of Approval	Y	2	3	5
CDRY	Dry Cleaning Facilities	Y	0	0	0
CFOT	Commercial Fuel Oil Tanks	Y	0	0	0
CHEM	Chemical Manufacturers and Distributors	Y	0	0	0
CHM	Chemical Register	Y	0	0	0
CNG	Compressed Natural Gas Stations	Y	0	0	0
COAL	Inventory of Coal Gasification Plants and Coal Tar Sites	Y	0	0	0
CONV	Compliance and Convictions	Y	0	0	0
CPU	Certificates of Property Use	Y	0	0	0
DRL	Drill Hole Database	Y	0	0	0
DTNK	Delisted Fuel Tanks	Y	6	13	19
EASR	Environmental Activity and Sector Registry	Y	1	2	3
EBR	Environmental Registry	Y	1	1	2
ECA	Environmental Compliance Approval	Y	2	3	5
EEM	Environmental Effects Monitoring	Y	0	0	0
EHS	ERIS Historical Searches	Y	6	11	17
EIIS	Environmental Issues Inventory System	Y	0	0	0
EMHE	Emergency Management Historical Event	Y	0	0	0
EPAR	Environmental Penalty Annual Report	Y	0	0	0
EXP	List of Expired Fuels Safety Facilities	Y	4	6	10
FCON	Federal Convictions	Y	0	0	0
FCS	Contaminated Sites on Federal Land	Y	0	0	0
FOFT	Fisheries & Oceans Fuel Tanks	Y	0	0	0
FRST	Federal Identification Registry for Storage Tank Systems (FIRSTS)	Y	0	0	0
FST	Fuel Storage Tank	Y	0	2	2
FSTH	Fuel Storage Tank - Historic	Y	0	2	2
GEN	Ontario Regulation 347 Waste Generators Summary	Y	94	171	265
GHG	Greenhouse Gas Emissions from Large Facilities	Y	0	0	0
HINC	TSSA Historic Incidents	Y	0	0	0
IAFT	Indian & Northern Affairs Fuel Tanks	Y	0	0	0

Database	Name	Searched	Project Property	Within 0.25 km	Total
INC	Fuel Oil Spills and Leaks	Y	0	0	0
LIMO	Landfill Inventory Management Ontario	Y	0	0	0
MINE	Canadian Mine Locations	Y	0	0	0
MNR	Mineral Occurrences	Y	0	0	0
NATE	National Analysis of Trends in Emergencies System (NATES)	Y	0	0	0
NCPL	Non-Compliance Reports	Y	0	0	0
NDFT	National Defense & Canadian Forces Fuel Tanks	Y	0	0	0
NDSP	National Defense & Canadian Forces Spills	Y	0	0	0
NDWD	National Defence & Canadian Forces Waste Disposal Sites	Y	0	0	0
NEBI	National Energy Board Pipeline Incidents	Y	0	0	0
NEBP	National Energy Board Wells	Y	0	0	0
NEES	National Environmental Emergencies System (NEES)	Y	0	0	0
NPCB	National PCB Inventory	Y	4	3	7
NPR2	National Pollutant Release Inventory 1993-2020	Y	0	0	0
NPRI	National Pollutant Release Inventory - Historic	Y	0	0	0
OGWE	Oil and Gas Wells	Y	0	0	0
OOGW	Ontario Oil and Gas Wells	Y	0	0	0
OPCB	Inventory of PCB Storage Sites	Y	2	2	4
ORD	Orders	Y	0	0	0
PAP	Canadian Pulp and Paper	Y	0	0	0
PCFT	Parks Canada Fuel Storage Tanks	Y	0	0	0
PES	Pesticide Register	Y	10	13	23
PFCH	NPRI Reporters - PFAS Substances	Y	0	0	0
PFHA	Potential PFAS Handers from NPRI	Y	0	0	0
PINC	Pipeline Incidents	Y	0	0	0
PRT	Private and Retail Fuel Storage Tanks	Y	2	4	6
PTTW	Permit to Take Water	Y	0	0	0
REC	Ontario Regulation 347 Waste Receivers Summary	Y	0	0	0
RSC	Record of Site Condition	Y	1	0	1
RST	Retail Fuel Storage Tanks	Y	0	0	0
SCT	Scott's Manufacturing Directory	Y	2	0	2
SPL	Ontario Spills	Y	5	7	12
SRDS	Wastewater Discharger Registration Database	Y	0	0	0
TANK	Anderson's Storage Tanks	Y	0	0	0
TCFT	Transport Canada Fuel Storage Tanks	Y	0	0	0
VAR	Variances for Abandonment of Underground Storage Tanks	Y	0	0	0
WDS	Waste Disposal Sites - MOE CA Inventory	Y	0	0	0
WDSH	Waste Disposal Sites - MOE 1991 Historical Approval Inventory	Y	0	0	0
WWIS	Water Well Information System	Y	0	5	5

Database	Name	Searched	Project Property	Within 0.25 km	Total
		Total:	*142*	*254*	*396*

Executive Summary: Site Report Summary - Project Property

Map Key	DB	Company/Site Name	Address	Dir/Dist (m)	Elev diff (m)	Page Number
1	CA	ARCTURUS ENVIRONMENTAL LIMITED	500 COVENTRY ROAD OTTAWA CITY ON K1K 2C4	-/0.0	-0.31	6
1	CA	ARCTURUS ENVIRONMENTAL LIMITED	500 COVENTRY ROAD (8-4050-95) OTTAWA CITY ON K1K 2C4	-/0.0	-0.31	6
1	NPCB	COCA-COLA LTD.	500 COVENTRY ROAD OTTAWA ON K1K 2C4	-/0.0	-0.31	64
1	PRT	TCC BOTTLING LTD	500 COVENTRY RD OTTAWA ON K1K 2C4	-/0.0	-0.31	64
1	PRT	TCC BOTTLING LTD	500 COVENTRY RD OTTAWA ON K1K 2C4	-/0.0	-0.31	65
1	SCT	COCA COLA BOTTLING LTD	500 COVENTRY RD OTTAWA ON K1K 2C4	-/0.0	-0.31	65
1	SCT	COCA-COLA BOTTLING LTD.	500 COVENTRY RD OTTAWA ON K1K 2C4	-/0.0	-0.31	65
1	RSC		500 Coventry Road Ottawa ON K1K 2C4	-/0.0	-0.31	65
1	EHS		500 Coventry Road Ottawa ON K1K 2C4	-/0.0	-0.31	66

Map Key	DB	Company/Site Name	Address	Dir/Dist (m)	Elev diff (m)	Page Number
1	GEN	COCA-COLA LTD.	500 COVENTRY ROAD OTTAWA ON K1K 2C4	-/0.0	-0.31	66
1	GEN	TCC BOTTLING LTD.	500 COVENTRY ROAD OTTAWA ON K1K 2C4	-/0.0	-0.31	66
1	GEN	COCA-COLA BOTTLING LIMITED 37-332	500 COVENTRY ROAD OTTAWA ON K1K 2C4	-/0.0	-0.31	67
1	GEN	COCA-COLA BOTTLING LIMITED	500 COVENTRY ROAD OTTAWA ON K1K 2C4	-/0.0	-0.31	67
1	NPCB	COCA- COLA LTD.	500 COVENTRY ROAD Ottawa ON K1K 2C4	-/0.0	-0.31	68
1	NPCB	COCA-COLA LTD.	500 COVENTRY RD OTTAWA ON K1K 2C4	-/0.0	-0.31	68
1	GEN	Cirque du Soleil Inc.	500 Coventry Rd. Ottawa ON K1K 2C5	-/0.0	-0.31	69
1	DTNK	TCC BOTTLING LTD	500 COVENTRY RD OTTAWA ON	-/0.0	-0.31	70
1	DTNK	TCC BOTTLING LTD	500 COVENTRY RD OTTAWA ON	-/0.0	-0.31	71

Map Key	DB	Company/Site Name	Address	Dir/Dist (m)	Elev diff (m)	Page Number
1	DTNK	TCC BOTTLING LTD	500 COVENTRY RD OTTAWA ON	-/0.0	-0.31	71
1	DTNK	TCC BOTTLING LTD	500 COVENTRY RD OTTAWA ON	-/0.0	-0.31	72
1	DTNK	TCC BOTTLING LTD	500 COVENTRY RD OTTAWA ON	-/0.0	-0.31	72
1	DTNK	TCC BOTTLING LTD	500 COVENTRY RD OTTAWA ON	-/0.0	-0.31	73
1	EHS		500 Coventry Road Ottawa ON K1K	-/0.0	-0.31	74
1	EXP	TCC BOTTLING LTD	500 COVENTRY RD OTTAWA ON	-/0.0	-0.31	74
1	EXP	TCC BOTTLING LTD	500 COVENTRY RD OTTAWA ON	-/0.0	-0.31	74
1	EXP	TCC BOTTLING LTD	500 COVENTRY RD OTTAWA ON	-/0.0	-0.31	74
1	EXP	TCC BOTTLING LTD	500 COVENTRY RD OTTAWA ON	-/0.0	-0.31	75
2	EHS		1200, 1400 St Laurent Blvd And 500 Coventry Rd Ottawa ON	E/148.9	-0.31	75

Map Key	DB	Company/Site Name	Address	Dir/Dist (m)	Elev diff (m)	Page Number
2	EASR	MORGUARD REAL ESTATE INVESTMENT TRUST	1400 ST. LAURENT BLVD OTTAWA ON K1K 4H4	E/148.9	-0.31	75
13	NPCB	CADILLAC FAIRVIEW CORPORATION LIMITED	1200 ST. LAURENT BOULVARD; ST. LAURENT SHOPPING CE OTTAWA ON K1K 3B8	E/220.3	-0.31	75
13	OPCB	CADILLAC FAIRVIEW CORPORATION LIMITED	1200 ST. LAURENT BOULVARD ST. LAURENT SHOPPING CENTRE OTTAWA ON K1K 3B8	E/220.3	-0.31	76
13	OPCB	CADILLAC FAIRVIEW CORPORATION LIMITED	1200 ST. LAURENT BOULVARD ST. LAURENT SHOPPING CENTRE OTTAWA ON K1K 3B8	E/220.3	-0.31	76
13	GEN	BLACK PHOTO CORPORATION	1200 ST. LAURENT BOULEVARD, OTTAWA C/O 371 GOUGH ROAD MARKHAM ON L3R 4B6	E/220.3	-0.31	77
13	GEN	BLACK PHOTO CORPORATION	1200 ST. LAURENT BOULEVARD ST. LAURENT SHOPPING CENTRE OTTAWA ON K1K 3B8	E/220.3	-0.31	77
13	GEN	BLACK PHOTO CORPORATION 05-410	1200 ST. LAURENT BOULEVARD - OTTAWA C/O 371 GOUGH ROAD MARKHAM ON L3R 4B6	E/220.3	-0.31	77
13	GEN	BLACK PHOTO CORPORATION	ST. LAURENT SHOPPING CENTRE 1200 ST. LAURENT BOULEVARD OTTAWA ON K1K 3B8	E/220.3	-0.31	78
13	GEN	CADILLAC FAIRVIEW CORPORATION LTD.08-539	1200 ST. LAURENT BLVD. OTTAWA ON K1K 3B8	E/220.3	-0.31	78

Map Key	DB	Company/Site Name	Address	Dir/Dist (m)	Elev diff (m)	Page Number
13	GEN	CADILLAC FAIRVIEW CORPORATION LTD.08-539	1200 ST. LAURENT BLVD. PO BOX 199 OTTAWA ON K1K 3B8	E/220.3	-0.31	79
13	GEN	CADILLAC FAIRVIEW CORPORATION LIMITED	1200 ST. LAURENT BOULEVARD OTTAWA ON K1K 3B8	E/220.3	-0.31	79
13	GEN	CADILLAC FAIRVIEW CORP. LTD.	N. MALL AREA-ENT. BANK & SHOP. DRUG M. C/O 1200 ST.-LAURENT BLVD. OTTAWA ON K1K 3B8	E/220.3	-0.31	80
13	GEN	CADILLAC (SEE & USE ON0733507) 08-539	N. MALL AREA-ENT. BANK & SHOP. DRUG M. C/O 1200 ST.-LAURENT BLVD. OTTAWA ON K1K 3B8	E/220.3	-0.31	80
13	GEN	JAPAN CAMERA CENTRE	PHOTO MINUTES ONTARIO INC. 1200 ST.LAURENT OTTAWA ON K9K 3B8	E/220.3	-0.31	80
13	GEN	JAPAN CAMERA CENTRE 31-345	PHOTO MINUTES ONTARIO INC. 1200 ST.LAURENT OTTAWA ON K9K 3B8	E/220.3	-0.31	81
13	GEN	BLACK (OUT OF BUS) 05-661	ST.LAURENT11-1200ST.LAURENT BLVD-OTTAWA C/O 371 GOUGH ROAD MARKHAM ON L3R 4B6	E/220.3	-0.31	81
13	GEN	BLACK PHOTO CORPORATION 05-661	ST.LAURENT11-1200ST.LAURENT BLVD-OTTAWA C/O 371 GOUGH ROAD MARKHAM ON L3R 4B6	E/220.3	-0.31	81
13	GEN	CAREER CANADA COLLEGE	1200 ST. LAURENT BOULEVARD SUITE 261 OTTAWA ON	E/220.3	-0.31	82
13	GEN	FORZANI GROUP LTD., THE	SPORT CHEK, ST. LAURENT MALL 1200 ST. LAURENT BOULEVARD OTTAWA ON K1K 3B8	E/220.3	-0.31	82

Map Key	DB	Company/Site Name	Address	Dir/Dist (m)	Elev diff (m)	Page Number
13	GEN	DEVAN PROPERTIES LTD.	1200 ST-LAURENT BOULEVARD OTTAWA ON K1K 3B8	E/220.3	-0.31	83
13	GEN	CAREER CANADA COLLEGE	1200 ST. LAURENT BOULEVARD, SUITE 261 OTTAWA ON	E/220.3	-0.31	83
13	GEN	SPORT CHEK	ST. LAURENT MALL 1200 ST. LAURENT BOULEVARD OTTAWA ON K1K 3B8	E/220.3	-0.31	84
13	GEN	SHOPPERS DRUG MART	1200 ST. LAURENT BOULEVARD OTTAWA ON K1K 3B8	E/220.3	-0.31	84
13	GEN	CAREER CANADA COLLEGE	1200 ST. LAURENT BOULEVARD, SUITE 261 Unit 261 OTTAWA ON K1K 3B8	E/220.3	-0.31	84
13	GEN	7139490 ONTARIO LIMITED	1200 LAURENT BLVD. OTTAWA ON K1K 3B8	E/220.3	-0.31	85
13	GEN	CDI COLLEGE	1200 ST. LAURENT BOULEVARD, SUITE 261 OTTAWA ON	E/220.3	-0.31	85
13	GEN	713949 ONTARIO LIMITED	1200 ST LAURENT BLVD OTTAWA ON K1K 3B8	E/220.3	-0.31	86
13	PES	IAN MCNEIL PHARMACIES INC	1200 ST LAURENT BLVD OTTAWA ON K1K 3B8	E/220.3	-0.31	86

Map Key	DB	Company/Site Name	Address	Dir/Dist (m)	Elev diff (m)	Page Number
13	PES	SHOPPERS DRUG MART#0621(ST. LAURENT SHOPPING CENTRE)	1200 ST. LAURENT BLVD OTTAWA ON K1K 3B8	E/220.3	-0.31	87
13	SPL	Canadian Waste Management<UNOFFICIAL>	1200 St. Laurent St. Ottawa ON	E/220.3	-0.31	87
13	GEN	CDI COLLEGE	1200 ST. LAURENT BLVD. Unit 19 OTTAWA ON K1K 3B8	E/220.3	-0.31	88
13	GEN	Everest College of Business	1200 ST. LAURENT BLVD. Unit 19 OTTAWA ON K1K 3B8	E/220.3	-0.31	88
13	GEN	Lens Crafters #939	1200 St. Laurent Blvd Ottawa ON K1K3B8	E/220.3	-0.31	89
13	PES	IAN MCNEIL PHARMACIES INC	1200 ST LAURENT BLVD OTTAWA ON K1K3B8	E/220.3	-0.31	89
13	PES	TLM PHARMACIES INC.	1200 ST. LAURENT BLVD OTTAWA ON K1K3B3	E/220.3	-0.31	89
13	EBR	713949 Ontario Limited	1200 St. Laurent Boulevard Ottawa K1K 3B8 CITY OF OTTAWA ON	E/220.3	-0.31	90
13	GEN	Everest College of Business	1200 ST. LAURENT BLVD. Unit 19 OTTAWA ON	E/220.3	-0.31	90
13	GEN	The Forzani Group	1200 St. Laurent Blvd. Unit# Y005 Ottawa ON	E/220.3	-0.31	90

Map Key	DB	Company/Site Name	Address	Dir/Dist (m)	Elev diff (m)	Page Number
13	GEN	Lens Crafters #939	1200 St. Laurent Blvd Ottawa ON	E/220.3	-0.31	91
13	GEN	713949 ONTARIO LIMITED	1200 ST LAURENT BLVD OTTAWA ON	E/220.3	-0.31	91
13	PES	CINDY CHANGOOR PHARMACY LTD	1200 ST LAURENT BLVD OTTAWA ON K1K 3B8	E/220.3	-0.31	92
13	ECA	713949 Ontario Limited	1200 St. Laurent Blvd Ottawa ON	E/220.3	-0.31	92
13	GEN	The Forzani Group	1200 St. Laurent Blvd. Unit# Y005 Ottawa ON	E/220.3	-0.31	93
13	GEN	713949 ONTARIO LIMITED	1200 ST LAURENT BLVD OTTAWA ON	E/220.3	-0.31	93
13	GEN	Lens Crafters #939	1200 St. Laurent Blvd Ottawa ON	E/220.3	-0.31	94
13	GEN	Everest College of Business	1200 ST. LAURENT BLVD. Unit 19 OTTAWA ON	E/220.3	-0.31	94
13	GEN	CINDY CHANGOOR PHARMACY LIMITED	1200 ST LAURENT BLVD OTTAWA ON K1K 3B8	E/220.3	-0.31	94

Map Key	DB	Company/Site Name	Address	Dir/Dist (m)	Elev diff (m)	Page Number
13	GEN	The Forzani Group	1200 St. Laurent Blvd. Unit# Y005 Ottawa ON	E/220.3	-0.31	95
13	GEN	713949 ONTARIO LIMITED	1200 ST LAURENT BLVD OTTAWA ON	E/220.3	-0.31	95
13	GEN	Lens Crafters #939	1200 St. Laurent Blvd Ottawa ON	E/220.3	-0.31	96
13	GEN	Everest College of Business	1200 ST. LAURENT BLVD. Unit 19 OTTAWA ON	E/220.3	-0.31	96
13	PES	TLM PHARMACIES INC.	1200 ST. LAURENT BLVD OTTAWA ON K1K 3B3	E/220.3	-0.31	97
13	PES	CINDY CHANGOOR PHARMACY LTD	1200 ST LAURENT BLVD OTTAWA ON K1K3B8	E/220.3	-0.31	97
13	GEN	Lens Crafters #939	1200 St. Laurent Blvd Ottawa ON	E/220.3	-0.31	97
13	SPL	City of Ottawa	1200 Saint Laurent Boulevard Ottawa ON	E/220.3	-0.31	98
13	GEN	CINDY CHANGOOR PHARMACY LIMITED	1200 ST LAURENT BLVD OTTAWA ON K1K 3B8	E/220.3	-0.31	99
13	GEN	713949 ONTARIO LIMITED	1200 ST LAURENT BLVD OTTAWA ON K1K 3B8	E/220.3	-0.31	99

Map Key	DB	Company/Site Name	Address	Dir/Dist (m)	Elev diff (m)	Page Number
13	GEN	Herzing College	1200 St. Laurent Blvd. Suite 408 Ottawa ON	E/220.3	-0.31	100
13	GEN	Everest College of Business	1200 ST. LAURENT BLVD. Unit 19 OTTAWA ON K1K 3B8	E/220.3	-0.31	100
13	GEN	CINDY CHANGOOR PHARMACY LIMITED	1200 ST LAURENT BLVD OTTAWA ON	E/220.3	-0.31	100
13	GEN	The Forzani Group	1200 St. Laurent Blvd. Unit# Y005 Ottawa ON	E/220.3	-0.31	101
13	GEN	Herzing College	1200 St. Laurent Blvd. Suite 408 Ottawa ON	E/220.3	-0.31	101
13	GEN	713949 ONTARIO LIMITED	1200 ST LAURENT BLVD OTTAWA ON	E/220.3	-0.31	101
13	GEN	Everest College of Business	1200 ST. LAURENT BLVD. Unit 19 OTTAWA ON	E/220.3	-0.31	102
13	SPL		1200 St. Laurent Boulevard Ottawa ON	E/220.3	-0.31	102
13	SPL		1200 St. Laurent Blvd. Ottawa ON	E/220.3	-0.31	103

Map Key	DB	Company/Site Name	Address	Dir/Dist (m)	Elev diff (m)	Page Number
13	SPL		1200 St Laurent Ave Ottawa ON	E/220.3	-0.31	104
13	ECA	713949 Ontario Limited	1200 St. Laurent Blvd Ottawa ON K1K 3B8	E/220.3	-0.31	105
13	GEN	713949 ONTARIO LIMITED	1200 ST LAURENT BLVD OTTAWA ON K1K 3B8	E/220.3	-0.31	105
13	GEN	St. Laurent Dental Center	1200 St. Laurent Blvd. box 203 Ottawa ON K1K 3B8	E/220.3	-0.31	106
13	GEN	FGL SPORTS LIMITED	1200 St. Laurent Blvd. Unit# Y005 Ottawa ON K1K 3B8	E/220.3	-0.31	106
13	GEN	Everest College of Business	1200 ST. LAURENT BLVD. Unit 19 OTTAWA ON K1K 3B8	E/220.3	-0.31	107
13	GEN	Herzing College	1200 St. Laurent Blvd. Suite 408 Ottawa ON K1K 3B8	E/220.3	-0.31	107
13	GEN	The Forzani Group	1200 St. Laurent Blvd. Unit# Y005 Ottawa ON K1K 3B8	E/220.3	-0.31	107
13	GEN	713949 ONTARIO LIMITED	1200 ST LAURENT BLVD OTTAWA ON K1K 3B8	E/220.3	-0.31	108
13	GEN	Cindy Changoor Pharmacy Limited (641)	1200 ST. LAURENT BLVD Ottawa ON K1K 3B8	E/220.3	-0.31	108

Map Key	DB	Company/Site Name	Address	Dir/Dist (m)	Elev diff (m)	Page Number
13	GEN	Cindy Changoor Pharmacy Limited (621)	1200 ST. LAURENT BLVD Ottawa ON K1K 3B8	E/220.3	-0.31	109
13	GEN	Herzing College	1200 St. Laurent Blvd. Suite 408 Ottawa ON K1K 3B8	E/220.3	-0.31	109
13	GEN	Lens Crafters #939	1200 St. Laurent Blvd Ottawa ON K1K3B8	E/220.3	-0.31	110
13	GEN	Lens Crafters #939	1200 St. Laurent Blvd Ottawa ON K1K3B8	E/220.3	-0.31	110
13	GEN	St. Laurent Dental Center	1200 St. Laurent Blvd. box 203 Ottawa ON K1K 3B8	E/220.3	-0.31	111
13	GEN	Lens Crafters #939	1200 St. Laurent Blvd Ottawa ON K1K3B8	E/220.3	-0.31	111
13	GEN	Herzing College	1200 St. Laurent Blvd. Suite 408 Ottawa ON K1K 3B8	E/220.3	-0.31	111
13	GEN	St. Laurent Dental Center	1200 St. Laurent Blvd. box 203 Ottawa ON K1K 3B8	E/220.3	-0.31	112
13	GEN	Everest College of Business	1200 ST. LAURENT BLVD. Unit 19 OTTAWA ON K1K 3B8	E/220.3	-0.31	112

Map Key	DB	Company/Site Name	Address	Dir/Dist (m)	Elev diff (m)	Page Number
13	GEN	CINDY CHANGOOR PHARMACY LIMITED	1200 ST LAURENT BLVD OTTAWA ON K1K 3B8	E/220.3	-0.31	113
13	GEN	713949 ONTARIO LIMITED	1200 ST LAURENT BLVD OTTAWA ON K1K 3B8	E/220.3	-0.31	113
13	GEN	The Forzani Group	1200 St. Laurent Blvd. Unit# Y005 Ottawa ON K1K 3B8	E/220.3	-0.31	114
13	GEN	FGL SPORTS LIMITED	1200 St. Laurent Blvd. Unit# Y005 Ottawa ON K1K 3B8	E/220.3	-0.31	114
13	GEN	St. Laurent Dental Center	1200 St. Laurent Blvd. box 203 Ottawa ON K1K 3B8	E/220.3	-0.31	114
13	GEN	Herzing College St. Laurent Blvd Ottawa	1200 St. Laurent Blvd. Suite 408 Ottawa ON K1K 3B8	E/220.3	-0.31	115
13	GEN	Cindy Changoor Pharmacy Limited (621)	1200 ST. LAURENT BLVD Ottawa ON K1K 3B8	E/220.3	-0.31	115
13	GEN	713949 ONTARIO LIMITED	1200 ST LAURENT BLVD OTTAWA ON K1K 3B8	E/220.3	-0.31	115
13	EHS		1200 St Laurent Blvd Ottawa ON K1K 4H4	E/220.3	-0.31	116
13	PES	IAN MCNEIL PHARMACIES INC	1200 ST LAURENT BLVD OTTAWA ON K1K3B8	E/220.3	-0.31	116

Map Key	DB	Company/Site Name	Address	Dir/Dist (m)	Elev diff (m)	Page Number
13	PES	TLM PHARMACIES INC.	1200 ST. LAURENT BLVD OTTAWA ON K1K3B3	E/220.3	-0.31	117
13	PES	SHOPPERS DRUG MART#0621(ST. LAURENT SHOPPING CENTRE)	1200 ST. LAURENT BLVD OTTAWA ON K1K3B8	E/220.3	-0.31	117
13	GEN	St. Laurent Dental Center	1200 St. Laurent Blvd. box 203 Ottawa ON K1K 3B8	E/220.3	-0.31	118
13	GEN	FGL SPORTS LIMITED	1200 St. Laurent Blvd. Unit# Y005 Ottawa ON K1K 3B8	E/220.3	-0.31	118
13	GEN	Cindy Changoor Pharmacy Limited (621)	1200 ST. LAURENT BLVD Ottawa ON K1K 3B8	E/220.3	-0.31	118
13	GEN	713949 ONTARIO LIMITED	1200 ST LAURENT BLVD OTTAWA ON K1K 3B8	E/220.3	-0.31	119
13	GEN	Herzing College St. Laurent Blvd Ottawa	1200 St. Laurent Blvd. Suite 408 Ottawa ON K1K 3B8	E/220.3	-0.31	120
13	GEN	FGL SPORTS LIMITED	1200 St. Laurent Blvd. Unit# Y005 Ottawa ON K1K 3B8	E/220.3	-0.31	120
13	GEN	LensCrafters #939	1200 St. Laurent Blvd Ottawa ON K1K3B8	E/220.3	-0.31	120

Map Key	DB	Company/Site Name	Address	Dir/Dist (m)	Elev diff (m)	Page Number
13	GEN	St. Laurent Dental Center	1200 St. Laurent Blvd. box 203 Ottawa ON K1K 3B8	E/220.3	-0.31	121
13	GEN	Ben Gunter Pharmacy Inc	1200 ST. LAURENT BLVD Ottawa ON K1K 3B8	E/220.3	-0.31	121
13	GEN	Morguard Real Estate Investment Trust	1200 St. Laurent Blvd. Ottawa ON K1K 3B8	E/220.3	-0.31	122
13	GEN	Ben Gunter Pharmacy Inc	1200 ST. LAURENT BLVD Ottawa ON K1K 3B8	E/220.3	-0.31	122
13	GEN	LCBO	540-1200 ST. LAURENT BLVD Ottawa ON K1K3B8	E/220.3	-0.31	122
13	GEN	LensCrafters #939	1200 St. Laurent Blvd Ottawa ON K1K3B8	E/220.3	-0.31	123
13	GEN	St. Laurent Dental Center	1200 St. Laurent Blvd. box 203 Ottawa ON K1K 3B8	E/220.3	-0.31	123
13	GEN	FGL SPORTS LIMITED	1200 St. Laurent Blvd. Unit# Y005 Ottawa ON K1K 3B8	E/220.3	-0.31	124
13	EHS		1200 & 1400 St. Laurent Blvd | 500 Coventry Rd Ottawa ON K1K 3B8	E/220.3	-0.31	124
13	EHS		1200 & 1400 St. Laurent Blvd | 500 Coventry Rd Ottawa ON K1K 3B8	E/220.3	-0.31	124

Map Key	DB	Company/Site Name	Address	Dir/Dist (m)	Elev diff (m)	Page Number

Executive Summary: Site Report Summary - Surrounding Properties

Map Key	DB	Company/Site Name	Address	Dir/Dist (m)	Elev Diff (m)	Page Number
3	WWIS		ON **Well ID:** 7252238	NNW/150.8	-1.31	124
4	WWIS		ON **Well ID:** 7242903	NNW/152.6	-1.31	125
5	WWIS		ON **Well ID:** 7290571	NNW/153.0	-1.31	126
6	SPL	COCA-COLA	440 CODENTRY ROAD FUEL STORAGE TANK OTTAWA CITY ON	W/160.4	-1.31	127
6	NPCB	SUPPLY & SERVICES CANADA	EXPOSITION & AUDIO VISUAL; 440 COVENTRY RD OTTAWA ON K1A 0T1	W/160.4	-1.31	128
6	GEN	PUBLIC WORKS CANADA	EXPOSITION COMMISSION 440 COVENTRY ROAD OTTAWA ON K1A 0M3	W/160.4	-1.31	128
6	GEN	GVT. OF CANADA-PUBLIC WORKS CANADA	EXPOSITION COMMISSION 440 COVENTRY ROAD OTTAWA ON K1A 0M3	W/160.4	-1.31	129
6	GEN	PUBLIC WORKS & GOVERNMENT SERVICES CAN.	EXPOSITION COMMISSION 440 COVENTRY ROAD OTTAWA ON K1A 0M3	W/160.4	-1.31	129
6	GEN	BROOKFIELD LEPAGE JONSON CONTROL	440 COVENTRY ROAD OTTAWA ON K1A 0R2	W/160.4	-1.31	130
6	GEN	GVT. OF CAN. - SUPPLY AND SERVICES	CANADIAN GVT. EXPOSITIONS CENTRE 440 COVENTRY ROAD OTTAWA ON K1A 0T1	W/160.4	-1.31	130
6	GEN	GVT. OF CAN. - S(OUT OF BUSINESS)S18-121	CANADIAN GVT. EXPOSITIONS CENTRE 440 COVENTRY ROAD OTTAWA ON K1A 0T1	W/160.4	-1.31	131

Map Key	DB	Company/Site Name	Address	Dir/Dist (m)	Elev Diff (m)	Page Number
6	GEN	GVT. OF CAN. - SUPPLY AND SERVICES18-121	CANADIAN GVT. EXPOSITIONS CENTRE 440 COVENTRY ROAD OTTAWA ON K1A 0T1	W/160.4	-1.31	131
6	GEN	GVT. OF CAN. - (OUT OF BUSINESS)	EXPOSITION CENTRE 440 COVENTRY ROAD OTTAWA ON K1A 0S7	W/160.4	-1.31	132
6	GEN	BROOKFIELD LEPAGE JOHNSON CONTROLS	EXHIBITION COMMISSION 440 COVENTRY ROAD OTTAWA ON	W/160.4	-1.31	132
6	GEN	Public Works and Government Services	EXHIBITION COMMISSION 440 COVENTRY ROAD OTTAWA ON K1K 2C4	W/160.4	-1.31	133
6	GEN	Public Works and Government Services	EXHIBITION COMMISSION 440 COVENTRY ROAD OTTAWA ON K1K 2C4	W/160.4	-1.31	134
6	CA	Public Works and Government Services Canada	440 Coventry Rd Ottawa ON	W/160.4	-1.31	135
6	SPL	SNC-Lavalin Regional Head Office<UNOFFICIAL>	440 Coventry Rd. Ottawa ON	W/160.4	-1.31	135
6	GEN	Public Works and Government Services	EXHIBITION COMMISSION 440 COVENTRY ROAD OTTAWA ON K1K 2C4	W/160.4	-1.31	136
6	GEN	Public Works and Government Services	EXHIBITION COMMISSION 440 COVENTRY ROAD OTTAWA ON K1K 2C4	W/160.4	-1.31	137
6	GEN	SNC LAVALIN O & M	440 COVENTRY ROAD OTTAWA ON	W/160.4	-1.31	138
6	GEN	Public Works and Government Services	EXHIBITION COMMISSION 440 COVENTRY ROAD OTTAWA ON K1K 2C4	W/160.4	-1.31	138
6	GEN	SNC LAVALIN O & M	440 COVENTRY ROAD OTTAWA ON	W/160.4	-1.31	139
6	GEN	Public Works and Government Services	EXHIBITION COMMISSION 440 COVENTRY ROAD OTTAWA ON	W/160.4	-1.31	139

Map Key	DB	Company/Site Name	Address	Dir/Dist (m)	Elev Diff (m)	Page Number
6	ECA	Public Works and Government Services Canada	440 Coventry Rd Ottawa ON K1A 0S5	W/160.4	-1.31	140
6	GEN	ROYAL CANADIAN MOUNTED POLICE	440 Coventry Road Ottawa ON K1A 0T1	W/160.4	-1.31	141
6	GEN	Public Works and Government Services	EXHIBITION COMMISSION 440 COVENTRY ROAD OTTAWA ON K1K 2C4	W/160.4	-1.31	141
6	GEN	Public Works and Government Services	EXHIBITION COMMISSION 440 COVENTRY ROAD OTTAWA ON K1K 2C4	W/160.4	-1.31	142
6	GEN	Public Services & Procurement Canada ESD/AFD	440 COVENTRY ROAD OTTAWA ON K1K 2C4	W/160.4	-1.31	143
6	GEN	Public Services & Procurement Canada ESD/AFD	440 COVENTRY ROAD OTTAWA ON K1K 2C4	W/160.4	-1.31	144
6	GEN	Public Services & Procurement Canada ESD/AFD	440 COVENTRY ROAD OTTAWA ON K1K 2C4	W/160.4	-1.31	145
6	GEN	Public Services & Procurement Canada RPB/AFD	440 COVENTRY ROAD OTTAWA ON K1K 2C4	W/160.4	-1.31	146
7	WWIS		ON ***Well ID:*** 7338631	NNW/161.7	-1.31	147
8	BORE		ON	SSE/164.8	-0.31	148
9	GEN	DOLLCO PRINTING	525 COVENTRY ROAD OTTAWA ON K1K 2C5	N/168.2	-1.00	149
9	GEN	DOLLCO PRINTING (OUT OF BUSINESS)	525 COVENTRY ROAD OTTAWA ON K1K 2C5	N/168.2	-1.00	149
9	GEN	DOLLCO PRINTING (OUT OF BUSINESS) 12-201	525 COVENTRY ROAD OTTAWA ON K1K 2C5	N/168.2	-1.00	150

Map Key	DB	Company/Site Name	Address	Dir/Dist (m)	Elev Diff (m)	Page Number
9	GEN	DOLLCO PRINTING (OUT OF BUSINESS)	525 COVENTRY ROAD OTTAWA ON K1K 2C5	N/168.2	-1.00	150
9	GEN	BELL CANADA	525 COVENTRY ROAD OTTAWA ON K1K 2C5	N/168.2	-1.00	150
9	GEN	BELL CANADA 05-288	525 COVENTRY ROAD OTTAWA ON K1K 2C5	N/168.2	-1.00	151
9	GEN	BELL (OUT OF BUSINESS)	525 COVENTRY ROAD OTTAWA ON K1K 2C5	N/168.2	-1.00	151
9	GEN	DOLLCO PRINTING	525 COVENTRY RD. OTTAWA ON K1K 2C5	N/168.2	-1.00	152
9	GEN	DOLLCO PRINTING (OUT OF BUSINESS)	525 COVENTRY RD. OTTAWA ON K1K 2C5	N/168.2	-1.00	152
9	GEN	DELCO PRINTING	P.O.BOX 8620 525 COVENTRY ROAD OTTAWA ON K1K 2C5	N/168.2	-1.00	152
9	EHS		525 Coventry Road Ottawa ON K1K 2C5	N/168.2	-1.00	153
9	EASR	MORGUARD REAL ESTATE INVESTMENT TRUST	525 COVENTRY RD OTTAWA ON K1K 2C5	N/168.2	-1.00	153
9	EHS		525 Coventry Rd Ottawa ON K1K2C5	N/168.2	-1.00	153
9	EHS		525 Coventry Road Ottawa ON	N/168.2	-1.00	153
9	GEN	Premier Environmental Services	525 Coventry Road Ottawa ON K1K 2C5	N/168.2	-1.00	154
9	EHS		525 Coventry Road Ottawa ON K1K 2C5	N/168.2	-1.00	154

Map Key	DB	Company/Site Name	Address	Dir/Dist (m)	Elev Diff (m)	Page Number
9	EHS		525 Coventry Road Ottawa ON K1K 2C5	N/168.2	-1.00	154
9	EHS		525 and 535 Coventry Road Ottawa ON K1K 2C5	N/168.2	-1.00	154
9	EHS		525 Coventry Road Ottawa ON K1K 2C5	N/168.2	-1.00	155
10	PRT	BELL CANADA AUTOMOTIVE MGR	469 COVENTRY RD OTTAWA ON K1K 2C5	NW/185.6	-1.31	155
10	GEN	BELL CANADA	469 COVENTRY ROAD OTTAWA ON K1K 2C5	NW/185.6	-1.31	155
10	GEN	BELL CANADA	469 COVENTRY ROAD OTTAWA ON K1K 2C5	NW/185.6	-1.31	155
10	GEN	BELL CANADA 05-777	469 COVENTRY ROAD OTTAWA ON K1K 2C5	NW/185.6	-1.31	156
10	FSTH	BELL CANADA AUTOMOTIVE MGR	469 COVENTRY RD OTTAWA ON K1K 2C5	NW/185.6	-1.31	157
10	FSTH	BELL CANADA AUTOMOTIVE MGR	469 COVENTRY RD OTTAWA ON K1K 2C5	NW/185.6	-1.31	158
10	GEN	BELL CANADA	469 COVENTRY ROAD OTTAWA ON K1K 2C5	NW/185.6	-1.31	158
10	GEN	BELL CANADA	469 COVENTRY ROAD OTTAWA ON K1K 2C5	NW/185.6	-1.31	159
10	GEN	BELL CANADA	469 COVENTRY ROAD OTTAWA ON K1K 2C5	NW/185.6	-1.31	160
10	FST	BELL CANADA AUTOMOTIVE MGR	469 COVENTRY RD OTTAWA ON	NW/185.6	-1.31	160

Map Key	DB	Company/Site Name	Address	Dir/Dist (m)	Elev Diff (m)	Page Number
10	FST	BELL CANADA AUTOMOTIVE MGR	469 COVENTRY RD OTTAWA ON	NW/185.6	-1.31	161
10	GEN	BELL CANADA	469 COVENTRY ROAD OTTAWA ON K1K 2C5	NW/185.6	-1.31	161
10	GEN	BELL CANADA	469 COVENTRY ROAD OTTAWA ON	NW/185.6	-1.31	162
10	GEN	BELL CANADA	469 COVENTRY ROAD OTTAWA ON K1K 2C5	NW/185.6	-1.31	163
10	GEN	BELL CANADA	469 COVENTRY ROAD OTTAWA ON K1K 2C5	NW/185.6	-1.31	163
10	GEN	BELL CANADA	469 COVENTRY ROAD OTTAWA ON K1K 2C5	NW/185.6	-1.31	164
10	GEN	BELL CANADA	469 COVENTRY ROAD OTTAWA ON K1K 2C5	NW/185.6	-1.31	165
10	GEN	BELL CANADA	469 COVENTRY ROAD OTTAWA ON K1K 2C5	NW/185.6	-1.31	166
10	GEN	BELL CANADA	469 COVENTRY ROAD OTTAWA ON K1K 2C5	NW/185.6	-1.31	167
10	GEN	BELL CANADA	469 COVENTRY ROAD OTTAWA ON K1K 2C5	NW/185.6	-1.31	167
11	BORE		ON	W/211.5	-2.31	168
12	NPCB	ROYAL CANADIAN MOUNTED POLICE	F.S.S. BRANCH; 369 TREMBLAY RD. OTTAWA ON K1A OR2	SSE/218.9	-0.61	170
14	BORE		ON	S/221.9	-1.25	170

Map Key	DB	Company/Site Name	Address	Dir/Dist (m)	Elev Diff (m)	Page Number
15	BORE		ON	SW/222.9	-1.31	172
16	PRT	BLUE LINE TAXI CO LTD	455 COVENTRY RD OTTAWA ON K1K 2C5	WNW/228.3	-2.31	173
16	PRT	BLUE LINE TAXI CO LTD	455 COVENTRY RD OTTAWA ON K1K2C5	WNW/228.3	-2.31	173
16	PRT		455 COVENTRY RD. OTTAWA ON	WNW/228.3	-2.31	173
16	GEN	BLUE LINE TAXI CO. LTD.	455 COVENTRY RD. OTTAWA ON K1K 2C5	WNW/228.3	-2.31	173
16	GEN	BLUE LINE TAXI CO. LTD.	455 COVENTRY RD. OTTAWA ON K1K 2C5	WNW/228.3	-2.31	173
16	GEN	BLUE LINE TAXI CO. LTD. 05-253	455 COVENTRY RD. OTTAWA ON K1K 2C5	WNW/228.3	-2.31	174
16	GEN	BLUE LINE TAXI CO LTD	455 COVENTRY RD. OTTAWA ON K1K 2C5	WNW/228.3	-2.31	174
16	GEN	BLUE LINE TAXI COMPANY LIMITED	455 COVENTRY ROAD OTTAWA ON K1K 2C5	WNW/228.3	-2.31	175
16	GEN	COVENTRY CONNECTIONS	455 COVENTRY ROAD OTTAWA ON K1K 2C5	WNW/228.3	-2.31	175
16	GEN	coventry connections(blue line taxi)	455 coventry rd ottawa ON K1K 2C5	WNW/228.3	-2.31	176
16	DTNK	BLUE LINE TAXI CO LTD	455 COVENTRY RD OTTAWA ON	WNW/228.3	-2.31	176
16	DTNK	BLUE LINE TAXI CO LTD	455 COVENTRY RD OTTAWA ON K1K 2C5	WNW/228.3	-2.31	177

Map Key	DB	Company/Site Name	Address	Dir/Dist (m)	Elev Diff (m)	Page Number
16	DTNK	BLUE LINE TAXI CO LTD	455 COVENTRY RD OTTAWA ON	WNW/228.3	-2.31	177
16	DTNK	BLUE LINE TAXI CO LTD	455 COVENTRY RD OTTAWA ON	WNW/228.3	-2.31	178
16	DTNK	BLUE LINE TAXI CO LTD	455 COVENTRY RD OTTAWA ON	WNW/228.3	-2.31	178
16	DTNK	BLUE LINE TAXI CO LTD	455 COVENTRY RD OTTAWA ON	WNW/228.3	-2.31	179
16	DTNK	BLUE LINE TAXI CO LTD	455 COVENTRY RD OTTAWA ON	WNW/228.3	-2.31	180
16	DTNK	BLUE LINE TAXI CO LTD	455 COVENTRY RD OTTAWA ON	WNW/228.3	-2.31	180
16	DTNK	BLUE LINE TAXI CO LTD	455 COVENTRY RD OTTAWA ON	WNW/228.3	-2.31	181
16	DTNK	BLUE LINE TAXI CO LTD	455 COVENTRY RD OTTAWA ON	WNW/228.3	-2.31	181
16	DTNK	BLUE LINE TAXI CO LTD	455 COVENTRY RD OTTAWA ON	WNW/228.3	-2.31	182
16	DTNK	BLUE LINE TAXI CO LTD	455 COVENTRY RD OTTAWA ON	WNW/228.3	-2.31	183
16	DTNK	BLUE LINE TAXI CO LTD	455 COVENTRY RD OTTAWA ON	WNW/228.3	-2.31	183
16	GEN	coventry connections(blue line taxi)	455 coventry rd ottawa ON	WNW/228.3	-2.31	184
16	GEN	coventry connections(blue line taxi)	455 coventry rd ottawa ON	WNW/228.3	-2.31	184

Map Key	DB	Company/Site Name	Address	Dir/Dist (m)	Elev Diff (m)	Page Number
16	GEN	coventry connections(blue line taxi)	455 coventry rd ottawa ON	WNW/228.3	-2.31	185
16	GEN	coventry connections(blue line taxi)	455 coventry rd ottawa ON K1K 2C5	WNW/228.3	-2.31	185
16	GEN	coventry connections(blue line taxi)	455 coventry rd ottawa ON	WNW/228.3	-2.31	185
16	GEN	coventry connections(blue line taxi)	455 coventry rd ottawa ON K1K 2C5	WNW/228.3	-2.31	186
16	GEN	coventry connections(blue line taxi)	455 coventry rd ottawa ON K1K 2C5	WNW/228.3	-2.31	186
16	GEN	coventry connections(blue line taxi)	455 coventry rd ottawa ON K1K 2C5	WNW/228.3	-2.31	187
16	GEN	coventry connections(blue line taxi)	455 coventry rd ottawa ON K1K 2C5	WNW/228.3	-2.31	187
16	EHS		455 Coventry Rd Ottawa ON K1K2C5	WNW/228.3	-2.31	187
16	GEN	coventry connections(blue line taxi)	455 coventry rd ottawa ON K1K 2C5	WNW/228.3	-2.31	188
16	GEN	coventry connections(blue line taxi)	455 coventry rd ottawa ON K1K 2C5	WNW/228.3	-2.31	188
16	GEN	coventry connections(blue line taxi)	455 coventry rd ottawa ON K1K 2C5	WNW/228.3	-2.31	188
16	EXP	BLUE LINE TAXI CO LTD	455 COVENTRY RD OTTAWA ON	WNW/228.3	-2.31	189
16	EXP	BLUE LINE TAXI CO LTD	455 COVENTRY RD OTTAWA ON	WNW/228.3	-2.31	189

Map Key	DB	Company/Site Name	Address	Dir/Dist (m)	Elev Diff (m)	Page Number
16	EXP	BLUE LINE TAXI CO LTD	455 COVENTRY RD OTTAWA ON	WNW/228.3	-2.31	189
16	EXP	BLUE LINE TAXI CO LTD	455 COVENTRY RD OTTAWA ON	WNW/228.3	-2.31	190
16	EXP	BLUE LINE TAXI CO LTD	455 COVENTRY RD OTTAWA ON	WNW/228.3	-2.31	190
16	EXP	BLUE LINE TAXI CO LTD	455 COVENTRY RD OTTAWA ON	WNW/228.3	-2.31	190
17	WWIS		ON ***Well ID:*** 7403602	NW/236.2	-2.31	190
18	BORE		ON	ESE/236.8	-0.25	191
19	BORE		ON	SE/246.3	-1.38	192
20	EHS		535 Coventry Rd Ottawa ON K1K 2C5	N/246.5	-1.39	193
20	GEN	City of Ottawa	City right of way at 535 Coventry Road Ottawa ON K1K 2C5	N/246.5	-1.39	193
21	PES	SEARS CANADA INC.	1250 ST. LAURENT BLVD OTTAWA ON K1K 3B9	ENE/246.8	-0.31	194
21	PES	SEARS CANADA INC.	1250 ST LAURENT BLVD OTTAWA ON K1K3B9	ENE/246.8	-0.31	194
21	GEN	SEARS CANADA INCORPORATED	1250 ST. LAURENT BOULEVARD OTTAWA ON K1K 3B9	ENE/246.8	-0.31	194
21	GEN	SEARS CANADA INCORPORATED 34-381	1250 ST. LAURENT BOULEVARD OTTAWA ON K1K 3B9	ENE/246.8	-0.31	195

Map Key	DB	Company/Site Name	Address	Dir/Dist (m)	Elev Diff (m)	Page Number
21	GEN	SEARS CANADA INC.	1250 ST. LAURENT BOULEVARD OTTAWA ON K1K 3B9	ENE/246.8	-0.31	195
21	EHS		1250 St. Laurent Blvd Ottawa ON K1K 3B9	ENE/246.8	-0.31	196
21	GEN	SEARS CANADA INC.	1250 ST. LAURENT BOULEVARD OTTAWA ON K1K 3B9	ENE/246.8	-0.31	196
21	GEN	sears canada	1250 St. Laurent Blvd. Ottawa ON	ENE/246.8	-0.31	196
21	GEN	SEARS CANADA INC.	1250 ST. LAURENT BOULEVARD OTTAWA ON K1K 3B9	ENE/246.8	-0.31	197
21	GEN	sears canada	1250 St. Laurent Blvd. Ottawa ON	ENE/246.8	-0.31	197
21	GEN	sears canada	1250 St. Laurent Blvd. Ottawa ON K1K-3B9	ENE/246.8	-0.31	198
21	GEN	sears canada	1250 St. Laurent Blvd. Ottawa ON K1K-3B9	ENE/246.8	-0.31	198
21	GEN	sears canada	1250 St. Laurent Blvd. Ottawa ON K1K-3B9	ENE/246.8	-0.31	199
21	GEN	sears canada	1250 St. Laurent Blvd. Ottawa ON K1K-3B9	ENE/246.8	-0.31	199
21	GEN	Sears Canada Inc.	1250 St Laurent Blvd Ottawa ON K1K 4L8	ENE/246.8	-0.31	200
21	PES	SEARS CANADA INC.	1250 ST LAURENT BLVD OTTAWA ON K1K3B9	ENE/246.8	-0.31	201
22	CA	SUNFORT BUILDING CORPORATION	AVENUE "O&P"/TREMBLAY RD. OTTAWA CITY ON	SW/247.3	-2.24	201

Map Key	DB	Company/Site Name	Address	Dir/Dist (m)	Elev Diff (m)	Page Number
22	CA	SUNFORT BUILDING CORPORATION	AVENUE "0&P"/TREMBLAY RD. OTTAWA CITY ON	SW/247.3	-2.24	201

Executive Summary: Summary By Data Source

BORE - Borehole

A search of the BORE database, dated 1875-Jul 2018 has found that there are 6 BORE site(s) within approximately 0.25 kilometers of the project property.

Lower Elevation	Address	Direction	Distance (m)	Map Key
	ON	SSE	164.78	8
	ON	W	211.50	11
	ON	S	221.94	14
	ON	SW	222.91	15
	ON	ESE	236.80	18
	ON	SE	246.27	19

CA - Certificates of Approval

A search of the CA database, dated 1985-Oct 30, 2011* has found that there are 5 CA site(s) within approximately 0.25 kilometers of the project property.

Lower Elevation	Address	Direction	Distance (m)	Map Key
ARCTURUS ENVIRONMENTAL LIMITED	500 COVENTRY ROAD OTTAWA CITY ON K1K 2C4	-	0.00	1
ARCTURUS ENVIRONMENTAL LIMITED	500 COVENTRY ROAD (8-4050-95) OTTAWA CITY ON K1K 2C4	-	0.00	1

Public Works and Government Services Canada	440 Coventry Rd Ottawa ON	W	160.40	6
SUNFORT BUILDING CORPORATION	AVENUE "0&P"/TREMBLAY RD. OTTAWA CITY ON	SW	247.30	22
SUNFORT BUILDING CORPORATION	AVENUE "O&P"/TREMBLAY RD. OTTAWA CITY ON	SW	247.30	22

DTNK - Delisted Fuel Tanks

A search of the DTNK database, dated Oct 2023 has found that there are 19 DTNK site(s) within approximately 0.25 kilometers of the project property.

Lower Elevation	Address	Direction	Distance (m)	Map Key
TCC BOTTLING LTD	500 COVENTRY RD OTTAWA ON	-	0.00	1
TCC BOTTLING LTD	500 COVENTRY RD OTTAWA ON	-	0.00	1
TCC BOTTLING LTD	500 COVENTRY RD OTTAWA ON	-	0.00	1
TCC BOTTLING LTD	500 COVENTRY RD OTTAWA ON	-	0.00	1
TCC BOTTLING LTD	500 COVENTRY RD OTTAWA ON	-	0.00	1
TCC BOTTLING LTD	500 COVENTRY RD OTTAWA ON	-	0.00	1
BLUE LINE TAXI CO LTD	455 COVENTRY RD OTTAWA ON	WNW	228.28	16
BLUE LINE TAXI CO LTD	455 COVENTRY RD OTTAWA ON	WNW	228.28	16

BLUE LINE TAXI CO LTD	455 COVENTRY RD OTTAWA ON K1K 2C5	WNW	228.28	16
BLUE LINE TAXI CO LTD	455 COVENTRY RD OTTAWA ON	WNW	228.28	16
BLUE LINE TAXI CO LTD	455 COVENTRY RD OTTAWA ON	WNW	228.28	16
BLUE LINE TAXI CO LTD	455 COVENTRY RD OTTAWA ON	WNW	228.28	16
BLUE LINE TAXI CO LTD	455 COVENTRY RD OTTAWA ON	WNW	228.28	16
BLUE LINE TAXI CO LTD	455 COVENTRY RD OTTAWA ON	WNW	228.28	16
BLUE LINE TAXI CO LTD	455 COVENTRY RD OTTAWA ON	WNW	228.28	16
BLUE LINE TAXI CO LTD	455 COVENTRY RD OTTAWA ON	WNW	228.28	16
BLUE LINE TAXI CO LTD	455 COVENTRY RD OTTAWA ON	WNW	228.28	16
BLUE LINE TAXI CO LTD	455 COVENTRY RD OTTAWA ON	WNW	228.28	16

EASR - Environmental Activity and Sector Registry

A search of the EASR database, dated Oct 2011- Nov 30, 2023 has found that there are 2 EASR site(s) within approximately 0.25 kilometers of the project property.

Lower Elevation	Address	Direction	Distance (m)	Map Key
MORGUARD REAL ESTATE INVESTMENT TRUST	1400 ST. LAURENT BLVD OTTAWA ON K1K 4H4	E	148.89	2
MORGUARD REAL ESTATE INVESTMENT TRUST	525 COVENTRY RD OTTAWA ON K1K 2C5	N	168.22	9

EBR - Environmental Registry

A search of the EBR database, dated 1994 - Nov 30, 2023 has found that there are 1 EBR site(s) within approximately 0.25 kilometers of the project property.

Lower Elevation	Address	Direction	Distance (m)	Map Key
713949 Ontario Limited	1200 St. Laurent Boulevard Ottawa K1K 3B8 CITY OF OTTAWA ON	E	220.33	13

ECA - Environmental Compliance Approval

A search of the ECA database, dated Oct 2011- Nov 30, 2023 has found that there are 3 ECA site(s) within approximately 0.25 kilometers of the project property.

Lower Elevation	Address	Direction	Distance (m)	Map Key
Public Works and Government Services Canada	440 Coventry Rd Ottawa ON K1A 0S5	W	160.40	6
713949 Ontario Limited	1200 St. Laurent Blvd Ottawa ON	E	220.33	13
713949 Ontario Limited	1200 St. Laurent Blvd Ottawa ON K1K 3B8	E	220.33	13

EHS - ERIS Historical Searches

A search of the EHS database, dated 1999-Sep 30, 2023 has found that there are 16 EHS site(s) within approximately 0.25 kilometers of the project property.

Lower Elevation	Address	Direction	Distance (m)	Map Key
	500 Coventry Road Ottawa ON K1K	-	0.00	1

500 Coventry Road Ottawa ON K1K 2C4	-	0.00	1
1200, 1400 St Laurent Blvd And 500 Coventry Rd Ottawa ON	E	148.89	2
525 Coventry Road Ottawa ON K1K 2C5	N	168.22	9
525 and 535 Coventry Road Ottawa ON K1K 2C5	N	168.22	9
525 Coventry Road Ottawa ON K1K 2C5	N	168.22	9
525 Coventry Road Ottawa ON K1K 2C5	N	168.22	9
525 Coventry Road Ottawa ON	N	168.22	9
525 Coventry Rd Ottawa ON K1K2C5	N	168.22	9
525 Coventry Road Ottawa ON K1K 2C5	N	168.22	9
1200 St Laurent Blvd Ottawa ON K1K 4H4	E	220.33	13
1200 & 1400 St. Laurent Blvd | 500 Coventry Rd Ottawa ON K1K 3B8	E	220.33	13
1200 & 1400 St. Laurent Blvd | 500 Coventry Rd Ottawa ON K1K 3B8	E	220.33	13
455 Coventry Rd Ottawa ON K1K2C5	WNW	228.28	16

	535 Coventry Rd Ottawa ON K1K 2C5	N	246.54	20
	1250 St. Laurent Blvd Ottawa ON K1K 3B9	ENE	246.82	21

EXP - List of Expired Fuels Safety Facilities

A search of the EXP database, dated Oct 2023 has found that there are 10 EXP site(s) within approximately 0.25 kilometers of the project property.

Lower Elevation	Address	Direction	Distance (m)	Map Key
TCC BOTTLING LTD	500 COVENTRY RD OTTAWA ON	-	0.00	1
TCC BOTTLING LTD	500 COVENTRY RD OTTAWA ON	-	0.00	1
TCC BOTTLING LTD	500 COVENTRY RD OTTAWA ON	-	0.00	1
TCC BOTTLING LTD	500 COVENTRY RD OTTAWA ON	-	0.00	1
BLUE LINE TAXI CO LTD	455 COVENTRY RD OTTAWA ON	WNW	228.28	16
BLUE LINE TAXI CO LTD	455 COVENTRY RD OTTAWA ON	WNW	228.28	16
BLUE LINE TAXI CO LTD	455 COVENTRY RD OTTAWA ON	WNW	228.28	16
BLUE LINE TAXI CO LTD	455 COVENTRY RD OTTAWA ON	WNW	228.28	16

BLUE LINE TAXI CO LTD	455 COVENTRY RD OTTAWA ON	WNW	228.28	16
BLUE LINE TAXI CO LTD	455 COVENTRY RD OTTAWA ON	WNW	228.28	16

FST - Fuel Storage Tank

A search of the FST database, dated Oct 2023 has found that there are 2 FST site(s) within approximately 0.25 kilometers of the project property.

Lower Elevation	Address	Direction	Distance (m)	Map Key
BELL CANADA AUTOMOTIVE MGR	469 COVENTRY RD OTTAWA ON	NW	185.58	10
BELL CANADA AUTOMOTIVE MGR	469 COVENTRY RD OTTAWA ON	NW	185.58	10

FSTH - Fuel Storage Tank - Historic

A search of the FSTH database, dated Pre-Jan 2010* has found that there are 2 FSTH site(s) within approximately 0.25 kilometers of the project property.

Lower Elevation	Address	Direction	Distance (m)	Map Key
BELL CANADA AUTOMOTIVE MGR	469 COVENTRY RD OTTAWA ON K1K 2C5	NW	185.58	10
BELL CANADA AUTOMOTIVE MGR	469 COVENTRY RD OTTAWA ON K1K 2C5	NW	185.58	10

GEN - Ontario Regulation 347 Waste Generators Summary

A search of the GEN database, dated 1986-Oct 31, 2022 has found that there are 176 GEN site(s) within approximately 0.25 kilometers of the project property.

Lower Elevation	Address	Direction	Distance (m)	Map Key
COCA-COLA LTD.	500 COVENTRY ROAD OTTAWA ON K1K 2C4	-	0.00	1
TCC BOTTLING LTD.	500 COVENTRY ROAD OTTAWA ON K1K 2C4	-	0.00	1

COCA-COLA BOTTLING LIMITED 37-332	500 COVENTRY ROAD OTTAWA ON K1K 2C4	-	0.00	1
COCA-COLA BOTTLING LIMITED	500 COVENTRY ROAD OTTAWA ON K1K 2C4	-	0.00	1
Cirque du Soleil Inc.	500 Coventry Rd. Ottawa ON K1K 2C5	-	0.00	1
PUBLIC WORKS CANADA	EXPOSITION COMMISSION 440 COVENTRY ROAD OTTAWA ON K1A 0M3	W	160.40	6
GVT. OF CANADA-PUBLIC WORKS CANADA	EXPOSITION COMMISSION 440 COVENTRY ROAD OTTAWA ON K1A 0M3	W	160.40	6
PUBLIC WORKS & GOVERNMENT SERVICES CAN.	EXPOSITION COMMISSION 440 COVENTRY ROAD OTTAWA ON K1A 0M3	W	160.40	6
BROOKFIELD LEPAGE JONSON CONTROL	440 COVENTRY ROAD OTTAWA ON K1A 0R2	W	160.40	6
GVT. OF CAN. - SUPPLY AND SERVICES	CANADIAN GVT. EXPOSITIONS CENTRE 440 COVENTRY ROAD OTTAWA ON K1A 0T1	W	160.40	6
GVT. OF CAN. - S(OUT OF BUSINESS)S18-121	CANADIAN GVT. EXPOSITIONS CENTRE 440 COVENTRY ROAD OTTAWA ON K1A 0T1	W	160.40	6
GVT. OF CAN. - SUPPLY AND SERVICES18-121	CANADIAN GVT. EXPOSITIONS CENTRE 440 COVENTRY ROAD OTTAWA ON K1A 0T1	W	160.40	6
GVT. OF CAN. - (OUT OF BUSINESS)	EXPOSITION CENTRE 440 COVENTRY ROAD OTTAWA ON K1A 0S7	W	160.40	6
BROOKFIELD LEPAGE JOHNSON CONTROLS	EXHIBITION COMMISSION 440 COVENTRY ROAD OTTAWA ON	W	160.40	6

Public Works and Government Services	EXHIBITION COMMISSION 440 COVENTRY ROAD OTTAWA ON K1K 2C4	W	160.40	6
Public Works and Government Services	EXHIBITION COMMISSION 440 COVENTRY ROAD OTTAWA ON K1K 2C4	W	160.40	6
Public Works and Government Services	EXHIBITION COMMISSION 440 COVENTRY ROAD OTTAWA ON K1K 2C4	W	160.40	6
Public Works and Government Services	EXHIBITION COMMISSION 440 COVENTRY ROAD OTTAWA ON K1K 2C4	W	160.40	6
SNC LAVALIN O & M	440 COVENTRY ROAD OTTAWA ON	W	160.40	6
Public Works and Government Services	EXHIBITION COMMISSION 440 COVENTRY ROAD OTTAWA ON K1K 2C4	W	160.40	6
SNC LAVALIN O & M	440 COVENTRY ROAD OTTAWA ON	W	160.40	6
Public Works and Government Services	EXHIBITION COMMISSION 440 COVENTRY ROAD OTTAWA ON	W	160.40	6
ROYAL CANADIAN MOUNTED POLICE	440 Coventry Road Ottawa ON K1A 0T1	W	160.40	6
Public Works and Government Services	EXHIBITION COMMISSION 440 COVENTRY ROAD OTTAWA ON K1K 2C4	W	160.40	6
Public Works and Government Services	EXHIBITION COMMISSION 440 COVENTRY ROAD OTTAWA ON K1K 2C4	W	160.40	6
Public Services & Procurement Canada ESD/AFD	440 COVENTRY ROAD OTTAWA ON K1K 2C4	W	160.40	6

Public Services & Procurement Canada ESD/AFD	440 COVENTRY ROAD OTTAWA ON K1K 2C4	W	160.40	6
Public Services & Procurement Canada ESD/AFD	440 COVENTRY ROAD OTTAWA ON K1K 2C4	W	160.40	6
Public Services & Procurement Canada RPB/AFD	440 COVENTRY ROAD OTTAWA ON K1K 2C4	W	160.40	6
DOLLCO PRINTING	525 COVENTRY ROAD OTTAWA ON K1K 2C5	N	168.22	9
DOLLCO PRINTING (OUT OF BUSINESS)	525 COVENTRY ROAD OTTAWA ON K1K 2C5	N	168.22	9
DOLLCO PRINTING (OUT OF BUSINESS) 12-201	525 COVENTRY ROAD OTTAWA ON K1K 2C5	N	168.22	9
DOLLCO PRINTING (OUT OF BUSINESS)	525 COVENTRY ROAD OTTAWA ON K1K 2C5	N	168.22	9
BELL CANADA	525 COVENTRY ROAD OTTAWA ON K1K 2C5	N	168.22	9
BELL CANADA 05-288	525 COVENTRY ROAD OTTAWA ON K1K 2C5	N	168.22	9
BELL (OUT OF BUSINESS)	525 COVENTRY ROAD OTTAWA ON K1K 2C5	N	168.22	9
DOLLCO PRINTING	525 COVENTRY RD. OTTAWA ON K1K 2C5	N	168.22	9
DOLLCO PRINTING (OUT OF BUSINESS)	525 COVENTRY RD. OTTAWA ON K1K 2C5	N	168.22	9

DELCO PRINTING	P.O.BOX 8620 525 COVENTRY ROAD OTTAWA ON K1K 2C5	N	168.22	9
Premier Environmental Services	525 Coventry Road Ottawa ON K1K 2C5	N	168.22	9
BELL CANADA	469 COVENTRY ROAD OTTAWA ON K1K 2C5	NW	185.58	10
BELL CANADA	469 COVENTRY ROAD OTTAWA ON K1K 2C5	NW	185.58	10
BELL CANADA 05-777	469 COVENTRY ROAD OTTAWA ON K1K 2C5	NW	185.58	10
BELL CANADA	469 COVENTRY ROAD OTTAWA ON K1K 2C5	NW	185.58	10
BELL CANADA	469 COVENTRY ROAD OTTAWA ON K1K 2C5	NW	185.58	10
BELL CANADA	469 COVENTRY ROAD OTTAWA ON K1K 2C5	NW	185.58	10
BELL CANADA	469 COVENTRY ROAD OTTAWA ON K1K 2C5	NW	185.58	10
BELL CANADA	469 COVENTRY ROAD OTTAWA ON K1K 2C5	NW	185.58	10
BELL CANADA	469 COVENTRY ROAD OTTAWA ON K1K 2C5	NW	185.58	10
BELL CANADA	469 COVENTRY ROAD OTTAWA ON K1K 2C5	NW	185.58	10
BELL CANADA	469 COVENTRY ROAD OTTAWA ON K1K 2C5	NW	185.58	10

BELL CANADA	469 COVENTRY ROAD OTTAWA ON K1K 2C5	NW	185.58	10
BELL CANADA	469 COVENTRY ROAD OTTAWA ON	NW	185.58	10
BELL CANADA	469 COVENTRY ROAD OTTAWA ON K1K 2C5	NW	185.58	10
BELL CANADA	469 COVENTRY ROAD OTTAWA ON K1K 2C5	NW	185.58	10
BLACK PHOTO CORPORATION	1200 ST. LAURENT BOULEVARD, OTTAWA C/O 371 GOUGH ROAD MARKHAM ON L3R 4B6	E	220.33	13
BLACK PHOTO CORPORATION	1200 ST. LAURENT BOULEVARD ST. LAURENT SHOPPING CENTRE OTTAWA ON K1K 3B8	E	220.33	13
BLACK PHOTO CORPORATION 05-410	1200 ST. LAURENT BOULEVARD - OTTAWA C/O 371 GOUGH ROAD MARKHAM ON L3R 4B6	E	220.33	13
BLACK PHOTO CORPORATION	ST. LAURENT SHOPPING CENTRE 1200 ST. LAURENT BOULEVARD OTTAWA ON K1K 3B8	E	220.33	13
CADILLAC FAIRVIEW CORPORATION LTD.08-539	1200 ST. LAURENT BLVD. OTTAWA ON K1K 3B8	E	220.33	13
CADILLAC FAIRVIEW CORPORATION LTD.08-539	1200 ST. LAURENT BLVD. PO BOX 199 OTTAWA ON K1K 3B8	E	220.33	13
CADILLAC FAIRVIEW CORPORATION LIMITED	1200 ST. LAURENT BOULEVARD OTTAWA ON K1K 3B8	E	220.33	13
CADILLAC FAIRVIEW CORP. LTD.	N. MALL AREA-ENT. BANK & SHOP. DRUG M. C/O 1200 ST.-LAURENT BLVD. OTTAWA ON K1K 3B8	E	220.33	13

CADILLAC (SEE & USE ON0733507) 08-539	N. MALL AREA-ENT. BANK & SHOP. DRUG M. C/O 1200 ST.-LAURENT BLVD. OTTAWA ON K1K 3B8	E	220.33	13
JAPAN CAMERA CENTRE	PHOTO MINUTES ONTARIO INC. 1200 ST.LAURENT OTTAWA ON K9K 3B8	E	220.33	13
JAPAN CAMERA CENTRE 31-345	PHOTO MINUTES ONTARIO INC. 1200 ST.LAURENT OTTAWA ON K9K 3B8	E	220.33	13
BLACK (OUT OF BUS) 05-661	ST.LAURENT11-1200ST.LAURENT BLVD-OTTAWA C/O 371 GOUGH ROAD MARKHAM ON L3R 4B6	E	220.33	13
BLACK PHOTO CORPORATION 05-661	ST.LAURENT11-1200ST.LAURENT BLVD-OTTAWA C/O 371 GOUGH ROAD MARKHAM ON L3R 4B6	E	220.33	13
CAREER CANADA COLLEGE	1200 ST. LAURENT BOULEVARD SUITE 261 OTTAWA ON	E	220.33	13
FORZANI GROUP LTD., THE	SPORT CHEK, ST. LAURENT MALL 1200 ST. LAURENT BOULEVARD OTTAWA ON K1K 3B8	E	220.33	13
DEVAN PROPERTIES LTD.	1200 ST-LAURENT BOULEVARD OTTAWA ON K1K 3B8	E	220.33	13
CAREER CANADA COLLEGE	1200 ST. LAURENT BOULEVARD, SUITE 261 OTTAWA ON	E	220.33	13
SPORT CHEK	ST. LAURENT MALL 1200 ST. LAURENT BOULEVARD OTTAWA ON K1K 3B8	E	220.33	13
SHOPPERS DRUG MART	1200 ST. LAURENT BOULEVARD OTTAWA ON K1K 3B8	E	220.33	13

CAREER CANADA COLLEGE	1200 ST. LAURENT BOULEVARD, SUITE 261 Unit 261 OTTAWA ON K1K 3B8	E	220.33	13
7139490 ONTARIO LIMITED	1200 LAURENT BLVD. OTTAWA ON K1K 3B8	E	220.33	13
CDI COLLEGE	1200 ST. LAURENT BOULEVARD, SUITE 261 OTTAWA ON	E	220.33	13
713949 ONTARIO LIMITED	1200 ST LAURENT BLVD OTTAWA ON K1K 3B8	E	220.33	13
CDI COLLEGE	1200 ST. LAURENT BLVD. Unit 19 OTTAWA ON K1K 3B8	E	220.33	13
Everest College of Business	1200 ST. LAURENT BLVD. Unit 19 OTTAWA ON K1K 3B8	E	220.33	13
Lens Crafters #939	1200 St. Laurent Blvd Ottawa ON K1K3B8	E	220.33	13
Everest College of Business	1200 ST. LAURENT BLVD. Unit 19 OTTAWA ON	E	220.33	13
The Forzani Group	1200 St. Laurent Blvd. Unit# Y005 Ottawa ON	E	220.33	13
Lens Crafters #939	1200 St. Laurent Blvd Ottawa ON	E	220.33	13
713949 ONTARIO LIMITED	1200 ST LAURENT BLVD OTTAWA ON	E	220.33	13
The Forzani Group	1200 St. Laurent Blvd. Unit# Y005 Ottawa ON	E	220.33	13
713949 ONTARIO LIMITED	1200 ST LAURENT BLVD OTTAWA ON	E	220.33	13

Lens Crafters #939	1200 St. Laurent Blvd Ottawa ON	E	220.33	13
Everest College of Business	1200 ST. LAURENT BLVD. Unit 19 OTTAWA ON	E	220.33	13
CINDY CHANGOOR PHARMACY LIMITED	1200 ST LAURENT BLVD OTTAWA ON K1K 3B8	E	220.33	13
The Forzani Group	1200 St. Laurent Blvd. Unit# Y005 Ottawa ON	E	220.33	13
713949 ONTARIO LIMITED	1200 ST LAURENT BLVD OTTAWA ON	E	220.33	13
Lens Crafters #939	1200 St. Laurent Blvd Ottawa ON	E	220.33	13
Everest College of Business	1200 ST. LAURENT BLVD. Unit 19 OTTAWA ON	E	220.33	13
Lens Crafters #939	1200 St. Laurent Blvd Ottawa ON	E	220.33	13
CINDY CHANGOOR PHARMACY LIMITED	1200 ST LAURENT BLVD OTTAWA ON K1K 3B8	E	220.33	13
713949 ONTARIO LIMITED	1200 ST LAURENT BLVD OTTAWA ON K1K 3B8	E	220.33	13
Herzing College	1200 St. Laurent Blvd. Suite 408 Ottawa ON	E	220.33	13
Everest College of Business	1200 ST. LAURENT BLVD. Unit 19 OTTAWA ON K1K 3B8	E	220.33	13

CINDY CHANGOOR PHARMACY LIMITED	1200 ST LAURENT BLVD OTTAWA ON	E	220.33	13
The Forzani Group	1200 St. Laurent Blvd. Unit# Y005 Ottawa ON	E	220.33	13
Herzing College	1200 St. Laurent Blvd. Suite 408 Ottawa ON	E	220.33	13
713949 ONTARIO LIMITED	1200 ST LAURENT BLVD OTTAWA ON	E	220.33	13
Everest College of Business	1200 ST. LAURENT BLVD. Unit 19 OTTAWA ON	E	220.33	13
713949 ONTARIO LIMITED	1200 ST LAURENT BLVD OTTAWA ON K1K 3B8	E	220.33	13
St. Laurent Dental Center	1200 St. Laurent Blvd. box 203 Ottawa ON K1K 3B8	E	220.33	13
FGL SPORTS LIMITED	1200 St. Laurent Blvd. Unit# Y005 Ottawa ON K1K 3B8	E	220.33	13
Everest College of Business	1200 ST. LAURENT BLVD. Unit 19 OTTAWA ON K1K 3B8	E	220.33	13
Herzing College	1200 St. Laurent Blvd. Suite 408 Ottawa ON K1K 3B8	E	220.33	13
The Forzani Group	1200 St. Laurent Blvd. Unit# Y005 Ottawa ON K1K 3B8	E	220.33	13
713949 ONTARIO LIMITED	1200 ST LAURENT BLVD OTTAWA ON K1K 3B8	E	220.33	13
Cindy Changoor Pharmacy Limited (641)	1200 ST. LAURENT BLVD Ottawa ON K1K 3B8	E	220.33	13

Cindy Changoor Pharmacy Limited (621)	1200 ST. LAURENT BLVD Ottawa ON K1K 3B8	E	220.33	13
Herzing College	1200 St. Laurent Blvd. Suite 408 Ottawa ON K1K 3B8	E	220.33	13
Lens Crafters #939	1200 St. Laurent Blvd Ottawa ON K1K3B8	E	220.33	13
Lens Crafters #939	1200 St. Laurent Blvd Ottawa ON K1K3B8	E	220.33	13
St. Laurent Dental Center	1200 St. Laurent Blvd. box 203 Ottawa ON K1K 3B8	E	220.33	13
Lens Crafters #939	1200 St. Laurent Blvd Ottawa ON K1K3B8	E	220.33	13
Herzing College	1200 St. Laurent Blvd. Suite 408 Ottawa ON K1K 3B8	E	220.33	13
St. Laurent Dental Center	1200 St. Laurent Blvd. box 203 Ottawa ON K1K 3B8	E	220.33	13
Everest College of Business	1200 ST. LAURENT BLVD. Unit 19 OTTAWA ON K1K 3B8	E	220.33	13
CINDY CHANGOOR PHARMACY LIMITED	1200 ST LAURENT BLVD OTTAWA ON K1K 3B8	E	220.33	13
713949 ONTARIO LIMITED	1200 ST LAURENT BLVD OTTAWA ON K1K 3B8	E	220.33	13
The Forzani Group	1200 St. Laurent Blvd. Unit# Y005 Ottawa ON K1K 3B8	E	220.33	13

FGL SPORTS LIMITED	1200 St. Laurent Blvd. Unit# Y005 Ottawa ON K1K 3B8	E	220.33	13
St. Laurent Dental Center	1200 St. Laurent Blvd. box 203 Ottawa ON K1K 3B8	E	220.33	13
Herzing College St. Laurent Blvd Ottawa	1200 St. Laurent Blvd. Suite 408 Ottawa ON K1K 3B8	E	220.33	13
Cindy Changoor Pharmacy Limited (621)	1200 ST. LAURENT BLVD Ottawa ON K1K 3B8	E	220.33	13
713949 ONTARIO LIMITED	1200 ST LAURENT BLVD OTTAWA ON K1K 3B8	E	220.33	13
St. Laurent Dental Center	1200 St. Laurent Blvd. box 203 Ottawa ON K1K 3B8	E	220.33	13
FGL SPORTS LIMITED	1200 St. Laurent Blvd. Unit# Y005 Ottawa ON K1K 3B8	E	220.33	13
Cindy Changoor Pharmacy Limited (621)	1200 ST. LAURENT BLVD Ottawa ON K1K 3B8	E	220.33	13
713949 ONTARIO LIMITED	1200 ST LAURENT BLVD OTTAWA ON K1K 3B8	E	220.33	13
Herzing College St. Laurent Blvd Ottawa	1200 St. Laurent Blvd. Suite 408 Ottawa ON K1K 3B8	E	220.33	13
FGL SPORTS LIMITED	1200 St. Laurent Blvd. Unit# Y005 Ottawa ON K1K 3B8	E	220.33	13
LensCrafters #939	1200 St. Laurent Blvd Ottawa ON K1K3B8	E	220.33	13
St. Laurent Dental Center	1200 St. Laurent Blvd. box 203 Ottawa ON K1K 3B8	E	220.33	13

Ben Gunter Pharmacy Inc	1200 ST. LAURENT BLVD Ottawa ON K1K 3B8	E	220.33	13
Morguard Real Estate Investment Trust	1200 St. Laurent Blvd. Ottawa ON K1K 3B8	E	220.33	13
Ben Gunter Pharmacy Inc	1200 ST. LAURENT BLVD Ottawa ON K1K 3B8	E	220.33	13
LCBO	540-1200 ST. LAURENT BLVD Ottawa ON K1K3B8	E	220.33	13
LensCrafters #939	1200 St. Laurent Blvd Ottawa ON K1K3B8	E	220.33	13
St. Laurent Dental Center	1200 St. Laurent Blvd. box 203 Ottawa ON K1K 3B8	E	220.33	13
FGL SPORTS LIMITED	1200 St. Laurent Blvd. Unit# Y005 Ottawa ON K1K 3B8	E	220.33	13
BLUE LINE TAXI CO. LTD.	455 COVENTRY RD. OTTAWA ON K1K 2C5	WNW	228.28	16
BLUE LINE TAXI CO. LTD.	455 COVENTRY RD. OTTAWA ON K1K 2C5	WNW	228.28	16
BLUE LINE TAXI CO. LTD. 05-253	455 COVENTRY RD. OTTAWA ON K1K 2C5	WNW	228.28	16
BLUE LINE TAXI CO LTD	455 COVENTRY RD. OTTAWA ON K1K 2C5	WNW	228.28	16
BLUE LINE TAXI COMPANY LIMITED	455 COVENTRY ROAD OTTAWA ON K1K 2C5	WNW	228.28	16

COVENTRY CONNECTIONS	455 COVENTRY ROAD OTTAWA ON K1K 2C5	WNW	228.28	16
coventry connections(blue line taxi)	455 coventry rd ottawa ON K1K 2C5	WNW	228.28	16
coventry connections(blue line taxi)	455 coventry rd ottawa ON	WNW	228.28	16
coventry connections(blue line taxi)	455 coventry rd ottawa ON	WNW	228.28	16
coventry connections(blue line taxi)	455 coventry rd ottawa ON	WNW	228.28	16
coventry connections(blue line taxi)	455 coventry rd ottawa ON K1K 2C5	WNW	228.28	16
coventry connections(blue line taxi)	455 coventry rd ottawa ON	WNW	228.28	16
coventry connections(blue line taxi)	455 coventry rd ottawa ON K1K 2C5	WNW	228.28	16
coventry connections(blue line taxi)	455 coventry rd ottawa ON K1K 2C5	WNW	228.28	16
coventry connections(blue line taxi)	455 coventry rd ottawa ON K1K 2C5	WNW	228.28	16
coventry connections(blue line taxi)	455 coventry rd ottawa ON K1K 2C5	WNW	228.28	16
coventry connections(blue line taxi)	455 coventry rd ottawa ON K1K 2C5	WNW	228.28	16
coventry connections(blue line taxi)	455 coventry rd ottawa ON K1K 2C5	WNW	228.28	16

coventry connections(blue line taxi)	455 coventry rd ottawa ON K1K 2C5	WNW	228.28	16
City of Ottawa	City right of way at 535 Coventry Road Ottawa ON K1K 2C5	N	246.54	20
SEARS CANADA INCORPORATED	1250 ST. LAURENT BOULEVARD OTTAWA ON K1K 3B9	ENE	246.82	21
SEARS CANADA INCORPORATED 34-381	1250 ST. LAURENT BOULEVARD OTTAWA ON K1K 3B9	ENE	246.82	21
SEARS CANADA INC.	1250 ST. LAURENT BOULEVARD OTTAWA ON K1K 3B9	ENE	246.82	21
SEARS CANADA INC.	1250 ST. LAURENT BOULEVARD OTTAWA ON K1K 3B9	ENE	246.82	21
sears canada	1250 St. Laurent Blvd. Ottawa ON	ENE	246.82	21
SEARS CANADA INC.	1250 ST. LAURENT BOULEVARD OTTAWA ON K1K 3B9	ENE	246.82	21
sears canada	1250 St. Laurent Blvd. Ottawa ON	ENE	246.82	21
sears canada	1250 St. Laurent Blvd. Ottawa ON K1K-3B9	ENE	246.82	21
sears canada	1250 St. Laurent Blvd. Ottawa ON K1K-3B9	ENE	246.82	21
sears canada	1250 St. Laurent Blvd. Ottawa ON K1K-3B9	ENE	246.82	21

sears canada	1250 St. Laurent Blvd. Ottawa ON K1K-3B9	ENE	246.82	21
Sears Canada Inc.	1250 St Laurent Blvd Ottawa ON K1K 4L8	ENE	246.82	21

NPCB - National PCB Inventory

A search of the NPCB database, dated 1988-2008* has found that there are 6 NPCB site(s) within approximately 0.25 kilometers of the project property.

Lower Elevation	Address	Direction	Distance (m)	Map Key
COCA-COLA LTD.	500 COVENTRY RD OTTAWA ON K1K 2C4	-	0.00	1
COCA- COLA LTD.	500 COVENTRY ROAD Ottawa ON K1K 2C4	-	0.00	1
COCA-COLA LTD.	500 COVENTRY ROAD OTTAWA ON K1K 2C4	-	0.00	1
SUPPLY & SERVICES CANADA	EXPOSITION & AUDIO VISUAL; 440 COVENTRY RD OTTAWA ON K1A 0T1	W	160.40	6
ROYAL CANADIAN MOUNTED POLICE	F.S.S. BRANCH; 369 TREMBLAY RD. OTTAWA ON K1A OR2	SSE	218.85	12
CADILLAC FAIRVIEW CORPORATION LIMITED	1200 ST. LAURENT BOULVARD; ST. LAURENT SHOPPING CE OTTAWA ON K1K 3B8	E	220.33	13

OPCB - Inventory of PCB Storage Sites

A search of the OPCB database, dated 1987-Oct 2004; 2012-Dec 2013 has found that there are 2 OPCB site(s) within approximately 0.25 kilometers of the project property.

Lower Elevation	Address	Direction	Distance (m)	Map Key
CADILLAC FAIRVIEW CORPORATION LIMITED	1200 ST. LAURENT BOULVARD ST. LAURENT SHOPPING CENTRE OTTAWA ON K1K 3B8	E	220.33	13

CADILLAC FAIRVIEW CORPORATION LIMITED	1200 ST. LAURENT BOULVARD ST. LAURENT SHOPPING CENTRE OTTAWA ON K1K 3B8	E	220.33	13

PES - Pesticide Register

A search of the PES database, dated Oct 2011- Nov 30, 2023 has found that there are 13 PES site(s) within approximately 0.25 kilometers of the project property.

Lower Elevation	Address	Direction	Distance (m)	Map Key
TLM PHARMACIES INC.	1200 ST. LAURENT BLVD OTTAWA ON K1K3B3	E	220.33	13
IAN MCNEIL PHARMACIES INC	1200 ST LAURENT BLVD OTTAWA ON K1K3B8	E	220.33	13
SHOPPERS DRUG MART#0621 (ST. LAURENT SHOPPING CENTRE)	1200 ST. LAURENT BLVD OTTAWA ON K1K 3B8	E	220.33	13
IAN MCNEIL PHARMACIES INC	1200 ST LAURENT BLVD OTTAWA ON K1K 3B8	E	220.33	13
CINDY CHANGOOR PHARMACY LTD	1200 ST LAURENT BLVD OTTAWA ON K1K 3B8	E	220.33	13
TLM PHARMACIES INC.	1200 ST. LAURENT BLVD OTTAWA ON K1K 3B3	E	220.33	13
CINDY CHANGOOR PHARMACY LTD	1200 ST LAURENT BLVD OTTAWA ON K1K3B8	E	220.33	13
IAN MCNEIL PHARMACIES INC	1200 ST LAURENT BLVD OTTAWA ON K1K3B8	E	220.33	13
TLM PHARMACIES INC.	1200 ST. LAURENT BLVD OTTAWA ON K1K3B3	E	220.33	13
SHOPPERS DRUG MART#0621 (ST. LAURENT SHOPPING CENTRE)	1200 ST. LAURENT BLVD OTTAWA ON K1K3B8	E	220.33	13

SEARS CANADA INC.	1250 ST. LAURENT BLVD OTTAWA ON K1K 3B9	ENE	246.82	21
SEARS CANADA INC.	1250 ST LAURENT BLVD OTTAWA ON K1K3B9	ENE	246.82	21
SEARS CANADA INC.	1250 ST LAURENT BLVD OTTAWA ON K1K3B9	ENE	246.82	21

PRT - Private and Retail Fuel Storage Tanks

A search of the PRT database, dated 1989-1996* has found that there are 6 PRT site(s) within approximately 0.25 kilometers of the project property.

Lower Elevation	Address	Direction	Distance (m)	Map Key
TCC BOTTLING LTD	500 COVENTRY RD OTTAWA ON K1K 2C4	-	0.00	1
TCC BOTTLING LTD	500 COVENTRY RD OTTAWA ON K1K 2C4	-	0.00	1
BELL CANADA AUTOMOTIVE MGR	469 COVENTRY RD OTTAWA ON K1K 2C5	NW	185.58	10
BLUE LINE TAXI CO LTD	455 COVENTRY RD OTTAWA ON K1K2C5	WNW	228.28	16
	455 COVENTRY RD. OTTAWA ON	WNW	228.28	16
BLUE LINE TAXI CO LTD	455 COVENTRY RD OTTAWA ON K1K 2C5	WNW	228.28	16

RSC - Record of Site Condition

A search of the RSC database, dated 1997-Sept 2001, Oct 2004-Nov 2023 has found that there are 1 RSC site(s) within approximately 0.25 kilometers of the project property.

Lower Elevation	Address	Direction	Distance (m)	Map Key
	500 Coventry Road Ottawa ON K1K 2C4	-	0.00	1

SCT - Scott's Manufacturing Directory

A search of the SCT database, dated 1992-Mar 2011* has found that there are 2 SCT site(s) within approximately 0.25 kilometers of the project property.

Lower Elevation	Address	Direction	Distance (m)	Map Key
COCA COLA BOTTLING LTD	500 COVENTRY RD OTTAWA ON K1K 2C4	-	0.00	1
COCA-COLA BOTTLING LTD.	500 COVENTRY RD OTTAWA ON K1K 2C4	-	0.00	1

SPL - Ontario Spills

A search of the SPL database, dated 1988-Dec 2021; see description has found that there are 7 SPL site(s) within approximately 0.25 kilometers of the project property.

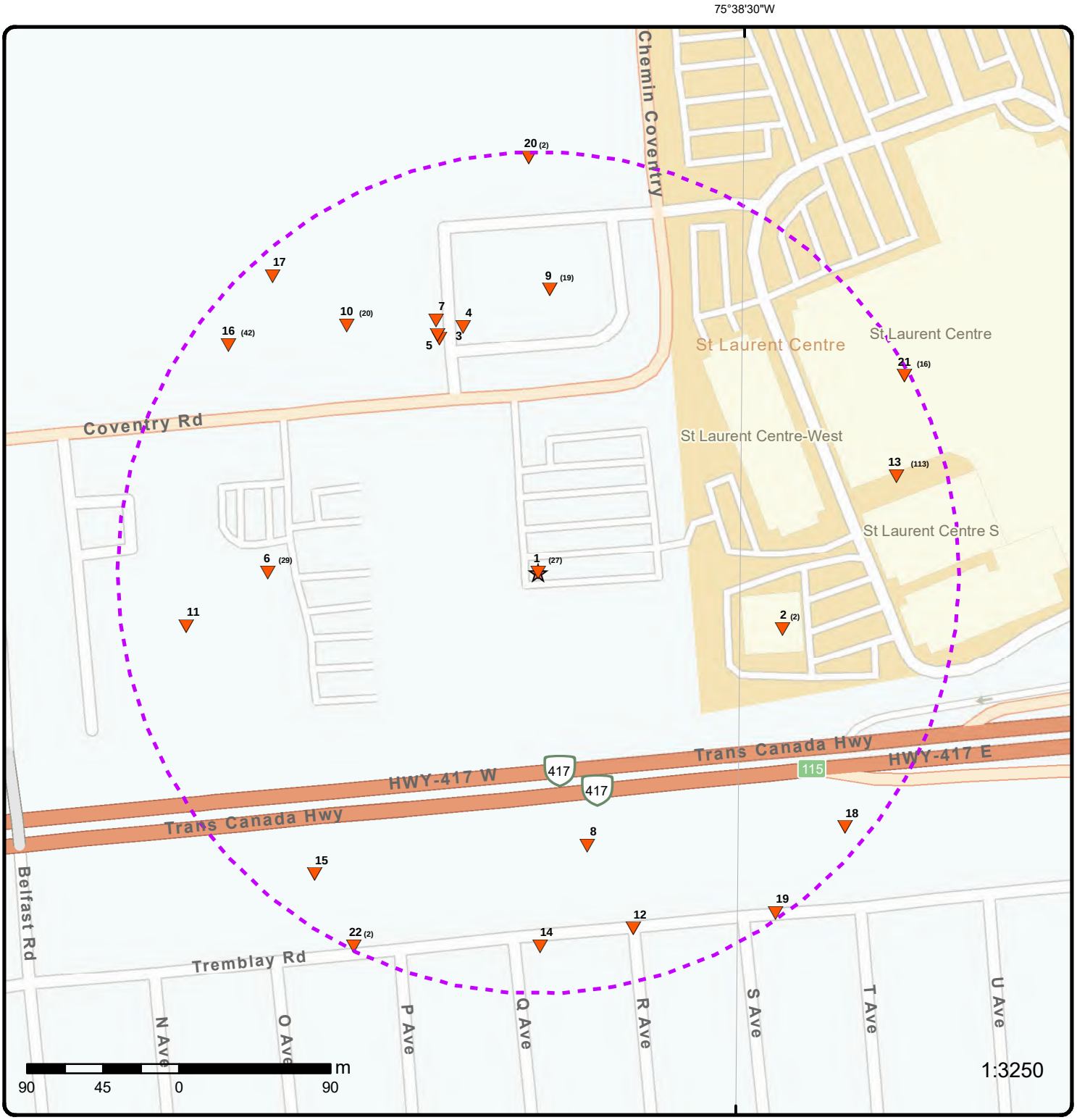
Lower Elevation	Address	Direction	Distance (m)	Map Key
SNC-Lavalin Regional Head Office<UNOFFICIAL>	440 Coventry Rd. Ottawa ON	W	160.40	6
COCA-COLA	440 CODENTRY ROAD FUEL STORAGE TANK OTTAWA CITY ON	W	160.40	6
Canadian Waste Management<UNOFFICIAL>	1200 St. Laurent St. Ottawa ON	E	220.33	13
City of Ottawa	1200 Saint Laurent Boulevard Ottawa ON	E	220.33	13
	1200 St. Laurent Blvd. Ottawa ON	E	220.33	13
	1200 St. Laurent Boulevard Ottawa ON	E	220.33	13

	1200 St Laurent Ave Ottawa ON	E	220.33	13

WWIS - Water Well Information System

A search of the WWIS database, dated Mar 31 2023 has found that there are 5 WWIS site(s) within approximately 0.25 kilometers of the project property.

Lower Elevation	Address	Direction	Distance (m)	Map Key
	ON ***Well ID:*** 7252238	NNW	150.78	3
	ON ***Well ID:*** 7242903	NNW	152.57	4
	ON ***Well ID:*** 7290571	NNW	153.01	5
	ON ***Well ID:*** 7338631	NNW	161.71	7
	ON ***Well ID:*** 7403602	NW	236.24	17



Map: 0.25 Kilometer Radius

Order Number: 24010800331
Address: 500 Coventry Road, Ottawa, ON

- Project Property
- Buffer Outline
- Eris Sites with Higher Elevation
- Eris Sites with Same Elevation
- Eris Sites with Lower Elevation
- Eris Sites with Unknown Elevation
- Freeways; Highways
- Traffic Circle; Ramp
- Major Arterial; Minor Arterial
- Local Road
- Service Road; Traffic Circle; Ramp
- Rail
- Beach
- Airport
- Industrial Area
- Military Base
- Aircraft Roads
- Native Reservation
- Hospital
- Shopping & Sports Area
- University/College
- Cemetery; Golf Course
- Parkt (National)
- Park (City/County)

Source: © 2021 ESRI StreetMap Premium.

© ERIS Information Limited Partnership

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB

Detail(s)

Waste Class: 211
Waste Class Name: AROMATIC SOLVENTS

Waste Class: 213
Waste Class Name: PETROLEUM DISTILLATES

Waste Class: 241
Waste Class Name: HALOGENATED SOLVENTS

Waste Class: 252
Waste Class Name: WASTE OILS & LUBRICANTS

1	12 of 27	-/0.0	68.9 / -0.31	COCA-COLA BOTTLING LIMITED 37-332 500 COVENTRY ROAD OTTAWA ON K1K 2C4	GEN

Generator No: ON0381005
SIC Code: 1111
SIC Description: SOFT DRINK IND.
Approval Years: 92,93,94,95,96,97,98
PO Box No:
Country:
Status:
Co Admin:
Choice of Contact:
Phone No Admin:
Contaminated Facility:
MHSW Facility:

Detail(s)

Waste Class: 211
Waste Class Name: AROMATIC SOLVENTS

Waste Class: 212
Waste Class Name: ALIPHATIC SOLVENTS

Waste Class: 213
Waste Class Name: PETROLEUM DISTILLATES

Waste Class: 221
Waste Class Name: LIGHT FUELS

Waste Class: 241
Waste Class Name: HALOGENATED SOLVENTS

Waste Class: 252
Waste Class Name: WASTE OILS & LUBRICANTS

1	13 of 27	-/0.0	68.9 / -0.31	COCA-COLA BOTTLING LIMITED 500 COVENTRY ROAD OTTAWA ON K1K 2C4	GEN

Generator No: ON0381005
SIC Code: 1111
SIC Description: SOFT DRINK IND.
Approval Years: 99,00,01
PO Box No:
Country:

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB

Status:
Co Admin:
Choice of Contact:
Phone No Admin:
Contaminated Facility:
MHSW Facility:

Detail(s)

Waste Class: 211
Waste Class Name: AROMATIC SOLVENTS

Waste Class: 241
Waste Class Name: HALOGENATED SOLVENTS

Waste Class: 212
Waste Class Name: ALIPHATIC SOLVENTS

Waste Class: 213
Waste Class Name: PETROLEUM DISTILLATES

Waste Class: 221
Waste Class Name: LIGHT FUELS

Waste Class: 252
Waste Class Name: WASTE OILS & LUBRICANTS

1	*14 of 27*	*-/0.0*	*68.9 / -0.31*	***COCA- COLA LTD.*** ***500 COVENTRY ROAD*** ***Ottawa ON K1K 2C4***	***NPCB***

Company Code: O0459
Industry: Food/Beverage/Water
Site Status: In- Use
Transaction Date: 3/22/1991
Inspection Date: 3/22/1991

--Details--
Label:
Serial No.:
PCB Type/Code: Askarel/Inerteen
Location: WALL MOUNTED ELECTRICAL ROOM
Item/State:
No. of Items:
Manufacturer:
Status: In-Use
Contents:

Label:
Serial No.:
PCB Type/Code: Askarel/Pyranol
Location: WALL MOUNTED ELECTRICAL ROOM
Item/State:
No. of Items:
Manufacturer:
Status: In-Use
Contents:

1	*15 of 27*	*-/0.0*	*68.9 / -0.31*	***COCA-COLA LTD.*** ***500 COVENTRY RD*** ***OTTAWA ON K1K 2C4***	***NPCB***

Company Code: O0459
Industry: FOOD/BEVERAGE/WATER
Site Status: INSPECTED SITES (NON FEDERAL)
Transaction Date: 7/10/1993
Inspection Date: 3/22/1991

--Details--
Label: OR43384
Serial No.: 2615
PCB Type/Code: ASKAREL/PYRANOL
Location:
Item/State: CAPACITOR/FULL
No. of Items: 1
Manufacturer:
Status: IN-USE
Contents: 4.5 L

Label: OR43380
Serial No.: 8236500A45
PCB Type/Code: ASKAREL/INERTEEN
Location:
Item/State: CAPACITOR/FULL
No. of Items: 1
Manufacturer:
Status: IN-USE
Contents: 4.5 L

Label: OR43381
Serial No.: 8236500A50
PCB Type/Code: ASKAREL/INERTEEN
Location:
Item/State: CAPACITOR/FULL
No. of Items: 1
Manufacturer:
Status: IN-USE
Contents: 4.5 L

Label: OR43382
Serial No.: 2262
PCB Type/Code: ASKAREL/PYRANOL
Location:
Item/State: CAPACITOR/FULL
No. of Items: 1
Manufacturer:
Status: IN-USE
Contents: 4.5 L

Label: OR43383
Serial No.: 2600
PCB Type/Code: ASKAREL/PYRANOL
Location:
Item/State: CAPACITOR/FULL
No. of Items: 1
Manufacturer:
Status: IN-USE
Contents: 4.5 L

1	*16 of 27*	*-/0.0*	*68.9 / -0.31*	***Cirque du Soleil Inc.*** ***500 Coventry Rd.*** ***Ottawa ON K1K 2C5***	***GEN***

Generator No: ON8320593

SIC Code: 711190
SIC Description: Other Performing Arts Companies
Approval Years: 07,08
PO Box No:
Country:
Status:
Co Admin:
Choice of Contact:
Phone No Admin:
Contaminated Facility:
MHSW Facility:

Detail(s)

Waste Class: 112
Waste Class Name: ACID WASTE - HEAVY METALS

Waste Class: 145
Waste Class Name: PAINT/PIGMENT/COATING RESIDUES

Waste Class: 252
Waste Class Name: WASTE OILS & LUBRICANTS

Waste Class: 331
Waste Class Name: WASTE COMPRESSED GASES

1	17 of 27	-/0.0	68.9 / -0.31	TCC BOTTLING LTD 500 COVENTRY RD OTTAWA ON	DTNK

Delisted Expired Fuel Safety Facilities

Instance No: 9250771
Status: EXPIRED
Instance ID: 382497
Instance Type: FS Facility
Instance Creation Dt:
Instance Install Dt:
Item Description:
Manufacturer:
Model:
Serial No:
ULC Standard:
Quantity:
Unit of Measure:
Overfill Prot Type:
Creation Date:
Next Periodic Str DT:
TSSA Base Sched Cycle 2:
TSSAMax Hazard Rank 1:
TSSA Risk Based Periodic Yn:
TSSA Volume of Directives:
TSSA Periodic Exempt:
TSSA Statutory Interval:
TSSA Recd Insp Interva:
TSSA Recd Tolerance:
TSSA Program Area:
TSSA Program Area 2:
Description: Fuels Safety Private Fuel Outlet - Self Serve
Original Source: EXP
Record Date: Up to Mar 2012

Expired Date:
Max Hazard Rank:
Facility Location:
Facility Type:
Fuel Type 2:
Fuel Type 3:
Panam Related:
Panam Venue Nm:
External Identifier:
Item:
Piping Steel:
Piping Galvanized:
Tank Single Wall St:
Piping Underground:
Tank Underground:
Source:

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
1	18 of 27	-/0.0	68.9 / -0.31	TCC BOTTLING LTD 500 COVENTRY RD OTTAWA ON	DTNK

Delisted Expired Fuel Safety Facilities

Instance No:	9272124	Expired Date:	
Status:	EXPIRED	Max Hazard Rank:	
Instance ID:	382963	Facility Location:	
Instance Type:	FS Facility	Facility Type:	
Instance Creation Dt:		Fuel Type 2:	
Instance Install Dt:		Fuel Type 3:	
Item Description:		Panam Related:	
Manufacturer:		Panam Venue Nm:	
Model:		External Identifier:	
Serial No:		Item:	
ULC Standard:		Piping Steel:	
Quantity:		Piping Galvanized:	
Unit of Measure:		Tank Single Wall St:	
Overfill Prot Type:		Piping Underground:	
Creation Date:		Tank Underground:	
Next Periodic Str DT:		Source:	
TSSA Base Sched Cycle 2:			
TSSAMax Hazard Rank 1:			
TSSA Risk Based Periodic Yn:			
TSSA Volume of Directives:			
TSSA Periodic Exempt:			
TSSA Statutory Interval:			
TSSA Recd Insp Interva:			
TSSA Recd Tolerance:			
TSSA Program Area:			
TSSA Program Area 2:			
Description:	Fuels Safety Private Fuel Outlet - Self Serve		
Original Source:	EXP		
Record Date:	Up to Mar 2012		

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
1	19 of 27	-/0.0	68.9 / -0.31	TCC BOTTLING LTD 500 COVENTRY RD OTTAWA ON	DTNK

Delisted Expired Fuel Safety Facilities

Instance No:	10902565	Expired Date:	
Status:	EXPIRED	Max Hazard Rank:	
Instance ID:	50437	Facility Location:	
Instance Type:	FS Piping	Facility Type:	
Instance Creation Dt:		Fuel Type 2:	
Instance Install Dt:		Fuel Type 3:	
Item Description:		Panam Related:	
Manufacturer:		Panam Venue Nm:	
Model:		External Identifier:	
Serial No:		Item:	
ULC Standard:		Piping Steel:	
Quantity:		Piping Galvanized:	
Unit of Measure:		Tank Single Wall St:	
Overfill Prot Type:		Piping Underground:	
Creation Date:		Tank Underground:	

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB

Next Periodic Str DT:			***Source:***
TSSA Base Sched Cycle 2:			
TSSAMax Hazard Rank 1:			
TSSA Risk Based Periodic Yn:			
TSSA Volume of Directives:			
TSSA Periodic Exempt:			
TSSA Statutory Interval:			
TSSA Recd Insp Interva:			
TSSA Recd Tolerance:			
TSSA Program Area:			
TSSA Program Area 2:			
Description:		FS Piping	
Original Source:		EXP	
Record Date:		Up to Mar 2012	

1	***20 of 27***	***-/0.0***	***68.9 / -0.31***	***TCC BOTTLING LTD*** ***500 COVENTRY RD*** ***OTTAWA ON***	***DTNK***

Delisted Expired Fuel Safety Facilities

Instance No:	10902527		***Expired Date:***
Status:	EXPIRED		***Max Hazard Rank:***
Instance ID:	51162		***Facility Location:***
Instance Type:	FS Piping		***Facility Type:***
Instance Creation Dt:			***Fuel Type 2:***
Instance Install Dt:			***Fuel Type 3:***
Item Description:			***Panam Related:***
Manufacturer:			***Panam Venue Nm:***
Model:			***External Identifier:***
Serial No:			***Item:***
ULC Standard:			***Piping Steel:***
Quantity:			***Piping Galvanized:***
Unit of Measure:			***Tank Single Wall St:***
Overfill Prot Type:			***Piping Underground:***
Creation Date:			***Tank Underground:***
Next Periodic Str DT:			***Source:***
TSSA Base Sched Cycle 2:			
TSSAMax Hazard Rank 1:			
TSSA Risk Based Periodic Yn:			
TSSA Volume of Directives:			
TSSA Periodic Exempt:			
TSSA Statutory Interval:			
TSSA Recd Insp Interva:			
TSSA Recd Tolerance:			
TSSA Program Area:			
TSSA Program Area 2:			
Description:		FS Piping	
Original Source:		EXP	
Record Date:		Up to Mar 2012	

1	***21 of 27***	***-/0.0***	***68.9 / -0.31***	***TCC BOTTLING LTD*** ***500 COVENTRY RD*** ***OTTAWA ON***	***DTNK***

Delisted Expired Fuel Safety Facilities

Instance No:	10902508	***Expired Date:***

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB

Status:	EXPIRED		**Max Hazard Rank:**
Instance ID:	51506		**Facility Location:**
Instance Type:	FS Piping		**Facility Type:**
Instance Creation Dt:			**Fuel Type 2:**
Instance Install Dt:			**Fuel Type 3:**
Item Description:			**Panam Related:**
Manufacturer:			**Panam Venue Nm:**
Model:			**External Identifier:**
Serial No:			**Item:**
ULC Standard:			**Piping Steel:**
Quantity:			**Piping Galvanized:**
Unit of Measure:			**Tank Single Wall St:**
Overfill Prot Type:			**Piping Underground:**
Creation Date:			**Tank Underground:**
Next Periodic Str DT:			**Source:**
TSSA Base Sched Cycle 2:			
TSSAMax Hazard Rank 1:			
TSSA Risk Based Periodic Yn:			
TSSA Volume of Directives:			
TSSA Periodic Exempt:			
TSSA Statutory Interval:			
TSSA Recd Insp Interva:			
TSSA Recd Tolerance:			
TSSA Program Area:			
TSSA Program Area 2:			
Description:		FS Piping	
Original Source:		EXP	
Record Date:		Up to Mar 2012	

1	*22 of 27*	*-/0.0*	*68.9 / -0.31*	***TCC BOTTLING LTD*** ***500 COVENTRY RD*** ***OTTAWA ON***	***DTNK***

Delisted Expired Fuel Safety Facilities

Instance No:	10902545		**Expired Date:**
Status:	EXPIRED		**Max Hazard Rank:**
Instance ID:	52313		**Facility Location:**
Instance Type:	FS Piping		**Facility Type:**
Instance Creation Dt:			**Fuel Type 2:**
Instance Install Dt:			**Fuel Type 3:**
Item Description:			**Panam Related:**
Manufacturer:			**Panam Venue Nm:**
Model:			**External Identifier:**
Serial No:			**Item:**
ULC Standard:			**Piping Steel:**
Quantity:			**Piping Galvanized:**
Unit of Measure:			**Tank Single Wall St:**
Overfill Prot Type:			**Piping Underground:**
Creation Date:			**Tank Underground:**
Next Periodic Str DT:			**Source:**
TSSA Base Sched Cycle 2:			
TSSAMax Hazard Rank 1:			
TSSA Risk Based Periodic Yn:			
TSSA Volume of Directives:			
TSSA Periodic Exempt:			
TSSA Statutory Interval:			
TSSA Recd Insp Interva:			
TSSA Recd Tolerance:			
TSSA Program Area:			
TSSA Program Area 2:			
Description:		FS Piping	

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB

Original Source: EXP
Record Date: Up to Mar 2012

1	23 of 27	-/0.0	68.9 / -0.31	500 Coventry Road Ottawa ON K1K	EHS

Order No:	20190621313	**Nearest Intersection:**	
Status:	C	**Municipality:**	
Report Type:	Standard Report	**Client Prov/State:**	TN
Report Date:	28-JUN-19	**Search Radius (km):**	.25
Date Received:	21-JUN-19	**X:**	-75.643184
Previous Site Name:		**Y:**	45.420848
Lot/Building Size:			

Additional Info Ordered: Fire Insur. Maps and/or Site Plans; Title Searches; City Directory; Aerial Photos

---

1	24 of 27	-/0.0	68.9 / -0.31	TCC BOTTLING LTD 500 COVENTRY RD OTTAWA ON	EXP

Inventory No:	10902516	**Tank Material:**	Fiberglass (FRP)
Inventory Status:	EXPIRED	**Corrosion Protect:**	Fiberglass
Installation Year:	1987	**Overfill Protection:**	
Capacity:	20000	**Inventory Context:**	FS Liquid Fuel Tank
Capacity Unit:		**Inventory Item:**	FS LIQUID FUEL TANK
Tank Type:			
Manufacturer:			
Model:			
Description:	UNDERGROUND TANK		
Previous Fuel Type:	Diesel		

1	25 of 27	-/0.0	68.9 / -0.31	TCC BOTTLING LTD 500 COVENTRY RD OTTAWA ON	EXP

Inventory No:	10902536	**Tank Material:**	Fiberglass (FRP)
Inventory Status:	EXPIRED	**Corrosion Protect:**	Fiberglass
Installation Year:	1987	**Overfill Protection:**	
Capacity:	20000	**Inventory Context:**	FS Liquid Fuel Tank
Capacity Unit:		**Inventory Item:**	FS LIQUID FUEL TANK
Tank Type:			
Manufacturer:			
Model:			
Description:	UNDERGROUND TANK		
Previous Fuel Type:	Gasoline		

1	26 of 27	-/0.0	68.9 / -0.31	TCC BOTTLING LTD 500 COVENTRY RD OTTAWA ON	EXP

Inventory No:	10902558	**Tank Material:**	Fiberglass (FRP)
Inventory Status:	EXPIRED	**Corrosion Protect:**	Fiberglass
Installation Year:	1987	**Overfill Protection:**	
Capacity:	20000	**Inventory Context:**	FS Liquid Fuel Tank
Capacity Unit:		**Inventory Item:**	FS LIQUID FUEL TANK
Tank Type:			
Manufacturer:			
Model:			
Description:	UNDERGROUND TANK		
Previous Fuel Type:	Diesel		

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB

1	27 of 27	-/0.0	68.9 / -0.31	TCC BOTTLING LTD 500 COVENTRY RD OTTAWA ON	EXP

Inventory No:	10902499	Tank Material:	Fiberglass (FRP)
Inventory Status:	EXPIRED	Corrosion Protect:	Fiberglass
Installation Year:	1987	Overfill Protection:	
Capacity:	20000	Inventory Context:	FS Liquid Fuel Tank
Capacity Unit:		Inventory Item:	FS LIQUID FUEL TANK
Tank Type:			
Manufacturer:			
Model:			
Description:	UNDERGROUND TANK		
Previous Fuel Type:	Gasoline		

2	1 of 2	E/148.9	68.9 / -0.31	1200, 1400 St Laurent Blvd And 500 Coventry Rd Ottawa ON	EHS

Order No:	20130819036	Nearest Intersection:	
Status:	C	Municipality:	
Report Type:	Custom Report	Client Prov/State:	ON
Report Date:	28-AUG-13	Search Radius (km):	.25
Date Received:	19-AUG-13	X:	-75.639914
Previous Site Name:		Y:	45.422166
Lot/Building Size:			
Additional Info Ordered:			

2	2 of 2	E/148.9	68.9 / -0.31	MORGUARD REAL ESTATE INVESTMENT TRUST 1400 ST. LAURENT BLVD OTTAWA ON K1K 4H4	EASR

Approval No:	R-010-4114583861	MOE District:	North Bay
Status:	REGISTERED	Municipality:	OTTAWA
Date:	November 18, 2022	Latitude:	
Record Type:	EASR	Longitude:	
Link Source:	MOFA	Geometry X:	-9016878.7543000001
Project Type:	Air Emissions	Geometry Y:	5700582.7322999965
Full Address:			
Approval Type:	EASR-Air Emissions		
SWP Area Name:			
PDF URL:	http://www.accessenvironment.ene.gov.on.ca/AEWeb/ae/ViewDocument.action?documentRefID=2787130		
PDF Site Location:	1400 ST. LAURENT BLVD OTTAWA ON K1K 4H4		

13	1 of 113	E/220.3	68.9 / -0.31	CADILLAC FAIRVIEW CORPORATION LIMITED 1200 ST. LAURENT BOULVARD; ST. LAURENT SHOPPING CE OTTAWA ON K1K 3B8	NPCB

Company Code:	F1506
Industry:	
Site Status:	
Transaction Date:	1/29/1996
Inspection Date:	

--Details--

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB

Label:
Serial No.:
PCB Type/Code: Askarel
Location:
Item/State:
No. of Items:
Manufacturer:
Status: Stored for Disposal
Contents: 10.00 KG

Label:
Serial No.:
PCB Type/Code: Askarel
Location:
Item/State:
No. of Items:
Manufacturer:
Status: Stored for Disposal
Contents: 400.00 KG

13	2 of 113	E/220.3	68.9 / -0.31	CADILLAC FAIRVIEW CORPORATION LIMITED 1200 ST. LAURENT BOULVARD ST. LAURENT SHOPPING CENTRE OTTAWA ON K1K 3B8	OPCB

Year: 1998
Site Number: 40291A007
Name Owner:
Additional Site Information:

--Details--
Quantity: 4.00
Address Site:
Description: Number of Drums of Ballasts with High Level PCBs (>1000 ppm)

Quantity: 800.00
Address Site:
Description: Calculated Weight (Kg) of Drums of Ballasts with High Level PCBs (>1000 ppm)

13	3 of 113	E/220.3	68.9 / -0.31	CADILLAC FAIRVIEW CORPORATION LIMITED 1200 ST. LAURENT BOULVARD ST. LAURENT SHOPPING CENTRE OTTAWA ON K1K 3B8	OPCB

Year: 1995
Site Number: 40291A007
Name Owner:
Additional Site Information:

--Details--
Quantity: 4.00
Address Site:
Description: Number of Drums of Ballasts with High Level PCBs (>1000 ppm)

Quantity: 800.00
Address Site:
Description: Weight of Drums of Ballasts with High Level PCBs (>1000 ppm) kg

---

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
13	4 of 113	E/220.3	68.9 / -0.31	BLACK PHOTO CORPORATION 1200 ST. LAURENT BOULEVARD, OTTAWA C/O 371 GOUGH ROAD MARKHAM ON L3R 4B6	GEN

Generator No: ON0074368
SIC Code: 6571
SIC Description: CAMERA/PHOTO. SUPPLY
Approval Years: 90
PO Box No:
Country:
Status:
Co Admin:
Choice of Contact:
Phone No Admin:
Contaminated Facility:
MHSW Facility:

Detail(s)

Waste Class: 264
Waste Class Name: PHOTOPROCESSING WASTES

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
13	5 of 113	E/220.3	68.9 / -0.31	BLACK PHOTO CORPORATION 1200 ST. LAURENT BOULEVARD ST. LAURENT SHOPPING CENTRE OTTAWA ON K1K 3B8	GEN

Generator No: ON0074368
SIC Code: 6571
SIC Description: CAMERA/PHOTO. SUPPLY
Approval Years: 92,93,97
PO Box No:
Country:
Status:
Co Admin:
Choice of Contact:
Phone No Admin:
Contaminated Facility:
MHSW Facility:

Detail(s)

Waste Class: 264
Waste Class Name: PHOTOPROCESSING WASTES

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
13	6 of 113	E/220.3	68.9 / -0.31	BLACK PHOTO CORPORATION 05-410 1200 ST. LAURENT BOULEVARD - OTTAWA C/O 371 GOUGH ROAD MARKHAM ON L3R 4B6	GEN

Generator No: ON0074368
SIC Code: 6571
SIC Description: CAMERA/PHOTO. SUPPLY
Approval Years: 94,95,96
PO Box No:
Country:
Status:
Co Admin:
Choice of Contact:
Phone No Admin:
Contaminated Facility:

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB

MHSW Facility:

Detail(s)

Waste Class: 264
Waste Class Name: PHOTOPROCESSING WASTES

13	7 of 113	E/220.3	68.9 / -0.31	BLACK PHOTO CORPORATION ST. LAURENT SHOPPING CENTRE 1200 ST. LAURENT BOULEVARD OTTAWA ON K1K 3B8	GEN

Generator No: ON0074368
SIC Code: 6571
SIC Description: CAMERA/PHOTO. SUPPLY
Approval Years: 98,99,00,01
PO Box No:
Country:
Status:
Co Admin:
Choice of Contact:
Phone No Admin:
Contaminated Facility:
MHSW Facility:

Detail(s)

Waste Class: 264
Waste Class Name: PHOTOPROCESSING WASTES

13	8 of 113	E/220.3	68.9 / -0.31	CADILLAC FAIRVIEW CORPORATION LTD.08-539 1200 ST. LAURENT BLVD. OTTAWA ON K1K 3B8	GEN

Generator No: ON0733507
SIC Code: 6411
SIC Description: DEPARTMENT STORES
Approval Years: 92,93,96,97,98
PO Box No:
Country:
Status:
Co Admin:
Choice of Contact:
Phone No Admin:
Contaminated Facility:
MHSW Facility:

Detail(s)

Waste Class: 145
Waste Class Name: PAINT/PIGMENT/COATING RESIDUES

Waste Class: 221
Waste Class Name: LIGHT FUELS

Waste Class: 243
Waste Class Name: PCB'S

Waste Class: 252
Waste Class Name: WASTE OILS & LUBRICANTS

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
13	9 of 113	E/220.3	68.9 / -0.31	CADILLAC FAIRVIEW CORPORATION LTD.08-539 1200 ST. LAURENT BLVD. PO BOX 199 OTTAWA ON K1K 3B8	GEN

Generator No: ON0733507
SIC Code: 6411
SIC Description: DEPARTMENT STORES
Approval Years: 94,95
PO Box No:
Country:
Status:
Co Admin:
Choice of Contact:
Phone No Admin:
Contaminated Facility:
MHSW Facility:

Detail(s)

Waste Class: 145
Waste Class Name: PAINT/PIGMENT/COATING RESIDUES

Waste Class: 221
Waste Class Name: LIGHT FUELS

Waste Class: 243
Waste Class Name: PCB'S

Waste Class: 252
Waste Class Name: WASTE OILS & LUBRICANTS

13	10 of 113	E/220.3	68.9 / -0.31	CADILLAC FAIRVIEW CORPORATION LIMITED 1200 ST. LAURENT BOULEVARD OTTAWA ON K1K 3B8	GEN

Generator No: ON0733507
SIC Code: 6411
SIC Description: DEPARTMENT STORES
Approval Years: 99,00,01
PO Box No:
Country:
Status:
Co Admin:
Choice of Contact:
Phone No Admin:
Contaminated Facility:
MHSW Facility:

Detail(s)

Waste Class: 145
Waste Class Name: PAINT/PIGMENT/COATING RESIDUES

Waste Class: 221
Waste Class Name: LIGHT FUELS

Waste Class: 243
Waste Class Name: PCB'S

Waste Class: 252
Waste Class Name: WASTE OILS & LUBRICANTS

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
13	11 of 113	E/220.3	68.9 / -0.31	CADILLAC FAIRVIEW CORP. LTD. N. MALL AREA-ENT. BANK & SHOP. DRUG M. C/O 1200 ST.-LAURENT BLVD. OTTAWA ON K1K 3B8	GEN

Generator No: ON0733604
SIC Code: 6411
SIC Description: DEPARTMENT STORES
Approval Years: 89,90
PO Box No:
Country:
Status:
Co Admin:
Choice of Contact:
Phone No Admin:
Contaminated Facility:
MHSW Facility:

Detail(s)

Waste Class: 221
Waste Class Name: LIGHT FUELS

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
13	12 of 113	E/220.3	68.9 / -0.31	CADILLAC (SEE & USE ON0733507) 08-539 N. MALL AREA-ENT. BANK & SHOP. DRUG M. C/O 1200 ST.-LAURENT BLVD. OTTAWA ON K1K 3B8	GEN

Generator No: ON0733604
SIC Code: 6411
SIC Description: DEPARTMENT STORES
Approval Years: 92,93,94,95,96,97,98
PO Box No:
Country:
Status:
Co Admin:
Choice of Contact:
Phone No Admin:
Contaminated Facility:
MHSW Facility:

Detail(s)

Waste Class: 221
Waste Class Name: LIGHT FUELS

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
13	13 of 113	E/220.3	68.9 / -0.31	JAPAN CAMERA CENTRE PHOTO MINUTES ONTARIO INC. 1200 ST. LAURENT OTTAWA ON K9K 3B8	GEN

Generator No: ON0772000
SIC Code: 6571
SIC Description: CAMERA/PHOTO. SUPPLY
Approval Years: 86,87,88,89,90
PO Box No:
Country:
Status:
Co Admin:
Choice of Contact:

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB

Phone No Admin:
Contaminated Facility:
MHSW Facility:

Detail(s)

Waste Class: 264
Waste Class Name: PHOTOPROCESSING WASTES

13	14 of 113	E/220.3	68.9 / -0.31	JAPAN CAMERA CENTRE 31-345 PHOTO MINUTES ONTARIO INC. 1200 ST. LAURENT OTTAWA ON K9K 3B8	GEN

Generator No: ON0772000
SIC Code: 6571
SIC Description: CAMERA/PHOTO. SUPPLY
Approval Years: 92,93,94,95,96,97,98
PO Box No:
Country:
Status:
Co Admin:
Choice of Contact:
Phone No Admin:
Contaminated Facility:
MHSW Facility:

Detail(s)

Waste Class: 264
Waste Class Name: PHOTOPROCESSING WASTES

13	15 of 113	E/220.3	68.9 / -0.31	BLACK (OUT OF BUS) 05-661 ST.LAURENT11-1200ST.LAURENT BLVD-OTTAWA C/O 371 GOUGH ROAD MARKHAM ON L3R 4B6	GEN

Generator No: ON1338120
SIC Code: 6571
SIC Description: CAMERA/PHOTO. SUPPLY
Approval Years: 92,93,96,97,98
PO Box No:
Country:
Status:
Co Admin:
Choice of Contact:
Phone No Admin:
Contaminated Facility:
MHSW Facility:

Detail(s)

Waste Class: 264
Waste Class Name: PHOTOPROCESSING WASTES

13	16 of 113	E/220.3	68.9 / -0.31	BLACK PHOTO CORPORATION 05-661 ST.LAURENT11-1200ST.LAURENT BLVD-OTTAWA C/O 371 GOUGH ROAD MARKHAM ON L3R 4B6	GEN

Generator No: ON1338120

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB

SIC Code: 6571
SIC Description: CAMERA/PHOTO. SUPPLY
Approval Years: 94,95
PO Box No:
Country:
Status:
Co Admin:
Choice of Contact:
Phone No Admin:
Contaminated Facility:
MHSW Facility:

Detail(s)

Waste Class: 264
Waste Class Name: PHOTOPROCESSING WASTES

13	17 of 113	E/220.3	68.9 / -0.31	CAREER CANADA COLLEGE 1200 ST. LAURENT BOULEVARD SUITE 261 OTTAWA ON	GEN

Generator No: ON1776701
SIC Code: 8599
SIC Description: OTHER EDUC. SERV.
Approval Years: 94,95,96,97,98
PO Box No:
Country:
Status:
Co Admin:
Choice of Contact:
Phone No Admin:
Contaminated Facility:
MHSW Facility:

Detail(s)

Waste Class: 312
Waste Class Name: PATHOLOGICAL WASTES

13	18 of 113	E/220.3	68.9 / -0.31	FORZANI GROUP LTD., THE SPORT CHEK, ST. LAURENT MALL 1200 ST. LAURENT BOULEVARD OTTAWA ON K1K 3B8	GEN

Generator No: ON2010401
SIC Code: 6541
SIC Description: SPORTING GOODS STORE
Approval Years: 95,96,97,98
PO Box No:
Country:
Status:
Co Admin:
Choice of Contact:
Phone No Admin:
Contaminated Facility:
MHSW Facility:

Detail(s)

Waste Class: 213
Waste Class Name: PETROLEUM DISTILLATES

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
13	19 of 113	E/220.3	68.9 / -0.31	DEVAN PROPERTIES LTD. 1200 ST-LAURENT BOULEVARD OTTAWA ON K1K 3B8	GEN

Generator No: ON2259500
SIC Code: 7512
SIC Description: NON-RES. BLDG. OPER.
Approval Years: 97,98,99,00,01
PO Box No:
Country:
Status:
Co Admin:
Choice of Contact:
Phone No Admin:
Contaminated Facility:
MHSW Facility:

Detail(s)

Waste Class: 145
Waste Class Name: PAINT/PIGMENT/COATING RESIDUES

Waste Class: 146
Waste Class Name: OTHER SPECIFIED INORGANICS

Waste Class: 148
Waste Class Name: INORGANIC LABORATORY CHEMICALS

Waste Class: 212
Waste Class Name: ALIPHATIC SOLVENTS

Waste Class: 213
Waste Class Name: PETROLEUM DISTILLATES

Waste Class: 221
Waste Class Name: LIGHT FUELS

Waste Class: 243
Waste Class Name: PCB'S

Waste Class: 252
Waste Class Name: WASTE OILS & LUBRICANTS

13	20 of 113	E/220.3	68.9 / -0.31	CAREER CANADA COLLEGE 1200 ST. LAURENT BOULEVARD, SUITE 261 OTTAWA ON	GEN

Generator No: ON1776701
SIC Code: 8599
SIC Description: OTHER EDUC. SERV.
Approval Years: 99,00,01
PO Box No:
Country:
Status:
Co Admin:
Choice of Contact:
Phone No Admin:
Contaminated Facility:
MHSW Facility:

Detail(s)

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB

Waste Class: 312
Waste Class Name: PATHOLOGICAL WASTES

13	21 of 113	E/220.3	68.9 / -0.31	SPORT CHEK ST. LAURENT MALL 1200 ST. LAURENT BOULEVARD OTTAWA ON K1K 3B8	GEN

Generator No: ON2010401
SIC Code: 6541
SIC Description: SPORTING GOODS STORE
Approval Years: 99,00,01
PO Box No:
Country:
Status:
Co Admin:
Choice of Contact:
Phone No Admin:
Contaminated Facility:
MHSW Facility:

Detail(s)

Waste Class: 213
Waste Class Name: PETROLEUM DISTILLATES

13	22 of 113	E/220.3	68.9 / -0.31	SHOPPERS DRUG MART 1200 ST. LAURENT BOULEVARD OTTAWA ON K1K 3B8	GEN

Generator No: ON2530720
SIC Code: 6031
SIC Description: PHARMACIES
Approval Years: 99,00,01
PO Box No:
Country:
Status:
Co Admin:
Choice of Contact:
Phone No Admin:
Contaminated Facility:
MHSW Facility:

Detail(s)

Waste Class: 261
Waste Class Name: PHARMACEUTICALS

Waste Class: 312
Waste Class Name: PATHOLOGICAL WASTES

13	23 of 113	E/220.3	68.9 / -0.31	CAREER CANADA COLLEGE 1200 ST. LAURENT BOULEVARD, SUITE 261 Unit 261 OTTAWA ON K1K 3B8	GEN

Generator No: ON1776701
SIC Code:
SIC Description:
Approval Years: 02
PO Box No:

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB

Country:
Status:
Co Admin:
Choice of Contact:
Phone No Admin:
Contaminated Facility:
MHSW Facility:

Detail(s)

Waste Class: 312
Waste Class Name: PATHOLOGICAL WASTES

13	24 of 113	E/220.3	68.9 / -0.31	7139490 ONTARIO LIMITED 1200 LAURENT BLVD. OTTAWA ON K1K 3B8	GEN

Generator No: ON2259500
SIC Code:
SIC Description:
Approval Years: 02,03,04
PO Box No:
Country:
Status:
Co Admin:
Choice of Contact:
Phone No Admin:
Contaminated Facility:
MHSW Facility:

Detail(s)

Waste Class: 145
Waste Class Name: PAINT/PIGMENT/COATING RESIDUES

Waste Class: 252
Waste Class Name: WASTE OILS & LUBRICANTS

13	25 of 113	E/220.3	68.9 / -0.31	CDI COLLEGE 1200 ST. LAURENT BOULEVARD, SUITE 261 OTTAWA ON	GEN

Generator No: ON1776701
SIC Code: 611710
SIC Description: Educational Support Services
Approval Years: 03,04,05
PO Box No:
Country:
Status:
Co Admin:
Choice of Contact:
Phone No Admin:
Contaminated Facility:
MHSW Facility:

Detail(s)

Waste Class: 312
Waste Class Name: PATHOLOGICAL WASTES

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
13	26 of 113	E/220.3	68.9 / -0.31	713949 ONTARIO LIMITED 1200 ST LAURENT BLVD OTTAWA ON K1K 3B8	GEN

Generator No: ON9634909
SIC Code:
SIC Description:
Approval Years: 04,05,06,07,08
PO Box No:
Country:
Status:
Co Admin:
Choice of Contact:
Phone No Admin:
Contaminated Facility:
MHSW Facility:

Detail(s)

Waste Class: 121
Waste Class Name: ALKALINE WASTES - HEAVY METALS

Waste Class: 213
Waste Class Name: PETROLEUM DISTILLATES

Waste Class: 122
Waste Class Name: ALKALINE WASTES - OTHER METALS

Waste Class: 112
Waste Class Name: ACID WASTE - HEAVY METALS

Waste Class: 146
Waste Class Name: OTHER SPECIFIED INORGANICS

Waste Class: 145
Waste Class Name: PAINT/PIGMENT/COATING RESIDUES

Waste Class: 212
Waste Class Name: ALIPHATIC SOLVENTS

Waste Class: 252
Waste Class Name: WASTE OILS & LUBRICANTS

13	27 of 113	E/220.3	68.9 / -0.31	IAN MCNEIL PHARMACIES INC 1200 ST LAURENT BLVD OTTAWA ON K1K 3B8	PES

Detail Licence No:
Licence No:
Status:
Approval Date:
Report Source:
Licence Type: Limited Vendor
Licence Type Code: 23
Licence Class:
Licence Control:
Latitude:
Longitude:
Lot:
Concession:
Region:
District:
County:
Trade Name:

Operator Box:
Operator Class:
Operator No:
Operator Type:
Oper Area Code:
Oper Phone No:
Operator Ext:
Operator Lot:
Oper Concession:
Operator Region:
Operator District:
Operator County:
Op Municipality:
Post Office Box:
MOE District:
SWP Area Name:

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
PDF URL:					

13	28 of 113	E/220.3	68.9 / -0.31	SHOPPERS DRUG MART#0621(ST. LAURENT SHOPPING CENTRE) 1200 ST. LAURENT BLVD OTTAWA ON K1K 3B8	PES

Detail Licence No:		Operator Box:	
Licence No:		Operator Class:	
Status:		Operator No:	
Approval Date:		Operator Type:	
Report Source:		Oper Area Code:	
Licence Type:	Limited Vendor	Oper Phone No:	
Licence Type Code:	23	Operator Ext:	
Licence Class:		Operator Lot:	
Licence Control:		Oper Concession:	
Latitude:		Operator Region:	
Longitude:		Operator District:	
Lot:		Operator County:	
Concession:		Op Municipality:	
Region:		Post Office Box:	
District:		MOE District:	
County:		SWP Area Name:	
Trade Name:			
PDF URL:			

13	29 of 113	E/220.3	68.9 / -0.31	Canadian Waste Management<UNOFFICIAL> 1200 St. Laurent St. Ottawa ON	SPL

Ref No:	8753-658LKK	Municipality No:	
Year:		Nature of Damage:	
Incident Dt:	9/27/2004	Discharger Report:	
Dt MOE Arvl on Scn:		Material Group:	Oil
MOE Reported Dt:	9/27/2004	Health/Env Conseq:	
Dt Document Closed:		Agency Involved:	

Site No:	
Facility Name:	
MOE Response:	
Site County/District:	
Site Geo Ref Meth:	
Site District Office:	Ottawa
Nearest Watercourse:	
Site Name:	ST. LAURENT SHOPPING CENTRE COMPACTOR<UNOFFICIAL>
Site Address:	
Site Region:	Eastern
Site Municipality:	Ottawa
Site Lot:	
Site Conc:	
Site Geo Ref Accu:	
Site Map Datum:	
Northing:	
Easting:	
Incident Cause:	Pipe Or Hose Leak
Incident Event:	
Environment Impact:	Confirmed
Nature of Impact:	Other Impact(s); Surface Water Pollution
Contaminant Qty:	4.5 L
System Facility Address:	
Client Name:	Canadian Waste Management<UNOFFICIAL>
Client Type:	
Call Report Locatn Geodata:	

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB

Contaminant Code:	15
Contaminant Name:	HYDRAULIC OIL
Contaminant Limit 1:	
Contam Limit Freq 1:	
Contaminant UN No 1:	
Receiving Medium:	Water
Receiving Environment:	
Incident Reason:	Unknown - Reason not determined
Incident Summary:	Canadian Waste: Compactor H oil leak to CB
Activity Preceding Spill:	
Property 2nd Watershed:	
Property Tertiary Watershed:	
Sector Type:	Other
SAC Action Class:	
Source Type:	

13	30 of 113	E/220.3	68.9 / -0.31	**CDI COLLEGE** **1200 ST. LAURENT BLVD. Unit 19** **OTTAWA ON K1K 3B8**	GEN

Generator No:	ON1776701
SIC Code:	611690
SIC Description:	All Other Schools and Instruction
Approval Years:	06
PO Box No:	
Country:	
Status:	
Co Admin:	
Choice of Contact:	
Phone No Admin:	
Contaminated Facility:	
MHSW Facility:	

Detail(s)

Waste Class:	312
Waste Class Name:	PATHOLOGICAL WASTES

13	31 of 113	E/220.3	68.9 / -0.31	**Everest College of Business** **1200 ST. LAURENT BLVD. Unit 19** **OTTAWA ON K1K 3B8**	GEN

Generator No:	ON1776701
SIC Code:	611690
SIC Description:	All Other Schools and Instruction
Approval Years:	07,08
PO Box No:	
Country:	
Status:	
Co Admin:	
Choice of Contact:	
Phone No Admin:	
Contaminated Facility:	
MHSW Facility:	

Detail(s)

Waste Class:	312
Waste Class Name:	PATHOLOGICAL WASTES

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
13	32 of 113	E/220.3	68.9 / -0.31	Lens Crafters #939 1200 St. Laurent Blvd Ottawa ON K1K3B8	GEN

Generator No: ON8845420
SIC Code: 446130
SIC Description: Optical Goods Stores
Approval Years: 07,08
PO Box No:
Country:
Status:
Co Admin:
Choice of Contact:
Phone No Admin:
Contaminated Facility:
MHSW Facility:

Detail(s)

Waste Class: 145
Waste Class Name: PAINT/PIGMENT/COATING RESIDUES

Waste Class: 252
Waste Class Name: WASTE OILS & LUBRICANTS

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
13	33 of 113	E/220.3	68.9 / -0.31	IAN MCNEIL PHARMACIES INC 1200 ST LAURENT BLVD OTTAWA ON K1K3B8	PES

Detail Licence No:
Licence No:
Status:
Approval Date:
Report Source:
Licence Type: Vendor
Licence Type Code:
Licence Class:
Licence Control:
Latitude:
Longitude:
Lot:
Concession:
Region:
District:
County:
Trade Name:
PDF URL:

Operator Box:
Operator Class:
Operator No:
Operator Type:
Oper Area Code:
Oper Phone No:
Operator Ext:
Operator Lot:
Oper Concession:
Operator Region:
Operator District:
Operator County:
Op Municipality:
Post Office Box:
MOE District:
SWP Area Name:

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
13	34 of 113	E/220.3	68.9 / -0.31	TLM PHARMACIES INC. 1200 ST. LAURENT BLVD OTTAWA ON K1K3B3	PES

Detail Licence No:
Licence No:
Status:
Approval Date:
Report Source:
Licence Type: Vendor
Licence Type Code:
Licence Class:
Licence Control:
Latitude:

Operator Box:
Operator Class:
Operator No:
Operator Type:
Oper Area Code:
Oper Phone No:
Operator Ext:
Operator Lot:
Oper Concession:
Operator Region:

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB

Longitude:
Lot:
Concession:
Region:
District:
County:
Trade Name:
PDF URL:

Operator District:
Operator County:
Op Municipality:
Post Office Box:
MOE District:
SWP Area Name:

13	35 of 113	E/220.3	68.9 / -0.31	713949 Ontario Limited 1200 St. Laurent Boulevard Ottawa K1K 3B8 CITY OF OTTAWA ON	EBR

EBR Registry No: 011-4959
Ministry Ref No: 4424-8MQJ5G
Notice Type: Instrument Decision
Notice Stage:
Notice Date: May 01, 2013
Proposal Date: November 07, 2011
Year: 2011

Decision Posted:
Exception Posted:
Section:
Act 1:
Act 2:
Site Location Map:

Instrument Type: (EPA Part II.1-air) - Environmental Compliance Approval (project type: air)
Off Instrument Name:
Posted By:
Company Name: 713949 Ontario Limited
Site Address:
Location Other:
Proponent Name:
Proponent Address: 55 City Center Drive , 1000, Mississauga Ontario, Canada L5B 1M3
Comment Period:
URL:

Site Location Details:

1200 St. Laurent Boulevard Ottawa K1K 3B8 CITY OF OTTAWA

13	36 of 113	E/220.3	68.9 / -0.31	Everest College of Business 1200 ST. LAURENT BLVD. Unit 19 OTTAWA ON	GEN

Generator No: ON1776701
SIC Code: 611690
SIC Description: All Other Schools and Instruction
Approval Years: 2009
PO Box No:
Country:
Status:
Co Admin:
Choice of Contact:
Phone No Admin:
Contaminated Facility:
MHSW Facility:

Detail(s)

Waste Class: 312
Waste Class Name: PATHOLOGICAL WASTES

13	37 of 113	E/220.3	68.9 / -0.31	The Forzani Group	GEN

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
				1200 St. Laurent Blvd. Unit# Y005 Ottawa ON	

Generator No: ON6481594
SIC Code: 451110
SIC Description: Sporting Goods Stores
Approval Years: 2009
PO Box No:
Country:
Status:
Co Admin:
Choice of Contact:
Phone No Admin:
Contaminated Facility:
MHSW Facility:

Detail(s)

Waste Class: 212
Waste Class Name: ALIPHATIC SOLVENTS

13	***38 of 113***	***E/220.3***	***68.9 / -0.31***	***Lens Crafters #939 1200 St. Laurent Blvd Ottawa ON***	***GEN***

Generator No: ON8845420
SIC Code: 446130
SIC Description: Optical Goods Stores
Approval Years: 2009
PO Box No:
Country:
Status:
Co Admin:
Choice of Contact:
Phone No Admin:
Contaminated Facility:
MHSW Facility:

Detail(s)

Waste Class: 145
Waste Class Name: PAINT/PIGMENT/COATING RESIDUES

Waste Class: 252
Waste Class Name: WASTE OILS & LUBRICANTS

13	***39 of 113***	***E/220.3***	***68.9 / -0.31***	***713949 ONTARIO LIMITED 1200 ST LAURENT BLVD OTTAWA ON***	***GEN***

Generator No: ON9634909
SIC Code: 531100
SIC Description:
Approval Years: 2009
PO Box No:
Country:
Status:
Co Admin:
Choice of Contact:
Phone No Admin:
Contaminated Facility:
MHSW Facility:

Detail(s)

Waste Class: 122
Waste Class Name: ALKALINE WASTES - OTHER METALS

Waste Class: 145
Waste Class Name: PAINT/PIGMENT/COATING RESIDUES

Waste Class: 146
Waste Class Name: OTHER SPECIFIED INORGANICS

Waste Class: 212
Waste Class Name: ALIPHATIC SOLVENTS

Waste Class: 121
Waste Class Name: ALKALINE WASTES - HEAVY METALS

Waste Class: 213
Waste Class Name: PETROLEUM DISTILLATES

Waste Class: 252
Waste Class Name: WASTE OILS & LUBRICANTS

Waste Class: 112
Waste Class Name: ACID WASTE - HEAVY METALS

13	40 of 113	E/220.3	68.9 / -0.31	CINDY CHANGOOR PHARMACY LTD 1200 ST LAURENT BLVD OTTAWA ON K1K 3B8	PES

Detail Licence No:
Licence No:
Status:
Approval Date:
Report Source:
Licence Type: Vendor
Licence Type Code:
Licence Class:
Licence Control:
Latitude:
Longitude:
Lot:
Concession:
Region:
District:
County:
Trade Name:
PDF URL:

Operator Box:
Operator Class:
Operator No:
Operator Type:
Oper Area Code:
Oper Phone No:
Operator Ext:
Operator Lot:
Oper Concession:
Operator Region:
Operator District:
Operator County:
Op Municipality:
Post Office Box:
MOE District:
SWP Area Name:

13	41 of 113	E/220.3	68.9 / -0.31	713949 Ontario Limited 1200 St. Laurent Blvd Ottawa ON	ECA

Approval No: 2562-96MNV7
Approval Date: 23-APR-13
Status: Approved
Record Type:
Link Source:
SWP Area Name:
Approval Type:
Project Type: Air/Noise

MOE District:
City: Ottawa
Longitude:
Latitude:
Geometry X:
Geometry Y:

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB

Business Name:
Address:
Full Address:
Full PDF Link:
PDF Site Location:

13	42 of 113	E/220.3	68.9 / -0.31	The Forzani Group 1200 St. Laurent Blvd. Unit# Y005 Ottawa ON	GEN

Generator No:	ON6481594
SIC Code:	451110
SIC Description:	Sporting Goods Stores
Approval Years:	2010
PO Box No:	
Country:	
Status:	
Co Admin:	
Choice of Contact:	
Phone No Admin:	
Contaminated Facility:	
MHSW Facility:	

Detail(s)

Waste Class:	212
Waste Class Name:	ALIPHATIC SOLVENTS

13	43 of 113	E/220.3	68.9 / -0.31	713949 ONTARIO LIMITED 1200 ST LAURENT BLVD OTTAWA ON	GEN

Generator No:	ON9634909
SIC Code:	531100
SIC Description:	
Approval Years:	2010
PO Box No:	
Country:	
Status:	
Co Admin:	
Choice of Contact:	
Phone No Admin:	
Contaminated Facility:	
MHSW Facility:	

Detail(s)

Waste Class:	146
Waste Class Name:	OTHER SPECIFIED INORGANICS
Waste Class:	213
Waste Class Name:	PETROLEUM DISTILLATES
Waste Class:	122
Waste Class Name:	ALKALINE WASTES - OTHER METALS
Waste Class:	112
Waste Class Name:	ACID WASTE - HEAVY METALS
Waste Class:	252
Waste Class Name:	WASTE OILS & LUBRICANTS

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB

Waste Class: 121
Waste Class Name: ALKALINE WASTES - HEAVY METALS

Waste Class: 212
Waste Class Name: ALIPHATIC SOLVENTS

Waste Class: 145
Waste Class Name: PAINT/PIGMENT/COATING RESIDUES

13	44 of 113	E/220.3	68.9 / -0.31	Lens Crafters #939 1200 St. Laurent Blvd Ottawa ON	GEN

Generator No: ON8845420
SIC Code: 446130
SIC Description: Optical Goods Stores
Approval Years: 2010
PO Box No:
Country:
Status:
Co Admin:
Choice of Contact:
Phone No Admin:
Contaminated Facility:
MHSW Facility:

Detail(s)

Waste Class: 145
Waste Class Name: PAINT/PIGMENT/COATING RESIDUES

Waste Class: 252
Waste Class Name: WASTE OILS & LUBRICANTS

13	45 of 113	E/220.3	68.9 / -0.31	Everest College of Business 1200 ST. LAURENT BLVD. Unit 19 OTTAWA ON	GEN

Generator No: ON1776701
SIC Code: 611690
SIC Description: All Other Schools and Instruction
Approval Years: 2010
PO Box No:
Country:
Status:
Co Admin:
Choice of Contact:
Phone No Admin:
Contaminated Facility:
MHSW Facility:

Detail(s)

Waste Class: 312
Waste Class Name: PATHOLOGICAL WASTES

13	46 of 113	E/220.3	68.9 / -0.31	CINDY CHANGOOR PHARMACY LIMITED 1200 ST LAURENT BLVD OTTAWA ON K1K 3B8	GEN

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB

Generator No:	ON6759537
SIC Code:	414510
SIC Description:	
Approval Years:	2011
PO Box No:	
Country:	
Status:	
Co Admin:	
Choice of Contact:	
Phone No Admin:	
Contaminated Facility:	
MHSW Facility:	

13	47 of 113	E/220.3	68.9 / -0.31	The Forzani Group 1200 St. Laurent Blvd. Unit# Y005 Ottawa ON	GEN

Generator No:	ON6481594
SIC Code:	451110
SIC Description:	Sporting Goods Stores
Approval Years:	2011
PO Box No:	
Country:	
Status:	
Co Admin:	
Choice of Contact:	
Phone No Admin:	
Contaminated Facility:	
MHSW Facility:	

Detail(s)

Waste Class:	212
Waste Class Name:	ALIPHATIC SOLVENTS

13	48 of 113	E/220.3	68.9 / -0.31	713949 ONTARIO LIMITED 1200 ST LAURENT BLVD OTTAWA ON	GEN

Generator No:	ON9634909
SIC Code:	531100
SIC Description:	
Approval Years:	2011
PO Box No:	
Country:	
Status:	
Co Admin:	
Choice of Contact:	
Phone No Admin:	
Contaminated Facility:	
MHSW Facility:	

Detail(s)

Waste Class:	145
Waste Class Name:	PAINT/PIGMENT/COATING RESIDUES
Waste Class:	212
Waste Class Name:	ALIPHATIC SOLVENTS
Waste Class:	213
Waste Class Name:	PETROLEUM DISTILLATES

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB

Waste Class: 112
Waste Class Name: ACID WASTE - HEAVY METALS

Waste Class: 252
Waste Class Name: WASTE OILS & LUBRICANTS

Waste Class: 146
Waste Class Name: OTHER SPECIFIED INORGANICS

Waste Class: 122
Waste Class Name: ALKALINE WASTES - OTHER METALS

Waste Class: 121
Waste Class Name: ALKALINE WASTES - HEAVY METALS

13	49 of 113	E/220.3	68.9 / -0.31	Lens Crafters #939 1200 St. Laurent Blvd Ottawa ON	GEN

Generator No: ON8845420
SIC Code: 446130
SIC Description: Optical Goods Stores
Approval Years: 2011
PO Box No:
Country:
Status:
Co Admin:
Choice of Contact:
Phone No Admin:
Contaminated Facility:
MHSW Facility:

Detail(s)

Waste Class: 252
Waste Class Name: WASTE OILS & LUBRICANTS

Waste Class: 145
Waste Class Name: PAINT/PIGMENT/COATING RESIDUES

13	50 of 113	E/220.3	68.9 / -0.31	Everest College of Business 1200 ST. LAURENT BLVD. Unit 19 OTTAWA ON	GEN

Generator No: ON1776701
SIC Code: 611690
SIC Description: All Other Schools and Instruction
Approval Years: 2011
PO Box No:
Country:
Status:
Co Admin:
Choice of Contact:
Phone No Admin:
Contaminated Facility:
MHSW Facility:

Detail(s)

Waste Class: 312
Waste Class Name: PATHOLOGICAL WASTES

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
13	51 of 113	E/220.3	68.9 / -0.31	TLM PHARMACIES INC. 1200 ST. LAURENT BLVD OTTAWA ON K1K 3B3	PES

Detail Licence No:	23-01-14744-0	Operator Box:	
Licence No:		Operator Class:	
Status:		Operator No:	
Approval Date:		Operator Type:	
Report Source:		Oper Area Code:	
Licence Type:	LIMITED	Oper Phone No:	
Licence Type Code:		Operator Ext:	
Licence Class:		Operator Lot:	
Licence Control:		Oper Concession:	
Latitude:		Operator Region:	
Longitude:		Operator District:	
Lot:		Operator County:	
Concession:		Op Municipality:	
Region:		Post Office Box:	
District:		MOE District:	
County:		SWP Area Name:	
Trade Name:			
PDF URL:			

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
13	52 of 113	E/220.3	68.9 / -0.31	CINDY CHANGOOR PHARMACY LTD 1200 ST LAURENT BLVD OTTAWA ON K1K3B8	PES

Detail Licence No:		Operator Box:	
Licence No:	16026	Operator Class:	
Status:		Operator No:	
Approval Date:		Operator Type:	
Report Source:	Legacy Licenses (Excluding TS)	Oper Area Code:	613
Licence Type:	Limited Vendor	Oper Phone No:	7457015
Licence Type Code:	23	Operator Ext:	
Licence Class:	01	Operator Lot:	
Licence Control:		Oper Concession:	
Latitude:		Operator Region:	
Longitude:		Operator District:	
Lot:		Operator County:	
Concession:		Op Municipality:	
Region:		Post Office Box:	
District:		MOE District:	
County:		SWP Area Name:	
Trade Name:			
PDF URL:			

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
13	53 of 113	E/220.3	68.9 / -0.31	Lens Crafters #939 1200 St. Laurent Blvd Ottawa ON	GEN

Generator No:	ON8845420
SIC Code:	446130
SIC Description:	OPTICAL GOODS STORES
Approval Years:	2013
PO Box No:	
Country:	
Status:	
Co Admin:	
Choice of Contact:	
Phone No Admin:	

Contaminated Facility:
MHSW Facility:

Detail(s)

Waste Class: 252
Waste Class Name: WASTE OILS & LUBRICANTS

Waste Class: 145
Waste Class Name: PAINT/PIGMENT/COATING RESIDUES

Waste Class: 212
Waste Class Name: ALIPHATIC SOLVENTS

13	54 of 113	E/220.3	68.9 / -0.31	City of Ottawa 1200 Saint Laurent Boulevard Ottawa ON	SPL

Ref No: 6110-8YGVW8
Year:
Incident Dt: 25-SEP-12
Dt MOE Arvl on Scn:
MOE Reported Dt: 25-SEP-12
Dt Document Closed:
Municipality No:
Nature of Damage:
Discharger Report:
Material Group:
Health/Env Conseq:
Agency Involved:
Site No:
Facility Name:
MOE Response: No Field Response
Site County/District:
Site Geo Ref Meth:
Site District Office:
Nearest Watercourse:
Site Name: Bus Route<UNOFFICIAL>
Site Address: 1200 Saint Laurent Boulevard
Site Region:
Site Municipality: Ottawa
Site Lot:
Site Conc:
Site Geo Ref Accu:
Site Map Datum:
Northing:
Easting:
Incident Cause: Other
Incident Event:
Environment Impact: Not Anticipated
Nature of Impact:
Contaminant Qty: 100 L
System Facility Address:
Client Name: City of Ottawa
Client Type:
Call Report Locatn Geodata:
Contaminant Code: 24
Contaminant Name: GLYCOL/WATER SOLUTION
Contaminant Limit 1:
Contam Limit Freq 1:
Contaminant UN No 1:
Receiving Medium:
Receiving Environment:
Incident Reason: Other
Incident Summary: City of Ottawa: Glycol from bus to road, clnd
Activity Preceding Spill:
Property 2nd Watershed:
Property Tertiary Watershed:
Sector Type: Unknown
SAC Action Class: Land Spills

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
Source Type:					
13	55 of 113	E/220.3	68.9 / -0.31	CINDY CHANGOOR PHARMACY LIMITED 1200 ST LAURENT BLVD OTTAWA ON K1K 3B8	GEN

Generator No: ON6759537
SIC Code: 414510
SIC Description: Pharmaceuticals and Pharmacy Supplies Wholesaler-Distributors
Approval Years: 2012
PO Box No:
Country:
Status:
Co Admin:
Choice of Contact:
Phone No Admin:
Contaminated Facility:
MHSW Facility:

13	56 of 113	E/220.3	68.9 / -0.31	713949 ONTARIO LIMITED 1200 ST LAURENT BLVD OTTAWA ON K1K 3B8	GEN

Generator No: ON9634909
SIC Code: 531100
SIC Description:
Approval Years: 2012
PO Box No:
Country:
Status:
Co Admin:
Choice of Contact:
Phone No Admin:
Contaminated Facility:
MHSW Facility:

Detail(s)

Waste Class: 122
Waste Class Name: ALKALINE WASTES - OTHER METALS

Waste Class: 146
Waste Class Name: OTHER SPECIFIED INORGANICS

Waste Class: 252
Waste Class Name: WASTE OILS & LUBRICANTS

Waste Class: 121
Waste Class Name: ALKALINE WASTES - HEAVY METALS

Waste Class: 213
Waste Class Name: PETROLEUM DISTILLATES

Waste Class: 145
Waste Class Name: PAINT/PIGMENT/COATING RESIDUES

Waste Class: 212
Waste Class Name: ALIPHATIC SOLVENTS

Waste Class: 112
Waste Class Name: ACID WASTE - HEAVY METALS

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
13	57 of 113	E/220.3	68.9 / -0.31	**Herzing College** **1200 St. Laurent Blvd. Suite 408** **Ottawa ON**	GEN

Generator No:	ON5006290
SIC Code:	611210
SIC Description:	Community Colleges and C.E.G.E.P.s
Approval Years:	2012
PO Box No:	
Country:	
Status:	
Co Admin:	
Choice of Contact:	
Phone No Admin:	
Contaminated Facility:	
MHSW Facility:	

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
13	58 of 113	E/220.3	68.9 / -0.31	**Everest College of Business** **1200 ST. LAURENT BLVD. Unit 19** **OTTAWA ON K1K 3B8**	GEN

Generator No:	ON1776701
SIC Code:	611690
SIC Description:	All Other Schools and Instruction
Approval Years:	2012
PO Box No:	
Country:	
Status:	
Co Admin:	
Choice of Contact:	
Phone No Admin:	
Contaminated Facility:	
MHSW Facility:	

Detail(s)

Waste Class:	312
Waste Class Name:	PATHOLOGICAL WASTES

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
13	59 of 113	E/220.3	68.9 / -0.31	**CINDY CHANGOOR PHARMACY LIMITED** **1200 ST LAURENT BLVD** **OTTAWA ON**	GEN

Generator No:	ON6759537
SIC Code:	414510
SIC Description:	PHARMACEUTICALS AND PHARMACY SUPPLIES WHOLESALER-DISTRIBUTORS
Approval Years:	2013
PO Box No:	
Country:	
Status:	
Co Admin:	
Choice of Contact:	
Phone No Admin:	
Contaminated Facility:	
MHSW Facility:	

Detail(s)

Waste Class:	242
Waste Class Name:	HALOGENATED PESTICIDES

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
13	60 of 113	E/220.3	68.9 / -0.31	The Forzani Group 1200 St. Laurent Blvd. Unit# Y005 Ottawa ON	GEN

Generator No: ON6481594
SIC Code: 451110
SIC Description: SPORTING GOODS STORES
Approval Years: 2013
PO Box No:
Country:
Status:
Co Admin:
Choice of Contact:
Phone No Admin:
Contaminated Facility:
MHSW Facility:

Detail(s)

Waste Class: 212
Waste Class Name: ALIPHATIC SOLVENTS

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
13	61 of 113	E/220.3	68.9 / -0.31	Herzing College 1200 St. Laurent Blvd. Suite 408 Ottawa ON	GEN

Generator No: ON5006290
SIC Code: 611210
SIC Description:
Approval Years: 2013
PO Box No:
Country:
Status:
Co Admin:
Choice of Contact:
Phone No Admin:
Contaminated Facility:
MHSW Facility:

Detail(s)

Waste Class: 261
Waste Class Name: PHARMACEUTICALS

Waste Class: 312
Waste Class Name: PATHOLOGICAL WASTES

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
13	62 of 113	E/220.3	68.9 / -0.31	713949 ONTARIO LIMITED 1200 ST LAURENT BLVD OTTAWA ON	GEN

Generator No: ON9634909
SIC Code: 531100
SIC Description:
Approval Years: 2013
PO Box No:
Country:
Status:
Co Admin:
Choice of Contact:
Phone No Admin:

Dt Document Closed:		***Agency Involved:***	
Site No:	NA		
Facility Name:			
MOE Response:			
Site County/District:			
Site Geo Ref Meth:			
Site District Office:			
Nearest Watercourse:			
Site Name:	St. Laurent Station<UNOFFICIAL>		
Site Address:	1200 St. Laurent Boulevard		
Site Region:			
Site Municipality:	Ottawa		
Site Lot:			
Site Conc:			
Site Geo Ref Accu:			
Site Map Datum:			
Northing:	5030031		
Easting:	450000		
Incident Cause:			
Incident Event:	Unknown / N/A		
Environment Impact:			
Nature of Impact:			
Contaminant Qty:	2 L		
System Facility Address:			
Client Name:			
Client Type:			
Call Report Locatn Geodata:			
Contaminant Code:	15		
Contaminant Name:	OIL (PETROLEUM BASED, NOT SPECIFIED)		
Contaminant Limit 1:			
Contam Limit Freq 1:			
Contaminant UN No 1:			
Receiving Medium:			
Receiving Environment:	Land		
Incident Reason:	Unknown / N/A		
Incident Summary:	OLRT: 2 L of oil to railroad track ballast rock		
Activity Preceding Spill:			
Property 2nd Watershed:			
Property Tertiary Watershed:			
Sector Type:	Miscellaneous Industrial		
SAC Action Class:	Land Spills		
Source Type:			

13	***65 of 113***	***E/220.3***	***68.9 / -0.31***	***1200 St. Laurent Blvd. Ottawa ON***	***SPL***

Ref No:	4856-ADLNYN	***Municipality No:***	
Year:		***Nature of Damage:***	
Incident Dt:	9/7/2016	***Discharger Report:***	
Dt MOE Arvl on Scn:		***Material Group:***	
MOE Reported Dt:	9/8/2016	***Health/Env Conseq:***	
Dt Document Closed:		***Agency Involved:***	
Site No:	NA		
Facility Name:			
MOE Response:			
Site County/District:			
Site Geo Ref Meth:			
Site District Office:			
Nearest Watercourse:			
Site Name:	St. Laurent Stn. west end<UNOFFICIAL>		
Site Address:	1200 St. Laurent Blvd.		
Site Region:			
Site Municipality:	Ottawa		
Site Lot:			

Site Conc:	
Site Geo Ref Accu:	
Site Map Datum:	
Northing:	
Easting:	
Incident Cause:	
Incident Event:	Leak/Break
Environment Impact:	
Nature of Impact:	
Contaminant Qty:	0.5 L
System Facility Address:	
Client Name:	
Client Type:	
Call Report Locatn Geodata:	
Contaminant Code:	13
Contaminant Name:	DIESEL FUEL
Contaminant Limit 1:	
Contam Limit Freq 1:	
Contaminant UN No 1:	
Receiving Medium:	
Receiving Environment:	Land
Incident Reason:	Unknown / N/A
Incident Summary:	OLRT:1/2 L diesel fuel to ballast rock; clnd
Activity Preceding Spill:	
Property 2nd Watershed:	
Property Tertiary Watershed:	
Sector Type:	Miscellaneous Industrial
SAC Action Class:	Land Spills
Source Type:	

13	66 of 113	E/220.3	68.9 / -0.31	1200 St Laurent Ave Ottawa ON	SPL

Ref No:	2348-A9KSEQ	**Municipality No:**	
Year:		**Nature of Damage:**	
Incident Dt:	2016/05/02	**Discharger Report:**	
Dt MOE Arvl on Scn:		**Material Group:**	
MOE Reported Dt:	2016/05/02	**Health/Env Conseq:**	
Dt Document Closed:		**Agency Involved:**	

Site No:	NA
Facility Name:	
MOE Response:	No
Site County/District:	
Site Geo Ref Meth:	
Site District Office:	
Nearest Watercourse:	Unknown Name
Site Name:	Catch Basin<UNOFFICIAL>
Site Address:	1200 St Laurent Ave
Site Region:	
Site Municipality:	Ottawa
Site Lot:	
Site Conc:	
Site Geo Ref Accu:	
Site Map Datum:	
Northing:	5030031
Easting:	450000
Incident Cause:	
Incident Event:	Leak/Break
Environment Impact:	
Nature of Impact:	
Contaminant Qty:	1 L
System Facility Address:	
Client Name:	
Client Type:	

Call Report Locatn Geodata:	
Contaminant Code:	15
Contaminant Name:	HYDRAULIC OIL
Contaminant Limit 1:	
Contam Limit Freq 1:	
Contaminant UN No 1:	
Receiving Medium:	
Receiving Environment:	Surface Water
Incident Reason:	Equipment Failure
Incident Summary:	Leak 1 L hydraulic fluid to CB, cleaning
Activity Preceding Spill:	
Property 2nd Watershed:	
Property Tertiary Watershed:	
Sector Type:	Unknown / N/A
SAC Action Class:	Watercourse Spills
Source Type:	

13	67 of 113	E/220.3	68.9 / -0.31	713949 Ontario Limited 1200 St. Laurent Blvd Ottawa ON K1K 3B8	ECA

Approval No:	2562-96MNV7	**MOE District:**	Ottawa
Approval Date:	2013-04-23	**City:**	
Status:	Approved	**Longitude:**	-75.636734
Record Type:	ECA	**Latitude:**	45.42296
Link Source:	IDS	**Geometry X:**	
SWP Area Name:	Rideau Valley	**Geometry Y:**	

Approval Type:	ECA-AIR
Project Type:	AIR
Business Name:	713949 Ontario Limited
Address:	1200 St. Laurent Blvd
Full Address:	
Full PDF Link:	https://www.accessenvironment.ene.gov.on.ca/instruments/4424-8MQJ5G-14.pdf
PDF Site Location:	

13	68 of 113	E/220.3	68.9 / -0.31	713949 ONTARIO LIMITED 1200 ST LAURENT BLVD OTTAWA ON K1K 3B8	GEN

Generator No:	ON9634909
SIC Code:	531100
SIC Description:	531100
Approval Years:	2016
PO Box No:	
Country:	Canada
Status:	
Co Admin:	Krista Stemmler
Choice of Contact:	CO_OFFICIAL
Phone No Admin:	613-739-1070 Ext.220
Contaminated Facility:	No
MHSW Facility:	No

Detail(s)

Waste Class:	252
Waste Class Name:	WASTE OILS & LUBRICANTS
Waste Class:	146
Waste Class Name:	OTHER SPECIFIED INORGANICS
Waste Class:	145

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB

Waste Class Name: PAINT/PIGMENT/COATING RESIDUES

Waste Class: 213
Waste Class Name: PETROLEUM DISTILLATES

Waste Class: 212
Waste Class Name: ALIPHATIC SOLVENTS

Waste Class: 112
Waste Class Name: ACID WASTE - HEAVY METALS

Waste Class: 122
Waste Class Name: ALKALINE WASTES - OTHER METALS

Waste Class: 121
Waste Class Name: ALKALINE WASTES - HEAVY METALS

13	69 of 113	E/220.3	68.9 / -0.31	St. Laurent Dental Center 1200 St. Laurent Blvd. box 203 Ottawa ON K1K 3B8	GEN

Generator No: ON5012892
SIC Code: 621210
SIC Description: OFFICES OF DENTISTS
Approval Years: 2016
PO Box No:
Country: Canada
Status:
Co Admin: Kristine Preston
Choice of Contact: CO_ADMIN
Phone No Admin: 613 744 6611 Ext.204
Contaminated Facility: No
MHSW Facility: No

Detail(s)

Waste Class: 312
Waste Class Name: PATHOLOGICAL WASTES

13	70 of 113	E/220.3	68.9 / -0.31	FGL SPORTS LIMITED 1200 St. Laurent Blvd. Unit# Y005 Ottawa ON K1K 3B8	GEN

Generator No: ON6481594
SIC Code: 451110
SIC Description: SPORTING GOODS STORES
Approval Years: 2016
PO Box No:
Country: Canada
Status:
Co Admin:
Choice of Contact: CO_OFFICIAL
Phone No Admin:
Contaminated Facility: No
MHSW Facility: No

Detail(s)

Waste Class: 212
Waste Class Name: ALIPHATIC SOLVENTS

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
13	71 of 113	E/220.3	68.9 / -0.31	**Everest College of Business** **1200 ST. LAURENT BLVD. Unit 19** **OTTAWA ON K1K 3B8**	GEN

Generator No:	ON1776701
SIC Code:	611690
SIC Description:	ALL OTHER SCHOOLS AND INSTRUCTION
Approval Years:	2015
PO Box No:	
Country:	Canada
Status:	
Co Admin:	Cindy Moreau
Choice of Contact:	CO_ADMIN
Phone No Admin:	613-236-8282 Ext.
Contaminated Facility:	No
MHSW Facility:	No

Detail(s)

Waste Class:	312
Waste Class Name:	PATHOLOGICAL WASTES
Waste Class:	261
Waste Class Name:	PHARMACEUTICALS

13	72 of 113	E/220.3	68.9 / -0.31	**Herzing College** **1200 St. Laurent Blvd. Suite 408** **Ottawa ON K1K 3B8**	GEN

Generator No:	ON5006290
SIC Code:	611210
SIC Description:	611210
Approval Years:	2015
PO Box No:	
Country:	Canada
Status:	
Co Admin:	Leroux Stephanie
Choice of Contact:	CO_ADMIN
Phone No Admin:	613-742-8099 Ext.11231
Contaminated Facility:	No
MHSW Facility:	No

Detail(s)

Waste Class:	261
Waste Class Name:	PHARMACEUTICALS
Waste Class:	312
Waste Class Name:	PATHOLOGICAL WASTES

13	73 of 113	E/220.3	68.9 / -0.31	**The Forzani Group** **1200 St. Laurent Blvd. Unit# Y005** **Ottawa ON K1K 3B8**	GEN

Generator No:	ON6481594
SIC Code:	451110
SIC Description:	SPORTING GOODS STORES
Approval Years:	2015
PO Box No:	
Country:	Canada
Status:	
Co Admin:	

Choice of Contact: CO_OFFICIAL
Phone No Admin:
Contaminated Facility: No
MHSW Facility: No

Detail(s)

Waste Class: 212
Waste Class Name: ALIPHATIC SOLVENTS

13	74 of 113	E/220.3	68.9 / -0.31	713949 ONTARIO LIMITED 1200 ST LAURENT BLVD OTTAWA ON K1K 3B8	GEN

Generator No: ON9634909
SIC Code: 531100
SIC Description: 531100
Approval Years: 2015
PO Box No:
Country: Canada
Status:
Co Admin: Krista Stemmler
Choice of Contact: CO_OFFICIAL
Phone No Admin: 613-739-1070 Ext.220
Contaminated Facility: No
MHSW Facility: No

Detail(s)

Waste Class: 122
Waste Class Name: ALKALINE WASTES - OTHER METALS

Waste Class: 252
Waste Class Name: WASTE OILS & LUBRICANTS

Waste Class: 112
Waste Class Name: ACID WASTE - HEAVY METALS

Waste Class: 146
Waste Class Name: OTHER SPECIFIED INORGANICS

Waste Class: 145
Waste Class Name: PAINT/PIGMENT/COATING RESIDUES

Waste Class: 213
Waste Class Name: PETROLEUM DISTILLATES

Waste Class: 212
Waste Class Name: ALIPHATIC SOLVENTS

Waste Class: 121
Waste Class Name: ALKALINE WASTES - HEAVY METALS

13	75 of 113	E/220.3	68.9 / -0.31	Cindy Changoor Pharmacy Limited (641) 1200 ST. LAURENT BLVD Ottawa ON K1K 3B8	GEN

Generator No: ON2971904
SIC Code: 446110
SIC Description: 446110
Approval Years: 2015
PO Box No:

Country:	Canada
Status:	
Co Admin:	Nastran Najafi-Fard
Choice of Contact:	CO_ADMIN
Phone No Admin:	416-493-1220 Ext.3218
Contaminated Facility:	No
MHSW Facility:	No

Detail(s)

Waste Class:	261
Waste Class Name:	PHARMACEUTICALS
Waste Class:	312
Waste Class Name:	PATHOLOGICAL WASTES

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
13	76 of 113	E/220.3	68.9 / -0.31	***Cindy Changoor Pharmacy Limited (621)*** ***1200 ST. LAURENT BLVD*** ***Ottawa ON K1K 3B8***	GEN

Generator No:	ON2971904
SIC Code:	446110
SIC Description:	446110
Approval Years:	2016
PO Box No:	
Country:	Canada
Status:	
Co Admin:	Nastran Najafi-Fard
Choice of Contact:	CO_ADMIN
Phone No Admin:	416-493-1220 Ext.3218
Contaminated Facility:	No
MHSW Facility:	No

Detail(s)

Waste Class:	312
Waste Class Name:	PATHOLOGICAL WASTES
Waste Class:	261
Waste Class Name:	PHARMACEUTICALS

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
13	77 of 113	E/220.3	68.9 / -0.31	***Herzing College*** ***1200 St. Laurent Blvd. Suite 408*** ***Ottawa ON K1K 3B8***	GEN

Generator No:	ON5006290
SIC Code:	611210
SIC Description:	611210
Approval Years:	2016
PO Box No:	
Country:	Canada
Status:	
Co Admin:	Sherri Calvin
Choice of Contact:	CO_ADMIN
Phone No Admin:	613-742-8099 Ext.
Contaminated Facility:	No
MHSW Facility:	No

Detail(s)

Waste Class:	261

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB

Waste Class Name: PHARMACEUTICALS

Waste Class: 312
Waste Class Name: PATHOLOGICAL WASTES

13	78 of 113	E/220.3	68.9 / -0.31	Lens Crafters #939 1200 St. Laurent Blvd Ottawa ON K1K3B8	GEN

Generator No: ON8845420
SIC Code: 446130
SIC Description: OPTICAL GOODS STORES
Approval Years: 2015
PO Box No:
Country: Canada
Status:
Co Admin:
Choice of Contact: CO_OFFICIAL
Phone No Admin:
Contaminated Facility: No
MHSW Facility: No

Detail(s)

Waste Class: 145
Waste Class Name: PAINT/PIGMENT/COATING RESIDUES

Waste Class: 212
Waste Class Name: ALIPHATIC SOLVENTS

Waste Class: 252
Waste Class Name: WASTE OILS & LUBRICANTS

13	79 of 113	E/220.3	68.9 / -0.31	Lens Crafters #939 1200 St. Laurent Blvd Ottawa ON K1K3B8	GEN

Generator No: ON8845420
SIC Code: 446130
SIC Description: OPTICAL GOODS STORES
Approval Years: 2016
PO Box No:
Country: Canada
Status:
Co Admin:
Choice of Contact: CO_OFFICIAL
Phone No Admin:
Contaminated Facility: No
MHSW Facility: No

Detail(s)

Waste Class: 212
Waste Class Name: ALIPHATIC SOLVENTS

Waste Class: 145
Waste Class Name: PAINT/PIGMENT/COATING RESIDUES

Waste Class: 252
Waste Class Name: WASTE OILS & LUBRICANTS

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
13	80 of 113	E/220.3	68.9 / -0.31	St. Laurent Dental Center 1200 St. Laurent Blvd. box 203 Ottawa ON K1K 3B8	GEN

Generator No:	ON5012892
SIC Code:	621210
SIC Description:	OFFICES OF DENTISTS
Approval Years:	2015
PO Box No:	
Country:	Canada
Status:	
Co Admin:	Kristine Preston
Choice of Contact:	CO_ADMIN
Phone No Admin:	613 744 6611 Ext.204
Contaminated Facility:	No
MHSW Facility:	No

Detail(s)

Waste Class:	312
Waste Class Name:	PATHOLOGICAL WASTES

13	81 of 113	E/220.3	68.9 / -0.31	Lens Crafters #939 1200 St. Laurent Blvd Ottawa ON K1K3B8	GEN

Generator No:	ON8845420
SIC Code:	446130
SIC Description:	OPTICAL GOODS STORES
Approval Years:	2014
PO Box No:	
Country:	Canada
Status:	
Co Admin:	
Choice of Contact:	CO_OFFICIAL
Phone No Admin:	
Contaminated Facility:	No
MHSW Facility:	No

Detail(s)

Waste Class:	145
Waste Class Name:	PAINT/PIGMENT/COATING RESIDUES
Waste Class:	212
Waste Class Name:	ALIPHATIC SOLVENTS
Waste Class:	252
Waste Class Name:	WASTE OILS & LUBRICANTS

13	82 of 113	E/220.3	68.9 / -0.31	Herzing College 1200 St. Laurent Blvd. Suite 408 Ottawa ON K1K 3B8	GEN

Generator No:	ON5006290
SIC Code:	611210
SIC Description:	611210
Approval Years:	2014
PO Box No:	
Country:	Canada
Status:	
Co Admin:	Leroux Stephanie

Choice of Contact:	CO_ADMIN
Phone No Admin:	613-742-8099 Ext.11231
Contaminated Facility:	No
MHSW Facility:	No

Detail(s)

Waste Class:	261
Waste Class Name:	PHARMACEUTICALS
Waste Class:	312
Waste Class Name:	PATHOLOGICAL WASTES

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
13	83 of 113	E/220.3	68.9 / -0.31	St. Laurent Dental Center 1200 St. Laurent Blvd. box 203 Ottawa ON K1K 3B8	GEN

Generator No:	ON5012892
SIC Code:	621210
SIC Description:	OFFICES OF DENTISTS
Approval Years:	2014
PO Box No:	
Country:	Canada
Status:	
Co Admin:	Kristine Preston
Choice of Contact:	CO_ADMIN
Phone No Admin:	613 744 6611 Ext.204
Contaminated Facility:	No
MHSW Facility:	No

Detail(s)

Waste Class:	312
Waste Class Name:	PATHOLOGICAL WASTES

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
13	84 of 113	E/220.3	68.9 / -0.31	Everest College of Business 1200 ST. LAURENT BLVD. Unit 19 OTTAWA ON K1K 3B8	GEN

Generator No:	ON1776701
SIC Code:	611690
SIC Description:	ALL OTHER SCHOOLS AND INSTRUCTION
Approval Years:	2014
PO Box No:	
Country:	Canada
Status:	
Co Admin:	Cindy Moreau
Choice of Contact:	CO_ADMIN
Phone No Admin:	613-236-8282 Ext.
Contaminated Facility:	No
MHSW Facility:	No

Detail(s)

Waste Class:	312
Waste Class Name:	PATHOLOGICAL WASTES
Waste Class:	261
Waste Class Name:	PHARMACEUTICALS

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
13	85 of 113	E/220.3	68.9 / -0.31	CINDY CHANGOOR PHARMACY LIMITED 1200 ST LAURENT BLVD OTTAWA ON K1K 3B8	GEN

Generator No:	ON6759537
SIC Code:	414510
SIC Description:	PHARMACEUTICALS AND PHARMACY SUPPLIES WHOLESALER-DISTRIBUTORS
Approval Years:	2014
PO Box No:	
Country:	Canada
Status:	
Co Admin:	
Choice of Contact:	CO_OFFICIAL
Phone No Admin:	
Contaminated Facility:	No
MHSW Facility:	No

Detail(s)

Waste Class:	242
Waste Class Name:	HALOGENATED PESTICIDES

13	86 of 113	E/220.3	68.9 / -0.31	713949 ONTARIO LIMITED 1200 ST LAURENT BLVD OTTAWA ON K1K 3B8	GEN

Generator No:	ON9634909
SIC Code:	531100
SIC Description:	531100
Approval Years:	2014
PO Box No:	
Country:	Canada
Status:	
Co Admin:	Krista Stemmler
Choice of Contact:	CO_OFFICIAL
Phone No Admin:	613-739-1070 Ext.220
Contaminated Facility:	No
MHSW Facility:	No

Detail(s)

Waste Class:	122
Waste Class Name:	ALKALINE WASTES - OTHER METALS
Waste Class:	213
Waste Class Name:	PETROLEUM DISTILLATES
Waste Class:	252
Waste Class Name:	WASTE OILS & LUBRICANTS
Waste Class:	212
Waste Class Name:	ALIPHATIC SOLVENTS
Waste Class:	145
Waste Class Name:	PAINT/PIGMENT/COATING RESIDUES
Waste Class:	112
Waste Class Name:	ACID WASTE - HEAVY METALS
Waste Class:	121
Waste Class Name:	ALKALINE WASTES - HEAVY METALS
Waste Class:	146

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB

Waste Class Name: OTHER SPECIFIED INORGANICS

13	87 of 113	E/220.3	68.9 / -0.31	The Forzani Group 1200 St. Laurent Blvd. Unit# Y005 Ottawa ON K1K 3B8	GEN

Generator No: ON6481594
SIC Code: 451110
SIC Description: SPORTING GOODS STORES
Approval Years: 2014
PO Box No:
Country: Canada
Status:
Co Admin:
Choice of Contact: CO_OFFICIAL
Phone No Admin:
Contaminated Facility: No
MHSW Facility: No

Detail(s)

Waste Class: 212
Waste Class Name: ALIPHATIC SOLVENTS

13	88 of 113	E/220.3	68.9 / -0.31	FGL SPORTS LIMITED 1200 St. Laurent Blvd. Unit# Y005 Ottawa ON K1K 3B8	GEN

Generator No: ON6481594
SIC Code:
SIC Description:
Approval Years: As of Dec 2018
PO Box No:
Country: Canada
Status: Registered
Co Admin:
Choice of Contact:
Phone No Admin:
Contaminated Facility:
MHSW Facility:

Detail(s)

Waste Class: 212 L
Waste Class Name: Aliphatic solvents and residues

13	89 of 113	E/220.3	68.9 / -0.31	St. Laurent Dental Center 1200 St. Laurent Blvd. box 203 Ottawa ON K1K 3B8	GEN

Generator No: ON5012892
SIC Code:
SIC Description:
Approval Years: As of Dec 2018
PO Box No:
Country: Canada
Status: Registered
Co Admin:
Choice of Contact:
Phone No Admin:
Contaminated Facility:

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB

MHSW Facility:

Detail(s)

Waste Class: 312 P
Waste Class Name: Pathological wastes

13	*90 of 113*	*E/220.3*	*68.9 / -0.31*	***Herzing College St. Laurent Blvd Ottawa*** ***1200 St. Laurent Blvd. Suite 408*** ***Ottawa ON K1K 3B8***	***GEN***

Generator No: ON5006290
SIC Code:
SIC Description:
Approval Years: As of Dec 2018
PO Box No: 255
Country: Canada
Status: Registered
Co Admin:
Choice of Contact:
Phone No Admin:
Contaminated Facility:
MHSW Facility:

Detail(s)

Waste Class: 261 A
Waste Class Name: Pharmaceuticals

Waste Class: 312 P
Waste Class Name: Pathological wastes

13	*91 of 113*	*E/220.3*	*68.9 / -0.31*	***Cindy Changoor Pharmacy Limited (621)*** ***1200 ST. LAURENT BLVD*** ***Ottawa ON K1K 3B8***	***GEN***

Generator No: ON2971904
SIC Code:
SIC Description:
Approval Years: As of Dec 2018
PO Box No:
Country: Canada
Status: Registered
Co Admin:
Choice of Contact:
Phone No Admin:
Contaminated Facility:
MHSW Facility:

Detail(s)

Waste Class: 261 A
Waste Class Name: Pharmaceuticals

Waste Class: 312 P
Waste Class Name: Pathological wastes

13	*92 of 113*	*E/220.3*	*68.9 / -0.31*	***713949 ONTARIO LIMITED*** ***1200 ST LAURENT BLVD*** ***OTTAWA ON K1K 3B8***	***GEN***

Generator No:	ON9634909
SIC Code:	
SIC Description:	
Approval Years:	As of Dec 2018
PO Box No:	
Country:	Canada
Status:	Registered
Co Admin:	
Choice of Contact:	
Phone No Admin:	
Contaminated Facility:	
MHSW Facility:	

Detail(s)

Waste Class:	112 C
Waste Class Name:	Acid solutions - containing heavy metals
Waste Class:	121 C
Waste Class Name:	Alkaline slutions - containing heavy metals
Waste Class:	122 C
Waste Class Name:	Alkaline slutions - containing other metals and non-metals (not cyanide)
Waste Class:	145 I
Waste Class Name:	Wastes from the use of pigments, coatings and paints
Waste Class:	145 L
Waste Class Name:	Wastes from the use of pigments, coatings and paints
Waste Class:	146 L
Waste Class Name:	Other specified inorganic sludges, slurries or solids
Waste Class:	146 T
Waste Class Name:	Other specified inorganic sludges, slurries or solids
Waste Class:	212 I
Waste Class Name:	Aliphatic solvents and residues
Waste Class:	212 L
Waste Class Name:	Aliphatic solvents and residues
Waste Class:	213 I
Waste Class Name:	Petroleum distillates
Waste Class:	252 L
Waste Class Name:	Waste crankcase oils and lubricants

13	93 of 113	E/220.3	68.9 / -0.31	**1200 St Laurent Blvd** **Ottawa ON K1K 4H4**	EHS

Order No:	20181001022	**Nearest Intersection:**	
Status:	C	**Municipality:**	
Report Type:	Custom Report	**Client Prov/State:**	ON
Report Date:	16-OCT-18	**Search Radius (km):**	.1
Date Received:	01-OCT-18	**X:**	-75.640113
Previous Site Name:		**Y:**	45.422088
Lot/Building Size:			
Additional Info Ordered:			

13	94 of 113	E/220.3	68.9 / -0.31	**IAN MCNEIL PHARMACIES INC** **1200 ST LAURENT BLVD**	PES

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
				OTTAWA ON K1K3B8	

Detail Licence No:		Operator Box:	
Licence No:	13683	Operator Class:	
Status:		Operator No:	
Approval Date:		Operator Type:	
Report Source:	Legacy Licenses (Excluding TS)	Oper Area Code:	613
Licence Type:	Limited Vendor	Oper Phone No:	7957015
Licence Type Code:	23	Operator Ext:	
Licence Class:	01	Operator Lot:	
Licence Control:		Oper Concession:	
Latitude:		Operator Region:	
Longitude:		Operator District:	
Lot:		Operator County:	
Concession:		Op Municipality:	
Region:		Post Office Box:	
District:		MOE District:	
County:		SWP Area Name:	
Trade Name:			
PDF URL:			

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
13	95 of 113	E/220.3	68.9 / -0.31	TLM PHARMACIES INC. 1200 ST. LAURENT BLVD OTTAWA ON K1K3B3	PES

Detail Licence No:		Operator Box:	
Licence No:	14744	Operator Class:	
Status:		Operator No:	
Approval Date:		Operator Type:	
Report Source:	Legacy Licenses (Excluding TS)	Oper Area Code:	613
Licence Type:	Limited Vendor	Oper Phone No:	7457015
Licence Type Code:	23	Operator Ext:	
Licence Class:	01	Operator Lot:	
Licence Control:		Oper Concession:	
Latitude:		Operator Region:	
Longitude:		Operator District:	
Lot:		Operator County:	
Concession:		Op Municipality:	
Region:		Post Office Box:	
District:		MOE District:	
County:		SWP Area Name:	
Trade Name:			
PDF URL:			

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
13	96 of 113	E/220.3	68.9 / -0.31	SHOPPERS DRUG MART#0621(ST. LAURENT SHOPPING CENTRE) 1200 ST. LAURENT BLVD OTTAWA ON K1K3B8	PES

Detail Licence No:		Operator Box:	
Licence No:	13238	Operator Class:	
Status:		Operator No:	
Approval Date:		Operator Type:	
Report Source:	Legacy Licenses (Excluding TS)	Oper Area Code:	613
Licence Type:	Limited Vendor	Oper Phone No:	7457015
Licence Type Code:	23	Operator Ext:	
Licence Class:	01	Operator Lot:	
Licence Control:		Oper Concession:	
Latitude:		Operator Region:	
Longitude:		Operator District:	
Lot:		Operator County:	
Concession:		Op Municipality:	

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB

Region:
District:
County:
Trade Name:
PDF URL:

Post Office Box:
MOE District:
SWP Area Name:

13	97 of 113	E/220.3	68.9 / -0.31	St. Laurent Dental Center 1200 St. Laurent Blvd. box 203 Ottawa ON K1K 3B8	GEN

Generator No: ON5012892
SIC Code:
SIC Description:
Approval Years: As of Jul 2020
PO Box No:
Country: Canada
Status: Registered
Co Admin:
Choice of Contact:
Phone No Admin:
Contaminated Facility:
MHSW Facility:

Detail(s)

Waste Class: 312 P
Waste Class Name: Pathological wastes

13	98 of 113	E/220.3	68.9 / -0.31	FGL SPORTS LIMITED 1200 St. Laurent Blvd. Unit# Y005 Ottawa ON K1K 3B8	GEN

Generator No: ON6481594
SIC Code:
SIC Description:
Approval Years: As of Jul 2020
PO Box No:
Country: Canada
Status: Registered
Co Admin:
Choice of Contact:
Phone No Admin:
Contaminated Facility:
MHSW Facility:

Detail(s)

Waste Class: 212 L
Waste Class Name: Aliphatic solvents and residues

13	99 of 113	E/220.3	68.9 / -0.31	Cindy Changoor Pharmacy Limited (621) 1200 ST. LAURENT BLVD Ottawa ON K1K 3B8	GEN

Generator No: ON2971904
SIC Code:
SIC Description:
Approval Years: As of Jul 2020
PO Box No:
Country: Canada

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB

Status: Registered
Co Admin:
Choice of Contact:
Phone No Admin:
Contaminated Facility:
MHSW Facility:

Detail(s)

Waste Class: 312 P
Waste Class Name: Pathological wastes

Waste Class: 261 A
Waste Class Name: Pharmaceuticals

13	100 of 113	E/220.3	68.9 / -0.31	713949 ONTARIO LIMITED 1200 ST LAURENT BLVD OTTAWA ON K1K 3B8	GEN

Generator No: ON9634909
SIC Code:
SIC Description:
Approval Years: As of Oct 2019
PO Box No:
Country: Canada
Status: Registered
Co Admin:
Choice of Contact:
Phone No Admin:
Contaminated Facility:
MHSW Facility:

Detail(s)

Waste Class: 146 T
Waste Class Name: Other specified inorganic sludges, slurries or solids

Waste Class: 251 L
Waste Class Name: Waste oils/sludges (petroleum based)

Waste Class: 122 C
Waste Class Name: Alkaline slutions - containing other metals and non-metals (not cyanide)

Waste Class: 212 L
Waste Class Name: Aliphatic solvents and residues

Waste Class: 213 I
Waste Class Name: Petroleum distillates

Waste Class: 212 I
Waste Class Name: Aliphatic solvents and residues

Waste Class: 112 C
Waste Class Name: Acid solutions - containing heavy metals

Waste Class: 145 I
Waste Class Name: Wastes from the use of pigments, coatings and paints

Waste Class: 252 L
Waste Class Name: Waste crankcase oils and lubricants

Waste Class: 146 L
Waste Class Name: Other specified inorganic sludges, slurries or solids

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB

Waste Class: 145 L
Waste Class Name: Wastes from the use of pigments, coatings and paints

Waste Class: 121 C
Waste Class Name: Alkaline slutions - containing heavy metals

---

13	101 of 113	E/220.3	68.9 / -0.31	Herzing College St. Laurent Blvd Ottawa 1200 St. Laurent Blvd. Suite 408 Ottawa ON K1K 3B8	GEN

Generator No: ON5006290
SIC Code:
SIC Description:
Approval Years: As of Oct 2019
PO Box No: 255
Country: Canada
Status: Registered
Co Admin:
Choice of Contact:
Phone No Admin:
Contaminated Facility:
MHSW Facility:

Detail(s)

Waste Class: 261 A
Waste Class Name: Pharmaceuticals

Waste Class: 312 P
Waste Class Name: Pathological wastes

13	102 of 113	E/220.3	68.9 / -0.31	FGL SPORTS LIMITED 1200 St. Laurent Blvd. Unit# Y005 Ottawa ON K1K 3B8	GEN

Generator No: ON6481594
SIC Code:
SIC Description:
Approval Years: As of Nov 2021
PO Box No:
Country: Canada
Status: Registered
Co Admin:
Choice of Contact:
Phone No Admin:
Contaminated Facility:
MHSW Facility:

Detail(s)

Waste Class: 212 L
Waste Class Name: Aliphatic solvents and residues

13	103 of 113	E/220.3	68.9 / -0.31	LensCrafters #939 1200 St. Laurent Blvd Ottawa ON K1K3B8	GEN

Generator No: ON8845420
SIC Code:
SIC Description:

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB

Approval Years: As of Nov 2021
PO Box No:
Country: Canada
Status: Registered
Co Admin:
Choice of Contact:
Phone No Admin:
Contaminated Facility:
MHSW Facility:

Detail(s)

Waste Class: 145 L
Waste Class Name: Wastes from the use of pigments, coatings and paints

Waste Class: 252 L
Waste Class Name: Waste crankcase oils and lubricants

Waste Class: 212 L
Waste Class Name: Aliphatic solvents and residues

13	104 of 113	E/220.3	68.9 / -0.31	St. Laurent Dental Center 1200 St. Laurent Blvd. box 203 Ottawa ON K1K 3B8	GEN

Generator No: ON5012892
SIC Code:
SIC Description:
Approval Years: As of Nov 2021
PO Box No:
Country: Canada
Status: Registered
Co Admin:
Choice of Contact:
Phone No Admin:
Contaminated Facility:
MHSW Facility:

Detail(s)

Waste Class: 312 P
Waste Class Name: Pathological wastes

13	105 of 113	E/220.3	68.9 / -0.31	Ben Gunter Pharmacy Inc 1200 ST. LAURENT BLVD Ottawa ON K1K 3B8	GEN

Generator No: ON2971904
SIC Code:
SIC Description:
Approval Years: As of Nov 2021
PO Box No:
Country: Canada
Status: Registered
Co Admin:
Choice of Contact:
Phone No Admin:
Contaminated Facility:
MHSW Facility:

Detail(s)

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB

Waste Class: 312 P
Waste Class Name: Pathological wastes

Waste Class: 261 A
Waste Class Name: Pharmaceuticals

13	106 of 113	E/220.3	68.9 / -0.31	Morguard Real Estate Investment Trust 1200 St. Laurent Blvd. Ottawa ON K1K 3B8	GEN

Generator No: ON7569372
SIC Code:
SIC Description:
Approval Years: As of Nov 2021
PO Box No:
Country: Canada
Status: Registered
Co Admin:
Choice of Contact:
Phone No Admin:
Contaminated Facility:
MHSW Facility:

Detail(s)

Waste Class: 251 L
Waste Class Name: Waste oils/sludges (petroleum based)

13	107 of 113	E/220.3	68.9 / -0.31	Ben Gunter Pharmacy Inc 1200 ST. LAURENT BLVD Ottawa ON K1K 3B8	GEN

Generator No: ON2971904
SIC Code:
SIC Description:
Approval Years: As of Oct 2022
PO Box No:
Country: Canada
Status: Registered
Co Admin:
Choice of Contact:
Phone No Admin:
Contaminated Facility:
MHSW Facility:

Detail(s)

Waste Class: 312 P
Waste Class Name: PATHOLOGICAL WASTES

Waste Class: 261 A
Waste Class Name: PHARMACEUTICALS

13	108 of 113	E/220.3	68.9 / -0.31	LCBO 540-1200 ST. LAURENT BLVD Ottawa ON K1K3B8	GEN

Generator No: ON6013736
SIC Code:
SIC Description:

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB

Approval Years: As of Oct 2022
PO Box No:
Country: Canada
Status: Registered
Co Admin:
Choice of Contact:
Phone No Admin:
Contaminated Facility:
MHSW Facility:

Detail(s)

Waste Class: 212 I
Waste Class Name: ALIPHATIC SOLVENTS

13	109 of 113	E/220.3	68.9 / -0.31	LensCrafters #939 1200 St. Laurent Blvd Ottawa ON K1K3B8	GEN

Generator No: ON8845420
SIC Code:
SIC Description:
Approval Years: As of Oct 2022
PO Box No:
Country: Canada
Status: Registered
Co Admin:
Choice of Contact:
Phone No Admin:
Contaminated Facility:
MHSW Facility:

Detail(s)

Waste Class: 212 L
Waste Class Name: ALIPHATIC SOLVENTS

Waste Class: 252 L
Waste Class Name: WASTE OILS & LUBRICANTS

Waste Class: 145 L
Waste Class Name: PAINT/PIGMENT/COATING RESIDUES

13	110 of 113	E/220.3	68.9 / -0.31	St. Laurent Dental Center 1200 St. Laurent Blvd. box 203 Ottawa ON K1K 3B8	GEN

Generator No: ON5012892
SIC Code:
SIC Description:
Approval Years: As of Oct 2022
PO Box No:
Country: Canada
Status: Registered
Co Admin:
Choice of Contact:
Phone No Admin:
Contaminated Facility:
MHSW Facility:

Detail(s)

Waste Class: 312 P
Waste Class Name: PATHOLOGICAL WASTES

---

13 | **111 of 113** | **E/220.3** | **68.9 / -0.31** | **FGL SPORTS LIMITED**
1200 St. Laurent Blvd. Unit# Y005
Ottawa ON K1K 3B8 | **GEN**

Generator No: ON6481594
SIC Code:
SIC Description:
Approval Years: As of Oct 2022
PO Box No:
Country: Canada
Status: Registered
Co Admin:
Choice of Contact:
Phone No Admin:
Contaminated Facility:
MHSW Facility:

Detail(s)

Waste Class: 212 L
Waste Class Name: ALIPHATIC SOLVENTS

---

13 | **112 of 113** | **E/220.3** | **68.9 / -0.31** | **1200 & 1400 St. Laurent Blvd | 500 Coventry Rd**
Ottawa ON K1K 3B8 | **EHS**

Order No: 23051900640
Status: C
Report Type: Custom Report
Report Date: 19-JUN-23
Date Received: 19-MAY-23
Previous Site Name:
Lot/Building Size:
Additional Info Ordered:

Nearest Intersection:
Municipality:
Client Prov/State: ON
Search Radius (km): .25
X: -75.64016518
Y: 45.42195004

---

13 | **113 of 113** | **E/220.3** | **68.9 / -0.31** | **1200 & 1400 St. Laurent Blvd | 500 Coventry Rd**
Ottawa ON K1K 3B8 | **EHS**

Order No: 23051900640
Status: C
Report Type: Custom Report
Report Date: 19-JUN-23
Date Received: 19-MAY-23
Previous Site Name:
Lot/Building Size:
Additional Info Ordered:

Nearest Intersection:
Municipality:
Client Prov/State: ON
Search Radius (km): .25
X: -75.64016518
Y: 45.42195004

---

3 | **1 of 1** | **NNW/150.8** | **67.9 / -1.31** | **ON** | **WWIS**

Well ID: 7252238
Construction Date:
Use 1st:
Use 2nd:
Final Well Status:
Water Type:

Flowing (Y/N):
Flow Rate:
Data Entry Status: Yes
Data Src:
Date Received: 11/16/2015
Selected Flag: TRUE

Casing Material:		**Abandonment Rec:**	
Audit No:	C30038	**Contractor:**	1844
Tag:	A187261	**Form Version:**	8
Constructn Method:		**Owner:**	
Elevation (m):		**County:**	OTTAWA-CARLETON
Elevatn Reliabilty:		**Lot:**	
Depth to Bedrock:		**Concession:**	
Well Depth:		**Concession Name:**	
Overburden/Bedrock:		**Easting NAD83:**	
Pump Rate:		**Northing NAD83:**	
Static Water Level:		**Zone:**	
Clear/Cloudy:		**UTM Reliability:**	
Municipality:	GLOUCESTER TOWNSHIP		
Site Info:			

PDF URL (Map):

Additional Detail(s) (Map)

Well Completed Date:	10/15/2015
Year Completed:	2015
Depth (m):	
Latitude:	45.4220931623502
Longitude:	-75.6439490427668
Path:	

Bore Hole Information

Bore Hole ID:	1005800249	**Elevation:**	
DP2BR:		**Elevrc:**	
Spatial Status:		**Zone:**	18
Code OB:		**East83:**	449621.00
Code OB Desc:		**North83:**	5030043.00
Open Hole:		**Org CS:**	UTM83
Cluster Kind:		**UTMRC:**	4
Date Completed:	10/15/2015	**UTMRC Desc:**	margin of error : 30 m - 100 m
Remarks:		**Location Method:**	wwr
Loc Method Desc:	on Water Well Record		
Elevrc Desc:			
Location Source Date:			
Improvement Location Source:			
Improvement Location Method:			
Source Revision Comment:			
Supplier Comment:			

Links

Bore Hole ID:	1005800249	**Tag No:**	A187261
Depth M:		**Contractor:**	1844
Year Completed:	2015	**Latitude:**	45.4220931623502
Well Completed Dt:	10/15/2015	**Longitude:**	-75.6439490427668
Audit No:	C30038	**Y:**	45.42209315518726
Path:		**X:**	-75.64394888061955

4 **1 of 1** **NNW/152.6** **67.9 / -1.31** **ON** **WWIS**

Well ID:	7242903	**Flowing (Y/N):**	
Construction Date:		**Flow Rate:**	
Use 1st:		**Data Entry Status:**	Yes
Use 2nd:		**Data Src:**	
Final Well Status:		**Date Received:**	06/11/2015

Water Type:		**Selected Flag:**	TRUE
Casing Material:		**Abandonment Rec:**	
Audit No:	C21295	**Contractor:**	1844
Tag:	A122925	**Form Version:**	8
Constructn Method:		**Owner:**	
Elevation (m):		**County:**	OTTAWA-CARLETON
Elevatn Reliabilty:		**Lot:**	
Depth to Bedrock:		**Concession:**	
Well Depth:		**Concession Name:**	
Overburden/Bedrock:		**Easting NAD83:**	
Pump Rate:		**Northing NAD83:**	
Static Water Level:		**Zone:**	
Clear/Cloudy:		**UTM Reliability:**	
Municipality:	GLOUCESTER TOWNSHIP		
Site Info:			

PDF URL (Map):

Additional Detail(s) (Map)

Well Completed Date:	02/01/2012
Year Completed:	2012
Depth (m):	
Latitude:	45.422157175855
Longitude:	-75.6437708209141
Path:	

Bore Hole Information

Bore Hole ID:	1005405606	**Elevation:**	
DP2BR:		**Elevrc:**	
Spatial Status:		**Zone:**	18
Code OB:		**East83:**	449635.00
Code OB Desc:		**North83:**	5030050.00
Open Hole:		**Org CS:**	UTM83
Cluster Kind:		**UTMRC:**	4
Date Completed:	02/01/2012	**UTMRC Desc:**	margin of error : 30 m - 100 m
Remarks:		**Location Method:**	wwr
Loc Method Desc:	on Water Well Record		
Elevrc Desc:			
Location Source Date:			
Improvement Location Source:			
Improvement Location Method:			
Source Revision Comment:			
Supplier Comment:			

Links

Bore Hole ID:	1005405606	**Tag No:**	A122925
Depth M:		**Contractor:**	1844
Year Completed:	2012	**Latitude:**	45.422157175855
Well Completed Dt:	02/01/2012	**Longitude:**	-75.6437708209141
Audit No:	C21295	**Y:**	45.42215716935217
Path:		**X:**	-75.64377065941244

5	1 of 1	NNW/153.0	67.9 / -1.31	ON	WWIS

Well ID:	7290571	**Flowing (Y/N):**	
Construction Date:		**Flow Rate:**	
Use 1st:		**Data Entry Status:**	Yes
Use 2nd:		**Data Src:**	

Final Well Status:		***Date Received:***	07/18/2017
Water Type:		***Selected Flag:***	TRUE
Casing Material:		***Abandonment Rec:***	
Audit No:	C30068	***Contractor:***	1844
Tag:	A187261	***Form Version:***	8
Constructn Method:		***Owner:***	
Elevation (m):		***County:***	OTTAWA-CARLETON
Elevatn Reliabilty:		***Lot:***	
Depth to Bedrock:		***Concession:***	
Well Depth:		***Concession Name:***	
Overburden/Bedrock:		***Easting NAD83:***	
Pump Rate:		***Northing NAD83:***	
Static Water Level:		***Zone:***	
Clear/Cloudy:		***UTM Reliability:***	
Municipality:	GLOUCESTER TOWNSHIP		
Site Info:			

PDF URL (Map):

Additional Detail(s) (Map)

Well Completed Date:	05/08/2017
Year Completed:	2017
Depth (m):	
Latitude:	45.4221110916702
Longitude:	-75.6439620287018
Path:	

Bore Hole Information

Bore Hole ID:	1006635121	***Elevation:***	
DP2BR:		***Elevrc:***	
Spatial Status:		***Zone:***	18
Code OB:		***East83:***	449620.00
Code OB Desc:		***North83:***	5030045.00
Open Hole:		***Org CS:***	UTM83
Cluster Kind:		***UTMRC:***	4
Date Completed:	05/08/2017	***UTMRC Desc:***	margin of error : 30 m - 100 m
Remarks:		***Location Method:***	wwr
Loc Method Desc:	on Water Well Record		
Elevrc Desc:			
Location Source Date:			
Improvement Location Source:			
Improvement Location Method:			
Source Revision Comment:			
Supplier Comment:			

Links

Bore Hole ID:	1006635121	***Tag No:***	A187261
Depth M:		***Contractor:***	1844
Year Completed:	2017	***Latitude:***	45.4221110916702
Well Completed Dt:	05/08/2017	***Longitude:***	-75.6439620287018
Audit No:	C30068	***Y:***	45.42211108493885
Path:		***X:***	-75.64396186665947

6	***1 of 29***	***W/160.4***	***67.9 / -1.31***	***COCA-COLA*** ***440 CODENTRY ROAD FUEL STORAGE TANK*** ***OTTAWA CITY ON***	***SPL***

Ref No:	106958	***Municipality No:***	20101
Year:		***Nature of Damage:***	

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB

Incident Dt:	//	***Discharger Report:***	
Dt MOE Arvl on Scn:		***Material Group:***	
MOE Reported Dt:	11/2/1994	***Health/Env Conseq:***	
Dt Document Closed:		***Agency Involved:***	PUBLIC WORKS CANADA, ENV CANADA
Site No:			
Facility Name:			
MOE Response:			
Site County/District:			
Site Geo Ref Meth:			
Site District Office:			
Nearest Watercourse:			
Site Name:			
Site Address:			
Site Region:			
Site Municipality:	OTTAWA CITY		
Site Lot:			
Site Conc:			
Site Geo Ref Accu:			
Site Map Datum:			
Northing:			
Easting:			
Incident Cause:	UNDERGROUND TANK LEAK		
Incident Event:			
Environment Impact:	CONFIRMED		
Nature of Impact:	Soil contamination		
Contaminant Qty:			
System Facility Address:			
Client Name:			
Client Type:			
Call Report Locatn Geodata:			
Contaminant Code:			
Contaminant Name:			
Contaminant Limit 1:			
Contam Limit Freq 1:			
Contaminant UN No 1:			
Receiving Medium:	LAND		
Receiving Environment:			
Incident Reason:	CORROSION		
Incident Summary:	COCA-COLA: LEAKING UNDER-GROUND FUEL TANK. OFF- SITE IMPACT.		
Activity Preceding Spill:			
Property 2nd Watershed:			
Property Tertiary Watershed:			
Sector Type:			
SAC Action Class:			
Source Type:			

6	*2 of 29*	*W/160.4*	*67.9 / -1.31*	***SUPPLY & SERVICES CANADA EXPOSITION & AUDIO VISUAL; 440 COVENTRY RD OTTAWA ON K1A 0T1***	***NPCB***

Company Code:	O3167
Industry:	Supply & Services
Site Status:	
Transaction Date:	5/30/1990
Inspection Date:	

6	*3 of 29*	*W/160.4*	*67.9 / -1.31*	***PUBLIC WORKS CANADA EXPOSITION COMMISSION 440 COVENTRY ROAD OTTAWA ON K1A 0M3***	***GEN***

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB

Generator No: ON0144797
SIC Code: 8159
SIC Description: OTHER GEN. ADMIN.
Approval Years: 93,97
PO Box No:
Country:
Status:
Co Admin:
Choice of Contact:
Phone No Admin:
Contaminated Facility:
MHSW Facility:

Detail(s)

Waste Class: 212
Waste Class Name: ALIPHATIC SOLVENTS

Waste Class: 241
Waste Class Name: HALOGENATED SOLVENTS

Waste Class: 243
Waste Class Name: PCB'S

Waste Class: 252
Waste Class Name: WASTE OILS & LUBRICANTS

6	*4 of 29*	*W/160.4*	*67.9 / -1.31*	***GVT. OF CANADA-PUBLIC WORKS CANADA EXPOSITION COMMISSION 440 COVENTRY ROAD OTTAWA ON K1A 0M3***	***GEN***

Generator No: ON0144797
SIC Code: 8159
SIC Description: OTHER GEN. ADMIN.
Approval Years: 94,95,96
PO Box No:
Country:
Status:
Co Admin:
Choice of Contact:
Phone No Admin:
Contaminated Facility:
MHSW Facility:

Detail(s)

Waste Class: 212
Waste Class Name: ALIPHATIC SOLVENTS

Waste Class: 241
Waste Class Name: HALOGENATED SOLVENTS

Waste Class: 243
Waste Class Name: PCB'S

Waste Class: 252
Waste Class Name: WASTE OILS & LUBRICANTS

6	*5 of 29*	*W/160.4*	*67.9 / -1.31*	***PUBLIC WORKS & GOVERNMENT SERVICES CAN. EXPOSITION COMMISSION 440 COVENTRY***	***GEN***

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
				ROAD OTTAWA ON K1A 0M3	

Generator No: ON0144797
SIC Code: 8159
SIC Description: OTHER GEN. ADMIN.
Approval Years: 98,99,00,01
PO Box No:
Country:
Status:
Co Admin:
Choice of Contact:
Phone No Admin:
Contaminated Facility:
MHSW Facility:

Detail(s)

Waste Class: 212
Waste Class Name: ALIPHATIC SOLVENTS

Waste Class: 241
Waste Class Name: HALOGENATED SOLVENTS

Waste Class: 243
Waste Class Name: PCB'S

Waste Class: 252
Waste Class Name: WASTE OILS & LUBRICANTS

6	6 of 29	W/160.4	67.9 / -1.31	BROOKFIELD LEPAGE JONSON CONTROL 440 COVENTRY ROAD OTTAWA ON K1A 0R2	GEN

Generator No: ON0144797
SIC Code:
SIC Description:
Approval Years: 02,03,04
PO Box No:
Country:
Status:
Co Admin:
Choice of Contact:
Phone No Admin:
Contaminated Facility:
MHSW Facility:

Detail(s)

Waste Class: 212
Waste Class Name: ALIPHATIC SOLVENTS

Waste Class: 241
Waste Class Name: HALOGENATED SOLVENTS

Waste Class: 252
Waste Class Name: WASTE OILS & LUBRICANTS

6	7 of 29	W/160.4	67.9 / -1.31	GVT. OF CAN. - SUPPLY AND SERVICES CANADIAN GVT. EXPOSITIONS CENTRE 440 COVENTRY ROAD OTTAWA ON K1A 0T1	GEN

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB

Generator No: ON0249602
SIC Code: 8159
SIC Description: OTHER GEN. ADMIN.
Approval Years: 86,87,88,89,90
PO Box No:
Country:
Status:
Co Admin:
Choice of Contact:
Phone No Admin:
Contaminated Facility:
MHSW Facility:

Detail(s)

Waste Class: 113
Waste Class Name: ACID WASTE - OTHER METALS

Waste Class: 145
Waste Class Name: PAINT/PIGMENT/COATING RESIDUES

Waste Class: 213
Waste Class Name: PETROLEUM DISTILLATES

Waste Class: 264
Waste Class Name: PHOTOPROCESSING WASTES

6	*8 of 29*	*W/160.4*	*67.9 / -1.31*	***GVT. OF CAN. - S(OUT OF BUSINESS)S18-121*** ***CANADIAN GVT. EXPOSITIONS CENTRE 440 COVENTRY ROAD*** ***OTTAWA ON K1A 0T1***	***GEN***

Generator No: ON0249602
SIC Code: 8159
SIC Description: OTHER GEN. ADMIN.
Approval Years: 92,93,96,97
PO Box No:
Country:
Status:
Co Admin:
Choice of Contact:
Phone No Admin:
Contaminated Facility:
MHSW Facility:

Detail(s)

Waste Class: 113
Waste Class Name: ACID WASTE - OTHER METALS

Waste Class: 145
Waste Class Name: PAINT/PIGMENT/COATING RESIDUES

Waste Class: 213
Waste Class Name: PETROLEUM DISTILLATES

Waste Class: 264
Waste Class Name: PHOTOPROCESSING WASTES

6	*9 of 29*	*W/160.4*	*67.9 / -1.31*	***GVT. OF CAN. - SUPPLY AND SERVICES18-121*** ***CANADIAN GVT. EXPOSITIONS CENTRE 440 COVENTRY ROAD***	***GEN***

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
				OTTAWA ON K1A 0T1	

Generator No: ON0249602
SIC Code: 8159
SIC Description: OTHER GEN. ADMIN.
Approval Years: 94,95
PO Box No:
Country:
Status:
Co Admin:
Choice of Contact:
Phone No Admin:
Contaminated Facility:
MHSW Facility:

Detail(s)

Waste Class: 113
Waste Class Name: ACID WASTE - OTHER METALS

Waste Class: 145
Waste Class Name: PAINT/PIGMENT/COATING RESIDUES

Waste Class: 213
Waste Class Name: PETROLEUM DISTILLATES

Waste Class: 264
Waste Class Name: PHOTOPROCESSING WASTES

6	10 of 29	W/160.4	67.9 / -1.31	GVT. OF CAN. - (OUT OF BUSINESS) EXPOSITION CENTRE 440 COVENTRY ROAD OTTAWA ON K1A 0S7	GEN

Generator No: ON0249602
SIC Code: 8159
SIC Description: OTHER GEN. ADMIN.
Approval Years: 98
PO Box No:
Country:
Status:
Co Admin:
Choice of Contact:
Phone No Admin:
Contaminated Facility:
MHSW Facility:

Detail(s)

Waste Class: 113
Waste Class Name: ACID WASTE - OTHER METALS

Waste Class: 145
Waste Class Name: PAINT/PIGMENT/COATING RESIDUES

Waste Class: 213
Waste Class Name: PETROLEUM DISTILLATES

Waste Class: 264
Waste Class Name: PHOTOPROCESSING WASTES

6	11 of 29	W/160.4	67.9 / -1.31	BROOKFIELD LEPAGE JOHNSON CONTROLS EXHIBITION COMMISSION 440 COVENTRY	GEN

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
				ROAD OTTAWA ON	

Generator No: ON0554837
SIC Code: 7512
SIC Description: NON-RES. BLDG. OPER.
Approval Years: 99,00,01,02,03
PO Box No:
Country:
Status:
Co Admin:
Choice of Contact:
Phone No Admin:
Contaminated Facility:
MHSW Facility:

Detail(s)

Waste Class: 122
Waste Class Name: ALKALINE WASTES - OTHER METALS

Waste Class: 145
Waste Class Name: PAINT/PIGMENT/COATING RESIDUES

Waste Class: 146
Waste Class Name: OTHER SPECIFIED INORGANICS

Waste Class: 212
Waste Class Name: ALIPHATIC SOLVENTS

Waste Class: 213
Waste Class Name: PETROLEUM DISTILLATES

Waste Class: 251
Waste Class Name: OIL SKIMMINGS & SLUDGES

Waste Class: 252
Waste Class Name: WASTE OILS & LUBRICANTS

6	12 of 29	W/160.4	67.9 / -1.31	Public Works and Government Services EXHIBITION COMMISSION 440 COVENTRY ROAD OTTAWA ON K1K 2C4	GEN

Generator No: ON0554837
SIC Code: 911910
SIC Description: Other Federal Government Public Administration
Approval Years: 04,07,08
PO Box No:
Country:
Status:
Co Admin:
Choice of Contact:
Phone No Admin:
Contaminated Facility:
MHSW Facility:

Detail(s)

Waste Class: 212
Waste Class Name: ALIPHATIC SOLVENTS

Waste Class: 122

Waste Class Name: ALKALINE WASTES - OTHER METALS

Waste Class: 145
Waste Class Name: PAINT/PIGMENT/COATING RESIDUES

Waste Class: 146
Waste Class Name: OTHER SPECIFIED INORGANICS

Waste Class: 213
Waste Class Name: PETROLEUM DISTILLATES

Waste Class: 251
Waste Class Name: OIL SKIMMINGS & SLUDGES

Waste Class: 252
Waste Class Name: WASTE OILS & LUBRICANTS

6	13 of 29	W/160.4	67.9 / -1.31	Public Works and Government Services EXHIBITION COMMISSION 440 COVENTRY ROAD OTTAWA ON K1K 2C4	GEN

Generator No: ON0554837
SIC Code: 911910
SIC Description: Other Federal Government Public Administration
Approval Years: 05,06,07,08
PO Box No:
Country:
Status:
Co Admin:
Choice of Contact:
Phone No Admin:
Contaminated Facility:
MHSW Facility:

Detail(s)

Waste Class: 112
Waste Class Name: ACID WASTE - HEAVY METALS

Waste Class: 121
Waste Class Name: ALKALINE WASTES - HEAVY METALS

Waste Class: 113
Waste Class Name: ACID WASTE - OTHER METALS

Waste Class: 122
Waste Class Name: ALKALINE WASTES - OTHER METALS

Waste Class: 145
Waste Class Name: PAINT/PIGMENT/COATING RESIDUES

Waste Class: 146
Waste Class Name: OTHER SPECIFIED INORGANICS

Waste Class: 148
Waste Class Name: INORGANIC LABORATORY CHEMICALS

Waste Class: 212
Waste Class Name: ALIPHATIC SOLVENTS

Waste Class: 213
Waste Class Name: PETROLEUM DISTILLATES

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB

Waste Class:	243
Waste Class Name:	PCB'S
Waste Class:	251
Waste Class Name:	OIL SKIMMINGS & SLUDGES
Waste Class:	252
Waste Class Name:	WASTE OILS & LUBRICANTS
Waste Class:	263
Waste Class Name:	ORGANIC LABORATORY CHEMICALS
Waste Class:	331
Waste Class Name:	WASTE COMPRESSED GASES

6	14 of 29	W/160.4	67.9 / -1.31	**Public Works and Government Services Canada** **440 Coventry Rd** **Ottawa ON**	CA

Certificate #:	2193-8JRPQJ
Application Year:	2011
Issue Date:	7/14/2011
Approval Type:	Air
Status:	Approved
Application Type:	
Client Name:	
Client Address:	
Client City:	
Client Postal Code:	
Project Description:	
Contaminants:	
Emission Control:	

6	15 of 29	W/160.4	67.9 / -1.31	**SNC-Lavalin Regional Head Office<UNOFFICIAL>** **440 Coventry Rd.** **Ottawa ON**	SPL

Ref No:	4601-8WTNUS	**Municipality No:**	
Year:		**Nature of Damage:**	
Incident Dt:	02-AUG-12	**Discharger Report:**	
Dt MOE Arvl on Scn:		**Material Group:**	
MOE Reported Dt:	03-AUG-12	**Health/Env Conseq:**	
Dt Document Closed:		**Agency Involved:**	
Site No:			
Facility Name:			
MOE Response:	No Field Response		
Site County/District:			
Site Geo Ref Meth:			
Site District Office:			
Nearest Watercourse:			
Site Name:	RCMP Facility<UNOFFICIAL>		
Site Address:	440 Coventry Rd.		
Site Region:			
Site Municipality:	Ottawa		
Site Lot:			
Site Conc:			
Site Geo Ref Accu:			
Site Map Datum:			
Northing:			
Easting:			
Incident Cause:			
Incident Event:			

Environment Impact:	Not Anticipated
Nature of Impact:	
Contaminant Qty:	10 L
System Facility Address:	
Client Name:	SNC-Lavalin Regional Head Office<UNOFFICIAL>
Client Type:	
Call Report Locatn Geodata:	
Contaminant Code:	24
Contaminant Name:	PROPYLENE GLYCOL
Contaminant Limit 1:	
Contam Limit Freq 1:	
Contaminant UN No 1:	
Receiving Medium:	
Receiving Environment:	
Incident Reason:	
Incident Summary:	SNC Lavalin: 10 L propylene glycol to grnd, cntd
Activity Preceding Spill:	
Property 2nd Watershed:	
Property Tertiary Watershed:	
Sector Type:	
SAC Action Class:	Land Spills
Source Type:	

6	***16 of 29***	***W/160.4***	***67.9 / -1.31***	***Public Works and Government Services EXHIBITION COMMISSION 440 COVENTRY ROAD OTTAWA ON K1K 2C4***	***GEN***

Generator No:	ON0554837
SIC Code:	911910
SIC Description:	Other Federal Government Public Administration
Approval Years:	2010
PO Box No:	
Country:	
Status:	
Co Admin:	
Choice of Contact:	
Phone No Admin:	
Contaminated Facility:	
MHSW Facility:	

Detail(s)

Waste Class:	146
Waste Class Name:	OTHER SPECIFIED INORGANICS
Waste Class:	113
Waste Class Name:	ACID WASTE - OTHER METALS
Waste Class:	243
Waste Class Name:	PCBS
Waste Class:	212
Waste Class Name:	ALIPHATIC SOLVENTS
Waste Class:	251
Waste Class Name:	OIL SKIMMINGS & SLUDGES
Waste Class:	148
Waste Class Name:	INORGANIC LABORATORY CHEMICALS
Waste Class:	252
Waste Class Name:	WASTE OILS & LUBRICANTS

Waste Class: 263
Waste Class Name: ORGANIC LABORATORY CHEMICALS

Waste Class: 112
Waste Class Name: ACID WASTE - HEAVY METALS

Waste Class: 213
Waste Class Name: PETROLEUM DISTILLATES

Waste Class: 122
Waste Class Name: ALKALINE WASTES - OTHER METALS

Waste Class: 121
Waste Class Name: ALKALINE WASTES - HEAVY METALS

Waste Class: 145
Waste Class Name: PAINT/PIGMENT/COATING RESIDUES

Waste Class: 331
Waste Class Name: WASTE COMPRESSED GASES

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
6	17 of 29	W/160.4	67.9 / -1.31	Public Works and Government Services EXHIBITION COMMISSION 440 COVENTRY ROAD OTTAWA ON K1K 2C4	GEN

Generator No: ON0554837
SIC Code: 911910
SIC Description: Other Federal Government Public Administration
Approval Years: 2011
PO Box No:
Country:
Status:
Co Admin:
Choice of Contact:
Phone No Admin:
Contaminated Facility:
MHSW Facility:

Detail(s)

Waste Class: 331
Waste Class Name: WASTE COMPRESSED GASES

Waste Class: 243
Waste Class Name: PCBS

Waste Class: 113
Waste Class Name: ACID WASTE - OTHER METALS

Waste Class: 145
Waste Class Name: PAINT/PIGMENT/COATING RESIDUES

Waste Class: 212
Waste Class Name: ALIPHATIC SOLVENTS

Waste Class: 263
Waste Class Name: ORGANIC LABORATORY CHEMICALS

Waste Class: 252
Waste Class Name: WASTE OILS & LUBRICANTS

Waste Class: 122

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB

Waste Class Name: ALKALINE WASTES - OTHER METALS

Waste Class: 121
Waste Class Name: ALKALINE WASTES - HEAVY METALS

Waste Class: 251
Waste Class Name: OIL SKIMMINGS & SLUDGES

Waste Class: 213
Waste Class Name: PETROLEUM DISTILLATES

Waste Class: 148
Waste Class Name: INORGANIC LABORATORY CHEMICALS

Waste Class: 146
Waste Class Name: OTHER SPECIFIED INORGANICS

Waste Class: 112
Waste Class Name: ACID WASTE - HEAVY METALS

6	18 of 29	W/160.4	67.9 / -1.31	SNC LAVALIN O & M 440 COVENTRY ROAD OTTAWA ON	GEN

Generator No: ON5756473
SIC Code: 911230
SIC Description: Federal Police Services
Approval Years: 2012
PO Box No:
Country:
Status:
Co Admin:
Choice of Contact:
Phone No Admin:
Contaminated Facility:
MHSW Facility:

6	19 of 29	W/160.4	67.9 / -1.31	Public Works and Government Services EXHIBITION COMMISSION 440 COVENTRY ROAD OTTAWA ON K1K 2C4	GEN

Generator No: ON0554837
SIC Code: 911910
SIC Description: Other Federal Government Public Administration
Approval Years: 2012
PO Box No:
Country:
Status:
Co Admin:
Choice of Contact:
Phone No Admin:
Contaminated Facility:
MHSW Facility:

Detail(s)

Waste Class: 112
Waste Class Name: ACID WASTE - HEAVY METALS

Waste Class: 121
Waste Class Name: ALKALINE WASTES - HEAVY METALS

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB

Waste Class:	243
Waste Class Name:	PCBS
Waste Class:	145
Waste Class Name:	PAINT/PIGMENT/COATING RESIDUES
Waste Class:	146
Waste Class Name:	OTHER SPECIFIED INORGANICS
Waste Class:	148
Waste Class Name:	INORGANIC LABORATORY CHEMICALS
Waste Class:	212
Waste Class Name:	ALIPHATIC SOLVENTS
Waste Class:	252
Waste Class Name:	WASTE OILS & LUBRICANTS
Waste Class:	213
Waste Class Name:	PETROLEUM DISTILLATES
Waste Class:	113
Waste Class Name:	ACID WASTE - OTHER METALS
Waste Class:	331
Waste Class Name:	WASTE COMPRESSED GASES
Waste Class:	122
Waste Class Name:	ALKALINE WASTES - OTHER METALS
Waste Class:	263
Waste Class Name:	ORGANIC LABORATORY CHEMICALS
Waste Class:	251
Waste Class Name:	OIL SKIMMINGS & SLUDGES

6	***20 of 29***	***W/160.4***	***67.9 / -1.31***	***SNC LAVALIN O & M 440 COVENTRY ROAD OTTAWA ON***	***GEN***

Generator No:	ON5756473
SIC Code:	911230
SIC Description:	
Approval Years:	2013
PO Box No:	
Country:	
Status:	
Co Admin:	
Choice of Contact:	
Phone No Admin:	
Contaminated Facility:	
MHSW Facility:	

Detail(s)

Waste Class:	212
Waste Class Name:	ALIPHATIC SOLVENTS

6	***21 of 29***	***W/160.4***	***67.9 / -1.31***	***Public Works and Government Services EXHIBITION COMMISSION 440 COVENTRY ROAD OTTAWA ON***	***GEN***

Generator No: ON0554837
SIC Code: 911910
SIC Description:
Approval Years: 2013
PO Box No:
Country:
Status:
Co Admin:
Choice of Contact:
Phone No Admin:
Contaminated Facility:
MHSW Facility:

Detail(s)

Waste Class: 212
Waste Class Name: ALIPHATIC SOLVENTS

Waste Class: 122
Waste Class Name: ALKALINE WASTES - OTHER METALS

Waste Class: 331
Waste Class Name: WASTE COMPRESSED GASES

Waste Class: 263
Waste Class Name: ORGANIC LABORATORY CHEMICALS

Waste Class: 146
Waste Class Name: OTHER SPECIFIED INORGANICS

Waste Class: 252
Waste Class Name: WASTE OILS & LUBRICANTS

Waste Class: 221
Waste Class Name: LIGHT FUELS

Waste Class: 113
Waste Class Name: ACID WASTE - OTHER METALS

Waste Class: 145
Waste Class Name: PAINT/PIGMENT/COATING RESIDUES

Waste Class: 121
Waste Class Name: ALKALINE WASTES - HEAVY METALS

Waste Class: 251
Waste Class Name: OIL SKIMMINGS & SLUDGES

Waste Class: 148
Waste Class Name: INORGANIC LABORATORY CHEMICALS

Waste Class: 213
Waste Class Name: PETROLEUM DISTILLATES

Waste Class: 112
Waste Class Name: ACID WASTE - HEAVY METALS

Waste Class: 243
Waste Class Name: PCBS

6	22 of 29	W/160.4	67.9 / -1.31	**Public Works and Government Services Canada** **440 Coventry Rd** **Ottawa ON K1A 0S5**	ECA

Approval No:	2193-8JRPQJ	**MOE District:**	Ottawa
Approval Date:	2011-07-14	**City:**	
Status:	Approved	**Longitude:**	-75.64553
Record Type:	ECA	**Latitude:**	45.420677
Link Source:	IDS	**Geometry X:**	
SWP Area Name:	Rideau Valley	**Geometry Y:**	

Approval Type: ECA-AIR
Project Type: AIR
Business Name: Public Works and Government Services Canada
Address: 440 Coventry Rd
Full Address:
Full PDF Link: https://www.accessenvironment.ene.gov.on.ca/instruments/2718-8EJJL6-14.pdf
PDF Site Location:

6	23 of 29	W/160.4	67.9 / -1.31	ROYAL CANADIAN MOUNTED POLICE 440 Coventry Road Ottawa ON K1A 0T1	GEN

Generator No: ON8464906
SIC Code: 911230
SIC Description: 911230
Approval Years: 2016
PO Box No:
Country: Canada
Status:
Co Admin:
Choice of Contact: CO_OFFICIAL
Phone No Admin:
Contaminated Facility: No
MHSW Facility: No

Detail(s)

Waste Class: 212
Waste Class Name: ALIPHATIC SOLVENTS

6	24 of 29	W/160.4	67.9 / -1.31	Public Works and Government Services EXHIBITION COMMISSION 440 COVENTRY ROAD OTTAWA ON K1K 2C4	GEN

Generator No: ON0554837
SIC Code: 911910
SIC Description: 911910
Approval Years: 2015
PO Box No:
Country: Canada
Status:
Co Admin: Sarah Page
Choice of Contact: CO_OFFICIAL
Phone No Admin: (613) 946-9536 Ext.
Contaminated Facility: No
MHSW Facility: No

Detail(s)

Waste Class: 251
Waste Class Name: OIL SKIMMINGS & SLUDGES

Waste Class: 221
Waste Class Name: LIGHT FUELS

Waste Class: 213
Waste Class Name: PETROLEUM DISTILLATES

Waste Class: 145
Waste Class Name: PAINT/PIGMENT/COATING RESIDUES

Waste Class: 112
Waste Class Name: ACID WASTE - HEAVY METALS

Waste Class: 121
Waste Class Name: ALKALINE WASTES - HEAVY METALS

Waste Class: 252
Waste Class Name: WASTE OILS & LUBRICANTS

Waste Class: 146
Waste Class Name: OTHER SPECIFIED INORGANICS

Waste Class: 122
Waste Class Name: ALKALINE WASTES - OTHER METALS

Waste Class: 148
Waste Class Name: INORGANIC LABORATORY CHEMICALS

Waste Class: 212
Waste Class Name: ALIPHATIC SOLVENTS

Waste Class: 243
Waste Class Name: PCBS

Waste Class: 263
Waste Class Name: ORGANIC LABORATORY CHEMICALS

Waste Class: 331
Waste Class Name: WASTE COMPRESSED GASES

Waste Class: 113
Waste Class Name: ACID WASTE - OTHER METALS

6	25 of 29	W/160.4	67.9 / -1.31	Public Works and Government Services EXHIBITION COMMISSION 440 COVENTRY ROAD OTTAWA ON K1K 2C4	GEN

Generator No: ON0554837
SIC Code: 911910
SIC Description: 911910
Approval Years: 2014
PO Box No:
Country: Canada
Status:
Co Admin:
Choice of Contact: CO_OFFICIAL
Phone No Admin:
Contaminated Facility: No
MHSW Facility: No

Detail(s)

Waste Class: 121
Waste Class Name: ALKALINE WASTES - HEAVY METALS

Waste Class: 252
Waste Class Name: WASTE OILS & LUBRICANTS

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB

Waste Class: 148
Waste Class Name: INORGANIC LABORATORY CHEMICALS

Waste Class: 251
Waste Class Name: OIL SKIMMINGS & SLUDGES

Waste Class: 221
Waste Class Name: LIGHT FUELS

Waste Class: 331
Waste Class Name: WASTE COMPRESSED GASES

Waste Class: 212
Waste Class Name: ALIPHATIC SOLVENTS

Waste Class: 113
Waste Class Name: ACID WASTE - OTHER METALS

Waste Class: 122
Waste Class Name: ALKALINE WASTES - OTHER METALS

Waste Class: 146
Waste Class Name: OTHER SPECIFIED INORGANICS

Waste Class: 213
Waste Class Name: PETROLEUM DISTILLATES

Waste Class: 243
Waste Class Name: PCBS

Waste Class: 263
Waste Class Name: ORGANIC LABORATORY CHEMICALS

Waste Class: 145
Waste Class Name: PAINT/PIGMENT/COATING RESIDUES

Waste Class: 112
Waste Class Name: ACID WASTE - HEAVY METALS

6	***26 of 29***	***W/160.4***	***67.9 / -1.31***	***Public Services & Procurement Canada*** ***ESD/AFD*** ***440 COVENTRY ROAD*** ***OTTAWA ON K1K 2C4***	***GEN***

Generator No: ON0554837
SIC Code:
SIC Description:
Approval Years: As of Dec 2018
PO Box No:
Country: Canada
Status: Registered
Co Admin:
Choice of Contact:
Phone No Admin:
Contaminated Facility:
MHSW Facility:

Detail(s)

Waste Class: 112 C
Waste Class Name: Acid solutions - containing heavy metals

Waste Class: 121 C

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB

Waste Class:	212 L
Waste Class Name:	Aliphatic solvents and residues
Waste Class:	331 I
Waste Class Name:	Waste compressed gases including cylinders
Waste Class:	251 L
Waste Class Name:	Waste oils/sludges (petroleum based)
Waste Class:	213 I
Waste Class Name:	Petroleum distillates
Waste Class:	122 C
Waste Class Name:	Alkaline slutions - containing other metals and non-metals (not cyanide)
Waste Class:	221 I
Waste Class Name:	Light fuels
Waste Class:	112 C
Waste Class Name:	Acid solutions - containing heavy metals
Waste Class:	212 I
Waste Class Name:	Aliphatic solvents and residues
Waste Class:	148 L
Waste Class Name:	Misc. wastes and inorganic chemicals
Waste Class:	145 I
Waste Class Name:	Wastes from the use of pigments, coatings and paints

6	***28 of 29***	***W/160.4***	***67.9 / -1.31***	***Public Services & Procurement Canada*** ***ESD/AFD*** ***440 COVENTRY ROAD*** ***OTTAWA ON K1K 2C4***	***GEN***

Generator No:	ON0554837
SIC Code:	
SIC Description:	
Approval Years:	As of Nov 2021
PO Box No:	
Country:	Canada
Status:	Registered
Co Admin:	
Choice of Contact:	
Phone No Admin:	
Contaminated Facility:	
MHSW Facility:	

Detail(s)

Waste Class:	121 C
Waste Class Name:	Alkaline slutions - containing heavy metals
Waste Class:	331 I
Waste Class Name:	Waste compressed gases including cylinders
Waste Class:	112 C
Waste Class Name:	Acid solutions - containing heavy metals
Waste Class:	221 I
Waste Class Name:	Light fuels
Waste Class:	145 I
Waste Class Name:	Wastes from the use of pigments, coatings and paints

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB

Waste Class:	213 I
Waste Class Name:	Petroleum distillates
Waste Class:	212 I
Waste Class Name:	Aliphatic solvents and residues
Waste Class:	251 L
Waste Class Name:	Waste oils/sludges (petroleum based)
Waste Class:	122 C
Waste Class Name:	Alkaline slutions - containing other metals and non-metals (not cyanide)
Waste Class:	252 L
Waste Class Name:	Waste crankcase oils and lubricants
Waste Class:	212 L
Waste Class Name:	Aliphatic solvents and residues
Waste Class:	146 T
Waste Class Name:	Other specified inorganic sludges, slurries or solids
Waste Class:	148 L
Waste Class Name:	Misc. wastes and inorganic chemicals
Waste Class:	312 P
Waste Class Name:	Pathological wastes

6	***29 of 29***	***W/160.4***	***67.9 / -1.31***	***Public Services & Procurement Canada*** ***RPB/AFD*** ***440 COVENTRY ROAD*** ***OTTAWA ON K1K 2C4***	***GEN***

Generator No:	ON0554837
SIC Code:	
SIC Description:	
Approval Years:	As of Oct 2022
PO Box No:	
Country:	Canada
Status:	Registered
Co Admin:	
Choice of Contact:	
Phone No Admin:	
Contaminated Facility:	
MHSW Facility:	

Detail(s)

Waste Class:	252 L
Waste Class Name:	WASTE OILS & LUBRICANTS
Waste Class:	121 C
Waste Class Name:	ALKALINE WASTES - HEAVY METALS
Waste Class:	331 I
Waste Class Name:	WASTE COMPRESSED GASES
Waste Class:	148 L
Waste Class Name:	INORGANIC LABORATORY CHEMICALS
Waste Class:	112 C
Waste Class Name:	ACID WASTE - HEAVY METALS
Waste Class:	122 C

Waste Class Name:	ALKALINE WASTES - OTHER METALS
Waste Class:	212 L
Waste Class Name:	ALIPHATIC SOLVENTS
Waste Class:	213 I
Waste Class Name:	PETROLEUM DISTILLATES
Waste Class:	212 I
Waste Class Name:	ALIPHATIC SOLVENTS
Waste Class:	251 L
Waste Class Name:	OIL SKIMMINGS & SLUDGES
Waste Class:	145 I
Waste Class Name:	PAINT/PIGMENT/COATING RESIDUES
Waste Class:	312 P
Waste Class Name:	PATHOLOGICAL WASTES
Waste Class:	221 I
Waste Class Name:	LIGHT FUELS
Waste Class:	146 T
Waste Class Name:	OTHER SPECIFIED INORGANICS

7 ***1 of 1*** ***NNW/161.7*** ***67.9 / -1.31*** ***ON*** ***WWIS***

Well ID:	7338631	***Flowing (Y/N):***	
Construction Date:		***Flow Rate:***	
Use 1st:		***Data Entry Status:***	Yes
Use 2nd:		***Data Src:***	
Final Well Status:		***Date Received:***	07/29/2019
Water Type:		***Selected Flag:***	TRUE
Casing Material:		***Abandonment Rec:***	
Audit No:	C40384	***Contractor:***	1844
Tag:	A246805	***Form Version:***	8
Constructn Method:		***Owner:***	
Elevation (m):		***County:***	OTTAWA-CARLETON
Elevatn Reliabilty:		***Lot:***	
Depth to Bedrock:		***Concession:***	
Well Depth:		***Concession Name:***	
Overburden/Bedrock:		***Easting NAD83:***	
Pump Rate:		***Northing NAD83:***	
Static Water Level:		***Zone:***	
Clear/Cloudy:		***UTM Reliability:***	
Municipality:	OTTAWA CITY		
Site Info:			

PDF URL (Map):

Additional Detail(s) (Map)

Well Completed Date:	08/09/2018
Year Completed:	2018
Depth (m):	
Latitude:	45.4221920258146
Longitude:	-75.6439757309523
Path:	

Bore Hole Information

Bore Hole ID:	1007568552	**Elevation:**	
DP2BR:		**Elevrc:**	
Spatial Status:		**Zone:**	18
Code OB:		**East83:**	449619.00
Code OB Desc:		**North83:**	5030054.00
Open Hole:		**Org CS:**	UTM83
Cluster Kind:		**UTMRC:**	4
Date Completed:	08/09/2018	**UTMRC Desc:**	margin of error : 30 m - 100 m
Remarks:		**Location Method:**	wwr
Loc Method Desc:	on Water Well Record		
Elevrc Desc:			
Location Source Date:			
Improvement Location Source:			
Improvement Location Method:			
Source Revision Comment:			
Supplier Comment:			

Links

Bore Hole ID:	1007568552	**Tag No:**	A246805
Depth M:		**Contractor:**	1844
Year Completed:	2018	**Latitude:**	45.4221920258146
Well Completed Dt:	08/09/2018	**Longitude:**	-75.6439757309523
Audit No:	C40384	**Y:**	45.4221920193751
Path:		**X:**	-75.64397556865107

8 | ***1 of 1*** | ***SSE/164.8*** | ***68.9 / -0.31*** | ***ON*** | ***BORE***

Borehole ID:	848119	**Inclin FLG:**	No
OGF ID:	215589767	**SP Status:**	Initial Entry
Status:	Decommissioned	**Surv Elev:**	No
Type:	Borehole	**Piezometer:**	No
Use:	Geotechnical/Geological Investigation	**Primary Name:**	
Completion Date:	13-JUN-1985	**Municipality:**	
Static Water Level:		**Lot:**	LOT 9
Primary Water Use:		**Township:**	GLOUCESTER
Sec. Water Use:		**Latitude DD:**	45.41939
Total Depth m:	8.9	**Longitude DD:**	-75.642794
Depth Ref:	Ground Surface	**UTM Zone:**	18
Depth Elev:		**Easting:**	449709
Drill Method:	Hollow stem auger	**Northing:**	5029742
Orig Ground Elev m:	72.1	**Location Accuracy:**	
Elev Reliabil Note:		**Accuracy:**	Within 10 metres
DEM Ground Elev m:	66.6		
Concession:	GORE		
Location D:			
Survey D:			
Comments:			

Borehole Geology Stratum

Geology Stratum ID:	6560024	**Mat Consistency:**	Stiff
Top Depth:	2.9	**Material Moisture:**	
Bottom Depth:	5.6	**Material Texture:**	
Material Color:		**Non Geo Mat Type:**	
Material 1:	Clay	**Geologic Formation:**	
Material 2:	Silt	**Geologic Group:**	
Material 3:	Sand	**Geologic Period:**	
Material 4:	Gravel	**Depositional Gen:**	
Gsc Material Description:			
Stratum Description:	HETEROGENEOUS MIXTURE CLAY, SILT, SAND, GRAVEL, STIFF TO VERY STIFF **Note: Many records provided by the department have a truncated [Stratum Description] field.		

Geology Stratum ID:	6560025	**Mat Consistency:**	
Top Depth:	5.6	**Material Moisture:**	
Bottom Depth:	8.9	**Material Texture:**	
Material Color:		**Non Geo Mat Type:**	
Material 1:	Bedrock	**Geologic Formation:**	
Material 2:	Shale	**Geologic Group:**	
Material 3:		**Geologic Period:**	
Material 4:		**Depositional Gen:**	
Gsc Material Description:			

Stratum Description: SHALE BEDROCK HIGHLY WEATHERED TO SLIGHTLY WEATHERED TO UNWEATHERED WITH DEPTH **Note: Many records provided by the department have a truncated [Stratum Description] field.

Geology Stratum ID:	6560023	**Mat Consistency:**	Firm
Top Depth:	0	**Material Moisture:**	
Bottom Depth:	2.9	**Material Texture:**	
Material Color:		**Non Geo Mat Type:**	
Material 1:	Fill	**Geologic Formation:**	
Material 2:	Clay - Silt	**Geologic Group:**	
Material 3:	Sand	**Geologic Period:**	
Material 4:	Gravel - Bolders	**Depositional Gen:**	
Gsc Material Description:			

Stratum Description: FILL, SILTY CLAY WITH SAND AND GRAVEL, OCCASIONAL BOULDERS, FIRM TO STIFF **Note: Many records provided by the department have a truncated [Stratum Description] field.

9	1 of 19	N/168.2	68.2 / -1.00	DOLLCO PRINTING 525 COVENTRY ROAD OTTAWA ON K1K 2C5	GEN

Generator No:	ON0366500
SIC Code:	2841
SIC Description:	NEWSPAPER, ETC. IND.
Approval Years:	86,87
PO Box No:	
Country:	
Status:	
Co Admin:	
Choice of Contact:	
Phone No Admin:	
Contaminated Facility:	
MHSW Facility:	

Detail(s)

Waste Class:	213
Waste Class Name:	PETROLEUM DISTILLATES

9	2 of 19	N/168.2	68.2 / -1.00	DOLLCO PRINTING (OUT OF BUSINESS) 525 COVENTRY ROAD OTTAWA ON K1K 2C5	GEN

Generator No:	ON0366500
SIC Code:	2841
SIC Description:	NEWSPAPER, ETC. IND.
Approval Years:	88,89,90
PO Box No:	
Country:	
Status:	
Co Admin:	
Choice of Contact:	
Phone No Admin:	
Contaminated Facility:	
MHSW Facility:	

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB

Detail(s)

Waste Class: 213
Waste Class Name: PETROLEUM DISTILLATES

9	*3 of 19*	*N/168.2*	*68.2 / -1.00*	***DOLLCO PRINTING (OUT OF BUSINESS) 12-201*** ***525 COVENTRY ROAD*** ***OTTAWA ON K1K 2C5***	***GEN***

Generator No: ON0366500
SIC Code: 2841
SIC Description: NEWSPAPER, ETC. IND.
Approval Years: 92,93,94,95,96,97
PO Box No:
Country:
Status:
Co Admin:
Choice of Contact:
Phone No Admin:
Contaminated Facility:
MHSW Facility:

9	*4 of 19*	*N/168.2*	*68.2 / -1.00*	***DOLLCO PRINTING (OUT OF BUSINESS)*** ***525 COVENTRY ROAD*** ***OTTAWA ON K1K 2C5***	***GEN***

Generator No: ON0366500
SIC Code: 2841
SIC Description: NEWSPAPER, ETC. IND.
Approval Years: 98
PO Box No:
Country:
Status:
Co Admin:
Choice of Contact:
Phone No Admin:
Contaminated Facility:
MHSW Facility:

9	*5 of 19*	*N/168.2*	*68.2 / -1.00*	***BELL CANADA*** ***525 COVENTRY ROAD*** ***OTTAWA ON K1K 2C5***	***GEN***

Generator No: ON0473816
SIC Code: 6351
SIC Description: GARAGES(GEN. REPAIR)
Approval Years: 88,89,90,99,00
PO Box No:
Country:
Status:
Co Admin:
Choice of Contact:
Phone No Admin:
Contaminated Facility:
MHSW Facility:

Detail(s)

Waste Class: 112
Waste Class Name: ACID WASTE - HEAVY METALS

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB

Waste Class: 212
Waste Class Name: ALIPHATIC SOLVENTS

Waste Class: 213
Waste Class Name: PETROLEUM DISTILLATES

Waste Class: 251
Waste Class Name: OIL SKIMMINGS & SLUDGES

Waste Class: 252
Waste Class Name: WASTE OILS & LUBRICANTS

9	6 of 19	N/168.2	68.2 / -1.00	BELL CANADA 05-288 525 COVENTRY ROAD OTTAWA ON K1K 2C5	GEN

Generator No: ON0473816
SIC Code: 6351
SIC Description: GARAGES(GEN. REPAIR)
Approval Years: 92,93,94,95,96,97,98
PO Box No:
Country:
Status:
Co Admin:
Choice of Contact:
Phone No Admin:
Contaminated Facility:
MHSW Facility:

Detail(s)

Waste Class: 112
Waste Class Name: ACID WASTE - HEAVY METALS

Waste Class: 212
Waste Class Name: ALIPHATIC SOLVENTS

Waste Class: 213
Waste Class Name: PETROLEUM DISTILLATES

Waste Class: 251
Waste Class Name: OIL SKIMMINGS & SLUDGES

Waste Class: 252
Waste Class Name: WASTE OILS & LUBRICANTS

9	7 of 19	N/168.2	68.2 / -1.00	BELL (OUT OF BUSINESS) 525 COVENTRY ROAD OTTAWA ON K1K 2C5	GEN

Generator No: ON0473816
SIC Code: 4821
SIC Description: TELECOMMUN. CARRRIERS
Approval Years: 01
PO Box No:
Country:
Status:
Co Admin:
Choice of Contact:
Phone No Admin:
Contaminated Facility:
MHSW Facility:

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB

Detail(s)

Waste Class: 112
Waste Class Name: ACID WASTE - HEAVY METALS

Waste Class: 212
Waste Class Name: ALIPHATIC SOLVENTS

Waste Class: 213
Waste Class Name: PETROLEUM DISTILLATES

Waste Class: 251
Waste Class Name: OIL SKIMMINGS & SLUDGES

Waste Class: 252
Waste Class Name: WASTE OILS & LUBRICANTS

9	8 of 19	N/168.2	68.2 / -1.00	DOLLCO PRINTING 525 COVENTRY RD. OTTAWA ON K1K 2C5	GEN

Generator No: ON0771300
SIC Code: 0000
SIC Description: *** NOT DEFINED ***
Approval Years: 86,87,88,89,90,94
PO Box No:
Country:
Status:
Co Admin:
Choice of Contact:
Phone No Admin:
Contaminated Facility:
MHSW Facility:

9	9 of 19	N/168.2	68.2 / -1.00	DOLLCO PRINTING (OUT OF BUSINESS) 525 COVENTRY RD. OTTAWA ON K1K 2C5	GEN

Generator No: ON0771300
SIC Code: 0000
SIC Description: *** NOT DEFINED ***
Approval Years: 92,93
PO Box No:
Country:
Status:
Co Admin:
Choice of Contact:
Phone No Admin:
Contaminated Facility:
MHSW Facility:

9	10 of 19	N/168.2	68.2 / -1.00	DELCO PRINTING P.O.BOX 8620 525 COVENTRY ROAD OTTAWA ON K1K 2C5	GEN

Generator No: ON0804300
SIC Code: 0000
SIC Description: *** NOT DEFINED ***
Approval Years: 86,87,88,89,90,92,93,94
PO Box No:
Country:
Status:
Co Admin:

Choice of Contact:
Phone No Admin:
Contaminated Facility:
MHSW Facility:

---

9 | **11 of 19** | **N/168.2** | **68.2 / -1.00** | **525 Coventry Road Ottawa ON K1K 2C5** | **EHS**

Order No:	20130614023	**Nearest Intersection:**	
Status:	C	**Municipality:**	
Report Type:	Standard Report	**Client Prov/State:**	ON
Report Date:	24-JUN-13	**Search Radius (km):**	.25
Date Received:	14-JUN-13	**X:**	-75.643342
Previous Site Name:		**Y:**	45.422343
Lot/Building Size:	3 acres		
Additional Info Ordered:	Fire Insur. Maps and/or Site Plans		

---

9 | **12 of 19** | **N/168.2** | **68.2 / -1.00** | **MORGUARD REAL ESTATE INVESTMENT TRUST 525 COVENTRY RD OTTAWA ON K1K 2C5** | **EASR**

Approval No:	R-003-6614951427	**MOE District:**	Ottawa
Status:	REGISTERED	**Municipality:**	OTTAWA
Date:	2016-07-22	**Latitude:**	45.42222222
Record Type:	EASR	**Longitude:**	-75.64277778
Link Source:	MOFA	**Geometry X:**	
Project Type:	Heating System	**Geometry Y:**	
Full Address:			
Approval Type:	EASR-Heating System		
SWP Area Name:	Rideau Valley		
PDF URL:			
PDF Site Location:			

---

9 | **13 of 19** | **N/168.2** | **68.2 / -1.00** | **525 Coventry Rd Ottawa ON K1K2C5** | **EHS**

Order No:	20160321113	**Nearest Intersection:**	
Status:	C	**Municipality:**	
Report Type:	Standard Report	**Client Prov/State:**	ON
Report Date:	29-MAR-16	**Search Radius (km):**	.25
Date Received:	21-MAR-16	**X:**	-75.643156
Previous Site Name:		**Y:**	45.422462
Lot/Building Size:			
Additional Info Ordered:	City Directory		

---

9 | **14 of 19** | **N/168.2** | **68.2 / -1.00** | **525 Coventry Road Ottawa ON** | **EHS**

Order No:	20150311030	**Nearest Intersection:**	
Status:	C	**Municipality:**	Ottawa
Report Type:	Standard Select Report	**Client Prov/State:**	ON
Report Date:	17-MAR-15	**Search Radius (km):**	.25
Date Received:	11-MAR-15	**X:**	-75.643166
Previous Site Name:		**Y:**	45.422357
Lot/Building Size:			
Additional Info Ordered:			

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
9	15 of 19	N/168.2	68.2 / -1.00	Premier Environmental Services 525 Coventry Road Ottawa ON K1K 2C5	GEN

Generator No: ON5281057
SIC Code: 541620
SIC Description: ENVIRONMENTAL CONSULTING SERVICES
Approval Years: 2015
PO Box No:
Country: Canada
Status:
Co Admin:
Choice of Contact: CO_OFFICIAL
Phone No Admin:
Contaminated Facility: No
MHSW Facility: No

Detail(s)

Waste Class: 221
Waste Class Name: LIGHT FUELS

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
9	16 of 19	N/168.2	68.2 / -1.00	525 Coventry Road Ottawa ON K1K 2C5	EHS

Order No: 21062200229
Status: C
Report Type: Standard Report
Report Date: 25-JUN-21
Date Received: 22-JUN-21
Previous Site Name:
Lot/Building Size:
Additional Info Ordered:

Nearest Intersection:
Municipality:
Client Prov/State: ON
Search Radius (km): .25
X: -75.6431154
Y: 45.4223609

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
9	17 of 19	N/168.2	68.2 / -1.00	525 Coventry Road Ottawa ON K1K 2C5	EHS

Order No: 21062200229
Status: C
Report Type: Standard Report
Report Date: 25-JUN-21
Date Received: 22-JUN-21
Previous Site Name:
Lot/Building Size:
Additional Info Ordered:

Nearest Intersection:
Municipality:
Client Prov/State: ON
Search Radius (km): .25
X: -75.6431154
Y: 45.4223609

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
9	18 of 19	N/168.2	68.2 / -1.00	525 and 535 Coventry Road Ottawa ON K1K 2C5	EHS

Order No: 23092200218
Status: C
Report Type: Standard Report
Report Date: 25-SEP-23
Date Received: 22-SEP-23
Previous Site Name:
Lot/Building Size:
Additional Info Ordered:

Nearest Intersection:
Municipality:
Client Prov/State: ON
Search Radius (km): .25
X: -75.6431154
Y: 45.4223609

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
9	19 of 19	N/168.2	68.2 / -1.00	525 Coventry Road Ottawa ON K1K 2C5	EHS

Order No:	21062200229	**Nearest Intersection:**	
Status:	C	**Municipality:**	
Report Type:	Standard Report	**Client Prov/State:**	ON
Report Date:	25-JUN-21	**Search Radius (km):**	.25
Date Received:	22-JUN-21	**X:**	-75.6431154
Previous Site Name:		**Y:**	45.4223609
Lot/Building Size:			
Additional Info Ordered:			

10	1 of 20	NW/185.6	67.9 / -1.31	BELL CANADA AUTOMOTIVE MGR 469 COVENTRY RD OTTAWA ON K1K 2C5	PRT

Location ID:	10925
Type:	private
Expiry Date:	
Capacity (L):	22730.00
Licence #:	0001049002

10	2 of 20	NW/185.6	67.9 / -1.31	BELL CANADA 469 COVENTRY ROAD OTTAWA ON K1K 2C5	GEN

Generator No:	ON0473807
SIC Code:	4821
SIC Description:	TELECOMMUN. CARRRIERS
Approval Years:	86,87
PO Box No:	
Country:	
Status:	
Co Admin:	
Choice of Contact:	
Phone No Admin:	
Contaminated Facility:	
MHSW Facility:	

Detail(s)

Waste Class:	131
Waste Class Name:	NEUTRALIZED WASTES - HEAVY METALS
Waste Class:	252
Waste Class Name:	WASTE OILS & LUBRICANTS
Waste Class:	112
Waste Class Name:	ACID WASTE - HEAVY METALS

10	3 of 20	NW/185.6	67.9 / -1.31	BELL CANADA 469 COVENTRY ROAD OTTAWA ON K1K 2C5	GEN

Generator No:	ON0473807
SIC Code:	6351
SIC Description:	GARAGES(GEN. REPAIR)
Approval Years:	89,90,97,98,99,00,01,02,03,04,05,06,07,08
PO Box No:	
Country:	
Status:	

Co Admin:
Choice of Contact:
Phone No Admin:
Contaminated Facility:
MHSW Facility:

Detail(s)

Waste Class: 254
Waste Class Name: TRANSFER STATION OILS WASTES

Waste Class: 221
Waste Class Name: LIGHT FUELS

Waste Class: 112
Waste Class Name: ACID WASTE - HEAVY METALS

Waste Class: 121
Waste Class Name: ALKALINE WASTES - HEAVY METALS

Waste Class: 263
Waste Class Name: ORGANIC LABORATORY CHEMICALS

Waste Class: 312
Waste Class Name: PATHOLOGICAL WASTES

Waste Class: 331
Waste Class Name: WASTE COMPRESSED GASES

Waste Class: 131
Waste Class Name: NEUTRALIZED WASTES - HEAVY METALS

Waste Class: 145
Waste Class Name: PAINT/PIGMENT/COATING RESIDUES

Waste Class: 148
Waste Class Name: INORGANIC LABORATORY CHEMICALS

Waste Class: 212
Waste Class Name: ALIPHATIC SOLVENTS

Waste Class: 213
Waste Class Name: PETROLEUM DISTILLATES

Waste Class: 251
Waste Class Name: OIL SKIMMINGS & SLUDGES

Waste Class: 252
Waste Class Name: WASTE OILS & LUBRICANTS

10	***4 of 20***	***NW/185.6***	***67.9 / -1.31***	***BELL CANADA 05-777*** ***469 COVENTRY ROAD*** ***OTTAWA ON K1K 2C5***	***GEN***

Generator No: ON0473807
SIC Code: 6351
SIC Description: GARAGES(GEN. REPAIR)
Approval Years: 92,93,94,95,96
PO Box No:
Country:
Status:
Co Admin:
Choice of Contact:
Phone No Admin:

Contaminated Facility:
MHSW Facility:

Detail(s)

Waste Class: 112
Waste Class Name: ACID WASTE - HEAVY METALS

Waste Class: 148
Waste Class Name: INORGANIC LABORATORY CHEMICALS

Waste Class: 121
Waste Class Name: ALKALINE WASTES - HEAVY METALS

Waste Class: 131
Waste Class Name: NEUTRALIZED WASTES - HEAVY METALS

Waste Class: 145
Waste Class Name: PAINT/PIGMENT/COATING RESIDUES

Waste Class: 263
Waste Class Name: ORGANIC LABORATORY CHEMICALS

Waste Class: 212
Waste Class Name: ALIPHATIC SOLVENTS

Waste Class: 213
Waste Class Name: PETROLEUM DISTILLATES

Waste Class: 251
Waste Class Name: OIL SKIMMINGS & SLUDGES

Waste Class: 252
Waste Class Name: WASTE OILS & LUBRICANTS

Waste Class: 331
Waste Class Name: WASTE COMPRESSED GASES

10	***5 of 20***	***NW/185.6***	***67.9 / -1.31***	***BELL CANADA AUTOMOTIVE MGR*** ***469 COVENTRY RD*** ***OTTAWA ON K1K 2C5***	***FSTH***

License Issue Date: 12/19/1990
Tank Status: Licensed
Tank Status As Of: August 2007
Operation Type: Private Fuel Outlet
Facility Type: Gasoline Station - Self Serve

--Details--
Status: Active
Year of Installation: 1991
Corrosion Protection:
Capacity: 22700
Tank Fuel Type: Liquid Fuel Single Wall UST - Gasoline

Status: Active
Year of Installation: 1993
Corrosion Protection:
Capacity: 2270
Tank Fuel Type: Liquid Fuel Single Wall UST - Other

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
10	6 of 20	NW/185.6	67.9 / -1.31	BELL CANADA AUTOMOTIVE MGR 469 COVENTRY RD OTTAWA ON K1K 2C5	FSTH

License Issue Date: 12/19/1990
Tank Status: Licensed
Tank Status As Of: December 2008
Operation Type: Private Fuel Outlet
Facility Type: Gasoline Station - Self Serve

--Details--
Status: Active
Year of Installation: 1991
Corrosion Protection:
Capacity: 22700
Tank Fuel Type: Liquid Fuel Single Wall UST - Gasoline

Status: Active
Year of Installation: 1993
Corrosion Protection:
Capacity: 2270
Tank Fuel Type: Liquid Fuel Single Wall UST - Other

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
10	7 of 20	NW/185.6	67.9 / -1.31	BELL CANADA 469 COVENTRY ROAD OTTAWA ON K1K 2C5	GEN

Generator No: ON0473807
SIC Code: 517110, 517210, 517510
SIC Description: Wired Telecommunications Carriers, Wireless Telecommunications Carriers (except Satellite), Cable and Other Program Distribution
Approval Years: 2009
PO Box No:
Country:
Status:
Co Admin:
Choice of Contact:
Phone No Admin:
Contaminated Facility:
MHSW Facility:

Detail(s)

Waste Class: 112
Waste Class Name: ACID WASTE - HEAVY METALS

Waste Class: 121
Waste Class Name: ALKALINE WASTES - HEAVY METALS

Waste Class: 131
Waste Class Name: NEUTRALIZED WASTES - HEAVY METALS

Waste Class: 148
Waste Class Name: INORGANIC LABORATORY CHEMICALS

Waste Class: 212
Waste Class Name: ALIPHATIC SOLVENTS

Waste Class: 213
Waste Class Name: PETROLEUM DISTILLATES

Waste Class: 221

Waste Class Name: LIGHT FUELS

Waste Class: 251
Waste Class Name: OIL SKIMMINGS & SLUDGES

Waste Class: 252
Waste Class Name: WASTE OILS & LUBRICANTS

Waste Class: 263
Waste Class Name: ORGANIC LABORATORY CHEMICALS

Waste Class: 331
Waste Class Name: WASTE COMPRESSED GASES

10	8 of 20	NW/185.6	67.9 / -1.31	BELL CANADA 469 COVENTRY ROAD OTTAWA ON K1K 2C5	GEN

Generator No: ON0473807
SIC Code: 517110, 517210, 517510
SIC Description: Wired Telecommunications Carriers, Wireless Telecommunications Carriers (except Satellite), Cable and Other Program Distribution
Approval Years: 2010
PO Box No:
Country:
Status:
Co Admin:
Choice of Contact:
Phone No Admin:
Contaminated Facility:
MHSW Facility:

Detail(s)

Waste Class: 331
Waste Class Name: WASTE COMPRESSED GASES

Waste Class: 252
Waste Class Name: WASTE OILS & LUBRICANTS

Waste Class: 213
Waste Class Name: PETROLEUM DISTILLATES

Waste Class: 131
Waste Class Name: NEUTRALIZED WASTES - HEAVY METALS

Waste Class: 263
Waste Class Name: ORGANIC LABORATORY CHEMICALS

Waste Class: 112
Waste Class Name: ACID WASTE - HEAVY METALS

Waste Class: 121
Waste Class Name: ALKALINE WASTES - HEAVY METALS

Waste Class: 221
Waste Class Name: LIGHT FUELS

Waste Class: 148
Waste Class Name: INORGANIC LABORATORY CHEMICALS

Waste Class: 212
Waste Class Name: ALIPHATIC SOLVENTS

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB

Waste Class: 251
Waste Class Name: OIL SKIMMINGS & SLUDGES

---

10 | **9 of 20** | **NW/185.6** | **67.9 / -1.31** | **BELL CANADA**
469 COVENTRY ROAD
OTTAWA ON K1K 2C5 | **GEN**

Generator No: ON0473807
SIC Code: 517110, 517210, 517510
SIC Description: Wired Telecommunications Carriers, Wireless Telecommunications Carriers (except Satellite), Cable and Other Program Distribution
Approval Years: 2011
PO Box No:
Country:
Status:
Co Admin:
Choice of Contact:
Phone No Admin:
Contaminated Facility:
MHSW Facility:

Detail(s)

Waste Class: 331
Waste Class Name: WASTE COMPRESSED GASES

Waste Class: 131
Waste Class Name: NEUTRALIZED WASTES - HEAVY METALS

Waste Class: 148
Waste Class Name: INORGANIC LABORATORY CHEMICALS

Waste Class: 121
Waste Class Name: ALKALINE WASTES - HEAVY METALS

Waste Class: 112
Waste Class Name: ACID WASTE - HEAVY METALS

Waste Class: 252
Waste Class Name: WASTE OILS & LUBRICANTS

Waste Class: 212
Waste Class Name: ALIPHATIC SOLVENTS

Waste Class: 263
Waste Class Name: ORGANIC LABORATORY CHEMICALS

Waste Class: 221
Waste Class Name: LIGHT FUELS

Waste Class: 213
Waste Class Name: PETROLEUM DISTILLATES

Waste Class: 251
Waste Class Name: OIL SKIMMINGS & SLUDGES

---

10 | **10 of 20** | **NW/185.6** | **67.9 / -1.31** | **BELL CANADA AUTOMOTIVE MGR**
469 COVENTRY RD
OTTAWA ON | **FST**

Inventory No: 11394857
Inventory Status: Active
Installation Year:
Tank Material: Fiberglass (FRP)
Corrosion Protect: Fiberglass
Overfill Protection:

Capacity:
Capacity Unit:
Tank Type:
Manufacturer:
Model:
Description: UNDERGROUND TANK

Inventory Context: FS Liquid Fuel Tank
Inventory Item: FS LIQUID FUEL TANK

---

10 | **11 of 20** | **NW/185.6** | **67.9 / -1.31** | **BELL CANADA AUTOMOTIVE MGR**
469 COVENTRY RD
OTTAWA ON | **FST**

Inventory No: 10902481
Inventory Status: Active
Installation Year:
Capacity:
Capacity Unit:
Tank Type:
Manufacturer:
Model:
Description: UNDERGROUND TANK

Tank Material: Fiberglass (FRP)
Corrosion Protect: Fiberglass
Overfill Protection:
Inventory Context: FS Liquid Fuel Tank
Inventory Item: FS LIQUID FUEL TANK

---

10 | **12 of 20** | **NW/185.6** | **67.9 / -1.31** | **BELL CANADA**
469 COVENTRY ROAD
OTTAWA ON K1K 2C5 | **GEN**

Generator No: ON0473807
SIC Code: 517110, 517210, 517510
SIC Description: Wired Telecommunications Carriers, Wireless Telecommunications Carriers (except Satellite), Cable and Other Program Distribution
Approval Years: 2012
PO Box No:
Country:
Status:
Co Admin:
Choice of Contact:
Phone No Admin:
Contaminated Facility:
MHSW Facility:

Detail(s)

Waste Class: 131
Waste Class Name: NEUTRALIZED WASTES - HEAVY METALS

Waste Class: 112
Waste Class Name: ACID WASTE - HEAVY METALS

Waste Class: 148
Waste Class Name: INORGANIC LABORATORY CHEMICALS

Waste Class: 121
Waste Class Name: ALKALINE WASTES - HEAVY METALS

Waste Class: 331
Waste Class Name: WASTE COMPRESSED GASES

Waste Class: 251
Waste Class Name: OIL SKIMMINGS & SLUDGES

Waste Class: 252
Waste Class Name: WASTE OILS & LUBRICANTS

Waste Class: 263
Waste Class Name: ORGANIC LABORATORY CHEMICALS

Waste Class: 213
Waste Class Name: PETROLEUM DISTILLATES

Waste Class: 212
Waste Class Name: ALIPHATIC SOLVENTS

Waste Class: 221
Waste Class Name: LIGHT FUELS

10	13 of 20	NW/185.6	67.9 / -1.31	BELL CANADA 469 COVENTRY ROAD OTTAWA ON	GEN

Generator No: ON0473807
SIC Code: 517110, 517210, 517510
SIC Description: WIRED TELECOMMUNICATIONS CARRIERS, WIRELESS TELECOMMUNICATIONS CARRIERS (EXCEPT SATELLITE)
Approval Years: 2013
PO Box No:
Country:
Status:
Co Admin:
Choice of Contact:
Phone No Admin:
Contaminated Facility:
MHSW Facility:

Detail(s)

Waste Class: 148
Waste Class Name: INORGANIC LABORATORY CHEMICALS

Waste Class: 112
Waste Class Name: ACID WASTE - HEAVY METALS

Waste Class: 212
Waste Class Name: ALIPHATIC SOLVENTS

Waste Class: 131
Waste Class Name: NEUTRALIZED WASTES - HEAVY METALS

Waste Class: 213
Waste Class Name: PETROLEUM DISTILLATES

Waste Class: 331
Waste Class Name: WASTE COMPRESSED GASES

Waste Class: 252
Waste Class Name: WASTE OILS & LUBRICANTS

Waste Class: 263
Waste Class Name: ORGANIC LABORATORY CHEMICALS

Waste Class: 221
Waste Class Name: LIGHT FUELS

Waste Class: 251
Waste Class Name: OIL SKIMMINGS & SLUDGES

Waste Class: 121

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB

Waste Class Name: ALKALINE WASTES - HEAVY METALS

10	14 of 20	NW/185.6	67.9 / -1.31	BELL CANADA 469 COVENTRY ROAD OTTAWA ON K1K 2C5	GEN

Generator No: ON0473807
SIC Code: 517110, 517210, 517510
SIC Description: WIRED TELECOMMUNICATIONS CARRIERS, WIRELESS TELECOMMUNICATIONS CARRIERS (EXCEPT SATELLITE), 517510
Approval Years: 2016
PO Box No:
Country: Canada
Status:
Co Admin: Chloé Lamothe-Luneau
Choice of Contact: CO_ADMIN
Phone No Admin: 514-391-1021 Ext.
Contaminated Facility: No
MHSW Facility: No

Detail(s)

Waste Class: 213
Waste Class Name: PETROLEUM DISTILLATES

Waste Class: 148
Waste Class Name: INORGANIC LABORATORY CHEMICALS

Waste Class: 131
Waste Class Name: NEUTRALIZED WASTES - HEAVY METALS

Waste Class: 221
Waste Class Name: LIGHT FUELS

Waste Class: 212
Waste Class Name: ALIPHATIC SOLVENTS

Waste Class: 252
Waste Class Name: WASTE OILS & LUBRICANTS

Waste Class: 263
Waste Class Name: ORGANIC LABORATORY CHEMICALS

Waste Class: 112
Waste Class Name: ACID WASTE - HEAVY METALS

Waste Class: 331
Waste Class Name: WASTE COMPRESSED GASES

Waste Class: 121
Waste Class Name: ALKALINE WASTES - HEAVY METALS

Waste Class: 251
Waste Class Name: OIL SKIMMINGS & SLUDGES

10	15 of 20	NW/185.6	67.9 / -1.31	BELL CANADA 469 COVENTRY ROAD OTTAWA ON K1K 2C5	GEN

Generator No: ON0473807
SIC Code: 517110, 517210, 517510
SIC Description: WIRED TELECOMMUNICATIONS CARRIERS, WIRELESS TELECOMMUNICATIONS CARRIERS (EXCEPT SATELLITE), 517510

Approval Years:	2015
PO Box No:	
Country:	Canada
Status:	
Co Admin:	Julie Labelle
Choice of Contact:	CO_ADMIN
Phone No Admin:	514-870-0688 Ext.
Contaminated Facility:	No
MHSW Facility:	No

Detail(s)

Waste Class:	221
Waste Class Name:	LIGHT FUELS
Waste Class:	252
Waste Class Name:	WASTE OILS & LUBRICANTS
Waste Class:	148
Waste Class Name:	INORGANIC LABORATORY CHEMICALS
Waste Class:	131
Waste Class Name:	NEUTRALIZED WASTES - HEAVY METALS
Waste Class:	263
Waste Class Name:	ORGANIC LABORATORY CHEMICALS
Waste Class:	331
Waste Class Name:	WASTE COMPRESSED GASES
Waste Class:	121
Waste Class Name:	ALKALINE WASTES - HEAVY METALS
Waste Class:	213
Waste Class Name:	PETROLEUM DISTILLATES
Waste Class:	212
Waste Class Name:	ALIPHATIC SOLVENTS
Waste Class:	112
Waste Class Name:	ACID WASTE - HEAVY METALS
Waste Class:	251
Waste Class Name:	OIL SKIMMINGS & SLUDGES

10	*16 of 20*	*NW/185.6*	*67.9 / -1.31*	***BELL CANADA*** ***469 COVENTRY ROAD*** ***OTTAWA ON K1K 2C5***	***GEN***

Generator No:	ON0473807
SIC Code:	517110, 517210, 517510
SIC Description:	WIRED TELECOMMUNICATIONS CARRIERS, WIRELESS TELECOMMUNICATIONS CARRIERS (EXCEPT SATELLITE), 517510
Approval Years:	2014
PO Box No:	
Country:	Canada
Status:	
Co Admin:	Julie Labelle
Choice of Contact:	CO_OFFICIAL
Phone No Admin:	514-870-0688 Ext.
Contaminated Facility:	No
MHSW Facility:	No

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB

Detail(s)

Waste Class: 121
Waste Class Name: ALKALINE WASTES - HEAVY METALS

Waste Class: 112
Waste Class Name: ACID WASTE - HEAVY METALS

Waste Class: 331
Waste Class Name: WASTE COMPRESSED GASES

Waste Class: 148
Waste Class Name: INORGANIC LABORATORY CHEMICALS

Waste Class: 251
Waste Class Name: OIL SKIMMINGS & SLUDGES

Waste Class: 212
Waste Class Name: ALIPHATIC SOLVENTS

Waste Class: 131
Waste Class Name: NEUTRALIZED WASTES - HEAVY METALS

Waste Class: 263
Waste Class Name: ORGANIC LABORATORY CHEMICALS

Waste Class: 213
Waste Class Name: PETROLEUM DISTILLATES

Waste Class: 252
Waste Class Name: WASTE OILS & LUBRICANTS

Waste Class: 221
Waste Class Name: LIGHT FUELS

10	17 of 20	NW/185.6	67.9 / -1.31	BELL CANADA 469 COVENTRY ROAD OTTAWA ON K1K 2C5	GEN

Generator No: ON0473807
SIC Code:
SIC Description:
Approval Years: As of Dec 2018
PO Box No:
Country: Canada
Status: Registered
Co Admin:
Choice of Contact:
Phone No Admin:
Contaminated Facility:
MHSW Facility:

Detail(s)

Waste Class: 112 C
Waste Class Name: Acid solutions - containing heavy metals

Waste Class: 121 C
Waste Class Name: Alkaline slutions - containing heavy metals

Waste Class: 212 L
Waste Class Name: Aliphatic solvents and residues

Waste Class: 213 I

Waste Class Name: Petroleum distillates

Waste Class: 213 T
Waste Class Name: Petroleum distillates

Waste Class: 221 L
Waste Class Name: Light fuels

Waste Class: 251 L
Waste Class Name: Waste oils/sludges (petroleum based)

Waste Class: 251 T
Waste Class Name: Waste oils/sludges (petroleum based)

Waste Class: 252 L
Waste Class Name: Waste crankcase oils and lubricants

Waste Class: 331 I
Waste Class Name: Waste compressed gases including cylinders

10	18 of 20	NW/185.6	67.9 / -1.31	BELL CANADA 469 COVENTRY ROAD OTTAWA ON K1K 2C5	GEN

Generator No: ON0473807
SIC Code:
SIC Description:
Approval Years: As of Jul 2020
PO Box No:
Country: Canada
Status: Registered
Co Admin:
Choice of Contact:
Phone No Admin:
Contaminated Facility:
MHSW Facility:

Detail(s)

Waste Class: 112 C
Waste Class Name: Acid solutions - containing heavy metals

Waste Class: 213 T
Waste Class Name: Petroleum distillates

Waste Class: 121 C
Waste Class Name: Alkaline slutions - containing heavy metals

Waste Class: 212 L
Waste Class Name: Aliphatic solvents and residues

Waste Class: 252 L
Waste Class Name: Waste crankcase oils and lubricants

Waste Class: 251 L
Waste Class Name: Waste oils/sludges (petroleum based)

Waste Class: 251 T
Waste Class Name: Waste oils/sludges (petroleum based)

Waste Class: 331 I
Waste Class Name: Waste compressed gases including cylinders

Waste Class: 213 I

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB

Waste Class Name: Petroleum distillates

Waste Class: 221 L
Waste Class Name: Light fuels

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
10	19 of 20	NW/185.6	67.9 / -1.31	BELL CANADA 469 COVENTRY ROAD OTTAWA ON K1K 2C5	GEN

Generator No: ON0473807
SIC Code:
SIC Description:
Approval Years: As of Nov 2021
PO Box No:
Country: Canada
Status: Registered
Co Admin:
Choice of Contact:
Phone No Admin:
Contaminated Facility:
MHSW Facility:

Detail(s)

Waste Class: 112 C
Waste Class Name: Acid solutions - containing heavy metals

Waste Class: 251 L
Waste Class Name: Waste oils/sludges (petroleum based)

Waste Class: 213 I
Waste Class Name: Petroleum distillates

Waste Class: 213 T
Waste Class Name: Petroleum distillates

Waste Class: 252 L
Waste Class Name: Waste crankcase oils and lubricants

Waste Class: 221 L
Waste Class Name: Light fuels

Waste Class: 121 C
Waste Class Name: Alkaline slutions - containing heavy metals

Waste Class: 331 I
Waste Class Name: Waste compressed gases including cylinders

Waste Class: 212 L
Waste Class Name: Aliphatic solvents and residues

Waste Class: 251 T
Waste Class Name: Waste oils/sludges (petroleum based)

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
10	20 of 20	NW/185.6	67.9 / -1.31	BELL CANADA 469 COVENTRY ROAD OTTAWA ON K1K 2C5	GEN

Generator No: ON0473807
SIC Code:
SIC Description:
Approval Years: As of Oct 2022
PO Box No:

Country: Canada
Status: Registered
Co Admin:
Choice of Contact:
Phone No Admin:
Contaminated Facility:
MHSW Facility:

Detail(s)

Waste Class: 251 T
Waste Class Name: OIL SKIMMINGS & SLUDGES

Waste Class: 121 C
Waste Class Name: ALKALINE WASTES - HEAVY METALS

Waste Class: 251 L
Waste Class Name: OIL SKIMMINGS & SLUDGES

Waste Class: 213 I
Waste Class Name: PETROLEUM DISTILLATES

Waste Class: 252 L
Waste Class Name: WASTE OILS & LUBRICANTS

Waste Class: 213 T
Waste Class Name: PETROLEUM DISTILLATES

Waste Class: 212 L
Waste Class Name: ALIPHATIC SOLVENTS

Waste Class: 112 C
Waste Class Name: ACID WASTE - HEAVY METALS

Waste Class: 221 L
Waste Class Name: LIGHT FUELS

Waste Class: 331 I
Waste Class Name: WASTE COMPRESSED GASES

---

11 | **1 of 1** | **W/211.5** | **66.9 / -2.31** | **ON** | **BORE**

Borehole ID: 613380
OGF ID: 215514677
Status:
Type: Borehole
Use:
Completion Date: NOV-1959
Static Water Level:
Primary Water Use:
Sec. Water Use:
Total Depth m: 5.6
Depth Ref: Ground Surface
Depth Elev:
Drill Method:
Orig Ground Elev m: 68.7
Elev Reliabil Note:
DEM Ground Elev m: 66.4
Concession:
Location D:
Survey D:
Comments:

Inclin FLG: No
SP Status: Initial Entry
Surv Elev: No
Piezometer: No
Primary Name:
Municipality:
Lot:
Township:
Latitude DD: 45.420545
Longitude DD: -75.645853
UTM Zone: 18
Easting: 449471
Northing: 5029872
Location Accuracy:
Accuracy: Not Applicable

Borehole Geology Stratum

Geology Stratum ID: 218394889
Top Depth: 0
Bottom Depth: .6
Material Color:
Material 1: Sand
Material 2:
Material 3:
Material 4:
Gsc Material Description:
Stratum Description: SAND-FINE. LOOSE.
Mat Consistency: Loose
Material Moisture:
Material Texture: Fine
Non Geo Mat Type:
Geologic Formation:
Geologic Group:
Geologic Period:
Depositional Gen:

Geology Stratum ID: 218394893
Top Depth: 2.6
Bottom Depth: 3
Material Color:
Material 1: Unknown
Material 2: Till
Material 3: Shale
Material 4:
Gsc Material Description:
Stratum Description: UNSPECIFIED. DENSE.
Mat Consistency: Dense
Material Moisture:
Material Texture:
Non Geo Mat Type:
Geologic Formation:
Geologic Group:
Geologic Period:
Depositional Gen:

Geology Stratum ID: 218394894
Top Depth: 3
Bottom Depth: 4
Material Color: Red
Material 1: Bedrock
Material 2: Shale
Material 3:
Material 4:
Gsc Material Description:
Stratum Description: BEDROCK. WEATHERED.
Mat Consistency:
Material Moisture:
Material Texture:
Non Geo Mat Type:
Geologic Formation:
Geologic Group:
Geologic Period:
Depositional Gen:

Geology Stratum ID: 218394892
Top Depth: 2
Bottom Depth: 2.6
Material Color:
Material 1: Unknown
Material 2: Till
Material 3: Shale
Material 4:
Gsc Material Description:
Stratum Description: UNSPECIFIED. LOOSE.
Mat Consistency: Loose
Material Moisture:
Material Texture:
Non Geo Mat Type:
Geologic Formation:
Geologic Group:
Geologic Period:
Depositional Gen:

Geology Stratum ID: 218394896
Top Depth: 5
Bottom Depth: 5.6
Material Color:
Material 1: Bedrock
Material 2: Shale
Material 3:
Material 4:
Gsc Material Description:
Stratum Description: BEDROCK. K. 00000 014 00100 009 00115 010 00200 005 00218008 00200 011 **Note: Many records provided by the department have a truncated [Stratum Description] field.
Mat Consistency:
Material Moisture:
Material Texture:
Non Geo Mat Type:
Geologic Formation:
Geologic Group:
Geologic Period:
Depositional Gen:

Geology Stratum ID: 218394891
Top Depth: .9
Bottom Depth: 2
Material Color:
Material 1: Unknown
Material 2: Till
Material 3: Shale
Mat Consistency: Dense
Material Moisture:
Material Texture:
Non Geo Mat Type:
Geologic Formation:
Geologic Group:
Geologic Period:

Material 4:
Gsc Material Description:
Stratum Description: UNSPECIFIED. DENSE.

Depositional Gen:

Geology Stratum ID: 218394895
Top Depth: 4
Bottom Depth: 5
Material Color: Red
Material 1: Bedrock
Material 2: Shale
Material 3:
Material 4:
Gsc Material Description:
Stratum Description: BEDROCK. WEATHERED.

Mat Consistency:
Material Moisture:
Material Texture:
Non Geo Mat Type:
Geologic Formation:
Geologic Group:
Geologic Period:
Depositional Gen:

Geology Stratum ID: 218394890
Top Depth: .6
Bottom Depth: .9
Material Color:
Material 1: Unknown
Material 2: Till
Material 3:
Material 4:
Gsc Material Description:
Stratum Description: UNSPECIFIED. LOOSE.

Mat Consistency: Loose
Material Moisture:
Material Texture:
Non Geo Mat Type:
Geologic Formation:
Geologic Group:
Geologic Period:
Depositional Gen:

Source

Source Type: Data Survey
Source Orig: Geological Survey of Canada
Source Date: 1956-1972
Confidence: H
Observatio:
Source Name: Urban Geology Automated Information System (UGAIS)
Source Details: File: OTTAWA2.txt RecordID: 058880 NTS_Sheet: 31G05G
Confiden 1: Logged by professional. Exact and complete description of material and properties.

Source Appl: Spatial/Tabular
Source Iden: 1
Scale or Res: Varies
Horizontal: NAD27
Verticalda: Mean Average Sea Level

Source List

Source Identifier: 1
Source Type: Data Survey
Source Date: 1956-1972
Scale or Resolution: Varies
Source Name: Urban Geology Automated Information System (UGAIS)
Source Originators: Geological Survey of Canada

Horizontal Datum: NAD27
Vertical Datum: Mean Average Sea Level
Projection Name: Universal Transverse Mercator

12	1 of 1	SSE/218.9	68.6 / -0.61	ROYAL CANADIAN MOUNTED POLICE F.S.S. BRANCH; 369 TREMBLAY RD. OTTAWA ON K1A OR2	NPCB

Company Code: O3098
Industry: RCMP
Site Status:
Transaction Date: 10/17/1991
Inspection Date: 3/14/1991

14	1 of 1	S/221.9	67.9 / -1.25	ON	BORE

Borehole ID: 613339
OGF ID: 215514637
Status:

Inclin FLG: No
SP Status: Initial Entry
Surv Elev: No

Type:	Borehole	**Piezometer:**	No
Use:		**Primary Name:**	
Completion Date:		**Municipality:**	
Static Water Level:	11.6	**Lot:**	
Primary Water Use:		**Township:**	
Sec. Water Use:		**Latitude DD:**	45.41885
Total Depth m:	-999	**Longitude DD:**	-75.643149
Depth Ref:	Ground Surface	**UTM Zone:**	18
Depth Elev:		**Easting:**	449681
Drill Method:		**Northing:**	5029682
Orig Ground Elev m:	67.7	**Location Accuracy:**	
Elev Reliabil Note:		**Accuracy:**	Not Applicable
DEM Ground Elev m:	68.9		
Concession:			
Location D:			
Survey D:			
Comments:			

Borehole Geology Stratum

Geology Stratum ID:	218394686	**Mat Consistency:**	Loose
Top Depth:	2.4	**Material Moisture:**	
Bottom Depth:		**Material Texture:**	
Material Color:		**Non Geo Mat Type:**	
Material 1:	Bedrock	**Geologic Formation:**	
Material 2:		**Geologic Group:**	
Material 3:		**Geologic Period:**	
Material 4:		**Depositional Gen:**	
Gsc Material Description:			
Stratum Description:	BEDROCK. AL. BEDROCK. BEDROCK. 00000 012 00340 015 00131ET. LOOSE, WATER **Note: Many records provided by the department have a truncated [Stratum Description] field.		

Geology Stratum ID:	218394685	**Mat Consistency:**	
Top Depth:	0	**Material Moisture:**	
Bottom Depth:	2.4	**Material Texture:**	
Material Color:		**Non Geo Mat Type:**	
Material 1:	Sand	**Geologic Formation:**	
Material 2:		**Geologic Group:**	
Material 3:		**Geologic Period:**	
Material 4:		**Depositional Gen:**	
Gsc Material Description:			
Stratum Description:	SAND.		

Source

Source Type:	Data Survey	**Source Appl:**	Spatial/Tabular
Source Orig:	Geological Survey of Canada	**Source Iden:**	1
Source Date:	1956-1972	**Scale or Res:**	Varies
Confidence:	H	**Horizontal:**	NAD27
Observatio:		**Verticalda:**	Mean Average Sea Level
Source Name:	Urban Geology Automated Information System (UGAIS)		
Source Details:	File: OTTAWA2.txt RecordID: 058470 NTS_Sheet: 31G05G		
Confiden 1:	Logged by professional. Exact and complete description of material and properties.		

Source List

Source Identifier:	1	**Horizontal Datum:**	NAD27
Source Type:	Data Survey	**Vertical Datum:**	Mean Average Sea Level
Source Date:	1956-1972	**Projection Name:**	Universal Transverse Mercator
Scale or Resolution:	Varies		
Source Name:	Urban Geology Automated Information System (UGAIS)		
Source Originators:	Geological Survey of Canada		

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
15	1 of 1	SW/222.9	67.9 / -1.31	ON	BORE

Borehole ID:	848118	**Inclin FLG:**	No
OGF ID:	215589766	**SP Status:**	Initial Entry
Status:	Decommissioned	**Surv Elev:**	No
Type:	Borehole	**Piezometer:**	No
Use:	Geotechnical/Geological Investigation	**Primary Name:**	
Completion Date:	13-JUN-1985	**Municipality:**	
Static Water Level:		**Lot:**	LOT 9
Primary Water Use:		**Township:**	GLOUCESTER
Sec. Water Use:		**Latitude DD:**	45.419226
Total Depth m:	8.2	**Longitude DD:**	-75.644862
Depth Ref:	Ground Surface	**UTM Zone:**	18
Depth Elev:		**Easting:**	449547
Drill Method:	Hollow stem auger	**Northing:**	5029725
Orig Ground Elev m:	67.8	**Location Accuracy:**	
Elev Reliabil Note:		**Accuracy:**	Within 10 metres
DEM Ground Elev m:	65.6		
Concession:	GORE		
Location D:			
Survey D:			
Comments:			

Borehole Geology Stratum

Geology Stratum ID:	6560020	**Mat Consistency:**	Compact
Top Depth:	0	**Material Moisture:**	
Bottom Depth:	3.6	**Material Texture:**	
Material Color:		**Non Geo Mat Type:**	
Material 1:	Sand	**Geologic Formation:**	
Material 2:	Silt	**Geologic Group:**	
Material 3:	Clay	**Geologic Period:**	
Material 4:		**Depositional Gen:**	
Gsc Material Description:			
Stratum Description:	SAND SOME SILT, TRACE CLAY, COMPACT TO LOOSE WITH DEPTH **Note: Many records provided by the department have a truncated [Stratum Description] field.		

Geology Stratum ID:	6560021	**Mat Consistency:**	Stiff
Top Depth:	3.6	**Material Moisture:**	
Bottom Depth:	5.1	**Material Texture:**	
Material Color:	Grey	**Non Geo Mat Type:**	
Material 1:	Clay	**Geologic Formation:**	
Material 2:	Silt	**Geologic Group:**	
Material 3:	Sand	**Geologic Period:**	
Material 4:	Gravel	**Depositional Gen:**	
Gsc Material Description:			
Stratum Description:	HETEROGENEOUS MIXTURE CLAY, SILT, SAND, GRAVEL STIFF TO VERY STIFF, DARK GREY **Note: Many records provided by the department have a truncated [Stratum Description] field.		

Geology Stratum ID:	6560022	**Mat Consistency:**	
Top Depth:	5.1	**Material Moisture:**	
Bottom Depth:	8.2	**Material Texture:**	
Material Color:		**Non Geo Mat Type:**	
Material 1:	Bedrock	**Geologic Formation:**	
Material 2:	Shale	**Geologic Group:**	
Material 3:		**Geologic Period:**	
Material 4:		**Depositional Gen:**	
Gsc Material Description:			
Stratum Description:	SHALE BEDROCK, SLIGHTLY WEATHERED TO UNWEATHERED WITH DEPTH **Note: Many records provided by the department have a truncated [Stratum Description] field.		

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
16	1 of 42	WNW/228.3	66.9 / -2.31	BLUE LINE TAXI CO LTD 455 COVENTRY RD OTTAWA ON K1K 2C5	PRT

Location ID: 24203
Type: private
Expiry Date:
Capacity (L): 52460.00
Licence #: 0001016181

16	2 of 42	WNW/228.3	66.9 / -2.31	BLUE LINE TAXI CO LTD 455 COVENTRY RD OTTAWA ON K1K2C5	PRT

Location ID: 24203
Type: retail
Expiry Date: 1996-01-31
Capacity (L): 86370
Licence #: 0011336001

16	3 of 42	WNW/228.3	66.9 / -2.31	455 COVENTRY RD. OTTAWA ON	PRT

Location ID: 10924
Type: retail
Expiry Date:
Capacity (L):
Licence #:

16	4 of 42	WNW/228.3	66.9 / -2.31	BLUE LINE TAXI CO. LTD. 455 COVENTRY RD. OTTAWA ON K1K 2C5	GEN

Generator No: ON0985700
SIC Code: 6331
SIC Description: GASOLINE SERV. ST.
Approval Years: 88,89
PO Box No:
Country:
Status:
Co Admin:
Choice of Contact:
Phone No Admin:
Contaminated Facility:
MHSW Facility:

Detail(s)

Waste Class: 213
Waste Class Name: PETROLEUM DISTILLATES

Waste Class: 252
Waste Class Name: WASTE OILS & LUBRICANTS

16	5 of 42	WNW/228.3	66.9 / -2.31	BLUE LINE TAXI CO. LTD. 455 COVENTRY RD. OTTAWA ON K1K 2C5	GEN

Generator No: ON0985700

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB

SIC Code: 6331
SIC Description: GASOLINE SERV. ST.
Approval Years: 90
PO Box No:
Country:
Status:
Co Admin:
Choice of Contact:
Phone No Admin:
Contaminated Facility:
MHSW Facility:

Detail(s)

Waste Class: 213
Waste Class Name: PETROLEUM DISTILLATES

Waste Class: 252
Waste Class Name: WASTE OILS & LUBRICANTS

16	6 of 42	WNW/228.3	66.9 / -2.31	BLUE LINE TAXI CO. LTD. 05-253 455 COVENTRY RD. OTTAWA ON K1K 2C5	GEN

Generator No: ON0985700
SIC Code: 6331
SIC Description: GASOLINE SERV. ST.
Approval Years: 92,93,94,95,96
PO Box No:
Country:
Status:
Co Admin:
Choice of Contact:
Phone No Admin:
Contaminated Facility:
MHSW Facility:

Detail(s)

Waste Class: 213
Waste Class Name: PETROLEUM DISTILLATES

Waste Class: 252
Waste Class Name: WASTE OILS & LUBRICANTS

16	7 of 42	WNW/228.3	66.9 / -2.31	BLUE LINE TAXI CO LTD 455 COVENTRY RD. OTTAWA ON K1K 2C5	GEN

Generator No: ON0985700
SIC Code: 4581
SIC Description: TAXICAB INDUSTRY
Approval Years: 97,98
PO Box No:
Country:
Status:
Co Admin:
Choice of Contact:
Phone No Admin:
Contaminated Facility:
MHSW Facility:

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB

Detail(s)

Waste Class: 213
Waste Class Name: PETROLEUM DISTILLATES

Waste Class: 251
Waste Class Name: OIL SKIMMINGS & SLUDGES

Waste Class: 252
Waste Class Name: WASTE OILS & LUBRICANTS

16	8 of 42	WNW/228.3	66.9 / -2.31	BLUE LINE TAXI COMPANY LIMITED 455 COVENTRY ROAD OTTAWA ON K1K 2C5	GEN

Generator No: ON0985700
SIC Code: 4581
SIC Description: TAXICAB INDUSTRY
Approval Years: 99,00,01
PO Box No:
Country:
Status:
Co Admin:
Choice of Contact:
Phone No Admin:
Contaminated Facility:
MHSW Facility:

Detail(s)

Waste Class: 213
Waste Class Name: PETROLEUM DISTILLATES

Waste Class: 251
Waste Class Name: OIL SKIMMINGS & SLUDGES

Waste Class: 252
Waste Class Name: WASTE OILS & LUBRICANTS

16	9 of 42	WNW/228.3	66.9 / -2.31	COVENTRY CONNECTIONS 455 COVENTRY ROAD OTTAWA ON K1K 2C5	GEN

Generator No: ON9059412
SIC Code:
SIC Description:
Approval Years: 02,03,04
PO Box No:
Country:
Status:
Co Admin:
Choice of Contact:
Phone No Admin:
Contaminated Facility:
MHSW Facility:

Detail(s)

Waste Class: 221
Waste Class Name: LIGHT FUELS

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
16	10 of 42	WNW/228.3	66.9 / -2.31	coventry connections(blue line taxi) 455 coventry rd ottawa ON K1K 2C5	GEN

Generator No:	ON4462915
SIC Code:	485310
SIC Description:	Taxi Service
Approval Years:	04,05,06,07,08
PO Box No:	
Country:	
Status:	
Co Admin:	
Choice of Contact:	
Phone No Admin:	
Contaminated Facility:	
MHSW Facility:	

Detail(s)

Waste Class:	251
Waste Class Name:	OIL SKIMMINGS & SLUDGES
Waste Class:	252
Waste Class Name:	WASTE OILS & LUBRICANTS

16	11 of 42	WNW/228.3	66.9 / -2.31	BLUE LINE TAXI CO LTD 455 COVENTRY RD OTTAWA ON	DTNK

Delisted Expired Fuel Safety Facilities

Instance No:	10038679	**Expired Date:**	
Status:	EXPIRED	**Max Hazard Rank:**	
Instance ID:	10777	**Facility Location:**	
Instance Type:	FS Facility	**Facility Type:**	
Instance Creation Dt:		**Fuel Type 2:**	
Instance Install Dt:		**Fuel Type 3:**	
Item Description:		**Panam Related:**	
Manufacturer:		**Panam Venue Nm:**	
Model:		**External Identifier:**	
Serial No:		**Item:**	
ULC Standard:		**Piping Steel:**	
Quantity:		**Piping Galvanized:**	
Unit of Measure:		**Tank Single Wall St:**	
Overfill Prot Type:		**Piping Underground:**	
Creation Date:		**Tank Underground:**	
Next Periodic Str DT:		**Source:**	
TSSA Base Sched Cycle 2:			
TSSAMax Hazard Rank 1:			
TSSA Risk Based Periodic Yn:			
TSSA Volume of Directives:			
TSSA Periodic Exempt:			
TSSA Statutory Interval:			
TSSA Recd Insp Interva:			
TSSA Recd Tolerance:			
TSSA Program Area:			
TSSA Program Area 2:			
Description:	Fuels Safety Private Fuel Outlet - Self Serve		
Original Source:	EXP		
Record Date:	Up to Mar 2012		

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
16	12 of 42	WNW/228.3	66.9 / -2.31	BLUE LINE TAXI CO LTD 455 COVENTRY RD OTTAWA ON K1K 2C5	DTNK

Delisted Expired Fuel Safety Facilities

Instance No:	10038705	Expired Date:	1/12/2002
Status:	EXPIRED	Max Hazard Rank:	
Instance ID:		Facility Location:	
Instance Type:	FS Facility	Facility Type:	
Instance Creation Dt:		Fuel Type 2:	
Instance Install Dt:		Fuel Type 3:	
Item Description:		Panam Related:	
Manufacturer:		Panam Venue Nm:	
Model:		External Identifier:	
Serial No:		Item:	
ULC Standard:		Piping Steel:	
Quantity:		Piping Galvanized:	
Unit of Measure:		Tank Single Wall St:	
Overfill Prot Type:		Piping Underground:	
Creation Date:		Tank Underground:	
Next Periodic Str DT:		Source:	
TSSA Base Sched Cycle 2:			
TSSAMax Hazard Rank 1:			
TSSA Risk Based Periodic Yn:			
TSSA Volume of Directives:			
TSSA Periodic Exempt:			
TSSA Statutory Interval:			
TSSA Recd Insp Interva:			
TSSA Recd Tolerance:			
TSSA Program Area:			
TSSA Program Area 2:			
Description:			
Original Source:	EXP		
Record Date:	Up to May 2013		

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
16	13 of 42	WNW/228.3	66.9 / -2.31	BLUE LINE TAXI CO LTD 455 COVENTRY RD OTTAWA ON	DTNK

Delisted Expired Fuel Safety Facilities

Instance No:	10038730	Expired Date:	
Status:	EXPIRED	Max Hazard Rank:	
Instance ID:	10778	Facility Location:	
Instance Type:	FS Facility	Facility Type:	
Instance Creation Dt:		Fuel Type 2:	
Instance Install Dt:		Fuel Type 3:	
Item Description:		Panam Related:	
Manufacturer:		Panam Venue Nm:	
Model:		External Identifier:	
Serial No:		Item:	
ULC Standard:		Piping Steel:	
Quantity:		Piping Galvanized:	
Unit of Measure:		Tank Single Wall St:	
Overfill Prot Type:		Piping Underground:	
Creation Date:		Tank Underground:	
Next Periodic Str DT:		Source:	
TSSA Base Sched Cycle 2:			

TSSAMax Hazard Rank 1:
TSSA Risk Based Periodic Yn:
TSSA Volume of Directives:
TSSA Periodic Exempt:
TSSA Statutory Interval:
TSSA Recd Insp Interva:
TSSA Recd Tolerance:
TSSA Program Area:
TSSA Program Area 2:
Description: FS Propane Refill Cntr - Cylr Fill
Original Source: EXP
Record Date: Up to Mar 2012

16	*14 of 42*	*WNW/228.3*	*66.9 / -2.31*	***BLUE LINE TAXI CO LTD*** ***455 COVENTRY RD*** ***OTTAWA ON***	***DTNK***

Delisted Expired Fuel Safety Facilities

Instance No: 10038754
Status: EXPIRED
Instance ID: 10789
Instance Type: FS Facility
Instance Creation Dt:
Instance Install Dt:
Item Description:
Manufacturer:
Model:
Serial No:
ULC Standard:
Quantity:
Unit of Measure:
Overfill Prot Type:
Creation Date:
Next Periodic Str DT:
TSSA Base Sched Cycle 2:
TSSAMax Hazard Rank 1:
TSSA Risk Based Periodic Yn:
TSSA Volume of Directives:
TSSA Periodic Exempt:
TSSA Statutory Interval:
TSSA Recd Insp Interva:
TSSA Recd Tolerance:
TSSA Program Area:
TSSA Program Area 2:
Description: FS Propane Refill Cntr - Cylr Fill
Original Source: EXP
Record Date: Up to Mar 2012

Expired Date:
Max Hazard Rank:
Facility Location:
Facility Type:
Fuel Type 2:
Fuel Type 3:
Panam Related:
Panam Venue Nm:
External Identifier:
Item:
Piping Steel:
Piping Galvanized:
Tank Single Wall St:
Piping Underground:
Tank Underground:
Source:

16	*15 of 42*	*WNW/228.3*	*66.9 / -2.31*	***BLUE LINE TAXI CO LTD*** ***455 COVENTRY RD*** ***OTTAWA ON***	***DTNK***

Delisted Expired Fuel Safety Facilities

Instance No: 10038775
Status: EXPIRED
Instance ID: 10780
Instance Type: FS Facility

Expired Date:
Max Hazard Rank:
Facility Location:
Facility Type:

Instance Creation Dt:		***Fuel Type 2:***	
Instance Install Dt:		***Fuel Type 3:***	
Item Description:		***Panam Related:***	
Manufacturer:		***Panam Venue Nm:***	
Model:		***External Identifier:***	
Serial No:		***Item:***	
ULC Standard:		***Piping Steel:***	
Quantity:		***Piping Galvanized:***	
Unit of Measure:		***Tank Single Wall St:***	
Overfill Prot Type:		***Piping Underground:***	
Creation Date:		***Tank Underground:***	
Next Periodic Str DT:		***Source:***	
TSSA Base Sched Cycle 2:			
TSSAMax Hazard Rank 1:			
TSSA Risk Based Periodic Yn:			
TSSA Volume of Directives:			
TSSA Periodic Exempt:			
TSSA Statutory Interval:			
TSSA Recd Insp Interva:			
TSSA Recd Tolerance:			
TSSA Program Area:			
TSSA Program Area 2:			
Description:	FS Propane Vehicle Conv Centre		
Original Source:	EXP		
Record Date:	Up to Mar 2012		

16	***16 of 42***	***WNW/228.3***	***66.9 / -2.31***	***BLUE LINE TAXI CO LTD*** ***455 COVENTRY RD*** ***OTTAWA ON***	***DTNK***

Delisted Expired Fuel Safety Facilities

Instance No:	11205359	***Expired Date:***	
Status:	EXPIRED	***Max Hazard Rank:***	
Instance ID:	74324	***Facility Location:***	
Instance Type:	FS Piping	***Facility Type:***	
Instance Creation Dt:		***Fuel Type 2:***	
Instance Install Dt:		***Fuel Type 3:***	
Item Description:		***Panam Related:***	
Manufacturer:		***Panam Venue Nm:***	
Model:		***External Identifier:***	
Serial No:		***Item:***	
ULC Standard:		***Piping Steel:***	
Quantity:		***Piping Galvanized:***	
Unit of Measure:		***Tank Single Wall St:***	
Overfill Prot Type:		***Piping Underground:***	
Creation Date:		***Tank Underground:***	
Next Periodic Str DT:		***Source:***	
TSSA Base Sched Cycle 2:			
TSSAMax Hazard Rank 1:			
TSSA Risk Based Periodic Yn:			
TSSA Volume of Directives:			
TSSA Periodic Exempt:			
TSSA Statutory Interval:			
TSSA Recd Insp Interva:			
TSSA Recd Tolerance:			
TSSA Program Area:			
TSSA Program Area 2:			
Description:	FS Piping		
Original Source:	EXP		
Record Date:	Up to Mar 2012		

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
16	17 of 42	WNW/228.3	66.9 / -2.31	BLUE LINE TAXI CO LTD 455 COVENTRY RD OTTAWA ON	DTNK

Delisted Expired Fuel Safety Facilities

Instance No:	11205433	Expired Date:	
Status:	EXPIRED	Max Hazard Rank:	
Instance ID:	72894	Facility Location:	
Instance Type:	FS Piping	Facility Type:	
Instance Creation Dt:		Fuel Type 2:	
Instance Install Dt:		Fuel Type 3:	
Item Description:		Panam Related:	
Manufacturer:		Panam Venue Nm:	
Model:		External Identifier:	
Serial No:		Item:	
ULC Standard:		Piping Steel:	
Quantity:		Piping Galvanized:	
Unit of Measure:		Tank Single Wall St:	
Overfill Prot Type:		Piping Underground:	
Creation Date:		Tank Underground:	
Next Periodic Str DT:		Source:	
TSSA Base Sched Cycle 2:			
TSSAMax Hazard Rank 1:			
TSSA Risk Based Periodic Yn:			
TSSA Volume of Directives:			
TSSA Periodic Exempt:			
TSSA Statutory Interval:			
TSSA Recd Insp Interva:			
TSSA Recd Tolerance:			
TSSA Program Area:			
TSSA Program Area 2:			
Description:	FS Piping		
Original Source:	EXP		
Record Date:	Up to Mar 2012		

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
16	18 of 42	WNW/228.3	66.9 / -2.31	BLUE LINE TAXI CO LTD 455 COVENTRY RD OTTAWA ON	DTNK

Delisted Expired Fuel Safety Facilities

Instance No:	11205396	Expired Date:	
Status:	EXPIRED	Max Hazard Rank:	
Instance ID:	73197	Facility Location:	
Instance Type:	FS Piping	Facility Type:	
Instance Creation Dt:		Fuel Type 2:	
Instance Install Dt:		Fuel Type 3:	
Item Description:		Panam Related:	
Manufacturer:		Panam Venue Nm:	
Model:		External Identifier:	
Serial No:		Item:	
ULC Standard:		Piping Steel:	
Quantity:		Piping Galvanized:	
Unit of Measure:		Tank Single Wall St:	
Overfill Prot Type:		Piping Underground:	
Creation Date:		Tank Underground:	
Next Periodic Str DT:		Source:	

TSSA Base Sched Cycle 2:
TSSAMax Hazard Rank 1:
TSSA Risk Based Periodic Yn:
TSSA Volume of Directives:
TSSA Periodic Exempt:
TSSA Statutory Interval:
TSSA Recd Insp Interva:
TSSA Recd Tolerance:
TSSA Program Area:
TSSA Program Area 2:
Description: FS Piping
Original Source: EXP
Record Date: Up to Mar 2012

16	***19 of 42***	***WNW/228.3***	***66.9 / -2.31***	***BLUE LINE TAXI CO LTD*** ***455 COVENTRY RD*** ***OTTAWA ON***	***DTNK***

Delisted Expired Fuel Safety Facilities

Instance No: 11205270
Status: EXPIRED
Instance ID: 73390
Instance Type: FS Piping
Instance Creation Dt:
Instance Install Dt:
Item Description:
Manufacturer:
Model:
Serial No:
ULC Standard:
Quantity:
Unit of Measure:
Overfill Prot Type:
Creation Date:
Next Periodic Str DT:
TSSA Base Sched Cycle 2:
TSSAMax Hazard Rank 1:
TSSA Risk Based Periodic Yn:
TSSA Volume of Directives:
TSSA Periodic Exempt:
TSSA Statutory Interval:
TSSA Recd Insp Interva:
TSSA Recd Tolerance:
TSSA Program Area:
TSSA Program Area 2:
Description: FS Piping
Original Source: EXP
Record Date: Up to Mar 2012

Expired Date:
Max Hazard Rank:
Facility Location:
Facility Type:
Fuel Type 2:
Fuel Type 3:
Panam Related:
Panam Venue Nm:
External Identifier:
Item:
Piping Steel:
Piping Galvanized:
Tank Single Wall St:
Piping Underground:
Tank Underground:
Source:

16	***20 of 42***	***WNW/228.3***	***66.9 / -2.31***	***BLUE LINE TAXI CO LTD*** ***455 COVENTRY RD*** ***OTTAWA ON***	***DTNK***

Delisted Expired Fuel Safety Facilities

Instance No: 11205456
Status: EXPIRED
Instance ID: 73402

Expired Date:
Max Hazard Rank:
Facility Location:

Instance Type:	FS Piping		***Facility Type:***
Instance Creation Dt:			***Fuel Type 2:***
Instance Install Dt:			***Fuel Type 3:***
Item Description:			***Panam Related:***
Manufacturer:			***Panam Venue Nm:***
Model:			***External Identifier:***
Serial No:			***Item:***
ULC Standard:			***Piping Steel:***
Quantity:			***Piping Galvanized:***
Unit of Measure:			***Tank Single Wall St:***
Overfill Prot Type:			***Piping Underground:***
Creation Date:			***Tank Underground:***
Next Periodic Str DT:			***Source:***
TSSA Base Sched Cycle 2:			
TSSAMax Hazard Rank 1:			
TSSA Risk Based Periodic Yn:			
TSSA Volume of Directives:			
TSSA Periodic Exempt:			
TSSA Statutory Interval:			
TSSA Recd Insp Interva:			
TSSA Recd Tolerance:			
TSSA Program Area:			
TSSA Program Area 2:			
Description:		FS Piping	
Original Source:		EXP	
Record Date:		Up to Mar 2012	

16	***21 of 42***	***WNW/228.3***	***66.9 / -2.31***	***BLUE LINE TAXI CO LTD*** ***455 COVENTRY RD*** ***OTTAWA ON***	***DTNK***

Delisted Expired Fuel Safety Facilities

Instance No:	11205315		***Expired Date:***
Status:	EXPIRED		***Max Hazard Rank:***
Instance ID:	73227		***Facility Location:***
Instance Type:	FS Piping		***Facility Type:***
Instance Creation Dt:			***Fuel Type 2:***
Instance Install Dt:			***Fuel Type 3:***
Item Description:			***Panam Related:***
Manufacturer:			***Panam Venue Nm:***
Model:			***External Identifier:***
Serial No:			***Item:***
ULC Standard:			***Piping Steel:***
Quantity:			***Piping Galvanized:***
Unit of Measure:			***Tank Single Wall St:***
Overfill Prot Type:			***Piping Underground:***
Creation Date:			***Tank Underground:***
Next Periodic Str DT:			***Source:***
TSSA Base Sched Cycle 2:			
TSSAMax Hazard Rank 1:			
TSSA Risk Based Periodic Yn:			
TSSA Volume of Directives:			
TSSA Periodic Exempt:			
TSSA Statutory Interval:			
TSSA Recd Insp Interva:			
TSSA Recd Tolerance:			
TSSA Program Area:			
TSSA Program Area 2:			
Description:		FS Piping	
Original Source:		EXP	
Record Date:		Up to Mar 2012	

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
16	22 of 42	WNW/228.3	66.9 / -2.31	BLUE LINE TAXI CO LTD 455 COVENTRY RD OTTAWA ON	DTNK

Delisted Expired Fuel Safety Facilities

Instance No:	11205516	Expired Date:	
Status:	EXPIRED	Max Hazard Rank:	
Instance ID:	73231	Facility Location:	
Instance Type:	FS Propane Tank	Facility Type:	
Instance Creation Dt:		Fuel Type 2:	
Instance Install Dt:		Fuel Type 3:	
Item Description:		Panam Related:	
Manufacturer:		Panam Venue Nm:	
Model:		External Identifier:	
Serial No:		Item:	
ULC Standard:		Piping Steel:	
Quantity:		Piping Galvanized:	
Unit of Measure:		Tank Single Wall St:	
Overfill Prot Type:		Piping Underground:	
Creation Date:		Tank Underground:	
Next Periodic Str DT:		Source:	
TSSA Base Sched Cycle 2:			
TSSAMax Hazard Rank 1:			
TSSA Risk Based Periodic Yn:			
TSSA Volume of Directives:			
TSSA Periodic Exempt:			
TSSA Statutory Interval:			
TSSA Recd Insp Interva:			
TSSA Recd Tolerance:			
TSSA Program Area:			
TSSA Program Area 2:			
Description:	FS Propane Tank		
Original Source:	EXP		
Record Date:	Up to Mar 2012		

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
16	23 of 42	WNW/228.3	66.9 / -2.31	BLUE LINE TAXI CO LTD 455 COVENTRY RD OTTAWA ON	DTNK

Delisted Expired Fuel Safety Facilities

Instance No:	11205498	Expired Date:	
Status:	EXPIRED	Max Hazard Rank:	
Instance ID:	73801	Facility Location:	
Instance Type:	FS Propane Tank	Facility Type:	
Instance Creation Dt:		Fuel Type 2:	
Instance Install Dt:		Fuel Type 3:	
Item Description:		Panam Related:	
Manufacturer:		Panam Venue Nm:	
Model:		External Identifier:	
Serial No:		Item:	
ULC Standard:		Piping Steel:	
Quantity:		Piping Galvanized:	
Unit of Measure:		Tank Single Wall St:	
Overfill Prot Type:		Piping Underground:	
Creation Date:		Tank Underground:	
Next Periodic Str DT:		Source:	

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB

TSSA Base Sched Cycle 2:
TSSAMax Hazard Rank 1:
TSSA Risk Based Periodic Yn:
TSSA Volume of Directives:
TSSA Periodic Exempt:
TSSA Statutory Interval:
TSSA Recd Insp Interva:
TSSA Recd Tolerance:
TSSA Program Area:
TSSA Program Area 2:
Description: FS Propane Tank
Original Source: EXP
Record Date: Up to Mar 2012

16	24 of 42	WNW/228.3	66.9 / -2.31	coventry connections(blue line taxi) 455 coventry rd ottawa ON	GEN

Generator No: ON4462915
SIC Code: 485310
SIC Description: Taxi Service
Approval Years: 2009
PO Box No:
Country:
Status:
Co Admin:
Choice of Contact:
Phone No Admin:
Contaminated Facility:
MHSW Facility:

Detail(s)

Waste Class: 251
Waste Class Name: OIL SKIMMINGS & SLUDGES

Waste Class: 252
Waste Class Name: WASTE OILS & LUBRICANTS

16	25 of 42	WNW/228.3	66.9 / -2.31	coventry connections(blue line taxi) 455 coventry rd ottawa ON	GEN

Generator No: ON4462915
SIC Code: 485310
SIC Description: Taxi Service
Approval Years: 2010
PO Box No:
Country:
Status:
Co Admin:
Choice of Contact:
Phone No Admin:
Contaminated Facility:
MHSW Facility:

Detail(s)

Waste Class: 252
Waste Class Name: WASTE OILS & LUBRICANTS

Waste Class: 251
Waste Class Name: OIL SKIMMINGS & SLUDGES

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
16	26 of 42	WNW/228.3	66.9 / -2.31	coventry connections(blue line taxi) 455 coventry rd ottawa ON	GEN

Generator No: ON4462915
SIC Code: 485310
SIC Description: Taxi Service
Approval Years: 2011
PO Box No:
Country:
Status:
Co Admin:
Choice of Contact:
Phone No Admin:
Contaminated Facility:
MHSW Facility:

Detail(s)

Waste Class: 251
Waste Class Name: OIL SKIMMINGS & SLUDGES

Waste Class: 252
Waste Class Name: WASTE OILS & LUBRICANTS

16	27 of 42	WNW/228.3	66.9 / -2.31	coventry connections(blue line taxi) 455 coventry rd ottawa ON K1K 2C5	GEN

Generator No: ON4462915
SIC Code: 485310
SIC Description: Taxi Service
Approval Years: 2012
PO Box No:
Country:
Status:
Co Admin:
Choice of Contact:
Phone No Admin:
Contaminated Facility:
MHSW Facility:

Detail(s)

Waste Class: 252
Waste Class Name: WASTE OILS & LUBRICANTS

Waste Class: 251
Waste Class Name: OIL SKIMMINGS & SLUDGES

16	28 of 42	WNW/228.3	66.9 / -2.31	coventry connections(blue line taxi) 455 coventry rd ottawa ON	GEN

Generator No: ON4462915
SIC Code: 485310
SIC Description: TAXI SERVICE
Approval Years: 2013
PO Box No:
Country:
Status:

Co Admin:
Choice of Contact:
Phone No Admin:
Contaminated Facility:
MHSW Facility:

Detail(s)

Waste Class: 252
Waste Class Name: WASTE OILS & LUBRICANTS

Waste Class: 251
Waste Class Name: OIL SKIMMINGS & SLUDGES

16	29 of 42	WNW/228.3	66.9 / -2.31	coventry connections(blue line taxi) 455 coventry rd ottawa ON K1K 2C5	GEN

Generator No: ON4462915
SIC Code: 485310
SIC Description: TAXI SERVICE
Approval Years: 2015
PO Box No:
Country: Canada
Status:
Co Admin: TONY VANIKIOTIS
Choice of Contact: CO_OFFICIAL
Phone No Admin: 613-746-8740 Ext.3311
Contaminated Facility: No
MHSW Facility: No

Detail(s)

Waste Class: 251
Waste Class Name: OIL SKIMMINGS & SLUDGES

Waste Class: 252
Waste Class Name: WASTE OILS & LUBRICANTS

16	30 of 42	WNW/228.3	66.9 / -2.31	coventry connections(blue line taxi) 455 coventry rd ottawa ON K1K 2C5	GEN

Generator No: ON4462915
SIC Code: 485310
SIC Description: TAXI SERVICE
Approval Years: 2016
PO Box No:
Country: Canada
Status:
Co Admin: TONY VANIKIOTIS
Choice of Contact: CO_OFFICIAL
Phone No Admin: 613-746-8740 Ext.3311
Contaminated Facility: No
MHSW Facility: No

Detail(s)

Waste Class: 252
Waste Class Name: WASTE OILS & LUBRICANTS

Waste Class: 251

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB

Waste Class Name: OIL SKIMMINGS & SLUDGES

---

16 | **31 of 42** | **WNW/228.3** | **66.9 / -2.31** | **coventry connections(blue line taxi)**
455 coventry rd
ottawa ON K1K 2C5 | **GEN**

Generator No: ON4462915
SIC Code: 485310
SIC Description: TAXI SERVICE
Approval Years: 2014
PO Box No:
Country: Canada
Status:
Co Admin: TONY VANIKIOTIS
Choice of Contact: CO_OFFICIAL
Phone No Admin: 613-746-8740 Ext.3311
Contaminated Facility: No
MHSW Facility: No

Detail(s)

Waste Class: 251
Waste Class Name: OIL SKIMMINGS & SLUDGES

Waste Class: 252
Waste Class Name: WASTE OILS & LUBRICANTS

---

16 | **32 of 42** | **WNW/228.3** | **66.9 / -2.31** | **coventry connections(blue line taxi)**
455 coventry rd
ottawa ON K1K 2C5 | **GEN**

Generator No: ON4462915
SIC Code:
SIC Description:
Approval Years: As of Dec 2018
PO Box No:
Country: Canada
Status: Registered
Co Admin:
Choice of Contact:
Phone No Admin:
Contaminated Facility:
MHSW Facility:

Detail(s)

Waste Class: 251 L
Waste Class Name: Waste oils/sludges (petroleum based)

Waste Class: 252 L
Waste Class Name: Waste crankcase oils and lubricants

---

16 | **33 of 42** | **WNW/228.3** | **66.9 / -2.31** | **455 Coventry Rd**
Ottawa ON K1K2C5 | **EHS**

Order No: 20171212011
Status: C
Report Type: Standard Report
Report Date: 15-DEC-17
Date Received: 12-DEC-17
Previous Site Name:
Lot/Building Size:

Nearest Intersection:
Municipality:
Client Prov/State: ON
Search Radius (km): .25
X: -75.645842
Y: 45.422213

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
Additional Info Ordered:		Fire Insur. Maps and/or Site Plans			
16	***34 of 42***	***WNW/228.3***	***66.9 / -2.31***	***coventry connections(blue line taxi)*** ***455 coventry rd*** ***ottawa ON K1K 2C5***	***GEN***

Generator No: ON4462915
SIC Code:
SIC Description:
Approval Years: As of Jul 2020
PO Box No:
Country: Canada
Status: Registered
Co Admin:
Choice of Contact:
Phone No Admin:
Contaminated Facility:
MHSW Facility:

Detail(s)

Waste Class: 251 L
Waste Class Name: Waste oils/sludges (petroleum based)

Waste Class: 252 L
Waste Class Name: Waste crankcase oils and lubricants

16	***35 of 42***	***WNW/228.3***	***66.9 / -2.31***	***coventry connections(blue line taxi)*** ***455 coventry rd*** ***ottawa ON K1K 2C5***	***GEN***

Generator No: ON4462915
SIC Code:
SIC Description:
Approval Years: As of Nov 2021
PO Box No:
Country: Canada
Status: Registered
Co Admin:
Choice of Contact:
Phone No Admin:
Contaminated Facility:
MHSW Facility:

Detail(s)

Waste Class: 251 L
Waste Class Name: Waste oils/sludges (petroleum based)

Waste Class: 252 L
Waste Class Name: Waste crankcase oils and lubricants

16	***36 of 42***	***WNW/228.3***	***66.9 / -2.31***	***coventry connections(blue line taxi)*** ***455 coventry rd*** ***ottawa ON K1K 2C5***	***GEN***

Generator No: ON4462915
SIC Code:
SIC Description:
Approval Years: As of Oct 2022
PO Box No:

Country: Canada
Status: Registered
Co Admin:
Choice of Contact:
Phone No Admin:
Contaminated Facility:
MHSW Facility:

Detail(s)

Waste Class: 251 L
Waste Class Name: OIL SKIMMINGS & SLUDGES

Waste Class: 252 L
Waste Class Name: WASTE OILS & LUBRICANTS

---

16 | **37 of 42** | **WNW/228.3** | **66.9 / -2.31** | **BLUE LINE TAXI CO LTD**
455 COVENTRY RD
OTTAWA ON | **EXP**

Inventory No: 11205378
Inventory Status: EXPIRED
Installation Year: 1990
Capacity: 31822
Capacity Unit:
Tank Type:
Manufacturer:
Model:
Description: UNDERGROUND TANK
Previous Fuel Type: Gasoline

Tank Material: Fiberglass (FRP)
Corrosion Protect: Fiberglass
Overfill Protection:
Inventory Context: FS Liquid Fuel Tank
Inventory Item: FS LIQUID FUEL TANK

---

16 | **38 of 42** | **WNW/228.3** | **66.9 / -2.31** | **BLUE LINE TAXI CO LTD**
455 COVENTRY RD
OTTAWA ON | **EXP**

Inventory No: 11205251
Inventory Status: EXPIRED
Installation Year: 1990
Capacity: 7000
Capacity Unit:
Tank Type:
Manufacturer:
Model:
Description: UNDERGROUND TANK
Previous Fuel Type: Gasoline

Tank Material: Fiberglass (FRP)
Corrosion Protect: Fiberglass
Overfill Protection:
Inventory Context: FS Liquid Fuel Tank
Inventory Item: FS LIQUID FUEL TANK

---

16 | **39 of 42** | **WNW/228.3** | **66.9 / -2.31** | **BLUE LINE TAXI CO LTD**
455 COVENTRY RD
OTTAWA ON | **EXP**

Inventory No: 11205336
Inventory Status: EXPIRED
Installation Year: 1990
Capacity: 22730
Capacity Unit:
Tank Type:
Manufacturer:
Model:
Description: UNDERGROUND TANK
Previous Fuel Type: Gasoline

Tank Material: Fiberglass (FRP)
Corrosion Protect: Fiberglass
Overfill Protection:
Inventory Context: FS Liquid Fuel Tank
Inventory Item: FS LIQUID FUEL TANK

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB

16 | **40 of 42** | **WNW/228.3** | **66.9 / -2.31** | **BLUE LINE TAXI CO LTD**
455 COVENTRY RD
OTTAWA ON | **EXP**

Inventory No:	11205446	**Tank Material:**	Fiberglass (FRP)
Inventory Status:	EXPIRED	**Corrosion Protect:**	Fiberglass
Installation Year:	1990	**Overfill Protection:**	
Capacity:	22730	**Inventory Context:**	FS Liquid Fuel Tank
Capacity Unit:		**Inventory Item:**	FS LIQUID FUEL TANK
Tank Type:			
Manufacturer:			
Model:			
Description:	UNDERGROUND TANK		
Previous Fuel Type:	Gasoline		

16 | **41 of 42** | **WNW/228.3** | **66.9 / -2.31** | **BLUE LINE TAXI CO LTD**
455 COVENTRY RD
OTTAWA ON | **EXP**

Inventory No:	11205293	**Tank Material:**	Fiberglass (FRP)
Inventory Status:	EXPIRED	**Corrosion Protect:**	Fiberglass
Installation Year:	1990	**Overfill Protection:**	
Capacity:	22730	**Inventory Context:**	FS Liquid Fuel Tank
Capacity Unit:		**Inventory Item:**	FS LIQUID FUEL TANK
Tank Type:			
Manufacturer:			
Model:			
Description:	UNDERGROUND TANK		
Previous Fuel Type:	Gasoline		

16 | **42 of 42** | **WNW/228.3** | **66.9 / -2.31** | **BLUE LINE TAXI CO LTD**
455 COVENTRY RD
OTTAWA ON | **EXP**

Inventory No:	11205418	**Tank Material:**	Fiberglass (FRP)
Inventory Status:	EXPIRED	**Corrosion Protect:**	Fiberglass
Installation Year:	1990	**Overfill Protection:**	
Capacity:	31822	**Inventory Context:**	FS Liquid Fuel Tank
Capacity Unit:		**Inventory Item:**	FS LIQUID FUEL TANK
Tank Type:			
Manufacturer:			
Model:			
Description:	UNDERGROUND TANK		
Previous Fuel Type:	Diesel		

17 | **1 of 1** | **NW/236.2** | **66.9 / -2.31** | **ON** | **WWIS**

Well ID:	7403602	**Flowing (Y/N):**	
Construction Date:		**Flow Rate:**	
Use 1st:		**Data Entry Status:**	Yes
Use 2nd:		**Data Src:**	
Final Well Status:		**Date Received:**	11/22/2021
Water Type:		**Selected Flag:**	TRUE
Casing Material:		**Abandonment Rec:**	
Audit No:	C52818	**Contractor:**	7328
Tag:	A202087	**Form Version:**	8
Constructn Method:		**Owner:**	
Elevation (m):		**County:**	OTTAWA-CARLETON

Elevatn Reliabilty:		**Lot:**	
Depth to Bedrock:		**Concession:**	
Well Depth:		**Concession Name:**	
Overburden/Bedrock:		**Easting NAD83:**	
Pump Rate:		**Northing NAD83:**	
Static Water Level:		**Zone:**	
Clear/Cloudy:		**UTM Reliability:**	
Municipality:	GLOUCESTER TOWNSHIP		
Site Info:			

Bore Hole Information

Bore Hole ID:	1008858343	**Elevation:**	
DP2BR:		**Elevrc:**	
Spatial Status:		**Zone:**	18
Code OB:		**East83:**	449522.00
Code OB Desc:		**North83:**	5030080.00
Open Hole:		**Org CS:**	UTM83
Cluster Kind:		**UTMRC:**	4
Date Completed:	10/18/2021	**UTMRC Desc:**	margin of error : 30 m - 100 m
Remarks:		**Location Method:**	wwr
Loc Method Desc:	on Water Well Record		
Elevrc Desc:			
Location Source Date:			
Improvement Location Source:			
Improvement Location Method:			
Source Revision Comment:			
Supplier Comment:			

Links

Bore Hole ID:	1008858343	**Tag No:**	A202087
Depth M:		**Contractor:**	7328
Year Completed:	2021	**Latitude:**	45.4224190469922
Well Completed Dt:	10/18/2021	**Longitude:**	-75.6452181827989
Audit No:	C52818	**Y:**	45.422419039887586
Path:		**X:**	-75.64521802090267

18 ***1 of 1*** ***ESE/236.8*** ***68.9 / -0.25*** ***ON*** ***BORE***

Borehole ID:	848120	**Inclin FLG:**	No
OGF ID:	215589768	**SP Status:**	Initial Entry
Status:	Decommissioned	**Surv Elev:**	No
Type:	Borehole	**Piezometer:**	No
Use:	Geotechnical/Geological Investigation	**Primary Name:**	
Completion Date:	14-JUN-1985	**Municipality:**	
Static Water Level:		**Lot:**	LOT 9
Primary Water Use:		**Township:**	GLOUCESTER
Sec. Water Use:		**Latitude DD:**	45.4195
Total Depth m:	5.3	**Longitude DD:**	-75.640839
Depth Ref:	Ground Surface	**UTM Zone:**	18
Depth Elev:		**Easting:**	449862
Drill Method:	Hollow stem auger	**Northing:**	5029753
Orig Ground Elev m:	68	**Location Accuracy:**	
Elev Reliabil Note:		**Accuracy:**	Within 10 metres
DEM Ground Elev m:	65.3		
Concession:	GORE		
Location D:			
Survey D:			
Comments:			

Borehole Geology Stratum

Geology Stratum ID:	6560027	***Mat Consistency:***	
Top Depth:	2.1	***Material Moisture:***	
Bottom Depth:	5.3	***Material Texture:***	
Material Color:		***Non Geo Mat Type:***	
Material 1:	Bedrock	***Geologic Formation:***	
Material 2:	Shale	***Geologic Group:***	
Material 3:		***Geologic Period:***	
Material 4:		***Depositional Gen:***	
Gsc Material Description:			

Stratum Description: SHALE BEDROCK, SLIGHTLY WEATHERED TO UNWEATHERED WITH DEPTH **Note: Many records provided by the department have a truncated [Stratum Description] field.

Geology Stratum ID:	6560026	***Mat Consistency:***	Hard
Top Depth:	0	***Material Moisture:***	
Bottom Depth:	2.1	***Material Texture:***	
Material Color:	Brown	***Non Geo Mat Type:***	
Material 1:	Clay	***Geologic Formation:***	
Material 2:	Silt	***Geologic Group:***	
Material 3:	Sand	***Geologic Period:***	
Material 4:	Gravel	***Depositional Gen:***	
Gsc Material Description:			

Stratum Description: HETEROGENEOUS MIXTURE CLAY, SILT, SAND, GRAVEL WITH RANDOM SILT SEAMS, DARK BROWN TO BLACK, HARD **Note: Many records provided by the department have a truncated [Stratum Description] field.

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
19	1 of 1	SE/246.3	67.8 / -1.38	ON	BORE

Borehole ID:	613343	***Inclin FLG:***	No
OGF ID:	215514641	***SP Status:***	Initial Entry
Status:		***Surv Elev:***	No
Type:	Borehole	***Piezometer:***	No
Use:		***Primary Name:***	
Completion Date:		***Municipality:***	
Static Water Level:		***Lot:***	
Primary Water Use:		***Township:***	
Sec. Water Use:		***Latitude DD:***	45.41904
Total Depth m:	-999	***Longitude DD:***	-75.641362
Depth Ref:	Ground Surface	***UTM Zone:***	18
Depth Elev:		***Easting:***	449821
Drill Method:		***Northing:***	5029702
Orig Ground Elev m:	68	***Location Accuracy:***	
Elev Reliabil Note:		***Accuracy:***	Not Applicable
DEM Ground Elev m:	67.1		
Concession:			
Location D:			
Survey D:			
Comments:			

Borehole Geology Stratum

Geology Stratum ID:	218394705	***Mat Consistency:***	
Top Depth:	0	***Material Moisture:***	
Bottom Depth:	1.8	***Material Texture:***	
Material Color:		***Non Geo Mat Type:***	
Material 1:	Sand	***Geologic Formation:***	
Material 2:		***Geologic Group:***	
Material 3:		***Geologic Period:***	
Material 4:		***Depositional Gen:***	
Gsc Material Description:			

Stratum Description: SAND.

Geology Stratum ID:	218394706	***Mat Consistency:***	Dense

Top Depth:	1.8	**Material Moisture:**	
Bottom Depth:		**Material Texture:**	
Material Color:	Brown	**Non Geo Mat Type:**	
Material 1:	Bedrock	**Geologic Formation:**	
Material 2:		**Geologic Group:**	
Material 3:		**Geologic Period:**	
Material 4:		**Depositional Gen:**	
Gsc Material Description:			

Stratum Description: BEDROCK. AND. GREY,BROWN, DENSE TO VERY DENSE. SILT. GREY,VERY DENSE. SILT. DARK,GREY, VERY **Note: Many records provided by the department have a truncated [Stratum Description] field.

Source

Source Type:	Data Survey	**Source Appl:**	Spatial/Tabular
Source Orig:	Geological Survey of Canada	**Source Iden:**	1
Source Date:	1956-1972	**Scale or Res:**	Varies
Confidence:	H	**Horizontal:**	NAD27
Observatio:		**Verticalda:**	Mean Average Sea Level

Source Name: Urban Geology Automated Information System (UGAIS)
Source Details: File: OTTAWA2.txt RecordID: 058510 NTS_Sheet: 31G05G
Confiden 1: Logged by professional. Exact and complete description of material and properties.

Source List

Source Identifier:	1	**Horizontal Datum:**	NAD27
Source Type:	Data Survey	**Vertical Datum:**	Mean Average Sea Level
Source Date:	1956-1972	**Projection Name:**	Universal Transverse Mercator
Scale or Resolution:	Varies		

Source Name: Urban Geology Automated Information System (UGAIS)
Source Originators: Geological Survey of Canada

20	1 of 2	N/246.5	67.8 / -1.39	535 Coventry Rd Ottawa ON K1K 2C5	EHS

Order No:	20011212015	**Nearest Intersection:**	
Status:	C	**Municipality:**	
Report Type:	Basic Report	**Client Prov/State:**	ON
Report Date:	12/19/01	**Search Radius (km):**	0.50
Date Received:	12/12/01	**X:**	-75.643321
Previous Site Name:		**Y:**	45.423264
Lot/Building Size:			
Additional Info Ordered:			

20	2 of 2	N/246.5	67.8 / -1.39	City of Ottawa City right of way at 535 Coventry Road Ottawa ON K1K 2C5	GEN

Generator No:	ON8961441
SIC Code:	237110
SIC Description:	WATER AND SEWER LINE AND RELATED STRUCTURES CONSTRUCTION
Approval Years:	2014
PO Box No:	
Country:	Canada
Status:	
Co Admin:	Jim Smith
Choice of Contact:	CO_ADMIN
Phone No Admin:	6137452444 Ext.241
Contaminated Facility:	No
MHSW Facility:	No

Detail(s)

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB

Waste Class: 221
Waste Class Name: LIGHT FUELS

---

21 | **1 of 16** | **ENE/246.8** | **68.9 / -0.31** | **SEARS CANADA INC.**
1250 ST. LAURENT BLVD
OTTAWA ON K1K 3B9 | **PES**

Detail Licence No:
Licence No:
Status:
Approval Date:
Report Source:
Licence Type: Vendor
Licence Type Code:
Licence Class:
Licence Control:
Latitude:
Longitude:
Lot:
Concession:
Region:
District:
County:
Trade Name:
PDF URL:

Operator Box:
Operator Class:
Operator No:
Operator Type:
Oper Area Code:
Oper Phone No:
Operator Ext:
Operator Lot:
Oper Concession:
Operator Region:
Operator District:
Operator County:
Op Municipality:
Post Office Box:
MOE District:
SWP Area Name:

---

21 | **2 of 16** | **ENE/246.8** | **68.9 / -0.31** | **SEARS CANADA INC.**
1250 ST LAURENT BLVD
OTTAWA ON K1K3B9 | **PES**

Detail Licence No: 23-01-05664-0
Licence No: 05664
Status:
Approval Date:
Report Source: Legacy Licenses (Excluding TS)
Licence Type: Limited Vendor
Licence Type Code: 23
Licence Class: 01
Licence Control: 0
Latitude:
Longitude:
Lot:
Concession:
Region: 4
District: 2
County: 15
Trade Name:
PDF URL:

Operator Box:
Operator Class:
Operator No:
Operator Type:
Oper Area Code: 613
Oper Phone No: 7464311
Operator Ext:
Operator Lot:
Oper Concession:
Operator Region: 4
Operator District: 2
Operator County: 15
Op Municipality:
Post Office Box:
MOE District:
SWP Area Name:

---

21 | **3 of 16** | **ENE/246.8** | **68.9 / -0.31** | **SEARS CANADA INCORPORATED**
1250 ST. LAURENT BOULEVARD
OTTAWA ON K1K 3B9 | **GEN**

Generator No: ON0215614
SIC Code: 2819
SIC Description: OTHER COMM. PRINTING
Approval Years: 88,89,90
PO Box No:
Country:
Status:

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB

Co Admin:
Choice of Contact:
Phone No Admin:
Contaminated Facility:
MHSW Facility:

Detail(s)

Waste Class: 241
Waste Class Name: HALOGENATED SOLVENTS

21	4 of 16	ENE/246.8	68.9 / -0.31	SEARS CANADA INCORPORATED 34-381 1250 ST. LAURENT BOULEVARD OTTAWA ON K1K 3B9	GEN

Generator No: ON0215614
SIC Code: 2819
SIC Description: OTHER COMM. PRINTING
Approval Years: 92,93,94,95,96,97
PO Box No:
Country:
Status:
Co Admin:
Choice of Contact:
Phone No Admin:
Contaminated Facility:
MHSW Facility:

Detail(s)

Waste Class: 145
Waste Class Name: PAINT/PIGMENT/COATING RESIDUES

Waste Class: 241
Waste Class Name: HALOGENATED SOLVENTS

21	5 of 16	ENE/246.8	68.9 / -0.31	SEARS CANADA INC. 1250 ST. LAURENT BOULEVARD OTTAWA ON K1K 3B9	GEN

Generator No: ON0215614
SIC Code: 2819
SIC Description: OTHER COMM. PRINTING
Approval Years: 98,99,00,01,02,03,04,05,06,07,08
PO Box No:
Country:
Status:
Co Admin:
Choice of Contact:
Phone No Admin:
Contaminated Facility:
MHSW Facility:

Detail(s)

Waste Class: 221
Waste Class Name: LIGHT FUELS

Waste Class: 145
Waste Class Name: PAINT/PIGMENT/COATING RESIDUES

Waste Class: 241

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB

Waste Class Name: HALOGENATED SOLVENTS

21	6 of 16	ENE/246.8	68.9 / -0.31	1250 St. Laurent Blvd Ottawa ON K1K 3B9	EHS

Order No: 20050812003w
Status: C
Report Type: Online Mapless Report
Report Date: 8/12/2005 9:35:26 AM
Date Received: 8/12/2005 9:35:26 AM
Previous Site Name:
Lot/Building Size:
Additional Info Ordered:

Nearest Intersection:
Municipality:
Client Prov/State: ON
Search Radius (km): 0.25
X:
Y:

21	7 of 16	ENE/246.8	68.9 / -0.31	SEARS CANADA INC. 1250 ST. LAURENT BOULEVARD OTTAWA ON K1K 3B9	GEN

Generator No: ON0215614
SIC Code: 453999
SIC Description: All Other Miscellaneous Store Retailers (except Beer and Wine-Making Supplies Stores)
Approval Years: 2009
PO Box No:
Country:
Status:
Co Admin:
Choice of Contact:
Phone No Admin:
Contaminated Facility:
MHSW Facility:

Detail(s)

Waste Class: 145
Waste Class Name: PAINT/PIGMENT/COATING RESIDUES

Waste Class: 221
Waste Class Name: LIGHT FUELS

Waste Class: 241
Waste Class Name: HALOGENATED SOLVENTS

21	8 of 16	ENE/246.8	68.9 / -0.31	sears canada 1250 St. Laurent Blvd. Ottawa ON	GEN

Generator No: ON7104231
SIC Code: 452110
SIC Description: DEPARTMENT STORES
Approval Years: 2013
PO Box No:
Country:
Status:
Co Admin:
Choice of Contact:
Phone No Admin:
Contaminated Facility:
MHSW Facility:

Detail(s)

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB

Waste Class: 243
Waste Class Name: PCBS

Waste Class: 251
Waste Class Name: OIL SKIMMINGS & SLUDGES

Waste Class: 113
Waste Class Name: ACID WASTE - OTHER METALS

Waste Class: 148
Waste Class Name: INORGANIC LABORATORY CHEMICALS

21	9 of 16	ENE/246.8	68.9 / -0.31	SEARS CANADA INC. 1250 ST. LAURENT BOULEVARD OTTAWA ON K1K 3B9	GEN

Generator No: ON0215614
SIC Code: 453999
SIC Description: All Other Miscellaneous Store Retailers (except Beer and Wine-Making Supplies Stores)
Approval Years: 2010
PO Box No:
Country:
Status:
Co Admin:
Choice of Contact:
Phone No Admin:
Contaminated Facility:
MHSW Facility:

Detail(s)

Waste Class: 331
Waste Class Name: WASTE COMPRESSED GASES

Waste Class: 148
Waste Class Name: INORGANIC LABORATORY CHEMICALS

Waste Class: 145
Waste Class Name: PAINT/PIGMENT/COATING RESIDUES

Waste Class: 221
Waste Class Name: LIGHT FUELS

Waste Class: 241
Waste Class Name: HALOGENATED SOLVENTS

Waste Class: 263
Waste Class Name: ORGANIC LABORATORY CHEMICALS

21	10 of 16	ENE/246.8	68.9 / -0.31	sears canada 1250 St. Laurent Blvd. Ottawa ON	GEN

Generator No: ON7104231
SIC Code: 452110
SIC Description: Department Stores
Approval Years: 2012
PO Box No:
Country:
Status:
Co Admin:
Choice of Contact:
Phone No Admin:

Contaminated Facility:
MHSW Facility:

---

21 | ***11 of 16*** | ***ENE/246.8*** | ***68.9 / -0.31*** | ***sears canada 1250 St. Laurent Blvd. Ottawa ON K1K-3B9*** | ***GEN***

Generator No:	ON7104231
SIC Code:	452110
SIC Description:	DEPARTMENT STORES
Approval Years:	2016
PO Box No:	
Country:	Canada
Status:	
Co Admin:	Darlene Ross
Choice of Contact:	CO_OFFICIAL
Phone No Admin:	613-746-4311 Ext.401
Contaminated Facility:	No
MHSW Facility:	No

Detail(s)

Waste Class:	148
Waste Class Name:	INORGANIC LABORATORY CHEMICALS
Waste Class:	243
Waste Class Name:	PCBS
Waste Class:	113
Waste Class Name:	ACID WASTE - OTHER METALS
Waste Class:	251
Waste Class Name:	OIL SKIMMINGS & SLUDGES

---

21 | ***12 of 16*** | ***ENE/246.8*** | ***68.9 / -0.31*** | ***sears canada 1250 St. Laurent Blvd. Ottawa ON K1K-3B9*** | ***GEN***

Generator No:	ON7104231
SIC Code:	452110
SIC Description:	DEPARTMENT STORES
Approval Years:	2015
PO Box No:	
Country:	Canada
Status:	
Co Admin:	Darlene Ross
Choice of Contact:	CO_OFFICIAL
Phone No Admin:	613-746-4311 Ext.401
Contaminated Facility:	No
MHSW Facility:	No

Detail(s)

Waste Class:	243
Waste Class Name:	PCBS
Waste Class:	148
Waste Class Name:	INORGANIC LABORATORY CHEMICALS
Waste Class:	251
Waste Class Name:	OIL SKIMMINGS & SLUDGES
Waste Class:	113

Waste Class Name: ACID WASTE - OTHER METALS

21	13 of 16	ENE/246.8	68.9 / -0.31	sears canada 1250 St. Laurent Blvd. Ottawa ON K1K-3B9	GEN

Generator No: ON7104231
SIC Code: 452110
SIC Description: DEPARTMENT STORES
Approval Years: 2014
PO Box No:
Country: Canada
Status:
Co Admin: Darlene Ross
Choice of Contact: CO_OFFICIAL
Phone No Admin: 613-746-4311 Ext.401
Contaminated Facility: No
MHSW Facility: No

Detail(s)

Waste Class: 113
Waste Class Name: ACID WASTE - OTHER METALS

Waste Class: 148
Waste Class Name: INORGANIC LABORATORY CHEMICALS

Waste Class: 243
Waste Class Name: PCBS

Waste Class: 251
Waste Class Name: OIL SKIMMINGS & SLUDGES

21	14 of 16	ENE/246.8	68.9 / -0.31	sears canada 1250 St. Laurent Blvd. Ottawa ON K1K-3B9	GEN

Generator No: ON7104231
SIC Code:
SIC Description:
Approval Years: As of Dec 2017
PO Box No:
Country: Canada
Status: Registered
Co Admin:
Choice of Contact:
Phone No Admin:
Contaminated Facility:
MHSW Facility:

Detail(s)

Waste Class: 331 I
Waste Class Name: Waste compressed gases including cylinders

Waste Class: 243 D
Waste Class Name: PCB

Waste Class: 252 L
Waste Class Name: Waste crankcase oils and lubricants

Waste Class: 262 L
Waste Class Name: Detergents and soaps

Waste Class: 145 L
Waste Class Name: Wastes from the use of pigments, coatings and paints

Waste Class: 145 H
Waste Class Name: Wastes from the use of pigments, coatings and paints

Waste Class: 148 C
Waste Class Name: Misc. wastes and inorganic chemicals

Waste Class: 146 T
Waste Class Name: Other specified inorganic sludges, slurries or solids

Waste Class: 251 L
Waste Class Name: Waste oils/sludges (petroleum based)

Waste Class: 113 C
Waste Class Name: Acid solutions - containing other metals and non-metals

---

21	15 of 16	ENE/246.8	68.9 / -0.31	Sears Canada Inc. 1250 St Laurent Blvd Ottawa ON K1K 4L8	GEN

Generator No: ON5274838
SIC Code:
SIC Description:
Approval Years: As of Dec 2018
PO Box No:
Country: Canada
Status: Registered
Co Admin:
Choice of Contact:
Phone No Admin:
Contaminated Facility:
MHSW Facility:

Detail(s)

Waste Class: 145 I
Waste Class Name: Wastes from the use of pigments, coatings and paints

Waste Class: 145 L
Waste Class Name: Wastes from the use of pigments, coatings and paints

Waste Class: 148 C
Waste Class Name: Misc. wastes and inorganic chemicals

Waste Class: 148 L
Waste Class Name: Misc. wastes and inorganic chemicals

Waste Class: 252 L
Waste Class Name: Waste crankcase oils and lubricants

Waste Class: 262 L
Waste Class Name: Detergents and soaps

Waste Class: 263 I
Waste Class Name: Misc. waste organic chemicals

Waste Class: 263 L
Waste Class Name: Misc. waste organic chemicals

Waste Class: 331 I
Waste Class Name: Waste compressed gases including cylinders

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
21	16 of 16	ENE/246.8	68.9 / -0.31	SEARS CANADA INC. 1250 ST LAURENT BLVD OTTAWA ON K1K3B9	PES

Detail Licence No:		**Operator Box:**	
Licence No:	05664	**Operator Class:**	
Status:		**Operator No:**	
Approval Date:		**Operator Type:**	
Report Source:	Legacy Licenses (Excluding TS)	**Oper Area Code:**	613
Licence Type:	Retail Vendor Class 03	**Oper Phone No:**	7464311
Licence Type Code:	21	**Operator Ext:**	
Licence Class:	03	**Operator Lot:**	
Licence Control:		**Oper Concession:**	
Latitude:		**Operator Region:**	
Longitude:		**Operator District:**	
Lot:		**Operator County:**	
Concession:		**Op Municipality:**	
Region:		**Post Office Box:**	
District:		**MOE District:**	
County:		**SWP Area Name:**	
Trade Name:			
PDF URL:			

22	1 of 2	SW/247.3	66.9 / -2.24	SUNFORT BUILDING CORPORATION AVENUE "O&P"/TREMBLAY RD. OTTAWA CITY ON	CA

Certificate #:	7-1063-96-
Application Year:	96
Issue Date:	11/7/1996
Approval Type:	Municipal water
Status:	Approved
Application Type:	
Client Name:	
Client Address:	
Client City:	
Client Postal Code:	
Project Description:	
Contaminants:	
Emission Control:	

22	2 of 2	SW/247.3	66.9 / -2.24	SUNFORT BUILDING CORPORATION AVENUE "0&P"/TREMBLAY RD. OTTAWA CITY ON	CA

Certificate #:	3-1327-96-
Application Year:	96
Issue Date:	11/7/1996
Approval Type:	Municipal sewage
Status:	Approved
Application Type:	
Client Name:	
Client Address:	
Client City:	
Client Postal Code:	
Project Description:	
Contaminants:	
Emission Control:	

Unplottable Summary

Total: 24 Unplottable sites

DB	Company Name/Site Name	Address	City	Postal
CA	BEAUREGARD PRINTERS LIMITED-PT.BLK. 'B'	COVENTRY ROAD	OTTAWA CITY ON	
CA	OTTAWA CITY - VANIER PKWY. REC. COMPLEX	COVENTRY RD./STM-WATER MGT.	OTTAWA CITY ON	
CA	R. M. OF OTTAWA-CARLETON	TREMBLAY RD.	OTTAWA CITY ON	
CA	CADILLAC FAIRVIEW CORP. BAY STORE	ST. LAURENT SHOPPING CENTRE	OTTAWA CITY ON	
CA	REG.MUN.OF OTTAWA-CARLETON	QUEENSWAY N.	OTTAWA ON	
CA	Royal Canadian Mounted Police	Mobile	Ottawa ON	
CA	LOWE-MARTIN LTD.	COVENTRY ROAD	OTTAWA CITY ON	
CA	CADILLAC FAIRVIEW CORP. BAY STORE	ST. LAURENT SHOPPING CENTRE	OTTAWA CITY ON	
ECA	The Bell Telephone Company of Canada or Bell Canada	Multiple Sites Across Ontario	Ottawa ON	H3B 2M8
ECA	Royal Canadian Mounted Police	Mobile	Ottawa ON	K1A 0R2
EHS		Tremblay Rd	Ottawa ON	
EHS		Hwy 417	Ottawa ON	
GEN	R.W Tomlinson	LRT Central Site Hwy 417 Widening	ottawa ON	K1G 3N4
GEN	Bell Canada	VARIOUS BELL CANADA MANHOLES AND ACCESS CHAMBERS WITHIN THE MOE EASTERN REG.	(SEE SCHEDULE "B") ON	
GEN	CITY OF OTTAWA	COVENTRY ROAD @ HARDY AVE	OTTAWA ON	
GEN	R.W Tomlinson	LRT Central Site Hwy 417 Widening	ottawa ON	K1G 3N4
SPL	City of Ottawa	Highway 417	Ottawa ON	
SPL	TRANSPORT TRUCK	QUEENSWAY MOTOR VEHICLE (OPERATING	OTTAWA CITY ON	

		FLUID)	
SPL	TRANSPORT TRUCK	HWY. 417 MOTOR VEHICLE (OPERATING FLUID)	OTTAWA ON
SPL	CONSOLIDATED FREIGHTWAYS	ALONG THE 417 TRANSPORT TRUCK (CARGO)	OTTAWA CITY ON
SPL	Bell Canada		Ottawa ON
SPL	ROYAL CANADIAN MOUNTED POLICE	ROYAL CANADIAN MOUNTED POLICE HQ	OTTAWA CITY ON
WWIS		lot 10	ON
WWIS		HWY 417 WEST	Ottawa ON

Unplottable Report

Site: ***BEAUREGARD PRINTERS LIMITED-PT.BLK. 'B'***
COVENTRY ROAD OTTAWA CITY ON

Database: ***CA***

Certificate #:	3-1368-91-
Application Year:	91
Issue Date:	9/9/1991
Approval Type:	Municipal sewage
Status:	Approved
Application Type:	
Client Name:	
Client Address:	
Client City:	
Client Postal Code:	
Project Description:	
Contaminants:	
Emission Control:	

Site: ***OTTAWA CITY - VANIER PKWY. REC. COMPLEX***
COVENTRY RD./STM-WATER MGT. OTTAWA CITY ON

Database: ***CA***

Certificate #:	3-0590-92-
Application Year:	92
Issue Date:	9/18/1992
Approval Type:	Municipal sewage
Status:	Approved
Application Type:	
Client Name:	
Client Address:	
Client City:	
Client Postal Code:	
Project Description:	
Contaminants:	
Emission Control:	

Site: ***R. M. OF OTTAWA-CARLETON***
TREMBLAY RD. OTTAWA CITY ON

Database: ***CA***

Certificate #:	7-0418-86-
Application Year:	86
Issue Date:	5/20/1986
Approval Type:	Municipal water
Status:	Approved
Application Type:	
Client Name:	
Client Address:	
Client City:	
Client Postal Code:	
Project Description:	
Contaminants:	
Emission Control:	

Site: ***CADILLAC FAIRVIEW CORP. BAY STORE***
ST. LAURENT SHOPPING CENTRE OTTAWA CITY ON

Database: ***CA***

Certificate #:	7-1653-89-
Application Year:	89

Issue Date:	10/10/1989
Approval Type:	Municipal water
Status:	Approved
Application Type:	
Client Name:	
Client Address:	
Client City:	
Client Postal Code:	
Project Description:	
Contaminants:	
Emission Control:	

Site: ***REG.MUN.OF OTTAWA-CARLETON***
QUEENSWAY N. OTTAWA ON

Database: ***CA***

Certificate #:	3-0468-85-006
Application Year:	85
Issue Date:	6/4/85
Approval Type:	Municipal sewage
Status:	Approved
Application Type:	
Client Name:	
Client Address:	
Client City:	
Client Postal Code:	
Project Description:	
Contaminants:	
Emission Control:	

Site: ***Royal Canadian Mounted Police***
Mobile Ottawa ON

Database: ***CA***

Certificate #:	8763-5PFR9N
Application Year:	2003
Issue Date:	8/8/2003
Approval Type:	Air
Status:	Approved
Application Type:	
Client Name:	
Client Address:	
Client City:	
Client Postal Code:	
Project Description:	
Contaminants:	
Emission Control:	

Site: ***LOWE-MARTIN LTD.***
COVENTRY ROAD OTTAWA CITY ON

Database: ***CA***

Certificate #:	3-0082-91-
Application Year:	91
Issue Date:	2/7/1991
Approval Type:	Municipal sewage
Status:	Approved
Application Type:	
Client Name:	
Client Address:	
Client City:	
Client Postal Code:	
Project Description:	
Contaminants:	
Emission Control:	

Site: ***CADILLAC FAIRVIEW CORP. BAY STORE***
ST. LAURENT SHOPPING CENTRE OTTAWA CITY ON

Database: ***CA***

Certificate #:	3-1989-89-
Application Year:	89
Issue Date:	10/10/1989
Approval Type:	Municipal sewage
Status:	Approved
Application Type:	
Client Name:	
Client Address:	
Client City:	
Client Postal Code:	
Project Description:	
Contaminants:	
Emission Control:	

Site: ***The Bell Telephone Company of Canada or Bell Canada***
Multiple Sites Across Ontario Ottawa ON H3B 2M8

Database: ***ECA***

Approval No:	1529-B8QPS5	***MOE District:***	
Approval Date:	2019-12-11	***City:***	
Status:	Approved	***Longitude:***	
Record Type:	ECA	***Latitude:***	
Link Source:	IDS	***Geometry X:***	
SWP Area Name:		***Geometry Y:***	
Approval Type:	ECA-AIR		
Project Type:	AIR		
Business Name:	The Bell Telephone Company of Canada or Bell Canada		
Address:	Multiple Sites Across Ontario		
Full Address:			
Full PDF Link:	https://www.accessenvironment.ene.gov.on.ca/instruments/9060-AW6T5N-14.pdf		
PDF Site Location:			

Site: ***Royal Canadian Mounted Police***
Mobile Ottawa ON K1A 0R2

Database: ***ECA***

Approval No:	8763-5PFR9N	***MOE District:***	
Approval Date:	2003-08-08	***City:***	
Status:	Approved	***Longitude:***	
Record Type:	ECA	***Latitude:***	
Link Source:	IDS	***Geometry X:***	
SWP Area Name:		***Geometry Y:***	
Approval Type:	ECA-AIR		
Project Type:	AIR		
Business Name:	Royal Canadian Mounted Police		
Address:	Mobile		
Full Address:			
Full PDF Link:	https://www.accessenvironment.ene.gov.on.ca/instruments/2550-5LUKRE-14.pdf		
PDF Site Location:			

Site:
Tremblay Rd Ottawa ON

Database: ***EHS***

Order No:	20100503021	***Nearest Intersection:***	
Status:	C	***Municipality:***	
Report Type:	Custom Report	***Client Prov/State:***	ON
Report Date:	5/18/2010	***Search Radius (km):***	0.25
Date Received:	5/3/2010	***X:***	-75.645525
Previous Site Name:		***Y:***	1
Lot/Building Size:			
Additional Info Ordered:			

Site: ***Database:***
Hwy 417 Ottawa ON ***EHS***

Order No:	20120509053	***Nearest Intersection:***	
Status:	C	***Municipality:***	
Report Type:	Custom Report	***Client Prov/State:***	ON
Report Date:	5/16/2012	***Search Radius (km):***	0.25
Date Received:	5/9/2012	***X:***	-75.670099
Previous Site Name:		***Y:***	1
Lot/Building Size:			
Additional Info Ordered:			

Site: ***R.W Tomlinson*** ***Database:***
LRT Central Site Hwy 417 Widening ottawa ON K1G 3N4 ***GEN***

Generator No:	ON9834153
SIC Code:	237310
SIC Description:	HIGHWAY, STREET AND BRIDGE CONSTRUCTION
Approval Years:	2014
PO Box No:	
Country:	Canada
Status:	
Co Admin:	mark peralta
Choice of Contact:	CO_OFFICIAL
Phone No Admin:	6138221867 Ext.
Contaminated Facility:	No
MHSW Facility:	No

Detail(s)

Waste Class:	212
Waste Class Name:	ALIPHATIC SOLVENTS
Waste Class:	146
Waste Class Name:	OTHER SPECIFIED INORGANICS
Waste Class:	252
Waste Class Name:	WASTE OILS & LUBRICANTS

Site: ***Bell Canada*** ***Database:***
VARIOUS BELL CANADA MANHOLES AND ACCESS CHAMBERS WITHIN THE MOE EASTERN REG. (SEE SCHEDULE "B") ON ***GEN***

Generator No:	ONR000304
SIC Code:	517110, 517210, 517510
SIC Description:	WIRED TELECOMMUNICATIONS CARRIERS, WIRELESS TELECOMMUNICATIONS CARRIERS (EXCEPT SATELLITE)
Approval Years:	2013
PO Box No:	
Country:	
Status:	
Co Admin:	
Choice of Contact:	
Phone No Admin:	
Contaminated Facility:	
MHSW Facility:	

Detail(s)

Waste Class:	251
Waste Class Name:	OIL SKIMMINGS & SLUDGES
Waste Class:	252
Waste Class Name:	WASTE OILS & LUBRICANTS
Waste Class:	150

Waste Class Name:	INERT INORGANIC WASTES
Waste Class:	253
Waste Class Name:	EMULSIFIED OILS
Waste Class:	221
Waste Class Name:	LIGHT FUELS

Site: ***CITY OF OTTAWA***
COVENTRY ROAD @ HARDY AVE OTTAWA ON

Database: ***GEN***

Generator No:	ON6667785
SIC Code:	541620
SIC Description:	Environmental Consulting Services
Approval Years:	2012
PO Box No:	
Country:	
Status:	
Co Admin:	
Choice of Contact:	
Phone No Admin:	
Contaminated Facility:	
MHSW Facility:	

Site: ***R.W Tomlinson***
LRT Central Site Hwy 417 Widening ottawa ON K1G 3N4

Database: ***GEN***

Generator No:	ON9834153
SIC Code:	237310
SIC Description:	HIGHWAY, STREET AND BRIDGE CONSTRUCTION
Approval Years:	2015
PO Box No:	
Country:	Canada
Status:	
Co Admin:	mark peralta
Choice of Contact:	CO_OFFICIAL
Phone No Admin:	6138221867 Ext.
Contaminated Facility:	No
MHSW Facility:	No

Detail(s)

Waste Class:	146
Waste Class Name:	OTHER SPECIFIED INORGANICS
Waste Class:	212
Waste Class Name:	ALIPHATIC SOLVENTS
Waste Class:	252
Waste Class Name:	WASTE OILS & LUBRICANTS

Site: ***City of Ottawa***
Highway 417 Ottawa ON

Database: ***SPL***

Ref No:	3043-7QMTYH	***Municipality No:***	
Year:		***Nature of Damage:***	
Incident Dt:		***Discharger Report:***	
Dt MOE Arvl on Scn:		***Material Group:***	
MOE Reported Dt:	3/30/2009	***Health/Env Conseq:***	
Dt Document Closed:		***Agency Involved:***	
Site No:			
Facility Name:			
MOE Response:			
Site County/District:			
Site Geo Ref Meth:			
Site District Office:			
Nearest Watercourse:			

Site Name:	EB Merge Lane Hwy 417 & Eagleson Road
Site Address:	
Site Region:	
Site Municipality:	Ottawa
Site Lot:	
Site Conc:	
Site Geo Ref Accu:	
Site Map Datum:	
Northing:	NA
Easting:	NA
Incident Cause:	Pipe Or Hose Leak
Incident Event:	
Environment Impact:	Not Anticipated
Nature of Impact:	Other Impact(s)
Contaminant Qty:	10 L
System Facility Address:	
Client Name:	City of Ottawa
Client Type:	
Call Report Locatn Geodata:	
Contaminant Code:	
Contaminant Name:	ENGINE OIL
Contaminant Limit 1:	
Contam Limit Freq 1:	
Contaminant UN No 1:	
Receiving Medium:	
Receiving Environment:	
Incident Reason:	Unknown - Reason not determined
Incident Summary:	OC Transpo: 10L engine oil to grnd on Hwy 417
Activity Preceding Spill:	
Property 2nd Watershed:	
Property Tertiary Watershed:	
Sector Type:	Other
SAC Action Class:	Primary Assessment of Incident
Source Type:	

Site: ***TRANSPORT TRUCK***
QUEENSWAY MOTOR VEHICLE (OPERATING FLUID) OTTAWA CITY ON

Database: ***SPL***

Ref No:	224201	***Municipality No:***	20107
Year:		***Nature of Damage:***	
Incident Dt:	4/19/2002	***Discharger Report:***	
Dt MOE Arvl on Scn:		***Material Group:***	
MOE Reported Dt:	4/19/2002	***Health/Env Conseq:***	
Dt Document Closed:		***Agency Involved:***	OPP-KANATA; MTO
Site No:			
Facility Name:			
MOE Response:			
Site County/District:			
Site Geo Ref Meth:			
Site District Office:			
Nearest Watercourse:			
Site Name:			
Site Address:			
Site Region:			
Site Municipality:	OTTAWA CITY		
Site Lot:			
Site Conc:			
Site Geo Ref Accu:			
Site Map Datum:			
Northing:			
Easting:			
Incident Cause:	OTHER TRANSPORTATION ACCIDENT		
Incident Event:			
Environment Impact:	CONFIRMED		
Nature of Impact:	Soil contamination		
Contaminant Qty:			
System Facility Address:			
Client Name:			

Client Type:
Call Report Locatn Geodata:
Contaminant Code:
Contaminant Name:
Contaminant Limit 1:
Contam Limit Freq 1:
Contaminant UN No 1:
Receiving Medium: LAND
Receiving Environment:
Incident Reason: ERROR
Incident Summary: LOBLAWS: 450L DIESEL FROMTRUCK TO ROAD ONLY; OPP; MTO.
Activity Preceding Spill:
Property 2nd Watershed:
Property Tertiary Watershed:
Sector Type:
SAC Action Class:
Source Type:

Site: ***TRANSPORT TRUCK***
HWY. 417 MOTOR VEHICLE (OPERATING FLUID) OTTAWA ON

Database: ***SPL***

Ref No: 191523
Year:
Incident Dt: 12/4/2000
Dt MOE Arvl on Scn:
MOE Reported Dt: 12/4/2000
Dt Document Closed:
Site No:
Facility Name:
MOE Response:
Site County/District:
Site Geo Ref Meth:
Site District Office:
Nearest Watercourse:
Site Name:
Site Address:
Site Region:
Site Municipality: OTTAWA
Site Lot:
Site Conc:
Site Geo Ref Accu:
Site Map Datum:
Northing:
Easting:
Incident Cause: TRUCK/TRAILER OVERTURN
Incident Event:
Environment Impact: POSSIBLE
Nature of Impact: Soil contamination
Contaminant Qty:
System Facility Address:
Client Name:
Client Type:
Call Report Locatn Geodata:
Contaminant Code:
Contaminant Name:
Contaminant Limit 1:
Contam Limit Freq 1:
Contaminant UN No 1:
Receiving Medium: LAND
Receiving Environment:
Incident Reason: OTHER
Incident Summary: RSR ENVIRONMENTAL:SPILL OF 50-100 L DIESEL DUE TO ROLLOVER. CONTAINED.
Activity Preceding Spill:
Property 2nd Watershed:
Property Tertiary Watershed:
Sector Type:
SAC Action Class:
Source Type:

Municipality No: 20107
Nature of Damage:
Discharger Report:
Material Group:
Health/Env Conseq:
Agency Involved:

Site: ***CONSOLIDATED FREIGHTWAYS***
ALONG THE 417 TRANSPORT TRUCK (CARGO) OTTAWA CITY ON

Database: ***SPL***

Ref No:	35498	***Municipality No:***	20101
Year:		***Nature of Damage:***	
Incident Dt:	5/29/1990	***Discharger Report:***	
Dt MOE Arvl on Scn:		***Material Group:***	
MOE Reported Dt:	5/30/1990	***Health/Env Conseq:***	
Dt Document Closed:		***Agency Involved:***	CANUTEC,OPP
Site No:			
Facility Name:			
MOE Response:			
Site County/District:			
Site Geo Ref Meth:			
Site District Office:			
Nearest Watercourse:			
Site Name:			
Site Address:			
Site Region:			
Site Municipality:	OTTAWA CITY		
Site Lot:			
Site Conc:			
Site Geo Ref Accu:			
Site Map Datum:			
Northing:			
Easting:			
Incident Cause:	OTHER CONTAINER LEAK		
Incident Event:			
Environment Impact:	NOT ANTICIPATED		
Nature of Impact:			
Contaminant Qty:			
System Facility Address:			
Client Name:			
Client Type:			
Call Report Locatn Geodata:			
Contaminant Code:			
Contaminant Name:			
Contaminant Limit 1:			
Contam Limit Freq 1:			
Contaminant UN No 1:			
Receiving Medium:	LAND		
Receiving Environment:			
Incident Reason:	MATERIAL FAILURE		
Incident Summary:	CONSOLIDATED FREIGHT-15 LGLUE TO HIGHWAY BETWEEN MONTREAL AND OTTAWA		
Activity Preceding Spill:			
Property 2nd Watershed:			
Property Tertiary Watershed:			
Sector Type:			
SAC Action Class:			
Source Type:			

Site: ***Bell Canada***
Ottawa ON

Database: ***SPL***

Ref No:	8881-9J2J33	***Municipality No:***	
Year:		***Nature of Damage:***	
Incident Dt:	2014/04/10	***Discharger Report:***	
Dt MOE Arvl on Scn:		***Material Group:***	
MOE Reported Dt:	2014/04/10	***Health/Env Conseq:***	
Dt Document Closed:	2014/11/04	***Agency Involved:***	
Site No:	NA		
Facility Name:			
MOE Response:	Referral to others		
Site County/District:			
Site Geo Ref Meth:			
Site District Office:			

Nearest Watercourse:	
Site Name:	3212 Richmond Rd<UNOFFICIAL>
Site Address:	
Site Region:	
Site Municipality:	Ottawa
Site Lot:	
Site Conc:	
Site Geo Ref Accu:	
Site Map Datum:	
Northing:	
Easting:	
Incident Cause:	Leak/Break
Incident Event:	
Environment Impact:	Confirmed
Nature of Impact:	Air Pollution
Contaminant Qty:	0 other - see incident description
System Facility Address:	
Client Name:	Bell Canada
Client Type:	
Call Report Locatn Geodata:	
Contaminant Code:	38
Contaminant Name:	FREON R-22 (CFC)
Contaminant Limit 1:	
Contam Limit Freq 1:	
Contaminant UN No 1:	
Receiving Medium:	
Receiving Environment:	
Incident Reason:	Equipment Failure
Incident Summary:	Bell Canada: possible >100 kg freon to atm.
Activity Preceding Spill:	
Property 2nd Watershed:	
Property Tertiary Watershed:	
Sector Type:	Pipeline/Components
SAC Action Class:	Air Spills - Gases and Vapours
Source Type:	

Site: ***ROYAL CANADIAN MOUNTED POLICE***
ROYAL CANADIAN MOUNTED POLICE HQ OTTAWA CITY ON

Database: ***SPL***

Ref No:	31732	***Municipality No:***	20101
Year:		***Nature of Damage:***	
Incident Dt:	//	***Discharger Report:***	
Dt MOE Arvl on Scn:		***Material Group:***	
MOE Reported Dt:	1/26/1990	***Health/Env Conseq:***	
Dt Document Closed:		***Agency Involved:***	EPS, FRANCIS FUELS, PUBLIC WORKS
Site No:			
Facility Name:			
MOE Response:			
Site County/District:			
Site Geo Ref Meth:			
Site District Office:			
Nearest Watercourse:			
Site Name:			
Site Address:			
Site Region:			
Site Municipality:	OTTAWA CITY		
Site Lot:			
Site Conc:			
Site Geo Ref Accu:			
Site Map Datum:			
Northing:			
Easting:			
Incident Cause:	UNDERGROUND TANK LEAK		
Incident Event:			
Environment Impact:			
Nature of Impact:			
Contaminant Qty:			
System Facility Address:			

Client Name:
Client Type:
Call Report Locatn Geodata:
Contaminant Code:
Contaminant Name:
Contaminant Limit 1:
Contam Limit Freq 1:
Contaminant UN No 1:
Receiving Medium: LAND / WATER
Receiving Environment:
Incident Reason: UNKNOWN
Incident Summary: BACKENTRY- FUEL OIL FROM AN UNKNOWN SOURCE FOUND IN PIT ON RCMP PROPERTY
Activity Preceding Spill:
Property 2nd Watershed:
Property Tertiary Watershed:
Sector Type:
SAC Action Class:
Source Type:

Site:
lot 10 ON

Database: ***WWIS***

Well ID: 1535825
Construction Date:
Use 1st:
Use 2nd:
Final Well Status:
Water Type:
Casing Material:
Audit No: Z17653
Tag:
Constructn Method:
Elevation (m):
Elevatn Reliabilty:
Depth to Bedrock:
Well Depth:
Overburden/Bedrock:
Pump Rate:
Static Water Level:
Clear/Cloudy:
Municipality: OTTAWA CITY
Site Info:

Flowing (Y/N):
Flow Rate:
Data Entry Status:
Data Src:
Date Received: 09/29/2005
Selected Flag: TRUE
Abandonment Rec:
Contractor: 6907
Form Version: 3
Owner:
County: OTTAWA-CARLETON
Lot: 010
Concession:
Concession Name:
Easting NAD83:
Northing NAD83:
Zone:
UTM Reliability:

Bore Hole Information

Bore Hole ID: 11316364
DP2BR:
Spatial Status:
Code OB:
Code OB Desc:
Open Hole:
Cluster Kind:
Date Completed: 09/22/2005
Remarks:
Loc Method Desc: Not Applicable i.e. no UTM
Elevrc Desc:
Location Source Date:
Improvement Location Source:
Improvement Location Method:
Source Revision Comment:
Supplier Comment:

Elevation:
Elevrc:
Zone:
East83:
North83:
Org CS:
UTMRC:
UTMRC Desc:
Location Method: na

Overburden and Bedrock Materials Interval

Formation ID: 932997254
Layer: 2

Color:
General Color:
Mat1:
Most Common Material:
Mat2:
Mat2 Desc:
Mat3:
Mat3 Desc:
Formation Top Depth: 19.0
Formation End Depth: 77.0
Formation End Depth UOM: ft

Overburden and Bedrock Materials Interval

Formation ID: 932997253
Layer: 1
Color:
General Color:
Mat1:
Most Common Material:
Mat2:
Mat2 Desc:
Mat3:
Mat3 Desc:
Formation Top Depth: 0.0
Formation End Depth: 19.0
Formation End Depth UOM: ft

Method of Construction & Well Use

Method Construction ID: 961535825
Method Construction Code: B
Method Construction: Other Method
Other Method Construction:

Pipe Information

Pipe ID: 11331219
Casing No: 1
Comment:
Alt Name:

Results of Well Yield Testing

Pumping Test Method Desc:
Pump Test ID: 11345704
Pump Set At: 75.0
Static Level:
Final Level After Pumping:
Recommended Pump Depth:
Pumping Rate:
Flowing Rate:
Recommended Pump Rate:
Levels UOM: ft
Rate UOM: LPM
Water State After Test Code:
Water State After Test:
Pumping Test Method:
Pumping Duration HR:
Pumping Duration MIN:
Flowing:

Well ID:	7290688	***Flowing (Y/N):***	
Construction Date:		***Flow Rate:***	
Use 1st:	Test Hole	***Data Entry Status:***	
Use 2nd:		***Data Src:***	
Final Well Status:	Observation Wells	***Date Received:***	07/19/2017
Water Type:		***Selected Flag:***	TRUE
Casing Material:		***Abandonment Rec:***	
Audit No:	Z261473	***Contractor:***	7579
Tag:	A228339	***Form Version:***	7
Constructn Method:		***Owner:***	
Elevation (m):		***County:***	
Elevatn Reliabilty:		***Lot:***	
Depth to Bedrock:		***Concession:***	
Well Depth:		***Concession Name:***	
Overburden/Bedrock:		***Easting NAD83:***	
Pump Rate:		***Northing NAD83:***	
Static Water Level:		***Zone:***	
Clear/Cloudy:		***UTM Reliability:***	
Municipality:			
Site Info:			

Bore Hole Information

Bore Hole ID:	1006636095	***Elevation:***	
DP2BR:		***Elevrc:***	
Spatial Status:		***Zone:***	
Code OB:		***East83:***	
Code OB Desc:		***North83:***	
Open Hole:		***Org CS:***	UTM83
Cluster Kind:		***UTMRC:***	9
Date Completed:	07/04/2017	***UTMRC Desc:***	unknown UTM
Remarks:		***Location Method:***	wwr
Loc Method Desc:	on Water Well Record		
Elevrc Desc:			
Location Source Date:			
Improvement Location Source:			
Improvement Location Method:			
Source Revision Comment:			
Supplier Comment:			

Overburden and Bedrock Materials Interval

Formation ID:	1006753724
Layer:	3
Color:	8
General Color:	BLACK
Mat1:	17
Most Common Material:	SHALE
Mat2:	
Mat2 Desc:	
Mat3:	
Mat3 Desc:	
Formation Top Depth:	42.0
Formation End Depth:	72.5
Formation End Depth UOM:	ft

Overburden and Bedrock Materials Interval

Formation ID:	1006753722
Layer:	1
Color:	2
General Color:	GREY
Mat1:	11
Most Common Material:	GRAVEL

Mat2: 28
Mat2 Desc: SAND
Mat3:
Mat3 Desc:
Formation Top Depth: 0.0
Formation End Depth: 20.0
Formation End Depth UOM: ft

Overburden and Bedrock Materials Interval

Formation ID: 1006753723
Layer: 2
Color: 6
General Color: BROWN
Mat1: 28
Most Common Material: SAND
Mat2: 06
Mat2 Desc: SILT
Mat3:
Mat3 Desc:
Formation Top Depth: 20.0
Formation End Depth: 42.0
Formation End Depth UOM: ft

Annular Space/Abandonment Sealing Record

Plug ID: 1006753731
Layer: 1
Plug From: 0.0
Plug To: 72.5
Plug Depth UOM: ft

Method of Construction & Well Use

Method Construction ID: 1006753730
Method Construction Code:
Method Construction:
Other Method Construction:

Pipe Information

Pipe ID: 1006753721
Casing No: 0
Comment:
Alt Name:

Construction Record - Casing

Casing ID: 1006753727
Layer: 1
Material:
Open Hole or Material:
Depth From: 0.0
Depth To: 72.5
Casing Diameter: 2.5
Casing Diameter UOM: inch
Casing Depth UOM: ft

Construction Record - Screen

Screen ID: 1006753728
Layer:

Slot:
Screen Top Depth:
Screen End Depth:
Screen Material:
Screen Depth UOM: ft
Screen Diameter UOM: inch
Screen Diameter:

Water Details

Water ID: 1006753726
Layer:
Kind Code:
Kind:
Water Found Depth:
Water Found Depth UOM: ft

Hole Diameter

Hole ID: 1006753725
Diameter: 3.630000114440918
Depth From: 0.0
Depth To: 72.5
Hole Depth UOM: ft
Hole Diameter UOM: inch

Appendix: Database Descriptions

Environmental Risk Information Services (ERIS) can search the following databases. The extent of historical information varies with each database and current information is determined by what is publicly available to ERIS at the time of update. ***Note:*** *Databases denoted with " * " indicates that the database will no longer be updated. See the individual database description for more information.*

Abandoned Aggregate Inventory: Provincial AAGR

The MAAP Program maintains a database of abandoned pits and quarries. Please note that the database is only referenced by lot and concession and city/town location. The database provides information regarding the location, type, size, land use, status and general comments.*

Government Publication Date: Sept 2002*

Aggregate Inventory: Provincial AGR

The Ontario Ministry of Northern Development, Mines, Natural Resources and Forestry (ONDMNRF) maintains this database of pits and quarries. The database provides information regarding the registered owner/operator, location name, operation type, approval type, and maximum annual tonnage.

Government Publication Date: Up to Oct 2022

Abandoned Mine Information System: Provincial AMIS

The Abandoned Mines Information System contains data on known abandoned and inactive mines located on both Crown and privately held lands. The information was provided by the Ministry of Northern Development and Mines (MNDM), with the following disclaimer: "the database provided has been compiled from various sources, and the Ministry of Northern Development and Mines makes no representation and takes no responsibility that such information is accurate, current or complete". Reported information includes official mine name, status, background information, mine start/end date, primary commodity, mine features, hazards and remediation.

Government Publication Date: 1800-Mar 2022

Anderson's Waste Disposal Sites: Private ANDR

The information provided in this database was collected by examining various historical documents which aimed to characterize the likely position of former waste disposal sites from 1860 to present. The research initiative behind the creation of this database was to identify those sites that are missing from the Ontario MOE Waste Disposal Site Inventory, as well as to provide revisions and corrections to the positions and descriptions of sites currently listed in the MOE inventory. In addition to historic waste disposal facilities, the database also identifies certain auto wreckers and scrap yards that have been extrapolated from documentary sources. Please note that the data is not warranted to be complete, exhaustive or authoritative. The information was collected for research purposes only.

Government Publication Date: 1860s-Present

Aboveground Storage Tanks: Provincial AST

Historical listing of aboveground storage tanks made available by the Department of Natural Resources and Forestry. Includes tanks used to hold water or petroleum. This dataset has been retired as of September 25, 2014 and will no longer be updated.

Government Publication Date: May 31, 2014

Automobile Wrecking & Supplies: Private AUWR

This database provides an inventory of known locations that are involved in the scrap metal, automobile wrecking/recycling, and automobile parts & supplies industry. Information is provided on the company name, location and business type.

Government Publication Date: 1999-Oct 31, 2023

Borehole: Provincial BORE

A borehole is the generalized term for any narrow shaft drilled in the ground, either vertically or horizontally. The information here includes geotechnical investigations or environmental site assessments, mineral exploration, or as a pilot hole for installing piers or underground utilities. Information is from many sources such as the Ministry of Transportation (MTO) boreholes from engineering reports and projects from the 1950 to 1990's in Southern Ontario. Boreholes from the Ontario Geological Survey (OGS) including The Urban Geology Analysis Information System (UGAIS) and the York Peel Durham Toronto (YPDT) database of the Conservation Authority Moraine Coalition. This database will include fields such as location, stratigraphy, depth, elevation, year drilled, etc. For all water well data or oil and gas well data for Ontario please refer to WWIS and OOGW.

Government Publication Date: 1875-Jul 2018

Certificates of Approval: Provincial CA

This database contains the following types of approvals: Air & Noise, Industrial Sewage, Municipal & Private Sewage, Waste Management Systems and Renewable Energy Approvals. The MOE in Ontario states that any facility that releases emissions to the atmosphere, discharges contaminants to ground or surface water, provides potable water supplies, or stores, transports or disposes of waste, must have a Certificate of Approval before it can operate lawfully. Fields include approval number, business name, address, approval date, approval type and status. This database will no longer be updated, as CofA's have been replaced by either Environmental Activity and Sector Registry (EASR) or Environmental Compliance Approval (ECA). Please refer to those individual databases for any information after Oct.31, 2011.

Government Publication Date: 1985-Oct 30, 2011*

Dry Cleaning Facilities: Federal CDRY

List of dry cleaning facilities made available by Environment and Climate Change Canada. Environment and Climate Change Canada's Tetrachloroethylene (Use in Dry Cleaning and Reporting Requirements) Regulations (SOR/2003-79) are intended to reduce releases of tetrachloroethylene to the environment from dry cleaning facilities.

Government Publication Date: Jan 2004-Dec 2022

Commercial Fuel Oil Tanks: Provincial CFOT

Locations of commercial underground fuel oil tanks. This is not a comprehensive or complete inventory of commercial fuel tanks in the province; this listing is a copy of records of registered commercial underground fuel oil tanks obtained under Access to Public Information.
Note that the following types of tanks do not require registration: waste oil tanks in apartments, office buildings, residences, etc.; aboveground gas or diesel tanks. Records are not verified for accuracy or completeness.

Government Publication Date: Oct 2023

Chemical Manufacturers and Distributors: Private CHEM

This database includes information from both a one time study conducted in 1992 and private source and is a listing of facilities that manufacture or distribute chemicals. The production of these chemical substances may involve one or more chemical reactions and/or chemical separation processes (i.e. fractionation, solvent extraction, crystallization, etc.).

Government Publication Date: 1999-Jan 31, 2020

Chemical Register: Private CHM

This database includes a listing of locations of facilities within the Province or Territory that either manufacture and/or distributes chemicals.

Government Publication Date: 1999-Oct 31, 2023

Compressed Natural Gas Stations: Private CNG

Canada has a network of public access compressed natural gas (CNG) refuelling stations. These stations dispense natural gas in compressed form at 3,000 pounds per square inch (psi), the pressure which is allowed within the current Canadian codes and standards. The majority of natural gas refuelling is located at existing retail gasoline that have a separate refuelling island for natural gas. This list of stations is made available by the Canadian Natural Gas Vehicle Alliance.

Government Publication Date: Dec 2012 -Nov 2023

Inventory of Coal Gasification Plants and Coal Tar Sites: Provincial COAL

This inventory includes both the "Inventory of Coal Gasification Plant Waste Sites in Ontario-April 1987" and the Inventory of Industrial Sites Producing or Using Coal Tar and Related Tars in Ontario-November 1988) collected by the MOE. It identifies industrial sites that produced and continue to produce or use coal tar and other related tars. Detailed information is available and includes: facility type, size, land use, information on adjoining properties, soil condition, site operators/occupants, site description, potential environmental impacts and historic maps available. This was a one-time inventory.*

Government Publication Date: Apr 1987 and Nov 1988*

Compliance and Convictions: Provincial CONV

This database summarizes the fines and convictions handed down by the Ontario courts beginning in 1989. Companies and individuals named here have been found guilty of environmental offenses in Ontario courts of law.

Government Publication Date: 1989-Nov 2023

Certificates of Property Use: Provincial CPU

This is a subset taken from Ontario's Environmental Registry (EBR) database. It will include CPU's on the registry such as (EPA s. 168.6) - Certificate of Property Use.

Government Publication Date: 1994 - Nov 30, 2023

Drill Hole Database: Provincial DRL

The Ontario Drill Hole Database contains information on more than 113,000 percussion, overburden, sonic and diamond drill holes from assessment files on record with the department of Mines and Minerals. Please note that limited data is available for southern Ontario, as it was the last area to be completed. The database was created when surveys submitted to the Ministry were converted in the Assessment File Research Image Database (AFRI) project. However, the degree of accuracy (coordinates) as to the exact location of drill holes is dependent upon the source document submitted to the MNDM. Levels of accuracy used to locate holes are: centering on the mining claim; a sketch of the mining claim; a 1:50,000 map; a detailed company map; or from submitted a "Report of Work".

Government Publication Date: 1886 - Aug 2023

Delisted Fuel Tanks: Provincial DTNK

List of fuel storage tank sites that were once found in - and have since been removed from - the list of fuel storage tanks made available by the regulatory agency under Access to Public Information.

Government Publication Date: Oct 2023

Environmental Activity and Sector Registry: Provincial EASR

On October 31, 2011, a smarter, faster environmental approvals system came into effect in Ontario. The EASR allows businesses to register certain activities with the ministry, rather than apply for an approval. The registry is available for common systems and processes, to which preset rules of operation can be applied. The EASR is currently available for: heating systems, standby power systems and automotive refinishing. Businesses whose activities aren't subject to the EASR may apply for an ECA (Environmental Compliance Approval), Please see our ECA database.

Government Publication Date: Oct 2011- Nov 30, 2023

Environmental Registry: Provincial EBR

The Environmental Registry lists proposals, decisions and exceptions regarding policies, Acts, instruments, or regulations that could significantly affect the environment. Through the Registry, thirteen provincial ministries notify the public of upcoming proposals and invite their comments. For example, if a local business is requesting a permit, license, or certificate of approval to release substances into the air or water; these are notified on the registry. Data includes: Approval for discharge into the natural environment other than water (i.e. Air) - EPA s. 9, Approval for sewage works - OWRA s. 53(1), and EPA s. 27 - Approval for a waste disposal site. For information regarding Permit to Take Water (PTTW), Certificate of Property Use (CPU) and (ORD) Orders please refer to those individual databases.

Government Publication Date: 1994 - Nov 30, 2023

Environmental Compliance Approval: Provincial ECA

On October 31, 2011, a smarter, faster environmental approvals system came into effect in Ontario. In the past, a business had to apply for multiple approvals (known as certificates of approval) for individual processes and pieces of equipment. Today, a business either registers itself, or applies for a single approval, depending on the types of activities it conducts. Businesses whose activities aren't subject to the EASR may apply for an ECA. A single ECA addresses all of a business's emissions, discharges and wastes. Separate approvals for air, noise and waste are no longer required. This database will also include Renewable Energy Approvals. For certificates of approval prior to Nov 1st, 2011, please refer to the CA database. For all Waste Disposal Sites please refer to the WDS database.

Government Publication Date: Oct 2011- Nov 30, 2023

Environmental Effects Monitoring: Federal EEM

The Environmental Effects Monitoring program assesses the effects of effluent from industrial or other sources on fish, fish habitat and human usage of fisheries resources. Since 1992, pulp and paper mills have been required to conduct EEM studies under the Pulp and Paper Effluent Regulations. This database provides information on the mill name, geographical location and sub-lethal toxicity data.

Government Publication Date: 1992-2007*

ERIS Historical Searches: Private EHS

ERIS has compiled a database of all environmental risk reports completed since March 1999. Available fields for this database include: site location, date of report, type of report, and search radius. As per all other databases, the ERIS database can be referenced on both the map and "Statistical Profile" page.

Government Publication Date: 1999-Sep 30, 2023

Environmental Issues Inventory System: Federal EIIS

The Environmental Issues Inventory System was developed through the implementation of the Environmental Issues and Remediation Plan. This plan was established to determine the location and severity of contaminated sites on inhabited First Nation reserves, and where necessary, to remediate those that posed a risk to health and safety; and to prevent future environmental problems. The EIIS provides information on the reserve under investigation, inventory number, name of site, environmental issue, site action (Remediation, Site Assessment), and date investigation completed.

Government Publication Date: 1992-2001*

Emergency Management Historical Event: Provincial EMHE

List of locations of historical occurrences of emergency events, including those assigned to the Ministry of Natural Resources by Order-In-Council (OIC) under the Emergency Management and Civil Protection Act, as well as events where MNR provided requested emergency response assistance. Many of these events will have involved community evacuations, significant structural loss, and/or involvement of MNR emergency response staff. These events fall into one of ten (10) type categories: Dam Failure; Drought / Low Water; Erosion; Flood; Forest Fire; Soil and Bedrock Instability; Petroleum Resource Center Event, EMO Requested Assistance, Continuity of Operations Event, Other Requested Assistance. EMHE record details are reproduced by ERIS under License with the Ontario Ministry of Natural Resources © Queen's Printer for Ontario, 2017.

Government Publication Date: Apr 30, 2022

Environmental Penalty Annual Report: Provincial EPAR

This database contains data from Ontario's annual environmental penalty report published by the Ministry of the Environment and Climate Change. These reports provide information on environmental penalties for land or water violations issued to companies in one of the nine industrial sectors covered by the Municipal Industrial Strategy for Abatement (MISA) regulations.

Government Publication Date: Jan 1, 2011 - Dec 31, 2022

List of Expired Fuels Safety Facilities: Provincial EXP

List of facilities and tanks for which there was once a fuel registration. This is not a comprehensive or complete inventory of expired tanks/tank facilities in the province; this listing is a copy of previously registered tanks and facilities obtained under Access to Public Information. Includes private fuel outlets, bulk plants, fuel oil tanks, gasoline stations, marinas, propane filling stations, liquid fuel tanks, piping systems, etc; includes tanks which have been removed from the ground.
Notes: registration was not required for private fuel underground/aboveground storage tanks prior to January 1990, nor for furnace oil tanks prior to May 1, 2002; registration is not required for waste oil tanks in apartments, office buildings, residences, etc., or aboveground gas or diesel tanks. Records are not verified for accuracy or completeness.

Government Publication Date: Oct 2023

Federal Convictions: Federal FCON

Environment Canada maintains a database referred to as the "Environmental Registry" that details prosecutions under the Canadian Environmental Protection Act (CEPA) and the Fisheries Act (FA). Information is provided on the company name, location, charge date, offence and penalty.

Government Publication Date: 1988-Jun 2007*

Contaminated Sites on Federal Land: Federal FCS

The Federal Contaminated Sites Inventory includes information on known federal contaminated sites under the custodianship of departments, agencies and consolidated Crown corporations as well as those that are being or have been investigated to determine whether they have contamination arising from past use that could pose a risk to human health or the environment. The inventory also includes non-federal contaminated sites for which the Government of Canada has accepted some or all financial responsibility. It does not include sites where contamination has been caused by, and which are under the control of, enterprise Crown corporations, private individuals, firms or other levels of government. Includes fire training sites and sites at which Per- and Polyfluoroalkyl Substances (PFAS) are a concern.

Government Publication Date: Jun 2000-Sep 2023

Fisheries & Oceans Fuel Tanks: Federal FOFT

Fisheries & Oceans Canada maintains an inventory of aboveground & underground fuel storage tanks located on Fisheries & Oceans property or controlled by DFO. Our inventory provides information on the site name, location, tank owner, tank operator, facility type, storage tank location, tank contents & capacity, and date of tank installation.

Government Publication Date: 1964-Sep 2019

Federal Identification Registry for Storage Tank Systems (FIRSTS): Federal FRST

A list of federally regulated Storage tanks from the Federal Identification Registry for Storage Tank Systems (FIRSTS). FIRSTS is Environment and Climate Change Canada's database of storage tank systems subject to the Storage Tank for Petroleum Products and Allied Petroleum Products Regulations. The main objective of the Regulations is to prevent soil and groundwater contamination from storage tank systems located on federal and aboriginal lands. Storage tank systems that do not have a valid identification number displayed in a readily visible location on or near the storage tank system may be refused product delivery.

Government Publication Date: Oct 31, 2021

Fuel Storage Tank: Provincial FST

List of registered private and retail fuel storage tanks. This is not a comprehensive or complete inventory of private and retail fuel storage tanks in the province; this listing is a copy of registered private and retail fuel storage tanks, obtained under Access to Public Information.
Notes: registration was not required for private fuel underground/aboveground storage tanks prior to January 1990, nor for furnace oil tanks prior to May 1, 2002; registration is not required for waste oil tanks in apartments, office buildings, residences, etc., or aboveground gas or diesel tanks. Records are not verified for accuracy or completeness.

Government Publication Date: Oct 2023

Fuel Storage Tank - Historic: Provincial FSTH

The Fuels Safety Branch of the Ontario Ministry of Consumer and Commercial Relations maintained a database of all registered private fuel storage tanks. Public records of private fuel storage tanks are only available since the registration became effective in September 1989. This information is now collected by the Technical Standards and Safety Authority.

Government Publication Date: Pre-Jan 2010*

Ontario Regulation 347 Waste Generators Summary: Provincial GEN

Regulation 347 of the Ontario EPA defines a waste generation site as any site, equipment and/or operation involved in the production, collection, handling and/or storage of regulated wastes. A generator of regulated waste is required to register the waste generation site and each waste produced, collected, handled, or stored at the site. This database contains the registration number, company name and address of registered generators including the types of hazardous wastes generated. It includes data on waste generating facilities such as: drycleaners, waste treatment and disposal facilities, machine shops, electric power distribution etc. This information is a summary of all years from 1986 including the most currently available data. Some records may contain, within the company name, the phrase "See & Use..." followed by a series of letters and numbers. This occurs when one company is amalgamated with or taken over by another registered company. The number listed as "See & Use", refers to the new ownership and the other identification number refers to the original ownership. This phrase serves as a link between the 2 companies until operations have been fully transferred.

Government Publication Date: 1986-Oct 31, 2022

Greenhouse Gas Emissions from Large Facilities: Federal GHG

List of greenhouse gas emissions from large facilities made available by Environment Canada. Greenhouse gas emissions in kilotonnes of carbon dioxide equivalents (kt CO2 eq).

Government Publication Date: 2013-Dec 2020

TSSA Historic Incidents: Provincial HINC

List of historic incidences of spills and leaks of diesel, fuel oil, gasoline, natural gas, propane, and hydrogen recorded by the TSSA in their previous incident tracking system. The TSSA's Fuels Safety Program administers the Technical Standards & Safety Act 2000, providing fuel-related safety services associated with the safe transportation, storage, handling and use of fuels such as gasoline, diesel, propane, natural gas and hydrogen. Under this Act, the TSSA regulates fuel suppliers, storage facilities, transport trucks, pipelines, contractors and equipment or appliances that use fuels. Records are not verified for accuracy or completeness. This is not a comprehensive or complete inventory of historical fuel spills and leaks in the province. This listing is a copy of the data captured at one moment in time and is hence limited by the record date provided here.

Government Publication Date: 2006-June 2009*

Indian & Northern Affairs Fuel Tanks: Federal IAFT

The Department of Indian & Northern Affairs Canada (INAC) maintains an inventory of aboveground & underground fuel storage tanks located on both federal and crown land. Our inventory provides information on the reserve name, location, facility type, site/facility name, tank type, material & ID number, tank contents & capacity, and date of tank installation.

Government Publication Date: 1950-Aug 2003*

Fuel Oil Spills and Leaks: Provincial INC

Listing of spills and leaks of diesel, fuel oil, gasoline, natural gas, propane, and hydrogen reported to the Spills Action Centre (SAC). This is not a comprehensive or complete inventory of fuel-related leaks, spills, and incidents in the province; this listing in a copy of incidents reported to the SAC, obtained under Access to Public Information. Includes incidents from fuel-related hazards such as spills, fires, and explosions. Records are not verified for accuracy or completeness.

Government Publication Date: Feb 28, 2022

Landfill Inventory Management Ontario: Provincial LIMO

The Landfill Inventory Management Ontario (LIMO) database is updated every year, as the Ministry of the Environment, Conservation and Parks compiles new and updated information. Includes small and large landfills currently operating as well as those which are closed and historic. Operators of larger landfills provide landfill information for the previous operating year to the ministry for LIMO including: estimated amount of total waste received, landfill capacity, estimated total remaining landfill capacity, fill rates, engineering designs, reporting and monitoring details, size of location, service area, approved waste types, leachate of site treatment, contaminant attenuation zone and more. The small landfills include information such as site owner, site location and certificate of approval # and status.

Government Publication Date: Mar 21, 2022

Canadian Mine Locations: Private MINE

This information is collected from the Canadian & American Mines Handbook. The Mines database is a national database that provides over 290 listings on mines (listed as public companies) dealing primarily with precious metals and hard rocks. Listed are mines that are currently in operation, closed, suspended, or are still being developed (advanced projects). Their locations are provided as geographic coordinates (x, y and/or longitude, latitude). As of 2002, data pertaining to Canadian smelters and refineries has been appended to this database.

Government Publication Date: 1998-2009*

Mineral Occurrences: Provincial MNR

In the early 70's, the Ministry of Northern Development and Mines created an inventory of approximately 19,000 mineral occurrences in Ontario, in regard to metallic and industrial minerals, as well as some information on building stones and aggregate deposits. Please note that the "Horizontal Positional Accuracy" is approximately +/- 200 m. Many reference elements for each record were derived from field sketches using pace or chain/tape measurements against claim posts or topographic features in the area. The primary limiting factor for the level of positional accuracy is the scale of the source material. The testing of horizontal accuracy of the source materials was accomplished by comparing the plan metric (X and Y) coordinates of that point with the coordinates of the same point as defined from a source of higher accuracy.

Government Publication Date: 1846-Feb 2023

National Analysis of Trends in Emergencies System (NATES): Federal NATE

In 1974 Environment Canada established the National Analysis of Trends in Emergencies System (NATES) database, for the voluntary reporting of significant spill incidents. The data was to be used to assist in directing the work of the emergencies program. NATES ran from 1974 to 1994. Extensive information is available within this database including company names, place where the spill occurred, date of spill, cause, reason and source of spill, damage incurred, and amount, concentration, and volume of materials released.

Government Publication Date: 1974-1994*

Non-Compliance Reports: Provincial NCPL

The Ministry of the Environment provides information about non-compliant discharges of contaminants to air and water that exceed legal allowable limits, from regulated industrial and municipal facilities. A reported non-compliance failure may be in regard to a Control Order, Certificate of Approval, Sectoral Regulation or specific regulation/act.

Government Publication Date: Dec 31, 2021

National Defense & Canadian Forces Fuel Tanks: Federal NDFT

The Department of National Defense and the Canadian Forces maintains an inventory of all aboveground & underground fuel storage tanks located on DND lands. Our inventory provides information on the base name, location, tank type & capacity, tank contents, tank class, date of tank installation, date tank last used, and status of tank as of May 2001. This database will no longer be updated due to the new National Security protocols which have prohibited any release of this database.

Government Publication Date: Up to May 2001*

National Defense & Canadian Forces Spills: Federal NDSP

The Department of National Defense and the Canadian Forces maintains an inventory of spills to land and water. All spill sites have been classified under the "Transportation of Dangerous Goods Act - 1992". Our inventory provides information on the facility name, location, spill ID #, spill date, type of spill, as well as the quantity of substance spilled & recovered.

Government Publication Date: Mar 1999-Oct 2022

National Defence & Canadian Forces Waste Disposal Sites: Federal NDWD

The Department of National Defence and the Canadian Forces maintains an inventory of waste disposal sites located on DND lands. Where available, our inventory provides information on the base name, location, type of waste received, area of site, depth of site, year site opened/closed and status.

Government Publication Date: 2001-Apr 2007*

National Energy Board Pipeline Incidents: Federal NEBI

Locations of pipeline incidents from 2008 to present, made available by the Canada Energy Regulator (CER) - previously the National Energy Board (NEB). Includes incidents reported under the Onshore Pipeline Regulations and the Processing Plant Regulations related to pipelines under federal jurisdiction, does not include incident data related to pipelines under provincial or territorial jurisdiction.

Government Publication Date: 2008-Jun 30, 2021

National Energy Board Wells: Federal NEBP

The NEBW database contains information on onshore & offshore oil and gas wells that are outside provincial jurisdiction(s) and are thereby regulated by the National Energy Board. Data is provided regarding the operator, well name, well ID No./UWI, status, classification, well depth, spud and release date.

Government Publication Date: 1920-Feb 2003*

National Environmental Emergencies System (NEES): Federal NEES

In 2000, the Emergencies program implemented NEES, a reporting system for spills of hazardous substances. For the most part, this system only captured data from the Atlantic Provinces, some from Quebec and Ontario and a portion from British Columbia. Data for Alberta, Saskatchewan, Manitoba and the Territories was not captured. However, NEES is also a repository for previous Environment Canada spill datasets. NEES is composed of the historic datasets ' or Trends ' which dates from approximately 1974 to present. NEES Trends is a compilation of historic databases, which were merged and includes data from NATES (National Analysis of Trends in Emergencies System), ARTS (Atlantic Regional Trends System), and NEES. In 2001, the Emergencies Program determined that variations in reporting regimes and requirements between federal and provincial agencies made national spill reporting and trend analysis difficult to achieve. As a consequence, the department has focused efforts on capturing data on spills of substances which fall under its legislative authority only (CEPA and FA). As such, the NEES database will be decommissioned in December 2004.

Government Publication Date: 1974-2003*

National PCB Inventory: Federal NPCB

Environment Canada's National PCB inventory includes information on in-use PCB containing equipment in Canada including federal, provincial and private facilities. Federal out-of-service PCB containing equipment and PCB waste owned by the federal government or by federally regulated industries such as airlines, railway companies, broadcasting companies, telephone and telecommunications companies, pipeline companies, etc. are also listed. Although it is not Environment Canada's mandate to collect data on non-federal PCB waste, the National PCB inventory includes some information on provincial and private PCB waste and storage sites. Some addresses provided may be Head Office addresses and are not necessarily the location of where the waste is being used or stored.

Government Publication Date: 1988-2008*

National Pollutant Release Inventory 1993-2020: Federal NPR2

The National Pollutant Release Inventory (NPRI) is Canada's public inventory of pollutant releases (to air, water and land), disposals, and transfers for recycling. The inventory, managed by Environment and Climate Change Canada, tracks over 300 substances. Under the authority of the Canadian Environmental Protection Act (CEPA), owners or operators of facilities that meet published reporting requirements are required to report to the NPRI.

Government Publication Date: Sep 2020

National Pollutant Release Inventory - Historic: Federal NPRI

Environment Canada has defined the National Pollutant Release Inventory ("NPRI") as a federal government initiative designed to collect comprehensive national data regarding releases to air, water, or land, and waste transfers for recycling for more than 300 listed substances. This data holds historic records; current records are found in NPR2.

Government Publication Date: 1993-May 2017

Oil and Gas Wells: Private OGWE

The Nickle's Energy Group (publisher of the Daily Oil Bulletin) collects information on drilling activity including operator and well statistics. The well information database includes name, location, class, status and depth. The main Nickle's database is updated on a daily basis, however, this database is updated on a monthly basis. More information is available at www.nickles.com.

Government Publication Date: 1988-Nov 30, 2023

Ontario Oil and Gas Wells: Provincial OOGW

In 1998, the MNR handed over to the Ontario Oil, Gas and Salt Resources Corporation, the responsibility of maintaining a database of oil and gas wells drilled in Ontario. The OGSR Library has over 20,000+ wells in their database. Information available for all wells in the ERIS database include well owner/operator, location, permit issue date, and well cap date, license No., status, depth and the primary target (rock unit) of the well being drilled. All geology/stratigraphy table information, plus all water table information is also provide for each well record.

Government Publication Date: 1800-Aug 2023

Inventory of PCB Storage Sites: Provincial OPCB

The Ontario Ministry of Environment, Waste Management Branch, maintains an inventory of PCB storage sites within the province. Ontario Regulation 11/82 (Waste Management - PCB) and Regulation 347 (Generator Waste Management) under the Ontario EPA requires the registration of inactive PCB storage equipment and/or disposal sites of PCB waste with the Ontario Ministry of Environment. This database contains information on: 1) waste quantities; 2) major and minor sites storing liquid or solid waste; and 3) a waste storage inventory.

Government Publication Date: 1987-Oct 2004; 2012-Dec 2013

Orders: Provincial ORD

This is a subset taken from Ontario's Environmental Registry (EBR) database. It will include Orders on the registry such as (EPA s. 17) - Order for remedial work, (EPA s. 18) - Order for preventative measures, (EPA s. 43) - Order for removal of waste and restoration of site, (EPA s. 44) - Order for conformity with Act for waste disposal sites, (EPA s. 136) - Order for performance of environmental measures.

Government Publication Date: 1994 - Nov 30, 2023

Canadian Pulp and Paper: Private PAP

This information is part of the Pulp and Paper Canada Directory. The Directory provides a comprehensive listing of the locations of pulp and paper mills and the products that they produce.

Government Publication Date: 1999, 2002, 2004, 2005, 2009-2014

Parks Canada Fuel Storage Tanks: Federal PCFT

Canadian Heritage maintains an inventory of known fuel storage tanks operated by Parks Canada, in both National Parks and at National Historic Sites. The database details information on site name, location, tank install/removal date, capacity, fuel type, facility type, tank design and owner/operator.

Government Publication Date: 1920-Jan 2005*

Pesticide Register: Provincial PES

The Ontario Ministry of the Environment and Climate Change maintains a database of licensed operators and vendors of registered pesticides.

Government Publication Date: Oct 2011- Nov 30, 2023

NPRI Reporters - PFAS Substances: Federal PFCH

The National Pollutant Release Inventory (NPRI) is Canada's public inventory of releases, disposals, and transfers, tracking over 320 pollutants. Per - and polyfluoroalkyl substances (PFAS) are a group of over 4,700 human-made substances for which adverse environmental and health effects have been observed. This listing of PFAS substance reporters includes those NPRI facilities that reported substances that are found in either: a) the Comprehensive Global Database of PFASs compiled by the Organisation for Economic Co-operation and Development (OECD), b) the US Environmental Protection Agency (US EPA) Master List of PFAS Substances, c) the US EPA list of PFAS chemicals without explicit structures, or d) the US EPA list of PFAS structures (encompassing the largest set of structures having sufficient levels of fluorination to potentially impart PFAS-type properties).

Government Publication Date: Sep 2020

Potential PFAS Handers from NPRI: Federal PFHA

The National Pollutant Release Inventory (NPRI) is Canada's public inventory of releases, disposals, and transfers, tracking over 320 pollutants. Per - and polyfluoroalkyl substances (PFAS) are a group of over 4,700 human-made substances for which adverse environmental and health effects have been observed. This list of potential PFAS handlers includes those NPRI facilities that reported business activity (NAICS code) included in the US Environmental Protection Agency (US EPA) list of Potential PFAS-Handling Industry Sectors, further described as operating in industry sectors where literature reviews indicate that PFAS may be handled and/or released. Inclusion of a facility in this listing does not indicate that PFAS are being manufactured, processed, used, or released by the facility - these are facilities that potentially handle PFAS based on their industrial profile.

Government Publication Date: Sep 2020

Pipeline Incidents: Provincial PINC

List of pipeline incidents (strikes, leaks, spills). This is not a comprehensive or complete inventory of pipeline incidents in the province; this listing in an historical copy of records previously obtained under Access to Public Information. Records are not verified for accuracy or completeness.

Government Publication Date: Feb 28, 2021

Private and Retail Fuel Storage Tanks: Provincial PRT

The Fuels Safety Branch of the Ontario Ministry of Consumer and Commercial Relations maintained a database of all registered private fuel storage tanks and licensed retail fuel outlets. This database includes an inventory of locations that have gasoline, oil, waste oil, natural gas and/or propane storage tanks on their property. The MCCR no longer collects this information. This information is now collected by the Technical Standards and Safety Authority (TSSA).

Government Publication Date: 1989-1996*

Permit to Take Water: Provincial PTTW

This is a subset taken from Ontario's Environmental Registry (EBR) database. It will include PTTW's on the registry such as OWRA s. 34 - Permit to take water.

Government Publication Date: 1994 - Nov 30, 2023

Ontario Regulation 347 Waste Receivers Summary: Provincial REC

Part V of the Ontario Environmental Protection Act ("EPA") regulates the disposal of regulated waste through an operating waste management system or a waste disposal site operated or used pursuant to the terms and conditions of a Certificate of Approval or a Provisional Certificate of Approval. Regulation 347 of the Ontario EPA defines a waste receiving site as any site or facility to which waste is transferred by a waste carrier. A receiver of regulated waste is required to register the waste receiving facility. This database represents registered receivers of regulated wastes, identified by registration number, company name and address, and includes receivers of waste such as: landfills, incinerators, transfer stations, PCB storage sites, sludge farms and water pollution control plants. This information is a summary of all years from 1986 including the most currently available data.

Government Publication Date: 1986-1990, 1992-2021

Record of Site Condition: Provincial RSC

The Record of Site Condition (RSC) is part of the Ministry of the Environment's Brownfields Environmental Site Registry. Protection from environmental cleanup orders for property owners is contingent upon documentation known as a record of site condition (RSC) being filed in the Environmental Site Registry. In order to file an RSC, the property must have been properly assessed and shown to meet the soil, sediment and groundwater standards appropriate for the use (such as residential) proposed to take place on the property. The Record of Site Condition Regulation (O. Reg. 153/04) details requirements related to site assessment and clean up.
RSCs filed after July 1, 2011 will also be included as part of the new (O.Reg. 511/09).

Government Publication Date: 1997-Sept 2001, Oct 2004-Nov 2023

Retail Fuel Storage Tanks: Private RST

This database includes an inventory of retail fuel outlet locations (including marinas) that have on their property gasoline, oil, waste oil, natural gas and / or propane storage tanks.

Government Publication Date: 1999-Oct 31, 2023

Scott's Manufacturing Directory: Private SCT

Scott's Directories is a data bank containing information on over 200,000 manufacturers across Canada. Even though Scott's listings are voluntary, it is the most comprehensive database of Canadian manufacturers available. Information concerning a company's address, plant size, and main products are included in this database.

Government Publication Date: 1992-Mar 2011*

Ontario Spills: Provincial SPL

List of spills and incidents made available by the Ministry of the Environment, Conservation and Parks. This database identifies information such as location (approximate), type and quantity of contaminant, date of spill, environmental impact, cause, nature of impact, etc. Information from 1988-2002 was part of the ORIS (Occurrence Reporting Information System). The SAC (Spills Action Centre) handles all spills reported in Ontario. Regulations for spills in Ontario are part of the MOE's Environmental Protection Act, Part X. The Ministry of the Environment, Conservation and Parks cites the coronavirus pandemic as an explanation for delays in releasing data pursuant to requests. This database includes spill incidents that occurred in February, March, May, June-November 2022, and January 2023 in addition to those listed in the Government Publication Date.

Government Publication Date: 1988-Dec 2021; see description

Wastewater Discharger Registration Database: Provincial SRDS

Facilities that report either municipal treated wastewater effluent or industrial wastewater discharges under the Effluent Monitoring and Effluent Limits (EMEL) and Municipal/Industrial Strategy for Abatement Regulations. The Municipal/Industrial Strategy for Abatement (MISA) division of the Ontario Ministry of Environment keeps record of direct dischargers of toxic pollutants within nine sectors including: Electric Power Generation, Mining, Petroleum Refining, Organic Chemicals, Inorganic Chemicals, Pulp & Paper, Metal Casting, Iron & Steel, and Quarries.

Government Publication Date: 1990-Dec 31, 2020

Anderson's Storage Tanks: Private TANK

The information provided in this database was collected by examining various historical documents, which identified the location of former storage tanks, containing substances such as fuel, water, gas, oil, and other various types of miscellaneous products. Information is available in regard to business operating at tank site, tank location, permit year, permit & installation type, no. of tanks installed & configuration and tank capacity. Data contained within this database pertains only to the city of Toronto and is not warranted to be complete, exhaustive or authoritative. The information was collected for research purposes only.

Government Publication Date: 1915-1953*

Transport Canada Fuel Storage Tanks: Federal TCFT

List of fuel storage tanks currently or previously owned or operated by Transport Canada. This inventory also includes tanks on The Pickering Lands, which refers to 7,530 hectares (18,600 acres) of land in Pickering, Markham, and Uxbridge owned by the Government of Canada since 1972; properties on this land has been leased by the government since 1975, and falls under the Site Management Policy of Transport Canada, but is administered by Public Works and Government Services Canada. This inventory provides information on the site name, location, tank age, capacity and fuel type.

Government Publication Date: 1970 - Apr 2023

Variances for Abandonment of Underground Storage Tanks: Provincial VAR

Listing of variances granted for storage tank abandonment. This is not a comprehensive or complete inventory of tank abandonment variances in the province; this listing is a copy of tank abandonment variance records previously obtained under Access to Public Information. In Ontario, registered underground storage tanks must be removed within two years of disuse; if removal of a tank is not feasible, an application may be sought for a variance from this code requirement.
Records are not verified for accuracy or completeness.

Government Publication Date: Feb 28, 2022

Waste Disposal Sites - MOE CA Inventory: Provincial WDS

The Ontario Ministry of Environment, Waste Management Branch, maintains an inventory of known open (active or inactive) and closed disposal sites in the Province of Ontario. Active sites maintain a Certificate of Approval, are approved to receive and are receiving waste. Inactive sites maintain Certificate(s) of Approval but are not receiving waste. Closed sites are not receiving waste. The data contained within this database was compiled from the MOE's Certificate of Approval database. Locations of these sites may be cross-referenced to the Anderson database described under ERIS's Private Source Database section, by the CA number. All new Environmental Compliance Approvals handed out after Oct 31, 2011 for Waste Disposal Sites will still be found in this database.

Government Publication Date: Oct 2011-Nov 30, 2023

Waste Disposal Sites - MOE 1991 Historical Approval Inventory: Provincial WDSH

In June 1991, the Ontario Ministry of Environment, Waste Management Branch, published the "June 1991 Waste Disposal Site Inventory", of all known active and closed waste disposal sites as of October 30st, 1990. For each "active" site as of October 31st 1990, information is provided on site location, site/CA number, waste type, site status and site classification. For each "closed" site as of October 31st 1990, information is provided on site location, site/CA number, closure date and site classification. Locations of these sites may be cross-referenced to the Anderson database described under ERIS's Private Source Database section, by the CA number.

Government Publication Date: Up to Oct 1990*

Water Well Information System: Provincial WWIS

This database describes locations and characteristics of water wells found within Ontario in accordance with Regulation 903. It includes such information as coordinates, construction date, well depth, primary and secondary use, pump rate, static water level, well status, etc. Also included are detailed stratigraphy information, approximate depth to bedrock and the approximate depth to the water table.

Government Publication Date: Mar 31 2023

Definitions

Database Descriptions: This section provides a detailed explanation for each database including: source, information available, time coverage, and acronyms used. They are listed in alphabetic order.

Detail Report: This is the section of the report which provides the most detail for each individual record. Records are summarized by location, starting with the project property followed by records in closest proximity.

Distance: The distance value is the distance between plotted points, not necessarily the distance between the sites' boundaries. All values are an approximation.

Direction: The direction value is the compass direction of the site in respect to the project property and/or center point of the report.

Elevation: The elevation value is taken from the location at which the records for the site address have been plotted. All values are an approximation. Source: Google Elevation API.

Executive Summary: This portion of the report is divided into 3 sections:

'Report Summary'- Displays a chart indicating how many records fall on the project property and, within the report search radii.

'Site Report Summary'-Project Property'- This section lists all the records which fall on the project property. For more details, see the 'Detail Report' section.

'Site Report Summary-Surrounding Properties'- This section summarizes all records on adjacent properties, listing them in order of proximity from the project property. For more details, see the 'Detail Report' section.

Map Key: The map key number is assigned according to closest proximity from the project property. Map Key numbers always start at #1. The project property will always have a map key of '1' if records are available. If there is a number in brackets beside the main number, this will indicate the number of records on that specific property. If there is no number in brackets, there is only one record for that property.

The symbol and colour used indicates 'elevation': the red inverted triangle will dictate 'ERIS Sites with Lower Elevation', the yellow triangle will dictate 'ERIS Sites with Higher Elevation' and the orange square will dictate 'ERIS Sites with Same Elevation.'

Unplottables: These are records that could not be mapped due to various reasons, including limited geographic information. These records may or may not be in your study area, and are included as reference.

APPENDIX I

MECP FOI Search Results

Ministry of the Environment, Conservation and Parks

Corporate Services Branch
40 St. Clair Avenue West
Toronto ON M4V 1M2

Ministère de l'Environnement, de la Protection de la nature et des Parcs

Direction des services ministériels
40, avenue St. Clair Ouest
Toronto ON M4V 1M2

Ontario

February 20, 2024

Julie Crooks
Pinchin Ltd.
1 Hines Road, Suite 200
Kanata, Ontario K2K 3C7
jcrooks@pinchin.com

Dear Julie Crooks:

RE: MECP FOI A-2024-00162, Your Reference #: EPI-2024-2000003585 – Record Release Letter

This letter is further to your request made pursuant to the Freedom of Information and Protection of Privacy Act (the Act) relating to 500 Coventry Road, Ottawa.

Attached is a copy of the records.

If you have any questions regarding this matter, contact Tara Hachey at tara.hachey@ontario.ca.

Yours truly,

Tara Hachey

For:

Josephine DeSouza
Manager, (A), Access and Privacy Office

Attachment

Ontario

Ministry of Environment and Energy

Ministère de l'Environnement et de l'Énergie

135 St. Clair Avenue West
Suite 100
Toronto ON M4V 1P5

135, avenue St. Clair ouest
Bureau 100
Toronto ON M4V 1P5

June 22, 1995

COCA-COLA BOTTLING LIMITED
2 CHAMPAGNE DRIVE
DOWNSVIEW, ONT
M3C 2J5

Attention: MR. ANDY ANDERSON

Re: Acknowledgement of Subject Waste Registration

In accordance with Subsection 18(3) of Ontario Regulation 347, this letter acknowledges receipt of your Generator Registration Report dated **June 7, 1995.** The Generator Registration Number assigned to your company is:

ON0381005

for the site located at:

500 COVENTRY ROAD
OTTAWA, ONT

A list of acknowledged waste number(s) is attached as Schedule "A". The format of this schedule has been modified since July 1993. A waste number now appears only once, regardless of the number of different waste streams which may have identical waste numbers. The waste description is also generic. However, you are still required to register all waste streams, even if they have identical waste numbers.

For off-site disposal of subject waste, the appropriate waste number(s) acknowledged in Schedule "A", and the Generator Registration Number, must be entered in Part A of each manifest form after receipt of this generator registration document. Under Ontario's Environmental Protection Act, the property receiving the waste must be approved as a disposal site for the waste it is receiving. The disposal of waste at an uncertified site is illegal.

The selection of accurate waste numbers is your responsibility. This acknowledgement must **not** be considered a confirmation of the accuracy of the information submitted by you. Should the waste number(s) **you have selected** be deemed incorrect by the Ministry, or improper waste disposal occurs at any time, you may be subject to legal action as provided by the Environmental Protection Act and Regulation 347.

0781DE (03/93)

100% Unbleached Post-Consumer Stock

It is important to note that under Subsection 18(4) of Regulation 347, a supplementary Generator Registration Report must be submitted to the Ministry within 15 days for any of the following reasons:

1. if the name, address or telephone number of your company or generating site changes, or

2. if there is a significant change in the description, the waste number, or the physical or chemical characteristics of your registered waste(s), or

3. **if you generate a hazardous or liquid industrial waste that has not been registered with the Ministry, even if its waste number is already listed on Schedule "A".**

Your Generator Registration Report has been forwarded to the District Office of this Ministry that is closest to your generating site. Staff of the District Office conduct post-registration audits and may contact you for additional information or may visit your site.

Should you have any questions concerning generator registration or manifesting requirements, please contact the appropriate District Office of the Ministry.

Toronto	(416)326-6700	Owen Sound	(519)371-2901
Oakville	(905)815-5920	Sarnia	(519)336-4030
York-Durham	(416)424-1456	Windsor	(519)254-2546
Hamilton	(905)521-7650	Sudbury	(705)675-4501
Cambridge	(519)622-8121	North Bay	(705)476-1001
Welland	(905)732-0816	Gravenhurst	(705)687-6647
Kingston	(613)549-4000	Barrie	(705)726-1730
Cornwall	(613)933-7402	Thunder Bay	(807)475-1315
Ottawa	(613)521-3450	Kenora	(807)468-2718
Peterborough	(705)743-2972	Sault Ste. Marie	(705)949-4640
London	(519)661-2200	Timmins	(705)268-3222

D Tolson

Director
Regulation 347, R.R.O., 1990
Environmental Protection Act

SCHEDULE "A"

In accordance with information submitted with your generator registration report(s), the site indicated below is registered for the waste number(s) shown on this schedule, which **may represent more than one waste stream.** This attached Schedule forms part of the acknowledgement of generator registration for the following site:

COCA-COLA BOTTLING LIMITED

500 COVENTRY ROAD
OTTAWA, ONT

identified by Generator Registration Number **ON0381005**, dated in Toronto, June 22, 1995.

WASTE STREAM	WASTE NUMBER
1. AROMATIC SOLVENTS	211H
2. ALIPHATIC SOLVENTS	212L
3. PETROLEUM DISTILLATES	213I
4. LIGHT FUELS	221L
5. HALOGENATED SOLVENTS	241I
6. WASTE OILS & LUBRICANTS	252H
7. WASTE OILS & LUBRICANTS	252L

---- End of List ----

Generator Details

Registration/Notification Number

ON8320593

Legal Company Name

Primary Name:	Cirque du Soleil Inc.	Division Name:	Corteo

Company Operating Name

Primary Name:	Cirque du Soleil	Division Name:	NA

Mailing Address

Division Building:	Touring Shows Divvision	Post Box Number:	NA
Address Line 1:	8400 2nd Avenue	Address Line 2:	NA
Town/City:	Montréal	Postal Code / Zip Code:	H1Z 4M6
County: (If inside Ontario)	OTTAWA CARLTON (RM)	Province/State (If inside Canada/US)	ONTARIO
County: (If outside Ontario)	NA	Province / State (If outside Canada / US)	NA
Country:	Canada		

Site Location

This should be the street address of the site that is being registered. You are required to register each site that generates hazardous waste separately.

Division Building:	St-Laurent Centre employee parking lot	Post Box Number:	NA
Address Line 1:	500 Coventry Rd.		
Address Line 2:	NA		
Town/City:	Ottawa	Postal Code / Zip Code:	K1K 2C5
County: (If inside Ontario)	OTTAWA CARLTON (RM)	Province / State (If inside Canada / US)	ONTARIO
County: (If outside Ontario)	NA	Province / State (If outside Canada / US)	NA
Country:	Canada		

Company Official

The Company Official is the individual within your organization who is responsible for managing hazardous and liquid industrial waste. The Company Official will also serve as an HWIN Administrator for the organization. The Company Official may also delegate HWIN responsibilities to other individuals. You may designate this responsibility in the Additional HWIN Administrator section below.

Name : Mr Rene Pepin

Company Name: **Cirque du Soleil Inc. Corteo**
Company Number: **ON8320593 (Generator)**

Active Waste Classes

Active Waste Class Listing

Add New Waste Class Inactive waste classes

Active On-site Waste Classes

Waste Class	View Details	Hazardous Waste Number (per waste stream)	Reg. 347 Schedules	Disposal Method	Part 2B required	Part 2B complete	Physical State	Off-Site	Status
112 - C	View Details	D002	5, 13				Liquid	Off-Site	Active
145 - I	View Details	D001	5, 13				Liquid	Off-Site	Active
252 - L	View Details	N/A					Liquid	Off-Site	Active
331 - I	View Details	D001	5, 13				Gas	Off-Site	Active

Back

© 2002-2018 Queen's Printer for Ontario

DECOMMISSIONING REPORT
COCA-COLA BEVERAGES LIMITED
DISTRIBUTION PLANT
500 COVENTRY ROAD, OTTAWA, ONTARIO

FINAL REPORT

OCTOBER 1996

E769.8

ARCTURUS
ENVIRONMENTAL
A division of Conor Pacific Environmental Technologies Inc.

ARCTURUS ENVIRONMENTAL
7900 Canadian Drive
Niagara Falls, Ontario, L2E 6S5
Phone (905) 357-6424 Fax (905) 357-6447

ARCTURUS
ENVIRONMENTAL
A division of Canor Pacific Environmental Technologies Inc.

September 30, 1996
E769.8

Coca-Cola Beverages Ltd.
42 Overlea Boulevard
Toronto, Ontario
M4H 1B8

Attention: Mr. R.B. Wallace,
Director of Environmental Operations

Subject: **Site Remedial Activities**
500 Coventry Road, Ottawa, Ontario
MOEE Provisional C of A #A710060

Dear Mr. Wallace:

Attached is our report that summarizes site remedial activities completed at the Coca-Cola distribution facility located at 500 Coventry Road, Ottawa as required by the Ontario Ministry of the Environment and Energy (MOEE) Provisional Certificate of Approval (C of A) Number A710060.

Remedial activities began with the removal of two underground storage tanks (USTs) located west of the building, followed by excavation and on-site bioremediation for approximately 10,000T of soil excavated from petroleum impacted areas associated with the USTs, former pump island, and waste oil tank. Bioremediation involved treatment of soils in an Engineered Bioremediation Cell (EBC).

Based on confirmatory analytical soil results, all soil in the area of the EBC and excavation area meets MOEE (1993) Level II criteria.

I trust that this satisfies your current requirements, however, should you have any questions or comments, please call.

Sincerely,

Al Maddalena, M.Sc.
Project Manager

SMG/smg
Attachment

TABLE OF CONTENTS

1.0 INTRODUCTION 1
- 1.1 INITIAL SITE ASSESSMENT/ SITE REMEDIAL ACTIVITIES 1

2.0 REMEDIAL ACTIVITIES 1
- 2.1 CONSTRUCTION AND OPERATION 1
- 2.2 SOIL TREATMENT RESULTS 2
- 2.3 GROUNDWATER TREATMENT RESULTS 3

3.0 DECOMMISSIONING ACTIVITIES 3

4.0 TERMINATION OF MONITORING 4

5.0 COMPLIANCE WITH C OF A 4

6.0 STATEMENT OF LIMITATIONS 4

LIST OF APPENDICES

Appendix I — Initial Site Assessment/Remedial Activities

LIST OF FIGURES

Figure 1 — Excavation Limits and Remedial System Layout
Figure 2 — Soil Sampling & Sump Well Locations
Figure 3 — Confirmatory Soil Sampling Locations, EBC

LIST OF TABLES

Table 1 — Initial Soil Analytical Data
Table 2 — Monthly Soil Analytical Data
Table 3 — Final Soil Analytical Data
Table 4 — Comparison of Chemical Analytical Data for BTEX and TPH in Groundwater Samples (May 1995)
Table 5 — Comparison of Chemical Analytical Data for BTEX and TPH in Groundwater Samples (July 1995)
Table 6 — Comparison of Chemical Analytical Data for BTEX and TPH in Groundwater Samples (October 1995)
Table 7 — Intake Data
Table 8 — Discharge Samples

1.0 INTRODUCTION

The following topics are summarized (for the remediation at 500 Coventry Road):

- initial environmental site assessment;
- remedial construction activities;
- volume of groundwater treated during site remedial activities;
- analytical results during active treatment;
- decommissioning activities; and,
- final site conditions.

1.1 INITIAL SITE ASSESSMENT/SITE REMEDIAL ACTIVITIES

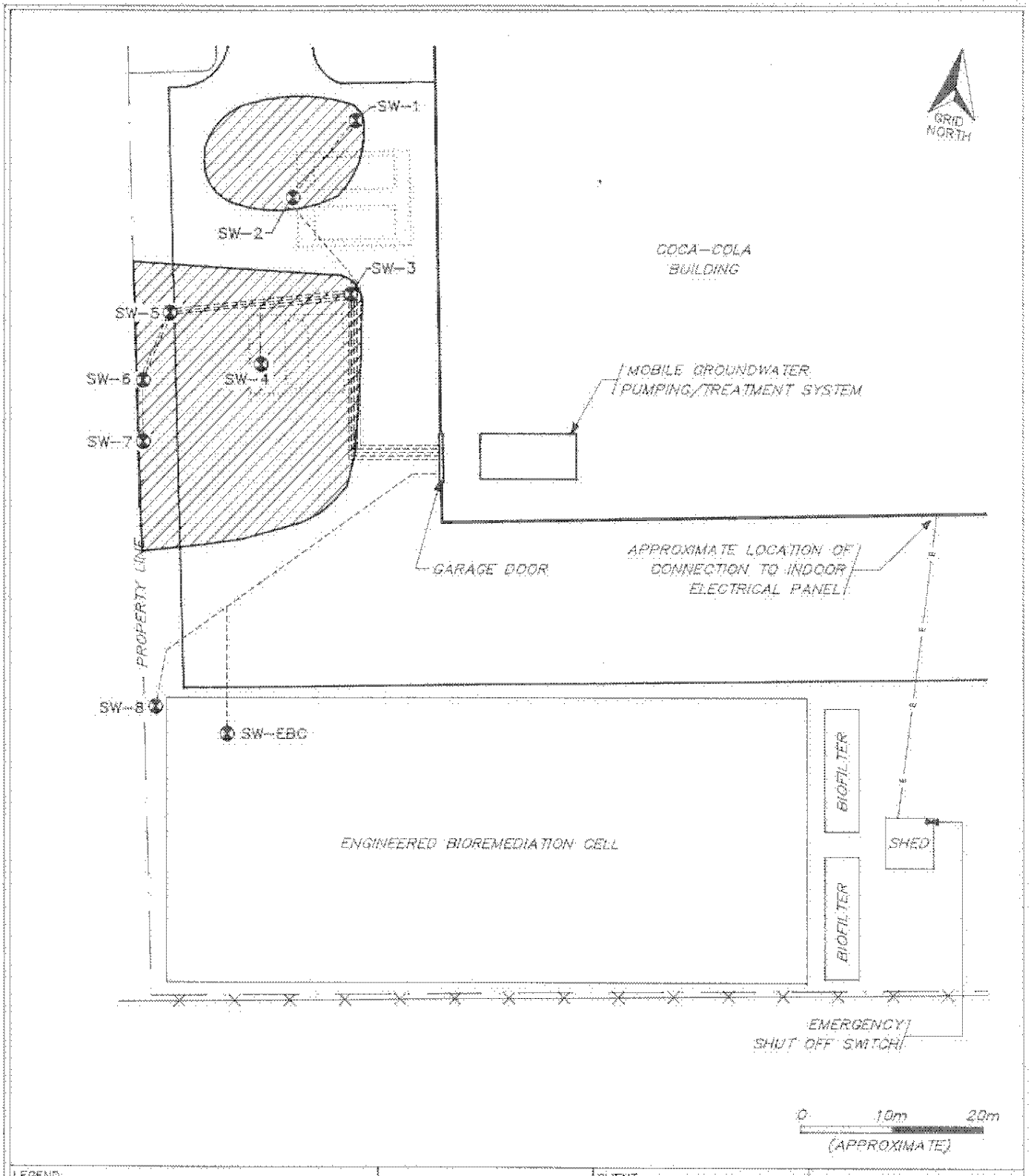
Arcturus Environmental (Arcturus) was on site in August, October, and November 1994 to complete site assessment activities in order to determine the location and extent of petroleum-hydrocarbon impacted soil and groundwater. The site assessment revealed that approximately 6,700 tonnes of on-site soil exceeded Ontario Ministry of Environment and Energy (MOEE) *Interim Guidelines for the Assessment and Management of Petroleum Contaminated Sites in Ontario (1993)* Level II soil remedial criteria. A more detailed summary of initial site assessment activities was reported in *Site Assessment and Evaluation of Remedial Alternatives, 500 Coventry Road, Ottawa, Ontario* (Arcturus, December 1994).

On-site, ex-situ bioremediation was selected as the method of remediation for petroleum hydrocarbon impacted soils. Pumping and treatment with granular activated carbon (GAC) was selected as the method of remediation for impacted groundwater within the source zone.

2.0 REMEDIAL ACTIVITIES

2.1 CONSTRUCTION AND OPERATION

In March and April of 1995, a total of approximately 10,000 tonnes of petroleum-hydrocarbon impacted soil was placed into the EBC, including 6,700 tonnes of soil excavated from the area of the former underground storage tanks (located west of the building) and approximately 3,300 tonnes (from the installation of a barrier trench along the western property boundary), previously stockpiled on-site (during 1994 remedial activities). Nutrient (nitrogen, phosphorus and potassium) addition intended to optimize bioremediation was conducted during soil placement within the EBC. The site layout, upon completion of soil excavation and remedial construction activities, is shown in Figure 1.



LEGEND

- AREAS OF EXCAVATION
- SW-8 SUMP WELL
- APPROXIMATE LOCATION OF BURIED WATER/ELECTRICAL LINES
- APPROXIMATE LOCATION OF BURIED ELECTRICAL LINE

EXCAVATION LIMITS AND REMEDIAL SYSTEM LAYOUT
500 COVENTRY ROAD
OTTAWA, ONTARIO

CLIENT: Coca-Cola

ARCTURUS ENVIRONMENTAL

DATE SEPTEMBER 1996		PROJECT No. E769.8	DRAWING No. FIGURE 1
DRWN TD/MJF	CHK'D PJH	SCALE AS SHOWN	

Construction details and analytical data verifying the successful excavation and placement in the EBC of all on-site soil exceeding the site remedial criteria were reported in our July 21, 1995 correspondence, *Summary of Site Remedial Activities, Coca-Cola Property, 500 Coventry Road, Ottawa, Ontario*, which is included in Appendix I of this report.

Soil in the EBC was covered with a high density polyethylene (HDPE) cover and treated using an on-site Vapour Extraction/Biofilter system as specified in the C of A for this site. The system was operated for approximately 10 months, between October 1995 and August 1996.

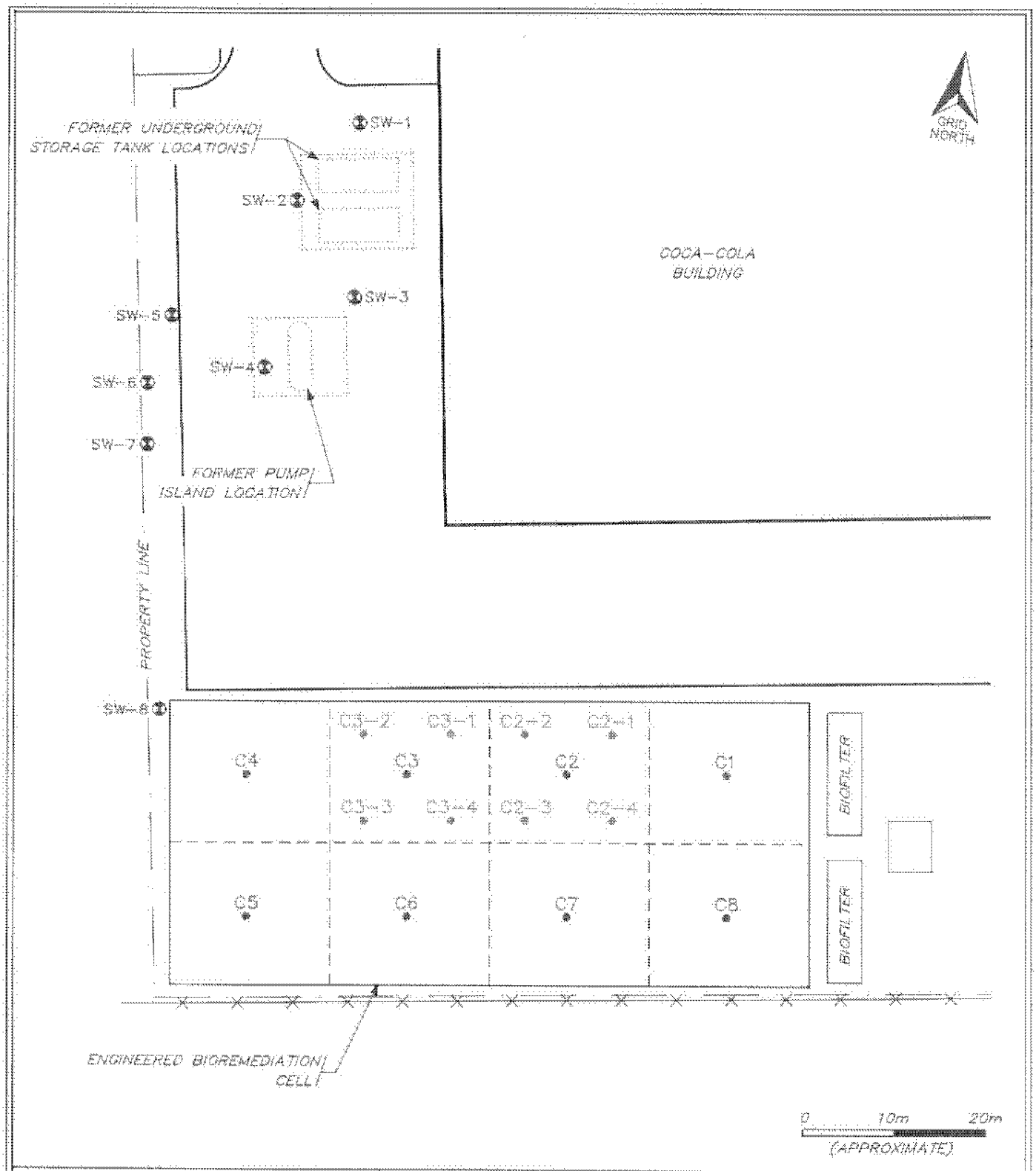
2.2 SOIL TREATMENT RESULTS

Initial concentrations of benzene, toluene, ethylbenzene, xylenes (BTEX) and total petroleum hydrocarbons (TPH, gasoline/diesel fuel range and heavy oil range) in soil before treatment (based upon site assessment results) are listed in Table 1. Sample identifications are described in *Site Assessment and Evaluation of Remedial Alternatives, 500 Coventry Road, Ottawa, Ontario* (Arcturus, December 1994).

During active treatment, Arcturus collected representative soil samples within the EBC on a monthly basis. Collected soil samples were submitted to Paracel Laboratories Ltd. of Ottawa, Ontario for analysis of BTEX and TPH.

Soil sampling in the EBC was initiated in October, 1995, prior to full-scale startup of the system. Soil sampling locations within the EBC, representing initial (October 1995) and subsequent monthly sampling locations, are shown in Figure 2. BTEX and TPH concentrations in all soil samples collected within the EBC during ongoing remediation are included in Table 2. Analytical results for soil samples were compared to MOEE (1993) Level II criteria.

Confirmatory soil samples were obtained between October 1995 and August 1996 for various locations within the EBC. Based upon laboratory analytical results presented in Table 3, all 10,000 tonnes of soil originally placed in the EBC currently meets MOEE (1993) Level II criteria for soil. Confirmatory soil sampling locations are shown in Figure 3. Confirmatory soil samples verifying the successful remediation of soil within the EBC are summarized in Table 3.



LEGEND

C4 SOIL SAMPLE(OCTOBER 1995)

C2-1 SOIL SUBSAMPLE(MAY 1996)

SW-1 SUMP WELL

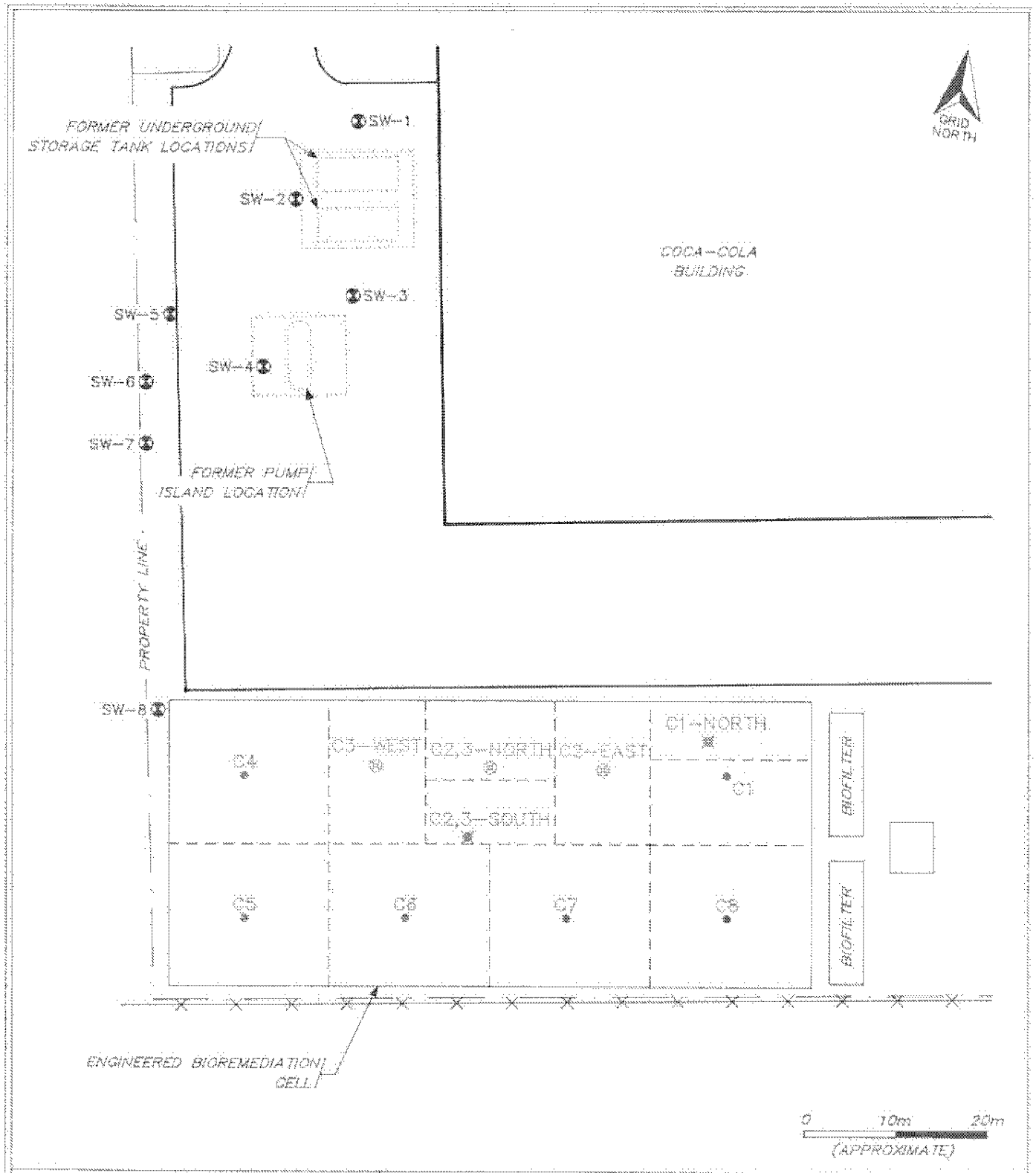
SOIL SAMPLING & SUMP WELL LOCATIONS

500 COVENTRY ROAD
OTTAWA, ONTARIO

CLIENT

ARCTURUS ENVIRONMENTAL

DATE NOVEMBER 1995		PROJECT No. E769.8	DRAWING No. FIGURE 2
DRWN TD	CHK'D PJH	SCALE AS SHOWN	



LEGEND

C4 ● SOIL SAMPLE (OCTOBER 1995)

SW-1 SUMP WELL

SOIL SUBSAMPLE (JUNE 1996)

SOIL SUBSAMPLE (AUGUST 1996)

CONFIRMATORY SOIL SAMPLING LOCATIONS, EBC

500 COVENTRY ROAD
OTTAWA, ONTARIO

CLIENT: Coca-Cola

ARCTURUS ENVIRONMENTAL

DATE SEPTEMBER 1996		PROJECT No. E769.8	DRAWING No. FIGURE 3
DRWN TD/MJF	CHK'D PJH	SCALE AS SHOWN	

2.3 GROUNDWATER TREATMENT RESULTS

Groundwater was pumped and treated on site using a GAC treatment system. Treated groundwater was discharged into the Regional Municipality of Ottawa-Carleton's (RMOC) sanitary system. Analytical data for on-site groundwater sampling events conducted in May, July, and October 1995 are included in Tables 4, 5 and 6, respectively. Groundwater sample locations are shown in Figure 1.

The results show that petroleum-hydrocarbon concentrations in groundwater met applicable site remedial criteria in July 1995. Confirmatory samples collected in October 1995, following 10 weeks of pumping water from the EBC only, verified that on-site groundwater met the applicable remedial criteria.

A total of 2,726,627 litres of groundwater (approximately 7702 litres per day during the 354 days of operation) was treated and discharged by the system.

The system has been monitored in accordance with the agreement to discharge between Arcturus and the RMOC, and the results reported to the RMOC. Discharge volume was recorded and samples collected from the following locations i) before treatment and ii) after treatment prior to discharge to the regional sanitary system. The system operated without incident throughout the duration of the project. Analytical data for collected system samples is included in Table 7 (intake data) and Table 8 (discharge data).

As shown in Table 8, discharge criteria consistently met RMOC Interim Sewer Discharge Criteria throughout groundwater pumping/treatment activities.

3.0 DECOMMISSIONING ACTIVITIES

All 10,000 tonnes of soil within the EBC has been remediated and currently meets applicable site remedialcriteria. Petroleum hydrocarbon impacted soil was treated on-site, and not removed from the site at any time during the duration of this project. The EBC has now been fully decommissioned and the grade has been restored. Site remedial activities were completed in September 1996.

4.0 TERMINATION OF MONITORING

All treated soil and groundwater meets applicable site remedial criteria. In addition, remedial activities included excavation and treatment of all source material, with groundwater monitoring and sampling conducted within and around the source zone after excavation was completed. As monitoring has already been conducted for several months (6) following removal of source material, Arcturus sees no reason for ongoing monitoring of the source zone, or downgradient of the former EBC.

5.0 COMPLIANCE WITH C OF A

All requirements of Provisional Certificate of Approval Number A710060 have been fulfilled, except for the final site meeting with the MOEE District Manager. Arcturus will arrange a site meeting with the MOEE District Manager as required under the C of A to verify that site remediation has been completed to the Ministry's satisfaction. The meeting would be attended by representatives of Coca-Cola and Arcturus. We will be contacting Greg Montcalm (MOEE, Ottawa District) to arrange for an inspection meeting at a mutually convenient time. Following this inspection, all requirements for MOEE Provisional C of A Number A710060 will have been completed.

6.0 STATEMENT OF LIMITATIONS

This report was prepared by Arcturus for the account of Coca-Cola Beverages Ltd. The material in it reflects Arcturus' best judgement in light of the information available to it at the time of preparation. Any use which a third party makes of this report, or any reliance on or decisions to be made based on it, are the responsibility of such third parties. Arcturus accepts no responsibility for damages, if any, suffered by any third party as a result of decisions made or actions based on this report.

TABLE 1: INITIAL SOIL ANALYTICAL DATA - COMPARISON OF CHEMICAL ANALYTICAL DATA FOR BTEX AND TPH IN SOIL TO ONTARIO MINISTRY OF THE ENVIRONMENT AND ENERGY (MOEE) INTERIM GUIDELINES, COCA COLA BOTTLING LTD., 500 COVENTRY ROAD. ALL DATA IN mg/kg OR PPM.

PROJECT E769

	MOEE INTERIM SOIL REMEDIATION CRITERIA FOR PETROLEUM CONTAMINATION (mg/kg)			PARAMETER					
				BENZENE	ETHYLBENZENE	TOLUENE	TOTAL XYLENES	TPH*	TPH+
LEVEL II				0.5	5	10	5	1000	5000
SAMPLE ID	SAMPLE DESCRIPTION	COMBUSTIBLE VAPOURS (%LEL)	DATE SAMPLED						
	Borehole Investigation								
BH102 SS-3	1.5 to 2.1 m, silty sand	5	1 Nov. 1994	0.120	<0.038	0.130	0.054	<20	<500
BH102 SS-4	2.1 to 2.7 m, silty clay till	7	1 Nov. 1994	0.210	0.352	1.125	1.790	80	<500
BH103 SS-3	1.5 to 2.1 m, silty sand till	3.7	1 Nov. 1994	<0.038	<0.038	<0.038	<0.076	<20	<500
BH104 SS-4	2.4 to 3.0 m, silty clay till	77	1 Nov. 1994	0.425	0.483	1.32	2.917	60	<500
BH105 SS-3	1.8 to 2.4 m, silty clay till	53	2 Nov. 1994	**6.53**	**10.2**	**29.2**	**53.2**	**1320**	<500
BH108 SS-2	1.2 to 1.8 m, silty sand	3	2 Nov. 1994	0.074	0.112	<0.038	0.447	20	<500
BH110 SS-3	1.5 to 2.1 m, silty sand gravel till	25	2 Nov. 1994	**6.62**	3.67	**19.2**	**17.56**	160	<500
BH111 SS-2	0.9 to 1.5 m, silty sand	> 100	2 Nov. 1994	**12.600**	**50.9**	**>92.1**	**242.9**	**2100**	<500
BH111 SS-6	3.3 to 3.9 m, silty clay till	20	2 Nov. 1994	**0.862**	1.820	6.530	10.590	200	<500
BH112 SS-4	2.1 to 2.7 m, silty clay till	> 100	2 Nov. 1994	**8.79**	**14.2**	**50.8**	**69.9**	**1100**	<500
BH112 SS-5	2.7 to 3.3 m, silty clay till	5	2 Nov. 1994	0.343	0.38	1.63	2.35	100	<500
BH113 SS-4	2.1 to 2.7 m, silty clay till	30	2 Nov. 1994	**4.35**	**8.35**	**35.6**	**61.4**	**1700**	<500
BH113 SS-6	3.3 to 3.9 m, silty clay till	12	2 Nov. 1994	0.391	0.785	3.67	**7.8**	140	<500
BH 114 SS-3	1.5 to 2.1 m, silty sand gravel till	65	4 Nov. 1994	0.176	1.27	0.116	2.247	200	<500
RB-3 SS-3	1.5 to 2.1 m, silty sand gravel till	> 100	8 Nov. 1994	**5.13**	4.93	**21**	**25.61**	220	<500
RB-3 SS-6	3.8 to 4.4 m, silty clay till	2.9	8 Nov. 1994	0.103	<0.038	0.221	0.085	40	<500
RB-4 SS-3	1.5 to 2.1 m, silty sand gravel till	35	9 Nov. 1994	**2.31**	**5.97**	**14.2**	**33.3**	740	<500
RB-4 SS-6	3.8 to 4.3 m, silty clay till	0.6	9 Nov. 1994	<0.038	<0.038	<0.038	<0.076	80	<500
	Test Pitting program								
TP-9 SS-4	2.1 m, silty clay till	30	16 Oct. 1994	**6.4**	1.9	**12**	**8.8**	40	<500
TP-12 SS-1	0.6 m, sand	10	16 Oct. 1994	<0.038	<0.038	<0.038	<0.076	<20	<500
TP-13 SS-2	1.2 m, sand	35	16 Oct. 1994	0.003	0.18	0.35	0.8	<20	<500
TP-16 SS-3	2.1 m, silty clay till	10	16 Oct. 1994	**0.83**	0.27	1	1.05	100	<500

BOLD - INDICATES PARAMETER CONCENTRATION EXCEEDS THE MOEE (1993) LEVEL II CRITERIA

*TPH (TOTAL PETROLEUM HYDROCARBONS) GAS DIESEL RANGE

+ TPH (TOTAL PETROLEUM HYDROCARBONS) HEAVY OILS RANGE

PJH

000016

TABLE 2: MONTHLY SOIL ANALYTICAL DATA DURING TREATMENT - COMPARISON OF CHEMICAL ANALYTICAL DATA FOR BTEX AND TPH IN SOIL DURING TREATMENT TO ONTARIO MINISTRY OF ENVIRONM ENERGY (MOEE) INTERIM (1993) GUIDELINES, EX-SITU BIOREMEDIATION CELL, COCA COLA BOTTLING LTD., 500 COVENTRY ROAD.
ALL DATA IN mg/kg.

PROJECT E769

MOEE INTERIM SOIL REMEDIATION CRITERIA FOR PETROLEUM CONTAMINATION (mg/kg)				PARAMETER					
				BENZENE	ETHYLBENZENE	TOLUENE	TOTAL XYLENES	TPH (GAS/DIESEL)	TPH (HEAVY OIL)
LEVEL II				0.5	5	10	5	1000	5000
SAMPLE ID	SAMPLE DESCRIPTION	COMBUSTIBLE VAPOURS (%LEL)	DATE SAMPLED						
October 1995 Soil Verification Samples									
C1	0 - 1 m, fine silty sand	8	02 October 1995	0.315	1.040	0.533	2.945	240	<500
C2	0 - 1.5 m, fine silty sand	4	02 October 1995	**0.990**	3.910	1.220	**14.620**	400	<500
C3	0 - 1.5 m, fine silty sand	11	02 October 1995	0.393	3.960	0.773	**19.620**	840	<500
C4	0 - 1.2 m, fine sand	0.4	02 October 1995	<0.038	<0.038	<0.038	<0.038	<20	<500
C5	0 - 1.2 m, fine sand/silty sand	1.4	02 October 1995	0.054	0.048	<0.038	0.063	<20	<500
C6	0 - 1.5 m, fine silty sand	3.2	02 October 1995	<0.038	0.207	<0.038	0.047	80	<500
C7	0 - 1.1 m, fine silty sand	2.1	02 October 1995	0.085	0.357	<0.038	0.178	100	<500
C8	0 - 1.0 m, fine silty sand	8	02 October 1995	0.309	0.310	0.296	0.622	80	<500
Dec. 1995 - Apr. 1996 Soil Verification Samples									
EBC-COMP*	0 - 1.5 m, fine silty sand	7	21 December, 1995	0.42	2.5	0.25	4.669	360	N.A.
EBC-COMP*	0 - 1.0 m, fine silty sand	6	19 January, 1996	0.156	0.154	0.071	0.417	140	N.A.
EBC-COMP*	0 - 1.0 m, fine silty sand	N.M.	26 February, 1996	0.087	0.326	0.085	0.202	60	N.A.
EBC-COMP*	0 - 1.0 m, silty till	N.M.	25 March, 1996	1.21	1.99	0.375	4.87	200	N.A.
EBC-COMP*	0 - 1.0 m, silty till	N.M.	24 April, 1996	0.075	0.162	0.039	0.482	<0.2	N.A.
May 1996 Soil Verification Samples									
C2-1	0 - 0.8 m, moist silty sand	N.M.	17 May 1996	0.450	3.250	0.528	**13.920**	900	N.A.
C2-2	0 - 1.2 m, saturated silt	N.M.	17 May 1996	<0.038	0.104	<0.038	0.059	320	N.A.
C2-3	0 - 2.1 m, saturated silty sand	N.M.	17 May 1996	0.203	1.040	0.089	2.674	340	N.A.
C2-4	0 - 2.1 m, saturated silty clay with gravel	N.M.	17 May 1996	0.241	2.200	0.238	**7.930**	880	N.A.
C3-1	0 - 1.5 m, saturated silty clay	N.M.	17 May 1996	**0.782**	2.820	4.670	**16.050**	440	N.A.
C3-2	0 - 1.2 m, saturated silty clay	N.M.	17 May 1996	<0.038	0.194	<0.038	0.271	120	N.A.
C3-3	0 - 1.4 m, saturated silty clay	N.M.	17 May 1996	0.204	1.130	0.154	**6.17**	160	N.A.
C3-4	0 - 2.0 m, moist silty sand	N.M.	17 May 1996	**0.514**	2.020	0.548	**7.99**	840	N.A.
June 1996 Soil Verification Samples									
C2&3-SOUTH	1.2 - 1.9 m, silty till	18	25 June, 1996	0.262	1.05	1.02	4.59	230	N.A.
C1-NORTH	1.2 - 1.9 m, silty till	10	25 June, 1996	0.308	1.09	0.709	3.87	420	N.A.
August 1996 Soil Verification Samples									
C2-EAST	0.5 - 1.9 m, silty till	2	13 August, 1996	<0.035	0.066	<0.038	0.293	280	N.A.
C2&3	0.5 - 1.9 m, silty till	15	13 August, 1996	0.178	0.465	0.176	1.385	270	N.A.
C3-WEST	0.5 - 1.9 m, silty till	10	13 August, 1996	0.115	0.291	0.106	2.033	290	N.A.

Verified by: [illegible]

BOLD : INDICATES PARAMETER CONCENTRATION EXCEEDS THE MOEE LEVEL II CRITERIA

N.M. : INDICATES THAT CVC's NOT MEASURED
N.A. : INDICATES THAT PARTICULAR PARAMETER NOT ANALYZED FOR INDIVIDUAL SAMPLE SUBMITTED
* : COMP samples are composites of entire EBC (subsampled at locations labelled C1-C8)

CTN 141 (A:\CTJ\PUR\COCACOLA\E769_2\TABLE\EBC SOIL.WQ)

000017

TABLE 3: FINAL SOIL ANALYTICAL DATA (AFTER TREATMENT) - COMPARISON OF CHEMICAL ANALYTICAL DATA FOR BTEX AND TPH IN CONFIRMATORY SOIL SAMPLES TO ONTARIO MINISTRY OF ENVIRO ENERGY (MOEE) INTERIM (1993) GUIDELINES, EX-SITU BIOREMEDIATION CELL, COCA COLA BOTTLING LTD., 500 COVENTRY ROAD.
ALL DATA IN mg/kg.

PROJECT E769

	MOEE INTERIM SOIL REMEDIATION CRITERIA FOR PETROLEUM CONTAMINATION (mg/kg)			PARAMETER					
				BENZENE	ETHYLBENZENE	TOLUENE	TOTAL XYLENES	TPH (GAS/DIESEL)	TPH (HEAVY OIL)
LEVEL II				0.5	5	10	5	1000	5000
SAMPLE ID	SAMPLE DESCRIPTION	COMBUSTIBLE VAPOURS (%LEL)	DATE SAMPLED						
C1	0 - 1 m, fine silty sand	6	02 October 1995	0.315	1.040	0.533	2.945	240	<500
C4	0 - 1.2 m, fine sand	0.4	02 October 1995	<0.038	<0.038	<0.038	<0.038	<20	<500
C5	0 - 1.2 m, fine sand/silty sand	1.4	02 October 1995	0.054	0.048	<0.038	0.063	<20	<500
C6	0 - 1.5 m, fine silty sand	3.2	02 October 1995	<0.038	0.207	<0.038	0.047	80	<500
C7	0 - 1.1 m, fine silty sand	2.1	02 October 1995	0.065	0.357	<0.038	0.178	100	<500
C8	0 - 1.0 m, fine silty sand	8	02 October 1995	0.309	0.310	0.298	0.622	80	<500
C2&3-SOUTH	1.2 - 1.9 m, silty till	15	25 June, 1996	0.282	1.05	1.02	4.59	230	N.A.
C1-NORTH	1.2 - 1.9 m, silty till	10	25 June, 1996	0.308	1.09	0.709	3.97	420	N.A.
C2-EAST	0.5 - 1.9 m, silty till	2	13 August, 1996	<0.038	0.088	<0.038	0.293	280	N.A.
C2&3	0.5 - 1.9 m, silty till	15	13 August, 1996	0.178	0.465	0.178	1.385	270	N.A.
C3-WEST	0.5 - 1.9 m, silty till	10	13 August, 1996	0.115	0.291	0.108	2.033	290	N.A.

Verified by: PSH.

BOLD : INDICATES PARAMETER CONCENTRATION EXCEEDS THE MOEE LEVEL II CRITERIA

N.M. : INDICATES THAT CVC's NOT MEASURED
N.A. : INDICATES THAT PARTICULAR PARAMETER NOT ANALYZED FOR INDIVIDUAL SAMPLE SUBMITTED

G:\M 141 - ARCTURUS\COCACOLA\E769_B\TABLES\EBCSS.VER

TABLE 4: COMPARISON OF CHEMICAL ANALYTICAL DATA FOR BTEX AND TPH IN GROUNDWATER SAMPLES (MAY 1995) TO ONTARIO MINISTRY OF THE ENVIRONMENT AND ENERGY (MOEE) PROPOSED (1994) GUIDELINES FOR THE CLEANUP OF CONTAMINATED SITES IN ONTARIO FOR INDUSTRIAL/COMMERCIAL LAND USE IN A NON-POTABLE GROUNDWATER SITUATION. ALL DATA IN mg/L.

PROJECT E769

			PARAMETER				
			BENZENE	ETHYLBENZENE	TOLUENE	TOTAL XYLENES	TPH*
MOEE PROPOSED (1994) TABLE B CLEAN-UP CRITERIA			1.9	28	5.9	5.6	50
SAMPLE ID	SAMPLE DESCRIPTION	DATE SAMPLED					
	Groundwater Verification Samples						
SW-1		24 May 1995	0.0016	0.0097	<0.001	0.067	0.6
SW-3		24 May 1995	0.009	0.014	0.0017	0.295	15.0
SW-4		24 May 1995	<0.0005	<0.0005	<0.001	<0.001	<0.2
SW-5		24 May 1995	0.02	<0.0005	0.028	0.085	1.0
SW-6		24 May 1995	<0.0005	0.0061	0.0187	**8.652**	**240**
SW-7		24 May 1995	0.0043	0.052	<0.001	0.035	1.2
RW-9		24 May 1995	<0.0005	<0.0005	<0.001	<0.001	<0.2
RW-10		24 May 1995	<0.0005	0.0007	<0.001	<0.001	<0.2
BLANK		NA	<0.0005	<0.0005	0.001	<0.001	-

NA - not available

Verified By: SMG

BOLD EXCEEDS MOEE PROPOSED (1994) TABLE B CLEAN-UP CRITERIA

C:\ANCTUPRG\CCA\CCA\E769 V2\W\BLW.VER

TABLE 5: COMPARISON OF CHEMICAL ANALYTICAL DATA FOR BTEX AND TPH IN GROUNDWATER SAMPLES (JULY 1995) TO ONTARIO MINISTRY OF THE ENVIRONMENT AND ENERGY (MOEE) PROPOSED (1994) GUIDELINES FOR THE CLEANUP OF CONTAMINATED SITES IN ONTARIO FOR INDUSTRIAL/COMMERCIAL LAND USE IN A NON-POTABLE GROUNDWATER SITUATION. ALL DATA IN mg/L.

PROJECT E769

			PARAMETER				
			BENZENE	ETHYLBENZENE	TOLUENE	TOTAL XYLENES	TPH*
MOEE PROPOSED (1994) TABLE B CLEAN-UP CRITERIA			1.9	28	5.9	5.6	50
SAMPLE ID	SAMPLE DESCRIPTION	DATE SAMPLED					
	Groundwater Verification Samples						
SW-1		14 July 1995	0.0021	0.0069	<0.001	0.0220	0.6000
SW-2		14 July 1995	0.0081	0.0021	0.0035	0.0126	<0.2000
SW-3		14 July 1995	0.0016	0.0020	<0.001	0.0086	0.4000
SW-4		14 July 1995	<0.0005	<0.0005	<0.001	<0.0005	<0.2000
SW-5		14 July 1995	0.0150	<0.0005	0.0114	0.2352	0.6000
SW-6		14 July 1995	0.0033	0.0270	0.0240	0.2570	1.6000
SW-7		14 July 1995	0.0570	0.0046	0.0017	0.0440	0.4000
SW-8		14 July 1995	<0.0005	<0.0005	<0.001	<0.0005	<0.2000
QA/QC 1	Duplicate of SW-6	14 July 1995	0.0260	0.2740	0.1760	2.4940	34.0000

Verified By: SMG

BOLD EXCEEDS MOEE PROPOSED (1994) TABLE B CLEAN-UP CRITERIA

NOTE: Although outside normal error ranges, TPH results for QA/QC 1 were confirmed by the laboratory.

C:\AFCTUR\IN\COCACOLA\E769-IN\SWSUM.VER

TABLE 6: COMPARISON OF CHEMICAL ANALYTICAL DATA FOR BTEX AND TPH IN GROUNDWATER SAMPLES (OCTOBER 1995) TO ONTARIO MINISTRY OF THE ENVIRONMENT AND ENERGY (MOEE) PROPOSED (1994) GUIDELINES FOR THE CLEANUP OF CONTAMINATED SITES IN ONTARIO FOR INDUSTRIAL/COMMERCIAL LAND USE IN A NON-POTABLE GROUNDWATER SITUATION. ALL DATA IN mg/L.

PROJECT E769

			PARAMETER				
			BENZENE	ETHYLBENZENE	TOLUENE	TOTAL XYLENES	TPH*
MOEE PROPOSED (1994) TABLE B CLEAN-UP CRITERIA			1.9	28	5.9	5.6	50
SAMPLE ID	SAMPLE DESCRIPTION	DATE SAMPLED					
	Groundwater Verification Samples						
SW-5		02 October 1995	0.0101	<0.0005	<0.001	0.0017	<0.2000
SW-6		02 October 1995	0.2468	0.0305	0.0140	0.5515	2.6000
SW-7		02 October 1995	0.0230	0.0013	<0.001	0.0088	<0.2000
SW-8		02 October 1995	<0.0005	<0.0005	<0.001	<0.0005	<0.2000
QAQC 1	Duplicate sample of SW-6	02 October 1995	0.3237	0.1186	0.0184	0.5241	3.0000

Verified By: SMb

BOLD EXCEEDS MOEE PROPOSED (1994) TABLE B CLEAN-UP CRITERIA

C:\ARCTURUS\GQCACCLA\E769\GWSUM.VER

TABLE 7: INTAKE DATA - COMPARISON OF CHEMICAL ANALYTICAL DATA FOR BTEX AND TPH IN GROUNDWATER VERIFICATION SAMPLES COLLECTED DURING MONITORING OF THE GRANULAR ACTIVATED CARBON (GAC) TREATMENT SYSTEM TO REGIONAL MUNICIPALITY OF OTTAWA-CARLETON (RMOC) INTERIM SEWER DISCHARGE CRITERIA. ALL DATA IS IN mg/L OR ppm.

PROJECT E769

		PARAMETER					
		BENZENE	ETHYLBENZENE	TOLUENE	TOTAL XYLENES	TPH*	TPH+
RMOC INTERIM SEWER DISCHARGE CRITERIA		0.1	0.1	0.1	0.1	0.5	0.5
SAMPLE ID	DATE SAMPLED						
INTAKE SAMPLES							
E769.6.2-IN-03/08/95	01 Mar. 1195	4.3600	1.5000	14.5000	6.6900	42.0000	<10
E769.6.2-IN-03/08/95	08 Mar. 1995	3.0200	0.9170	9.1300	5.6900	38.0000	<10
E769.6.2-IN-03/15/95	15 Mar. 1995	0.6310	0.6990	2.8000	6.5400	32.0000	<10
E769.6.2-IN-03/29/95	29 Mar. 1995	0.4570	0.0730	1.3000	1.1840	5.6000	<10
E769.6.2-IN-04/12/95	12 Apr. 1995	0.5890	0.4200	3.0400	3.4700	18.0000	<10
E769.6.2-IN-04/19/95	19 Apr. 1995	0.1050	<0.0005	0.1990	0.8400	4.6000	<10
E769.6.2-IN-04/25/95	25 Apr. 1995	<0.0005	<0.0005	<0.0005	<0.0005	<0.2	<10
E769.6.2-IN-05/03/95	03 May 1995	0.1290	0.0240	0.3530	0.4620	3.2000	<10
E769.6.2-IN-05/10/95	10 May 1995	0.0250	0.0045	0.0150	0.1350	1.5000	<10
E769.6.2-IN-05/16/95	16 May 1995	<0.0005	<0.0005	<0.0005	<0.0005	0.2000	<10
E769.6.2-IN-05/24/95	24 May 1995	0.0029	0.0071	<0.0005	0.1470	1.5000	<10
E769.6.2-IN-05/31/95	31 May 1995	<0.0005	<0.0005	<0.0005	0.3251	1.4000	<10
E769.6.2-IN-06/21/95	21 June 1995	0.0012	<0.0005	<0.0005	0.0771	0.5000	<10
E769.6.2-IN-07/27/95	27 July 1995	<0.0005	<0.0005	<0.0005	0.0960	0.4000	<10
E769.6.2-IN-08/25/95	25 Aug. 1995	<0.0005	<0.0005	<0.0005	<0.0005	<0.2	<10
E769.7.1-IN-09/27/95	27 Sep. 1995	<0.0005	<0.0005	<0.0005	<0.0005	0.6	<10
E769.7.1-IN-11/21/95	11 Nov. 1995	0.0160	0.0007	0.0039	0.0043	<0.2	<10
E769.7.1-IN-12/16/95	16 Dec. 1995	<0.0005	<0.0005	<0.0005	<0.0005	<0.2	<10
E769.7.1-IN-04/24/96	24 Apr. 1996	0.0100	0.0120	0.0130	0.0500	<0.2	
E769.7.1-IN-05/31/96	31 May 1996	0.0023	<0.0005	<0.0005	<0.0005	0.4	
E769.7.1-IN-06/25/96	25 June 1996	<0.0005	<0.0005	<0.0005	<0.0005	<0.2	

Verified By: RJH

TPH* = TPH, GASOLINE/DIESEL FUEL RANGE
TPH+ = TPH, HEAVY OILS RANGE

NOTE: DATA PRIOR TO 04/12/95 COLLECTED DURING INITIAL SITE GROUNDWATER CAPTURE SYSTEM MONITORING/SAMPLING OCCURED WEEKLY FROM FEB 22 TO MAY 30, 1995. EFFECTIVE MAY 30, 1995 SYSTEM MONITORING/SAMPLING REDUCED TO MONTHLY

TABLE 8: DISCHARGE SAMPLES - COMPARISON OF CHEMICAL ANALYTICAL DATA FOR BTEX AND TPH IN GROUNDWATER VERIFICATION SAMPLES COLL DURING MONITORING OF THE GRANULAR ACTIVATED CARBON (GAC) TREATMENT SYSTEM TO REGIONAL MUNICIPALITY OF OTTAWA-CARLETON (RMOC) INTERIM SEWER DISCHARGE CRITERIA. ALL DATA IS IN mg/L OR ppm.

PROJECT E769

		PARAMETER					
		BENZENE	ETHYLBENZENE	TOLUENE	TOTAL XYLENES	TPH*	TPH+
RMOC INTERIM SEWER DISCHARGE CRITERIA		0.1	0.1	0.1	0.1	0.5	0.5
SAMPLE ID	DATE SAMPLED						
DISCHARGE SAMPLES							
E769.6.2-OUT-02/21/95	20 Feb. 1995	<0.0005	<0.0005	<0.0005	<0.0005	<0.2	<10
E769.6.2-OUT-03/01/95	01 Mar. 1995	<0.0005	<0.0005	<0.0005	<0.0005	<0.2	<10
E769.6.2-OUT-03/08/95	08 Mar. 1995	<0.0005	<0.0005	<0.0005	<0.0005	<0.2	<10
E769.6.2-OUT-03/15/95	15 Mar. 1995	<0.0005	<0.0005	<0.0005	<0.0005	<0.2	<10
E769.6.2-OUT-03/29/95	29 Mar. 1995	<0.0005	<0.0005	<0.0005	<0.0005	<0.2	<10
E769.6.2-OUT-04/12/95	12 Apr. 1995	<0.0005	<0.0005	<0.0005	<0.0005	<0.2	<10
E769.6.2-OUT-04/19/95	19 Apr. 1995	<0.0005	<0.0005	<0.0005	<0.0005	<0.2	<10
E769.6.2-OUT-04/26/95	26 Apr. 1995	<0.0005	<0.0005	<0.0005	<0.0005	<0.2	<10
E769.6.2-OUT-05/03/95	03 May 1995	<0.0005	<0.0005	0.0033	<0.0005	<0.2	<10
E769.6.2-OUT-05/10/95	10 May 1995	<0.0005	<0.0005	<0.0005	<0.0005	<0.2	<10
E769.6.2-OUT-05/16/95	16 May 1995	<0.0005	<0.0005	<0.0005	<0.0005	<0.2	<10
E769.6.2-OUT-05/24/95	24 May 1995	<0.0005	<0.0005	<0.0005	<0.0005	<0.2	<10
E769.6.2-OUT-05/31/95	31 May 1995	<0.0005	<0.0005	<0.0005	<0.0005	<0.2	<10
E769.6.2-OUT-06/21/95	21 June 1995	<0.0005	<0.0005	<0.0005	<0.0005	<0.2	<10
E769.6.2-OUT-07/27/95	27 July 1995	<0.0005	<0.0005	<0.0005	<0.0005	<0.2	<10
E769.6.2-OUT-08/25/95	25 Aug. 1995	<0.0005	<0.0005	<0.0005	<0.0005	<0.2	<10
E769.7.1-OUT-09/27/95	27 Sep. 1995	<0.0005	<0.0005	<0.0005	<0.0005	**0.6**	<10
A125.2	11 Oct. 1995					<0.2	
E769.7.1-OUT-11/21/95	11 Nov. 1995	0.0068	<0.0005	0.0029	0.0016	<0.2	<10
E769.7.1-OUT-12/18/95	18 Dec. 1995	<0.0005	<0.0005	<0.0005	<0.0005	<0.2	<10
E769.7.1-OUT-04/24/96	24 Apr. 1996	<0.0005	<0.0005	<0.0005	<0.0005	<0.2	
E769.7.1-OUT-05/31/96	31 May 1996	<0.0005	<0.0005	<0.0005	<0.0005	<0.2	
E769.8.1-OUT-06/25/96	25 June 1996	<0.0005	<0.0005	<0.0005	<0.0005	<0.2	

BOLD: INDICATES THE SAMPLE EXCEEDS RMOC INTERIM SEWER DISCHARGE CRITERIA

TPH* = TPH, GASOLINE/DIESEL FUEL RANGE

TPH+ = TPH, HEAVY OILS RANGE

Verified By: PJH

NOTE: DATA PRIOR TO 04/12/95 COLLECTED DURING INITIAL SITE GROUNDWATER CAPTURE SYSTEM MONITORING/SAMPLING OCCURED WEEKLY FROM FEB 22 TO MAY 30, 1995. EFFECTIVE MAY 30, 1995 SYSTEM MONITORING/SAMPLING REDUCED TO MONTHLY SAMPLE A125.2 COLLECTED TO VERIFY THAT SEPTEMBER 27, 1995 TPH RESULT DUE TO LABORATORY ERROR.

APPENDIX I

INITIAL SITE ASSESSMENT/REMEDIAL ACTIVITIES

July 21, 1995
E769.6

Coca-Cola Beverages Limited
42 Overlea Boulevard
Toronto, Ontario
M4H 1B8

COPY

Attention: Mr. R. B. Wallace, Environmental Operations

Re: Summary of Site Remedial Activities
Coca-Cola Beverages Limited Bottling Facility
500 Coventry Road, Ottawa, Ontario

Dear Mr. Wallace:

This letter describes remedial activities conducted by Arcturus Environmental Limited (Arcturus) to date, including excavation of petroleum hydrocarbon impacted soil, construction of an engineered bioremediation cell (EBC), and installation of a pumping and treatment system for groundwater remediation.

BACKGROUND

Arcturus was on-site August 26, 1994 to conduct the following activities:

- complete a site sensitivity analysis (SSA) in accordance with Ministry of Environment and Energy (MOEE) *Interim Guidelines for the Assessment and Management of Petroleum Contaminated Sites in Ontario* (August, 1993);
- supervise the removal of a single fibreglass-reinforced 2,270-litre underground waste oil tank; the general site layout and former location of the waste oil tank is shown in Figure 1;
- collect confirmatory soil samples in the vicinity of the waste oil tank, in accordance with Table 3 (Minimum Verification Sampling Requirements for Excavation Floors and Sidewalls) of MOEE (1993) Interim Guidelines; and,
- supervise backfilling of the excavation following collection of confirmatory soil samples.

The SSA results and the analytical results of confirmatory soil samples were reported in our February 27, 1995 correspondence "Waste Oil Tank Removal and Excavation Monitoring". As described, all confirmatory soil samples met MOEE Level II criteria, with the exception of one soil sample, indicating that only a minor volume of soil exceeding relevant criteria remained.

ENVIRONMENTAL SITE ASSESSMENT

In October-November, 1994, a comprehensive environmental site assessment (ESA) was conducted by Arcturus at this site, and described in *Site Assessment and Evaluation of Remedial Alternatives* (December, 1994).

Based on the results of the ESA, approximately 6,600 tonnes of soil on the Coca-Cola property exceeded Level II criteria. The majority of soil exceeding MOEE Level II criteria was located in two areas west of the site building.

CURRENT SITE CONDITIONS

Remedial activities were conducted by Arcturus in March-April, 1995, in the areas identified during the ESA, and during removal of the waste oil tank. Remedial activities included excavation of petroleum hydrocarbon impacted soil east of the building near the former waste oil tank, excavations west of the building, and installation of a temporary groundwater pumping/GAC treatment system. Excavated soils were loaded into the EBC for treatment.

Excavated areas were backfilled using clean material previously stockpiled on-site, as well as clean imported fill.

Confirmatory Soil Sampling

A total of five confirmatory soil samples were collected by Arcturus from the vicinity of the waste oil tank, following excavation in August, 1994, and March-April, 1995, as shown in Figure 1. A total of 19 confirmatory soil samples were collected from the vicinity of the former distribution facilities located west of the site building (as shown in Figure 2).

All (24) confirmatory soil samples were submitted to Paracel Laboratories of Ottawa, Ontario, for analysis of benzene, toluene, ethylbenzene and xylenes (BTEX) and total petroleum hydrocarbons (TPH) in the gas/diesel and heavy oils range. Analytical results for confirmatory soil samples have been included in Table 1. As shown in Table 1, all confirmatory samples meet MOEE Level II criteria for soils.

Confirmatory Groundwater Sampling

Following excavation and removal of the source soil located west of the building, groundwater pumping and treatment has continued to ensure that no residual contaminants remain in the groundwater.

Arcturus sampled groundwater from a total of seven on-site wells on May 24, 1995. Groundwater samples were submitted to Paracel Laboratories for analysis of BTEX and TPH (gas/diesel and heavy oils range). Analytical results are compared in Table 2 and 3 to relevant MOEE *Proposed Guidelines for Contaminated Sites in Ontario* (July, 1994) groundwater criteria for commercial land use in a non-potable groundwater situation.

As shown in Table 3, all groundwater samples obtained July 14, 1995 met relevant criteria.

It is expected that a final round of sampling will be conducted after 2 weeks, following re-equilibration with local groundwater, to confirm the latest groundwater analytical results.

SUMMARY

Based on the remedial activities conducted by Arcturus to date, soil in the vicinity of former petroleum storage and distribution facilities meet relevant MOEE (1993) Level II criteria.

Petroleum hydrocarbon impacted soils, placed in the EBC during remedial activities in March-April, 1995, are expected to meet MOEE Level II criteria following approximately 6 months of treatment.

Based on groundwater samples obtained on July 14, 1995, from the vicinity of the main excavations, groundwater meets relevant criteria in accordance with MOEE (1994) *Proposed Guidelines for Contaminated Sites in Ontario*.

I trust that this satisfies your current requirements, however, please do not hesitate to call should you have any questions or comments.

Sincerely,

Mr. A. L. Maddalena, M.Sc.
Project Manager

PJH/hll
Attachment

cc: Mr. G. Montcalm, MOEE Ottawa (w/a)

TABLE 1: COMPARISON OF CHEMICAL ANALYTICAL DATA FOR BTEX AND TPH IN SOIL TO ONTARIO MINISTRY OF ENVIRONMENT AND ENERGY (MOEE) INTERIM (1993) GUIDELINES, COCA COLA BOTTLING LTD., 500 COVENTRY ROAD. ALL DATA IN mg/kg OR PPM.

PROJECT E789.6

MOEE INTERIM SOIL REMEDIATION CRITERIA FOR PETROLEUM CONTAMINATION (mg/kg)				PARAMETER					
				BENZENE	ETHYLBENZENE	TOLUENE	TOTAL XYLENES	TPH (GAS DIESEL)	TPH (HEAVY OIL)
LEVEL I				0.05	0.5	1	1	100	1000
LEVEL II				0.5	5	10	5	1000	5000
LEVEL III				2	100	100	50	5000	5000
SAMPLE ID	SAMPLE DESCRIPTION	COMBUSTIBLE VAPOURS (%LEL)	DATE SAMPLED						
	Northern Plume Verification Samples								
SS-5	Base 3.9 m, clay till	0.6	13 March 1995	<0.038	0.149	0.122	**1.304**	**120**	<500
SS-8	East wall 2.5 m, clay till	0.2	13 March 1995	<0.038	<0.038	<0.038	0.054	**100**	<500
SS-9	North wall 3.0 m, sand	0.2	13 March 1995	<0.038	<0.038	<0.038	<0.076	<20	<500
SS-16	Northeast wall 3.3 m, silty clay till	1.8	13 March 1995	<0.038	**0.171**	<0.038	0.913	60	<500
SS-17	Base 3.6 m, clay till	1.7	13 March 1995	**0.185**	**0.753**	**2.09**	**4.6**	**100**	<500
SS-27	South wall 2.0 m, silty till	0.2	13 March 1995	**0.098**	0.069	<0.038	0.062	<20	<500
	Main Plume Verification Samples								
SS-30	East wall 1.3 m, sand	1.1	20 March 1995	<0.038	<0.038	<0.038	<0.076	<20	<500
SS-33	Base 3.3 m, clay till	<0.1	20 March 1995	<0.038	<0.038	0.116	0.07	**100**	<500
SS-42	Base 3.3 m, clay till	1	20 March 1995	<0.038	0.068	0.319	0.388	**100**	<500
SS-46	Southeast wall 1.5 m, silty sand gravel ti	3.5	20 March 1995	<0.038	<0.038	<0.038	<0.076	<20	<500
SS-64	North wall 1.7 m, silty gravel till	0	20 March 1995	<0.038	<0.038	<0.038	<0.076	**820**	<500
SS-69	North wall 2.7 m, clay till	0.2	20 March 1995	<0.038	<0.038	0.076	<0.076	40	<500
SS-77	Base 3.0 m, clay till	4	20 March 1995	<0.038	<0.038	0.148	0.14	<20	<500
SS-107	Base 2.9 m, clay till	<0.1	20 March 1995	<0.038	<0.038	0.08	0.045	40	<500
SS-112	West wall 2.0 m, sand	3.5	20 March 1995	<0.038	<0.038	0.232	0.474	<20	<500
SS-113	South wall 1.0 m, sand	3.1	20 March 1995	<0.038	<0.038	0.066	<0.076	<20	<500
SS-A	Duplicate of SS-113		20 March 1995	<0.038	<0.038	0.065	<0.076	<20	<500
SS-115	West wall 1.5 m, sand	<0.1	27 March 1995	<0.025	<0.025	<0.05	<0.075	<20	<500
SS-116	West wall 1.5 m, sand	<0.1	27 March 1995	<0.025	<0.025	<0.05	<0.075	<20	<500
SS-117	West wall 1.5 m, sand	<0.1	27 March 1995	<0.025	<0.025	0.067	0.037	<20	<500
	Waste Oil Tank Verification Samples								
UST-W	West wall, 1.3 m, silty sand	0.8	28 August, 1994	<0.038	0.21	<0.038	0.51	**460**	1000
TP2-SS2	Test pit 2, 1.7 m, silty till	2.4	28 August, 1994	**0.069**	0.29	0.057	**1.74**	**760**	3000
TP4-SS2	Test pit 4, 1.8 m, silty till	0.2	28 August, 1994	<0.038	<0.038	<0.038	<0.038	40	<500
SS-204	South wall, 1.0 m, silty sand	<0.1	01 April, 1995	<0.038	<0.038	<0.038	<0.038	60	<500
SS-205	Base, 2.5 m, silty clay till	<0.1	01 April, 1995	<0.038	<0.038	<0.038	<0.038	40	<500

BOLD : INDICATES PARAMETER CONCENTRATION EXCEEDS THE MOEE LEVEL I CRITERIA

Verified by:

TABLE 2: COMPARISON OF CHEMICAL ANALYTICAL DATA FOR BTEX AND TPH IN GROUNDWATER SAMPLES TO ONTARIO MINISTRY OF ENVIRONMENT AND ENERGY (MOEE) PROPOSED (1994) GUIDELINES FOR THE CLEANUP OF CONTAMINATED SITES IN ONTARIO FOR INDUSTRIAL/COMMERCIAL LAND USE IN A NON-POTABLE GROUNDWATER SITUATION. ALL DATA IN mg/L OR PPM.

PROJECT E769.6

			PARAMETER				
			BENZENE	ETHYLBENZENE	TOLUENE	TOTAL XYLENES	TPH*
REMEDIATION CRITERIA			1.9	28	5.9	5.6	50
SAMPLE ID	SAMPLE DESCRIPTION	DATE SAMPLED					
	Groundwater Verification Samples						
SW-1		24 May 1995	0.0016	0.0097	<0.001	0.087	0.6
SW-3		24 May 1995	0.009	0.014	0.0017	0.295	15.0
SW-4		24 May 1995	<0.0005	<0.0005	<0.001	<0.001	<0.2
SW-5		24 May 1995	0.02	<0.0005	0.028	0.085	1.0
SW-6		24 May 1995	<0.0005	0.0061	0.0167	8.652	240
SW-7		24 May 1995	0.0043	0.052	<0.001	0.035	1.2
BLANK		NA	<0.0005	<0.0005	0.001	<0.001	-

NA - not available

BOLD EXCEEDS MOEE (1994) CRITERIA

Verified By:

C:\APC\TOPLOS\CDCAD\CASTER FIGHSITE.WLS

TABLE 3: COMPARISON OF CHEMICAL ANALYTICAL DATA FOR BTEX AND TPH IN GROUNDWATER SAMPLES TO ONTARIO MINISTRY OF ENVIRONMENT AND ENERGY (MOEE) PROPOSED (1994) GUIDELINES FOR THE CLEANUP OF CONTAMINATED SITES IN ONTARIO FOR INDUSTRIAL/COMMERCIAL LAND USE IN A NON-POTABLE GROUNDWATER SITUATION. ALL DATA IN mg/L OR PPM.

PROJECT E769.6

			PARAMETER				
			BENZENE	ETHYLBENZENE	TOLUENE	TOTAL XYLENES	TPH*
REMEDIATION CRITERIA			1.9	25	5.9	5.6	50
SAMPLE ID	SAMPLE DESCRIPTION	DATE SAMPLED					
	Groundwater Verification Samples						
SW-1		14 July 1995	0.0021	0.0069	<0.001	0.022	0.6
SW-2		14 July 1995	0.0081	0.0021	0.0035	0.0126	<0.2
SW-3		14 July 1995	0.0016	0.0020	<0.001	0.0086	0.4
SW-4		14 July 1995	<0.0005	<0.0005	<0.001	<0.001	<0.2
SW-5		14 July 1995	0.015	<0.0005	0.0114	0.2352	0.6
SW-6		14 July 1995	0.0033	0.0270	0.0240	0.2570	1.8
SW-6 (dupl.)		14 July 1995	0.0260	0.2740	0.1760	2.494	34
SW-7		14 July 1995	0.0570	0.0046	0.0017	0.0440	0.4
SW-8		14 July 1995	<0.0005	<0.0005	<0.001	<0.001	<0.2
BLANK		14 July 1995	<0.0005	0.0005	0.0012	0.0026	<0.2

BOLD EXCEEDS MOEE (1994) CRITERIA

Verified By:

E:\ARCTURUS\2000\ACCUMATICA\NONBTE.VER

000030

DRAFT
ARCTURUS

COVENTRY ROAD

GRID NORTH

PUBLIC WORKS AND GOVERNMENT SERVICES PROPERTY

PROPERTY LINE

COCA-COLA BUILDING

UNDERGROUND STORAGE TANKS

PUMP ISLAND

EXISTING FENCE

QUEENSWAY

0 15m 30m
(APPROXIMATE)

CURB

GRASS

ASPHALT

LIQUID CARBON TANK

ELECTRICAL UNIT

TP-1

TP-2

TP-3

TP-4

TP2-SS2
2.3

TP4-SS2
0.2

UST-W
0.6

SS-209

SS-204

0 5m
(APPROX.)

FORMER WASTE OIL TANK LOCATION

LEGEND

TP-1 TEST PIT

EXCAVATED AREA (1.5m DEPTH)

0.2 COMBUSTIBLE SOIL VAPOUR CONCENTRATION (% LEL)

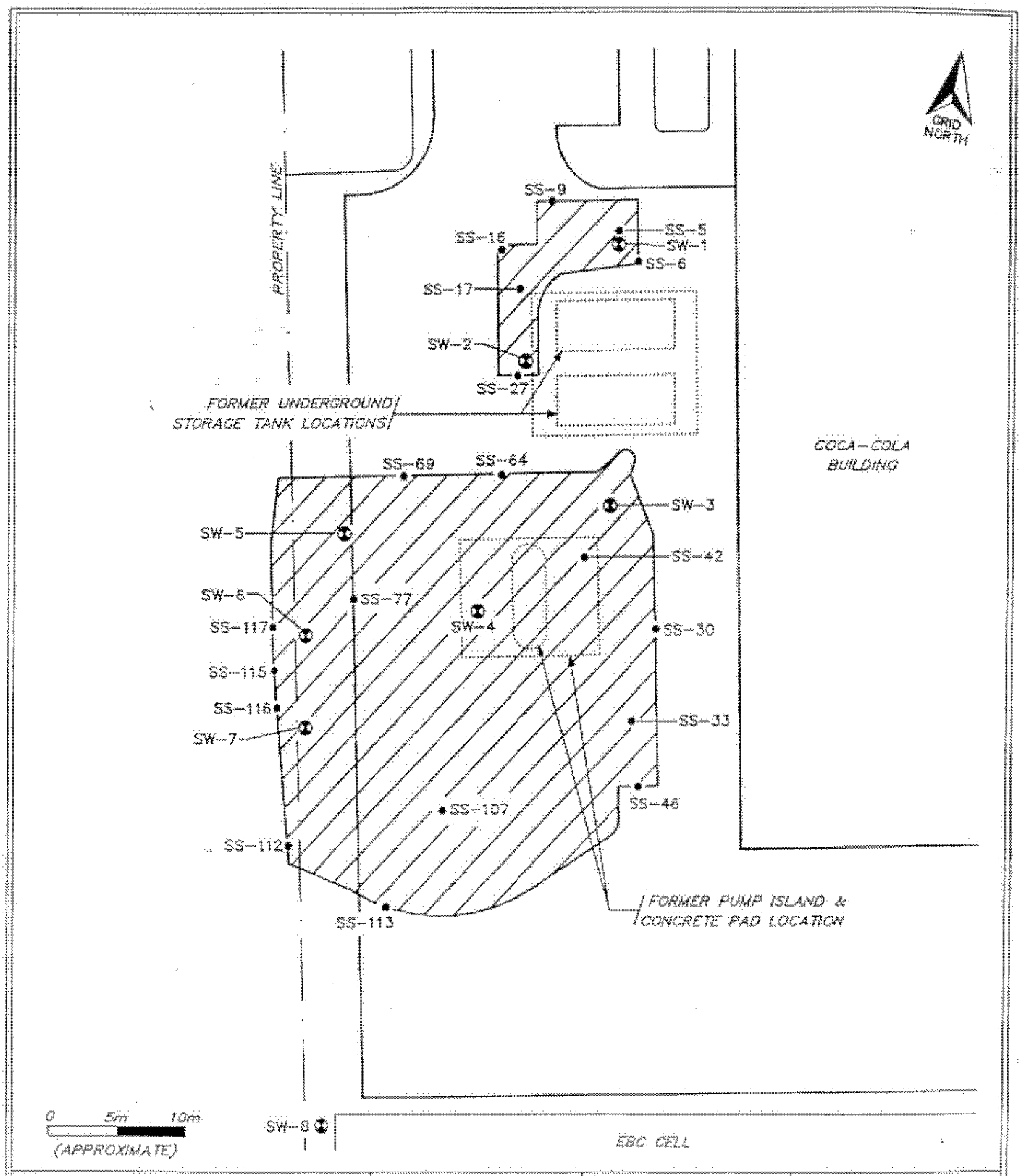
SS-204 ● CONFIRMATORY SOIL SAMPLE

CONFIRMATORY SOIL SAMPLE LOCATIONS
WASTE OIL TANK EXCAVATION
500 COVENTRY ROAD
OTTAWA, ONTARIO

CLIENT: Coca-Cola

ARCTURUS

DATE JULY 1995		PROJECT No. E769.6	DRAWING No. FIGURE 1
DRWN TD	CHK'D SMG	SCALE AS SHOWN	



LEGEND

EXCAVATED AREA

SS-5 CONFIRMATORY SOIL SAMPLE

SW-8 SUMP WELL

SUMP WELL LOCATIONS

500 COVENTRY ROAD
OTTAWA, ONTARIO

CLIENT: Coca-Cola

ARCTURUS

DATE JULY 1995		PROJECT No. E769.6	DRAWING No. FIGURE 2
DRWN TD	CHK'D SMG	SCALE AS SHOWN	

ARCTURUS
ENVIRONMENTAL

July 21, 1995
E769.6

Coca-Cola Beverages Limited
42 Overlea Boulevard
Toronto, Ontario
M4H 1B8

Attention: Mr. R. B. Wallace, Environmental Operations

MINISTRY OF ENVIRONMENT
JUL 24 1995
OTTAWA

Re: Summary of Site Remedial Activities
Coca-Cola Beverages Limited Bottling Facility
500 Coventry Road, Ottawa, Ontario

Dear Mr. Wallace:

This letter describes remedial activities conducted by Arcturus Environmental Limited (Arcturus) to date, including excavation of petroleum hydrocarbon impacted soil, construction of an engineered bioremediation cell (EBC), and installation of a pumping and treatment system for groundwater remediation.

BACKGROUND

Arcturus was on-site August 26, 1994 to conduct the following activities:

- complete a site sensitivity analysis (SSA) in accordance with Ministry of Environment and Energy (MOEE) *Interim Guidelines for the Assessment and Management of Petroleum Contaminated Sites in Ontario* (August, 1993);
- supervise the removal of a single fibreglass-reinforced 2,270-litre underground waste oil tank; the general site layout and former location of the waste oil tank is shown in Figure 1;
- collect confirmatory soil samples in the vicinity of the waste oil tank, in accordance with Table 3 (Minimum Verification Sampling Requirements for Excavation Floors and Sidewalls) of MOEE (1993) Interim Guidelines; and,
- supervise backfilling of the excavation following collection of confirmatory soil samples.

The SSA results and the analytical results of confirmatory soil samples were reported in our February 27, 1995 correspondence "Waste Oil Tank Removal and Excavation Monitoring". As described, all confirmatory soil samples met MOEE Level II criteria, with the exception of one soil sample, indicating that only a minor volume of soil exceeding relevant criteria remained.

ENVIRONMENTAL SITE ASSESSMENT

In October-November, 1994, a comprehensive environmental site assessment (ESA) was conducted by Arcturus at this site, and described in *Site Assessment and Evaluation of Remedial Alternatives* (December, 1994).

Based on the results of the ESA, approximately 6,600 tonnes of soil on the Coca-Cola property exceeded Level II criteria. The majority of soil exceeding MOEE Level II criteria was located in two areas west of the site building.

CURRENT SITE CONDITIONS

Remedial activities were conducted by Arcturus in March-April, 1995, in the areas identified during the ESA, and during removal of the waste oil tank. Remedial activities included excavation of petroleum hydrocarbon impacted soil east of the building near the former waste oil tank, excavations west of the building, and installation of a temporary groundwater pumping/GAC treatment system. Excavated soils were loaded into the EBC for treatment.

Excavated areas were backfilled using clean material previously stockpiled on-site, as well as clean imported fill.

Confirmatory Soil Sampling

A total of five confirmatory soil samples were collected by Arcturus from the vicinity of the waste oil tank, following excavation in August, 1994, and March-April, 1995, as shown in Figure 1. A total of 19 confirmatory soil samples were collected from the vicinity of the former distribution facilities located west of the site building (as shown in Figure 2).

All (24) confirmatory soil samples were submitted to Paracel Laboratories of Ottawa, Ontario, for analysis of benzene, toluene, ethylbenzene and xylenes (BTEX) and total petroleum hydrocarbons (TPH) in the gas/diesel and heavy oils range. Analytical results for confirmatory soil samples have been included in Table 1. As shown in Table 1, all confirmatory samples meet MOEE Level II criteria for soils.

Confirmatory Groundwater Sampling

Following excavation and removal of the source soil located west of the building, groundwater pumping and treatment has continued to ensure that no residual contaminants remain in the groundwater.

Arcturus sampled groundwater from a total of seven on-site wells on May 24, 1995. Groundwater samples were submitted to Paracel Laboratories for analysis of BTEX and TPH (gas/diesel and heavy oils range). Analytical results are compared in Table 2 and 3 to relevant MOEE *Proposed Guidelines for Contaminated Sites in Ontario* (July, 1994) groundwater criteria for commercial land use in a non-potable groundwater situation.

As shown in Table 3, all groundwater samples obtained July 14, 1995 met relevant criteria.

It is expected that a final round of sampling will be conducted after 2 weeks, following re-equilibration with local groundwater, to confirm the latest groundwater analytical results.

SUMMARY

Based on the remedial activities conducted by Arcturus to date, soil in the vicinity of former petroleum storage and distribution facilities meet relevant MOEE (1993) Level II criteria.

Petroleum hydrocarbon impacted soils, placed in the EBC during remedial activities in March-April, 1995, are expected to meet MOEE Level II criteria following approximately 6 months of treatment.

Based on groundwater samples obtained on July 14, 1995, from the vicinity of the main excavations, groundwater meets relevant criteria in accordance with MOEE (1994) *Proposed Guidelines for Contaminated Sites in Ontario.*

I trust that this satisfies your current requirements, however, please do not hesitate to call should you have any questions or comments.

Sincerely,

for Mr. A. L. Maddalena, M.Sc.
Project Manager

PJH/hll
Attachment

cc: Mr. G. Montcalm, MOEE Ottawa (w/a)

TABLE 1: COMPARISON OF CHEMICAL ANALYTICAL DATA FOR BTEX AND TPH IN SOIL TO ONTARIO MINISTRY OF ENVIRONMENT AND ENERGY (MOEE) INTERIM (1993) GUIDELINES, COCA COLA BOTTLING LTD., 500 COVENTRY ROAD. ALL DATA IN mg/kg OR PPM.

PROJECT E769.6

MOEE INTERIM SOIL REMEDIATION CRITERIA FOR PETROLEUM CONTAMINATION (mg/kg)				PARAMETER					
				BENZENE	ETHYLBENZENE	TOLUENE	TOTAL XYLENES	TPH (GAS DIESEL)	TPH (HEAVY OIL)
LEVEL I				0.05	0.5	1	1	100	1000
LEVEL II				0.5	5	10	5	1000	5000
LEVEL III				2	100	100	50	5000	6000
SAMPLE ID.	SAMPLE DESCRIPTION	COMBUSTIBLE VAPOURS (%LEL)	DATE SAMPLED						
	Northern Plume Verification Samples								
SS-5	Base 3.9 m, clay till	0.5	13 March 1995	<0.038	0.149	0.122	1.304	120	<500
SS-6	East wall 2.5 m, clay till	0.2	13 March 1995	<0.038	<0.038	<0.038	0.054	100	<500
SS-9	North wall 3.0 m, sand	0.2	13 March 1995	<0.038	<0.038	<0.038	<0.076	<20	<500
SS-16	Northwest wall 3.3 m, silty clay till	1.8	13 March 1995	<0.038	**0.171**	<0.038	0.813	60	<500
SS-17	Base 3.6 m, clay till	1.7	13 March 1995	**0.185**	**0.753**	**2.09**	**4.6**	100	<500
SS-27	South wall 2.0 m, silty till	0.2	13 March 1995	**0.098**	0.069	<0.038	0.062	<20	<500
	Main Plume Verification Samples								
SS-30	East wall 1.3 m, sand	1.1	20 March 1995	<0.038	<0.038	<0.038	<0.076	<20	<500
SS-33	Base 3.3 m, clay till	<0.1	20 March 1995	<0.038	<0.038	0.116	0.07	100	<500
SS-42	Base 3.3 m, clay till	1	20 March 1995	<0.038	0.068	0.319	0.388	100	<500
SS-46	Southeast wall 1.5 m, silty sand gravel ti	3.5	20 March 1995	<0.038	<0.038	<0.038	<0.076	<20	<500
SS-64	North wall 1.7 m, silty gravel till	0	20 March 1995	<0.038	<0.038	<0.038	<0.076	820	<500
SS-69	North wall 2.7 m, clay till	0.2	20 March 1995	<0.038	<0.038	0.078	<0.076	40	<500
SS-77	Base 3.0 m, clay till	4	20 March 1995	<0.038	<0.038	0.148	0.14	<20	<500
SS-107	Base 2.9 m, clay till	<0.1	20 March 1995	<0.038	<0.038	0.08	0.045	40	<500
SS-112	West wall 2.0 m, sand	3.5	20 March 1995	<0.038	<0.038	0.232	0.474	<20	<500
SS-113	South wall 1.0 m, sand	3.1	20 March 1995	<0.038	<0.038	0.066	<0.076	<20	<500
SS-A	Duplicate of SS-113		20 March 1995	<0.038	<0.038	0.065	<0.076	<20	<500
SS-115	West wall 1.5 m, sand	<0.1	27 March 1995	<0.025	<0.025	<0.05	<0.075	<20	<500
SS-116	West wall 1.5 m, sand	<0.1	27 March 1995	<0.025	<0.025	<0.05	<0.075	<20	<500
SS-117	West wall 1.5 m, sand	<0.1	27 March 1995	<0.025	<0.025	0.067	0.037	<20	<500
	Waste Oil Tank Verification Samples								
UST-W	West wall, 1.3 m, silty sand	0.6	28 August, 1994	<0.038	0.21	<0.038	0.51	460	**1000**
TP2-SS2	Test pit 2, 1.7 m, silty till	2.4	26 August, 1994	**0.069**	0.29	0.067	**1.74**	**760**	**3000**
TP4-SS2	Test pit 4, 1.6 m, silty till	0.2	26 August, 1994	<0.038	<0.038	<0.038	<0.038	40	<500
SS-204	South wall, 1.0 m, silty sand	<0.1	01 April, 1995	<0.038	<0.038	<0.038	<0.038	60	<500
SS-209	Base, 2.6 m, silty clay till	<0.1	01 April, 1995	<0.038	<0.038	<0.038	<0.038	40	<500

BOLD : INDICATES PARAMETER CONCENTRATION EXCEEDS THE MOEE LEVEL I CRITERIA

Verified by:

000036

TABLE 2: COMPARISON OF CHEMICAL ANALYTICAL DATA FOR BTEX AND TPH IN GROUNDWATER SAMPLES TO ONTARIO MINISTRY OF ENVIRONMENT AND ENERGY (MOEE) PROPOSED (1994) GUIDELINES FOR THE CLEANUP OF CONTAMINATED SITES IN ONTARIO FOR INDUSTRIAL/COMMERCIAL LAND USE IN A NON-POTABLE GROUNDWATER SITUATION. ALL DATA IN mg/L OR PPM.

PROJECT E769.6

			PARAMETER				
			BENZENE	ETHYLBENZENE	TOLUENE	TOTAL XYLENES	TPH*
REMEDIATION CRITERIA			1.9	28	5.9	5.6	50
SAMPLE ID	SAMPLE DESCRIPTION	DATE SAMPLED					
	Groundwater Verification Samples						
SW-1		24 May 1995	0.0016	0.0097	<0.001	0.067	0.6
SW-3		24 May 1995	0.009	0.014	0.0017	0.295	15.0
SW-4		24 May 1995	<0.0005	<0.0005	<0.001	<0.001	<0.2
SW-5		24 May 1995	0.02	<0.0005	0.028	0.085	1.0
SW-6		24 May 1995	<0.0005	0.0061	0.0167	8.652	240
SW-7		24 May 1995	0.0043	0.052	<0.001	0.035	1.2
BLANK		NA	<0.0005	<0.0005	0.001	<0.001	-

NA - not available

BOLD EXCEEDS MOEE (1994) CRITERIA

Verified By:

C:\ATC\RAN\[illegible]

TABLE 3: COMPARISON OF CHEMICAL ANALYTICAL DATA FOR BTEX AND TPH IN GROUNDWATER SAMPLES TO ONTARIO MINISTRY OF ENVIRONMENT AND ENERGY (MOEE) PROPOSED (1994) GUIDELINES FOR THE CLEANUP OF CONTAMINATED SITES IN ONTARIO FOR INDUSTRIAL/COMMERCIAL LAND USE IN A NON-POTABLE GROUNDWATER SITUATION. ALL DATA IN mg/L OR PPM.

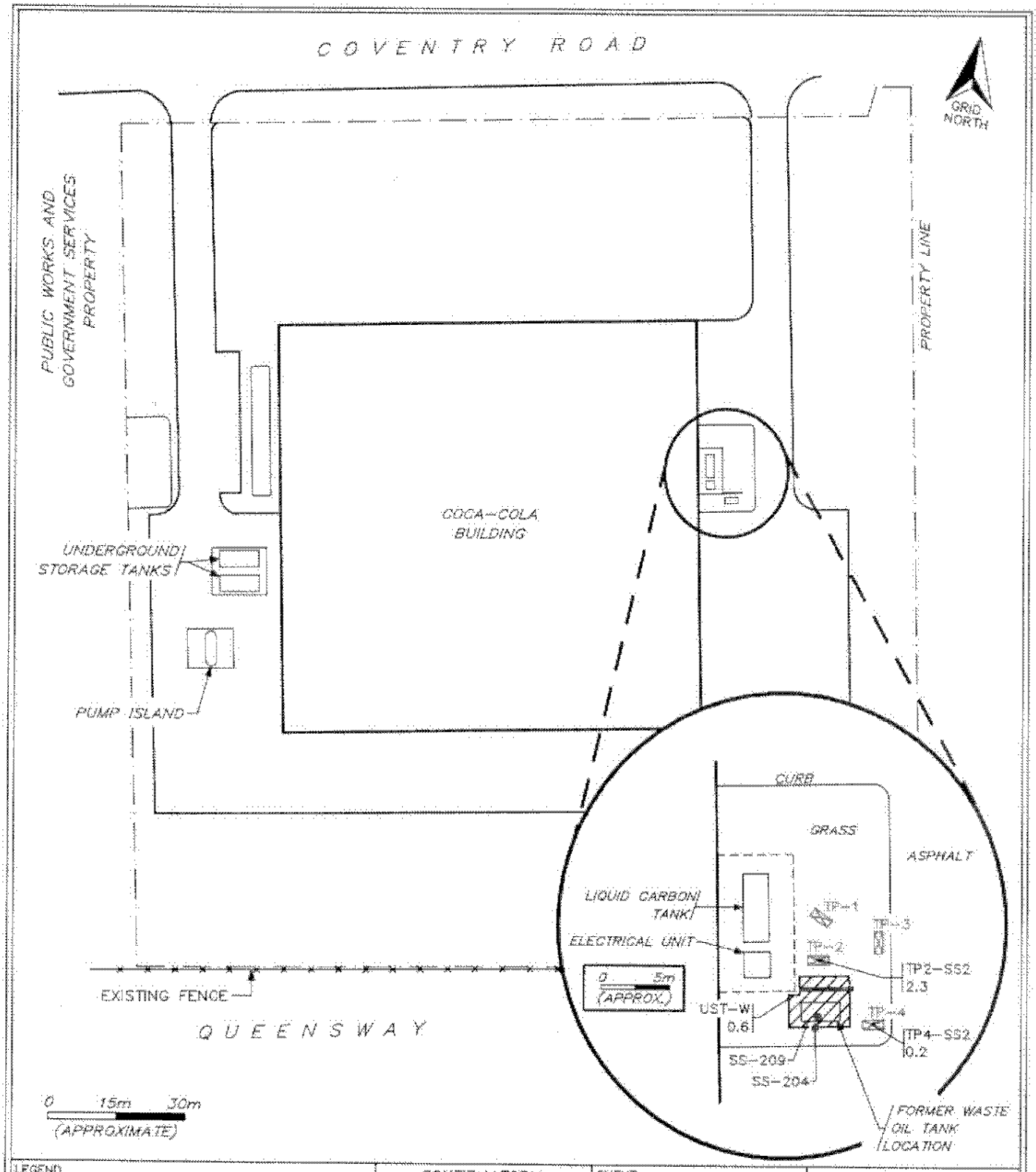
PROJECT E769.6

			PARAMETER				
			BENZENE	ETHYLBENZENE	TOLUENE	TOTAL XYLENES	TPH*
REMEDIATION CRITERIA			1.9	28	5.9	5.6	50
SAMPLE ID	SAMPLE DESCRIPTION	DATE SAMPLED					
	Groundwater Verification Samples						
SW-1		14 July 1995	0.0021	0.0069	<0.001	0.022	0.6
SW-2		14 July 1995	0.0081	0.0021	0.0035	0.0126	<0.2
SW-3		14 July 1995	0.0016	0.0020	<0.001	0.0086	0.4
SW-4		14 July 1995	<0.0005	<0.0005	<0.001	<0.001	<0.2
SW-5		14 July 1995	0.015	<0.0005	0.0114	0.2352	0.6
SW-6		14 July 1995	0.0033	0.0270	0.0240	0.2570	1.6
SW-6 (dupl.)		14 July 1995	0.0260	0.2740	0.1760	2.494	34
SW-7		14 July 1995	0.0570	0.0046	0.0017	0.0440	0.4
SW-8		14 July 1995	<0.0005	<0.0005	<0.001	<0.001	<0.2
BLANK		14 July 1995	<0.0005	0.0005	0.0012	0.0028	<0.2

Verified By:

BOLD EXCEEDS MOEE (1994) CRITERIA

C:\ARCTAP\PROJECTS\E769 ENBISTE.XLS



LEGEND

TP-1 TEST PIT

EXCAVATED AREA (1.5m DEPTH)

0.2 COMBUSTIBLE SOIL VAPOUR CONCENTRATION (% LEL)

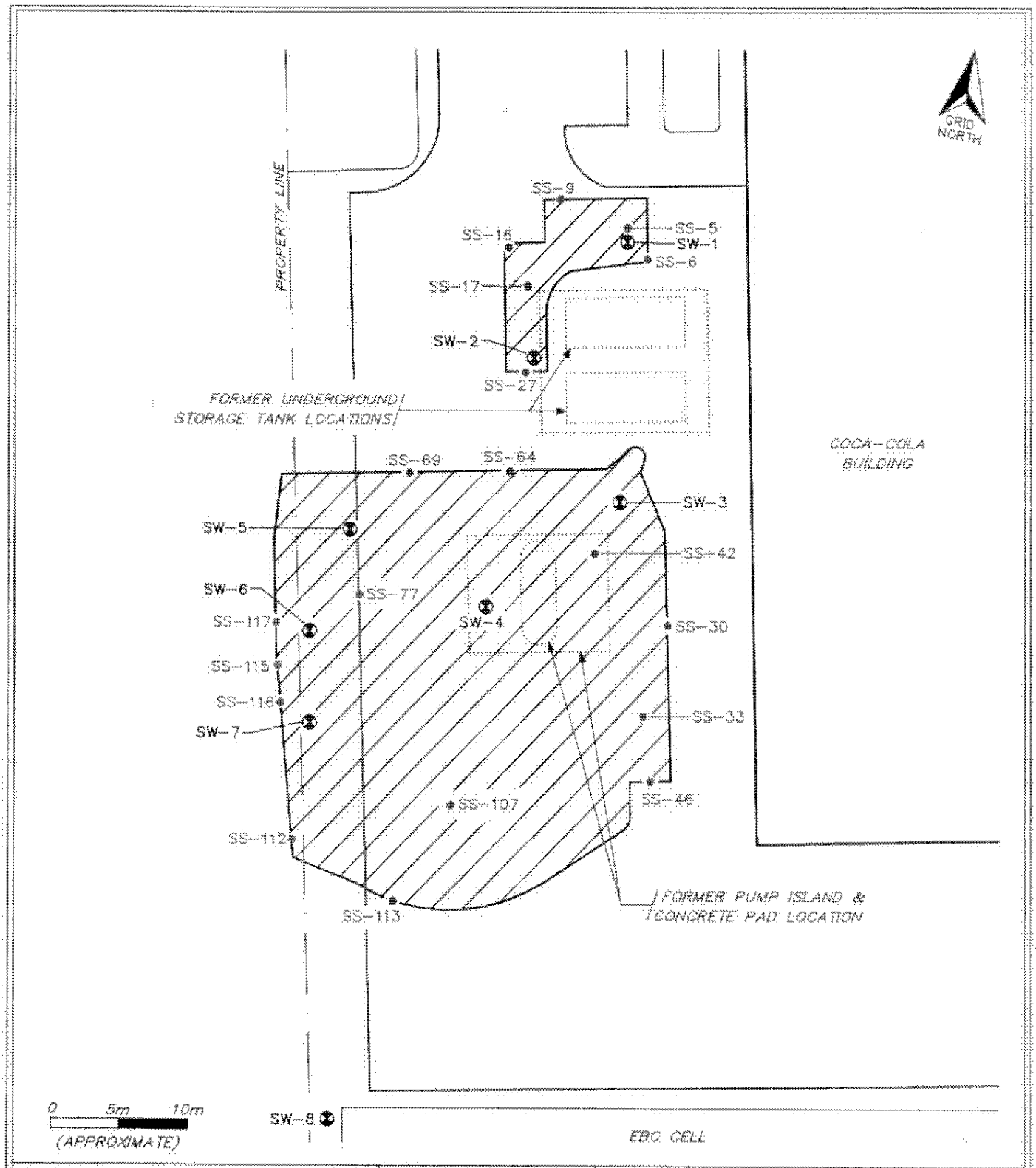
SS-204 ● CONFIRMATORY SOIL SAMPLE

CONFIRMATORY SOIL SAMPLE LOCATIONS
WASTE OIL TANK EXCAVATION
500 COVENTRY ROAD
OTTAWA, ONTARIO

CLIENT: Coca-Cola

ARCTURUS

DATE JULY 1995		PROJECT No. E769.6	DRAWING No. FIGURE 1
DRWN TD	CHK'D SMG	SCALE AS SHOWN	



LEGEND

EXCAVATED AREA

SS-5 CONFIRMATORY SOIL SAMPLE

SW-8 SUMP WELL

SUMP WELL LOCATIONS

500 COVENTRY ROAD
OTTAWA, ONTARIO

CLIENT: Coca-Cola

ARCTURUS

DATE JULY 1995		PROJECT No. E769.6	DRAWING No. FIGURE 2
DRWN TD	CHK'D SMG	SCALE AS SHOWN	

MINISTRY OF ENVIRONMENT

JUN 14 1995

OTTAWA

M E M O R A N D U M 13 June 1995

TO: Kim Lendvay
Approvals Evaluator
Environmental Approvals and Plan Review
Technical Support Section
Eastern Region

FROM: F. Crossley
Hydrogeologist
Water Resources Unit
Technical Support Section
Eastern Region

RE: Coca-Cola Beverages Limited
500 Coventry Road, Ottawa, Ontario

Having reviewed the above noted hydrogeological report dated February, 1995 by Arcturus Environmental Limited, I offer the following comments.

Arcturus supervised the removal of two underground storage tanks and associated distribution system on the Coca-Cola property. The capacity of the tanks was 22,700 litres. The tanks were constructed of fibreglass reinforced plastics. Arcturus stated that the tanks appeared competant, however, based on observations (olfactory and visual) there was subsurface contamination in the vicinity of the piping and pump island.

The consultants had 16 test pits dug on the property. The maximum depth of the test pits was 3.6 metres. In addition, the consultants had 15 boreholes drilled on the property. The maximum depth of the boreholes was approximately 4.2 metres. The general stratigraphy consisted of: gravel fill underlain by fine sand to silty sand; which in turn is underlain by a silty clay till with sand and gravel secms. The logs do not report encountering bedrock, however, the consultants indicate that bedrock is at an approximate depth of 4.0 metres.

Arcturus used the Interim Guidelines for the Assessment and Management of Contaminated Sites in Ontario (MOEE, 1993) which is the appropriate document for this site. The consultants undertook the generic site sensitivity analysis. I concur with the consultant's determination that the site sensitivity is level 2.

In total, the consultants submitted 22 soil samples for benzene, toluene, ethylbenzene and zylenes (BTEX) which is the appropriate analyses. However, the consultants do not provide the results. Arcturus states that at least one chemical parameter in 11 of the soil samples exceeded the level 2 criteria. Figure 3 outlines the approximate extent of the petroleum hydrocarbon contamination in the soil. Presumably, the extent is based on the exceedance of level 2 criteria. Arcturus showed the extent to be to the property line, which is not likely.

Groundwater concerns were not addressed.

Arcturus' preferred remedial approach is ex-situ bioremediation. This system consists of:

- excavation of petroleum contaminated soils
- placement of excavated petroleum hydrocarbon contaminated soils in a lined cell (high density polyethylene)
- water collection system (sump)
- vapour extraction system
- addition of oxygen and nutrients.

This type of ex-situ bioremediation system has been previously used in these types of contaminations (petroleum hydrocarbons).

A groundwater pump and treat system is to be constructed. Contaminated groundwater is to be pumped from 7 proposed purge wells (figure 8). The contaminated groundwater is to be passed through a sand filter, oil/water separator and a series (4) of granulated activated carbon. The effluent is to be discharged to the sanitary sewer (Regional Municipality of Ottawa/Carleton). The effluent has to meet the Municipal Sewer Use Bylaw.

I offer the following conclusions and recommendations:

- a petroleum hydrocarbon contamination (gasoline), both soil and groundwater, exist at this site. The likelihood that an offsite problem exists is considered to be high.
- Arcturus utilized the Petroleum Contaminated Sites guideline (MOEE, 1993) to determine the site's sensitivity. I concur with Arcturus' determination that the site is a level 2 for soils on site.
- The extent of the petroleum hydrocarbon contamination, both soil and groundwater have not been determined. Additional boreholes and monitoring wells are required to determine the extent.

- Arcturus have not supplied the soil analyses.

- Arcturus have not supplied the groundwater analyses.

- In principal, the proposed remediation system (ex-situ bioremediation - soil and pump and treat - groundwater) is acceptable, however, the effectiveness cannot be determined due to the insufficient technical information. These bioremediation techniques have been utilized effectively in the past and therefore the project should not be held in abeyance.

- The following should be required:

  1. determination of extent of petroleum hydrocarbon contamination, both soil and groundwater

  2. verification and compliance sampling (soils) as outlined in the guideline Petroleum Contaminated Sites in Ontario (MOEE, 1993). A verification report should be provided to this ministry.

  3. A proposed monitoring program should be provided to determine the effectiveness of the bioremediation and the groundwater pump and treat system.

F. Crossley
/cw
cc: Greg Montcalme/George Clark
- GW-07-02 Ottawa
- FC TMS 26125

MINISTRY OF ENVIRONMENT

MAR 27 1995

OTTAWA

MINUTES OF MEETING

DATE: March 15, 1995, 14:00 - 15:00

SUBJECT: Meeting to update on progress of RAP field activities on CCB property (500 Coventry Road), review Raven Beck borehole program soil and groundwater analytical results on PWGSC property (440 Coventry Road) and discuss field guidelines for excavation activities along the CCB/PWGSC property line. Project E 769.6

ATTENDEES: Coca Cola Beverages Ltd. (CCB) - Bob Wallace
PWGSC - Paul McCarthy, Suzie Lemyre
Raven Beck Environmental Ltd.- Rob Timlin
Arcturus Environmental Ltd. - Daniel Garand, Al Maddalena

PLACE: PWGSC, 440 Coventry Rd., Ottawa.

---

1. Arcturus (D. Garand) began by reviewing RAP field activities on the CCB property. Treatment cell area has been excavated, 30 ml impermeable HDPE liner (40 m X 80 m) has been installed along the base of the treatment cell area to prevent any contamination leaching into the ground. Soil loading has began and piping networks (air and water) are being installed. Collected porewater in the cell will be treated with granular activated carbon and discharged to the on-site sanitary sewer.

   Groundwater pumping/treatment system, implemented on February 22, 1995, has been functioning on a continual basis since that date.

   Approximately 350 m^3 of impacted soil was excavated from the former tank nest area. The excavation was backfilled with clean material removed during excavation of the treatment cell. Two sumps were installed into the excavation backfill.

   Arcturus will begin excavation of main impacted soil plume tomorrow; excavation will proceed from east to west toward the property boundary. Site remediation on the CCB property is intended to meet MOEE Level II soil cleanup criteria. Excavation of impacted soil and backfilling with clean material will occur concurrently. Sump wells will be installed in the backfill material to permit groundwater pumping on the CCB property.

   Arcturus recommends that a Raven Beck representative be present when the excavation at the property boundary is reached. R. Timlin agreed to be on-site. Arcturus will provide a 24 hour advance notification as to when the excavation is expected to reach the property boundary.

2. The constructed cell will remain inactive until all required approvals are received. The soil treatment process will begin upon receipt of the approvals, and is expected to have a duration of five to six months. Once the soil has met appropriate remedial criteria, the cover will be removed, and the basal liner will be punctured to allow for natural drainage.

3. Raven Beck (R. Timlin) presented results of the borehole program conducted on the PWGSC property. Groundwater analytical results for parameters tested have shown a continuous decrease in concentration during the test period (25 Jan - 06 Mar, 1995). Soil analytical results marginally exceed remediation criteria in BH-8. It was agreed that the continuous pumping of groundwater on the CCB property was successfully remedying conditions on the PWGSC property. It was recognized that the soil conditions have not yet met remediation criteria, however based on groundwater analytical trends, additional groundwater pumping on the CCB property should effectively resolve this concern.

4. Arcturus/CCB recommended that field guidelines be agreed upon in advance of the excavation process, in order to expedite activities and minimize delays when the excavation reaches the property boundary.

   Based on the Raven Beck borehole program, R. Timlin suggested: that combustible vapour measurements may not be appropriate to define extent of excavation; and, sand backfill exhibiting hydrocarbon staining or sheen should be removed.

   It was stated that the remediation criteria on the CCB property is MOEE Level II and CCME Agriculture on the PWGSC property. It was recognized that due to the differences in criteria, the more stringent Agriculture criteria on the PWGSC property may not be maintained in the future.

   In view of the positive results attained since groundwater pumping/treatment, it was proposed that another round of groundwater samples be completed

from the wells on PWGSC property and submitted for rush analyses. It was agreed that clean-up of the PWGSC property would be considered acceptable if each of the following conditions are met:

a) this round of groundwater analytical results indicate the decrease in BTEX concentration trend persists

b) granular sand backfill that had product (area around RW-6, RW-7, and RW-8) on the CCB property between the impermeable membrane and the property line is removed

c) groundwater pumping from the newly installed sumps on the CCB property continued at least until the end of April 1995.

5. It was agreed that the following information be provided to PWGSC:

a) MOEE Certificate of Approval (Soil Processing)
b) MOEE Certificate of Approval (Air)
c) Confirmation that soil remediation criteria are met on the CCB property.

6. CCB agreed that monitoring of groundwater conditions in wells to be installed downgradient of the biocell, on PWGSC property be continued until the soil remediation criteria on CCB property are met. PWGSC is to forward proposed monitoring well installation and soil/groundwater monitoring/testing program to CCB prior to performing the work. CCB will review the proposed monitoring well installation and soil/groundwater monitoring/testing program for approval; if accepted, CCB will assume financial responsibility for the program.

Ontario

Ministry of the Environment | Ministère de l'Environnement

Southeastern Region | Région du Sud-Est

2435 Holly Lane
Ottawa, Ontario
K1V 7P2
613/521-3450

2435, Holly Lane
Ottawa (Ontario)
K1V 7P2
613/521-3450

7 February 1995

Arcturus
29 Camelot Drive, Unit 500
Nepean, Ontario
K2G 5W6

ATTENTION: Mr. Mike Grinnell

RE: Site Remedial Action Plan, Coca-Cola Bottling Plant, 500 Coventry Road

Dear Mr. Grinnell

I have reviewed your request of February 3, 1995 to remediate the above site. Your proposal is two phased; pump and treat of contaminated ground water and excavation of contaminated soil for on-site bioremediation.

We are aware that contamination of Public Works Canada property is ongoing, therefor this work should be expedited to eliminate any further contamination. In addition some arrangements should be made to pump and treat impacted groundwater on Public Works Canada property.

Since you do not intend to pump more than 50,000 litres of water per day you, may start pumping immediately upon RMOC concurrence with the sanitary sewer discharge of the treated water.

Please provide a report upon completion of the proposed cleanup including the following information:

1.) Verification analysis results, sampling locations and comparison of results with cleanup criteria.
2.) Copy of all appropriate approvals.
3.) Results of meetings with Public Works Canada and their concerns and recommendations brought forward.
4.) Condition of site after cleanup including classification and location of any waste remaining on site or adjacent property, assessment of the waste and potential health and environmental impacts.
5.) Conclusion that the spill cleanup is complete.

100% Unbleached Post-Consumer Stock

Ontario
Ministry of the Environment
Ministère de l'Environnement

Southeastern Region
Région du Sud-Est

2435 Holly Lane
Ottawa, Ontario
K1V 7P2
613/521-3450

2435, Holly Lane
Ottawa (Ontario)
K1V 7P2
613/521-3450

Should you have any questions please do not hesitate to contact me.

Yours truly,

G.F. Montcalm

cc. Suzie Lemyre, Public Works Canada

100% Unbleached Post-Consumer Stock

ARCTURUS
ENVIRONMENTAL

February 3, 1995

MINISTRY OF ENVIRONMENT
FEB - 8 1995
OTTAWA

Ministry of Environment and Energy
Southeastern Region
2435 Holly Lane
Ottawa, Ontario
K1V 7P2

Attention: **Mr. Greg F. Montcalm**

Subject: **Site Remedial Action Plan, Coca-Cola Bottling Plant, 500 Coventry Road.**

Dear Mr. Montcalm,

Pursuant to our telephone conversation of February 3, 1995, this letter outlines our planned remedial approach for the Coca-Cola Bottling plant at 500 Coventry Road, Ottawa. We would like to receive a letter of concurrence from your office in order to begin on site activities as soon as possible.

As you are aware, hydrocarbon contaminants have migrated from the Coca-Cola property onto the Public Works and Government Services Canada (PWGSC) property located immediately to the west. Hydrocarbon impacted soil was excavated and removed from the PWGSC property and an impermeable HDPE barrier installed between the two properties in November/December 1994. Monitoring data from recovery wells installed around the barrier indicates that hydraulic control has not been achieved and that groundwater flow continues to flow off property to the west.

Coca-Cola Bottling would like to act as soon as possible to remediate areas of on-site impact and prevent the potential migration of hydrocarbon contaminants off site. Arcturus proposes the following approach to achieve these goals:

1) Installation of a portable pump and treat system to pump groundwater from recovery wells previously installed on the Coca-Cola property. This will ensure that hydraulic control is maintained across both properties, and will facilitate remedial excavation activities.

2) Excavation of of approximately 6600 tonnes of hydrocarbon-impacted soil from the Coca-Cola property. This soil, along with approximately 3400 tonnes of soil currently stockpiles on-site, will be placed in a bioremediation cell to be constructed at the south end of the Coca-Cola property. The cell will be activated upon receipt of a Certification of Authorization from your Ministry.

29 Camelot Drive, Suite 500, Nepean, Ontario K2G 5W6 (613) 727-0216 Fax (613) 727-1806
Niagara Falls Toronto Montréal Ottawa Thunder Bay Sudbury Niagara Falls, N.Y.

As part of the remedial process, it is estimated that the portable pump and treat unit will be in operation for two to four weeks. At is maximum discharge rate, the unit is capable of handling 20 imperial gallons per minute (20 IGPM) or 90.8 litres/minute. At this rate, the system is capable of removing more that 50,000 litres in a single day, although Arcturus estimates that actual daily volumes will be less that 50,000 litres.

Accordingly, enclosed please find an application for a permit to take water, completed on behalf of our client, Coca-Cola Bottling Ltd. As discussed, this permit has been completed as a contingency measure, in the unlikely event that more than 50,000 litres of water will have to be removed from the site in a given day. It should also be known that the permit has been completed for the maximum discharge rates currently capable by the system.

Arcturus proposes to begin pumping at 7.5 IGPM or 34 litres/minute. At this rate, 49,000 litres would be removed in a single day. The water will be treated using granular activated carbon and then discharged into the nearest regional sewer line. An application to discharge treated water into the sanitary sewer is currently under way with the Regional Municipality of Ottawa-Carleton (RMOC).

Our client would like to act as soon as possible to remediate current conditions. Arcturus is prepared to begin remediation pending proper approvals and authorization from all parties involved. If required, you had indicated that an emergency start order could be issued by your office.

Your attention to this matter is greatly appreciated. Should you have any questions regarding this matter, please do not hesitate to contact Daniel Garand or myself at 727 - 0216.

Sincerely,

Mike Grinnell

Mike Grinnell, B.A.Sc., E.I.T.
Geological Engineer

cc Mr. Victor Kastro
MOEE Southeastern Region, Kingston, Ontario

Ministry of Environment and Energy
Ontario

Application for Permit to Take Wate

Information requested by this form is collected under the authority of the Ontario Water Resources Act, R.S.O. 1990, Chapter 0.40 (OWRA) and the Environmental Bill of Rights, Statutes of Ontario, 1993, Chapter 28 (EBR). The purpose of the Permit is to regulate water takings in order to promote efficient development and equitable use of surface and ground waters.

☒ New Permit ☐ Permit Renewal ☐ Permit Amendment	Existing Permit No.

Name of Applicant: Coca Cola Bottling Limited	Telephone No.: 613 745 9821
Address: 500 Coventry Road, Ottawa, Ontario	Postal Code: K1K 2C4

Application Particulars

Please read instructions on the Guide for Applying for Approval of Permit to Take Water ("Guide") and ensure that all sections of the application are completed in full, especially the section on Request Amount of Taking from each Source and project/application description for purposes of EBR registry.
Submit a diagram of the area of this water taking. Diagram, instructions and example are shown in the "Guide". If the taking is from a groundwater source, then a diagram indicating any wells within 500 metres of the taking must be submitted.
If there are questions concerning the application, please contact the corresponding Ministry of Environment and Energy Regional Office listed in the "Guide".

A Source of Water

1 Well(s): How many? 3 Spring(s): How many? ____ 2 Lake, Stream or River Name (s)

3 Pond(s): How many? ____ Type: ☐ Dugout ☐ By-Pass ☐ On-Stream ☐ Pit or Quarry

4 Other: Type of Source

5 Construction date of Source: November 22-25/1994 6 Date of installation of Water Taking Equipment: Week of February

B Location of Taking

Lot, Concession, Township or former Township and County or Region or District, or City, Town or Village with name of street and number
Regional Municipality of Ottawa-Carleton, 500 Coventry Road, Ottawa, Ontario

Are the proposed works located in an area of development control as defined by the Niagara Escarpment Planning and Development Act (NEPDA)

☐ Yes ☒ No (if Yes, attach copy of NEPDA permit)

C Location of Water Use

☐ Same as B or

Lot, Concession, Township or former Township and County or Region or District, or City, Town or Village with name of street and number
N/A

D Purpose of Taking

☐ Irrigation ☐ Commercial ☐ Industrial ☐ Municipal ☐ Public Supply ☐ Recreation

☐ Drinking water ☒ Other (please describe) Site Remedial Activities

E Period of Water Taking (complete either section 1 or 2 below)

1 Taking to commence on Feb 13 to 20/1995 and to extend for a period of 2-4 ☐ days ☒ weeks ☐ months ☐ years

2 Seasonal taking to extend from ____ to ____ each year for ____ (number of years)

0608 (11/94) Page 1 of 2 Front

*Ce formulaire est disponible en français

F **Request Amount of Taking from each Source** (If the taking involves the taking of water into storage, please state the amount of water taken into storage as well as the amount of water withdrawn from storage).

Source Number	Name of source or Description	Maximum amount taken per minute	Maximum amount taken per day	Number of hours of taking per day--maximum	Number of hours taken per day--average	Maximum number of days taking per year
RW-3	Recovery Well 3	30.26	43,584	24	24	28
RW-4	Recovery Well 4	30.26	43,584	24	24	28
RW-5	Recovery Well 5	30.26	43,584	24	24	28
			130,752			

Indicate unit of measure ☒ Litres ☐ Imperial Gallons ☐ U.S. Gallons

G **Project/application description for purposes of EBR registry (brief description of proposal)**

Water to be pumped from on site recovery wells as part of site remedial activities.

H **Environmental Bill of Rights requirements**

Is this a proposal for a Prescribed Instrument under EBR?	☐ Yes	☒ No
If "Yes", is it excepted from public notification?	☐ Yes	☐ No
If it is excepted from public notification, provide reason	☐ Equivalent Public Participation	☐ Emergency
	☐ Environmentally Insignificant amendment or revocation	☐ EAA or Tribunal Decision

Documentation in support of the above noted exception must be provided (refer to "Guide").

I **Supporting Information checklist.** This is a list of all supporting information attached to this application and is subject to the Freedom of Information and Protection of Privacy Act (FOIPOPA) and the Environmental Bill of Rights (EBR).

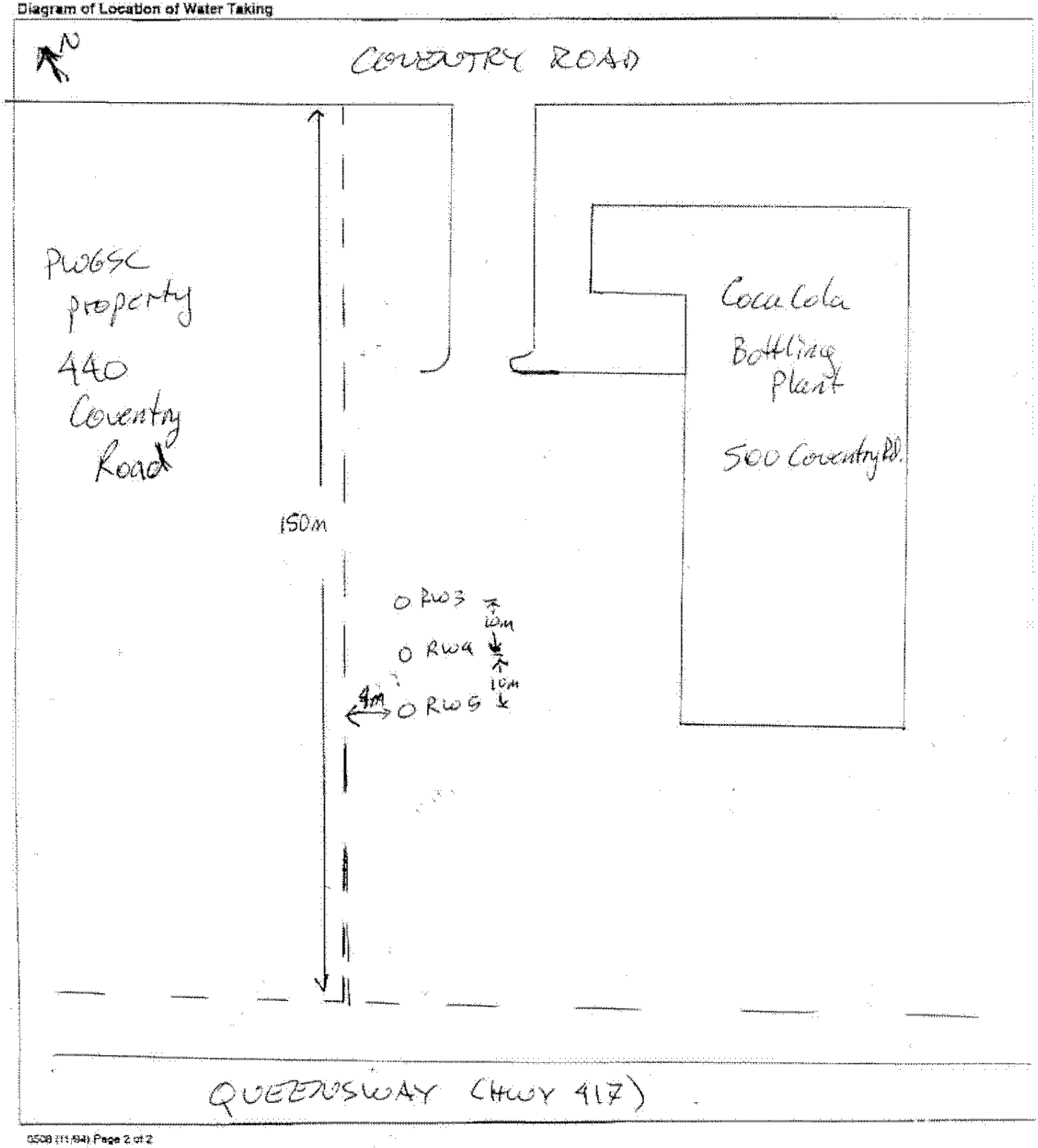
SUPPORTING INFORMATION	ATTACHED?	REFERENCE	CAN BE DISCLOSED
Pre-application consultation with MOEE	☐ Yes ☐ No		
Documentation Provided			
Description of the proposed works	☐ Yes ☐ No		☐ Yes ☐ No
Environmental Study Report (ESR)	☐ Yes ☐ No		☐ Yes ☐ No
Preliminary Report	☐ Yes ☐ No		☐ Yes ☐ No
Design Report/Brief	☐ Yes ☐ No		☐ Yes ☐ No
Hydraulic and Process Calculations	☐ Yes ☐ No		☐ Yes ☐ No
Final Plans and Specifications	☐ Yes ☐ No		☐ Yes ☐ No
Water Supply and Treatment			
Raw Water Quality Analysis	☐ Yes ☐ No		☐ Yes ☐ No
Hydrogeological Report	☐ Yes ☐ No		☐ Yes ☐ No
Other Attached Information	☐ Yes ☐ No		☐ Yes ☐ No
	☐ Yes ☐ No		☐ Yes ☐ No

J **Statement of Applicant**

I, the undersigned hereby declare that to the best of my knowledge, the information contained herein and the information submitted in support of this application is complete and accurate in every way. The applicant agrees to indemnify and save harmless the Crown in right of the Province of Ontario and its officers, employees, agents and contractors from and against all damages, loss, costs, claims, suits, injuries, demands, actions and proceedings resulting from or in any manner connected with act or omission of the applicant or any of its officers, employees, agents or contractors relating to this Application and any Permit, Renewal Permit or terms and conditions of a Permit issued in response to this Application.
I understand that it is the policy of the Director in issuing a Permit to Take Water to impose the General Terms and Conditions appearing on the Guide for Applying for Permit to Take Water.

Name of Applicant or Agent/Official of Applicant (please print)	Signature of Applicant or Agent of Applicant	Date
Mike Grimell, Arthur Environmental Ltd.	Mike Grimell	03/02/95

Diagram of Location of Water Taking



0.05.17.DK.01

ARCTURUS

Project No.:	E769.3
Section :	
Date:	November 23, 1994
Employee No:	243

29 Camelot Drive, Unit 500
Nepean, Ontario, K2G 5W6
Telephone (613)727-0216
Facsimile (613)727-1806

FACSIMILE TRANSMISSION COVER SHEET

PLEASE FORWARD THE FOLLOWING PAGES TO:

Name: Mr. Greg Montcalm
Company: MOEE Ottawa
Facsimile Phone No. 613 521 5437

SENT FROM:

Name: Daniel J. Garand
No. of pages including cover: 3
Hard Copy to follow: _ Yes X No

Mr. Montcalm,

As discussed with Mike Osborne, enclosed please find a copy of the Minutes of the Meeting held on November 14, 1994 at Coca Cola Bottling Ltd. 500 Coventry Road.

Regards,

Daniel J. Garand

Draft Minutes of Meeting
Coca-Cola/440 Coventry Road
November 14, 1994
14:00-15:30

Location:

Boardroom, Coca-Cola Beverages Ltd.
450 Coventry Road
Ottawa, Ontario

Attendees:

Paul McCarthy, Property Manager, PWGSC
Suzie Lemyre, Environmental Services, PWGSC
R.B. Wallace, Environmental Operations, Coca-Cola Beverages Ltd.
Ken Raven, Raven Beck Environmental Ltd.
Robert Timlin, Raven Beck Environmental Ltd.
Mike Osborne, Arcturus Environmental
Danny Garand, Arcturus Environmental
Mike Grinnell, Arcturus Environmental

Items:

1 Mr. R.B. Wallace opened the meeting by welcoming everyone and outlined the purpose of the meeting. The objective of the meeting was for Arcturus to present the results of their investigations conducted jointly with Raven Beck Environmental Ltd. (RBE) during the week of November 7, 1994 and then to outline their proposed remediation plan for the PWGSC property at 440 Coventry Road. Mr. Wallace handed the floor to Mr. Osborne for detailed outlining of the above.

2 Mr. Osborne presented the scope of the joint, Arcturus/RBE investigations that have been completed to date on the PWGSC/Coke property as described in a hand-out prepared by Arcturus. A total of 37 shallow test pits were constructed on the PWGSC property at 440 Coventry Road over the week of November 7, 1994. These test pits were concentrated in areas of the sub-drains running north/south and east/west across the parking lot on the east side of the property. The test pitting program identified areas of significant floating free product accumulation along the sub-drains in the southern portion of the property. Soil samples collected from along these drains had varying degrees of petroleum hydrocarbon contamination.

3 Following the test pitting program, three boreholes were drilled on the PWGSC property and three were drilled on the Coke property in order to assess soil and groundwater quality on the two properties. Two of the boreholes on the PWGSC property were completed as shallow monitoring wells. No soil contamination was detected in any of the boreholes on the PWGSC property completed during the week of November 7. An additional 5 boreholes had also been completed earlier on the PWGSC property on November 4, 1994. Three of these boreholes were also completed as monitoring wells. Varying levels of soil contamination were observed in these earlier boreholes.

4 Monitoring wells were installed in all three boreholes on the Coke property; two as deep wells and one as a shallow monitor. Elevated levels of soil contamination were observed in all three holes on the Coke property.

5 Groundwater samples were collected on November 9 from all monitoring wells containing water on the PWGSC property and from the deep wells on the Coke property. Groundwater analytical results were not available at the time of the meeting on November 14.

6 Mr. Osborne proposed a multi-step remediation plan for the PWGSC property. As remediation of the Coke property was likely to be delayed until the spring of 1995, it was proposed that a 20-mil impermeable membrane barrier be installed on the Coke property in order to prevent contaminant migration from the Coke property to the PWGSC property. Several large diameter monitoring/recovery wells were to be installed on both upgradient and down gradient sides of the barriers to permit twice-monthly groundwater sampling and possible groundwater pumping to control contaminant migration if required.

7 Further remediation of the PWGSC property was proposed by removing by excavation all petroleum impacted sub-drain piping and soil from the site. It was recommended by Mr. Raven that the objective of any cleanup on the PWGSC site should be to remediate the soil and groundwater to non-detectable levels of BTEX and TPH. As a measure of this, it was agreed by all parties that a field measurement of soil headspace combustible vapour levels of 200 ppm be used a cut-off point for soil excavation.

8 Following acceptance in principal of the presented remediation plan by all parties at the meeting, it was put forth by Mr. Raven that Arcturus submit a written version of the plan for review and approval by PWGSC, Environment Canada, RBE and the Ontario Ministry of the Environment and Energy. Any changes or additions to the plan put forth by the above parties would then be incorporated into the plan by Arcturus. The remedial action plan proposed by Arcturus, with minor revisions, is provided as Appendix A to these minutes.

9 The meeting adjourned with Mr. Osborne and Mr. Wallace expressing their intentions of implementing the remediation plan by November 17, 1994.

Minutes prepared by:

R.P. Timlin, RBE

Minutes accepted by:

Paul McCarthy, PWGSC

R.B. Wallace, Coca-cola

K.G. Raven, RBE

M. Osborne, Arcturus

Suzie Lemyre, PWGSC

ARCTURUS

70 East Beaver Creek Road, Unit 24
Richmond Hill, Ontario, L4B 3B2
Telephone (905)889-0070
Facsimile (905)889-0078

Project No.:	E769.2
Section :	
Date:	Nov 22/94
Employee No:	206

FACSIMILE TRANSMISSION COVER SHEET

PLEASE FORWARD THE FOLLOWING PAGES TO:

Name: **Mr. G. Montcalm**

Company: **MOEE**

Facsimile Phone No. **(613) 521-5437**

FACSIMILE SENT FROM:

Name: **Mike Osborne**

Number of pages including cover **32**

Hard Copy to follow: _ Yes x No

Date Sent: **Nov 22/94** Time Sent: **5:10** Operator: **JMO**

Comments:

Greg, further to my phone messages, I hope this helps.
Regards, Mike

ARCTURUS ENVIRONMENTAL

November 18, 1994
E769.2

Ministry of Environment and Energy
Ottawa District Office
2435 Holly Lane, 2nd floor
Ottawa, Ontario
K1V 7P2

Attention: Mr. G. Montcalm
Senior Environmental Officer

Re: **Status Update, Petroleum Hydrocarbon Contamination**
Coca-Cola Bottling Ltd., 500 Coventry Road, Ottawa

Dear Mr. Montcalm:

The purpose of this letter is to update you on the status of the investigation and remediation of the subsurface petroleum hydrocarbon contamination at the Coca-Cola (Coke) facility at 500 Coventry Road, and at the adjoining Public Works/Government Services Canada (PWGSC) property.

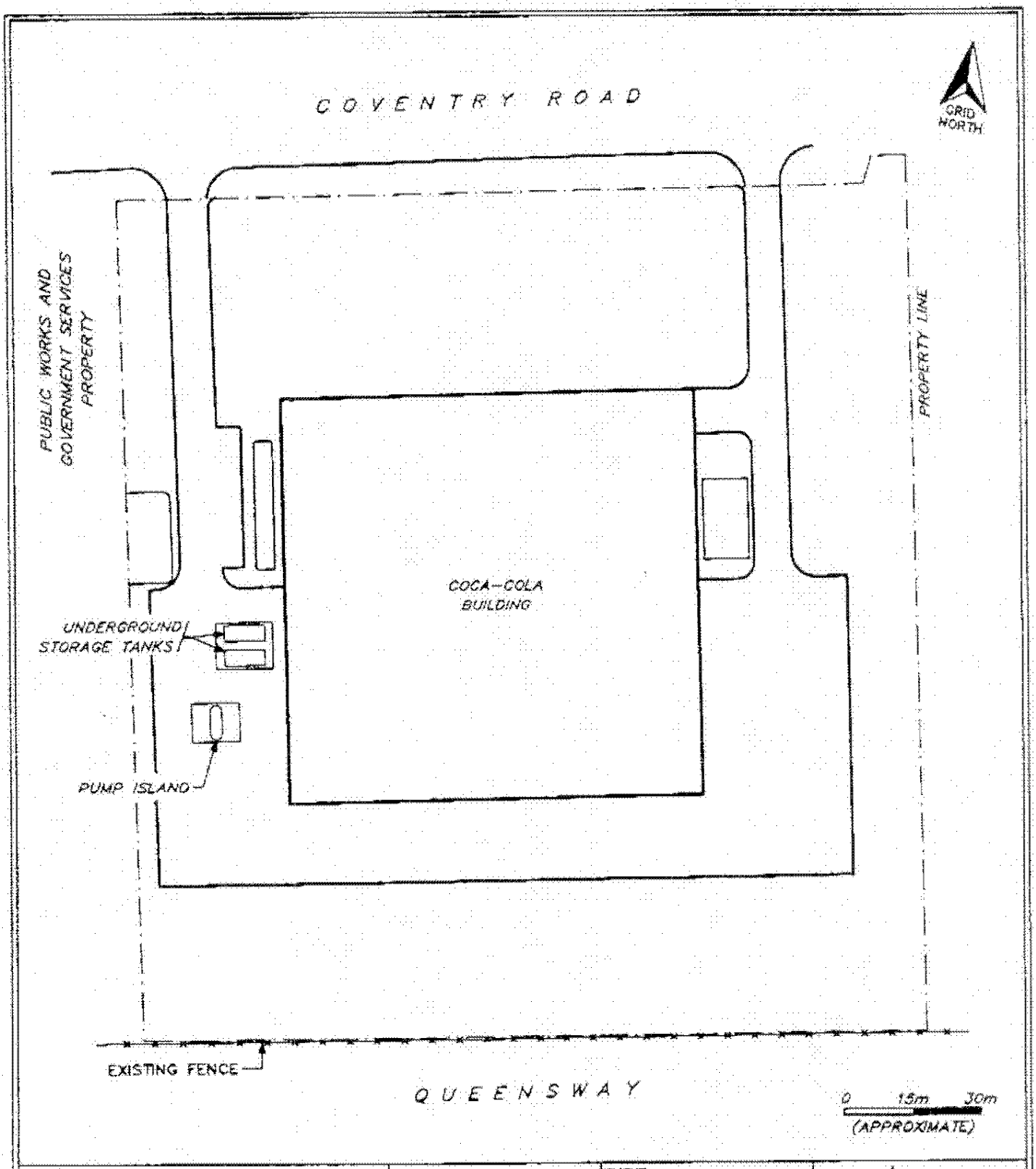
As you may be aware, as a follow-up to the meeting you attended on November 4, 1994, a subsequent meeting was held on November 14, between Coke and PWGSC, and their respective consultants, to come to agreement in principle on a remedial action plan for the PWGSC property.

Although the parties have been working in cooperation to delineate the extent of impact on PWGSC property, an information package was distributed at the meeting (copy attached), to ensure everyone had the same understanding of the situation. It was then agreed that the intent of the PWGSC remediation is, to the extent practical, remove all petroleum hydrocarbon contamination which originated on the Coke property, by excavation and disposal.

In light of the fact that it is Coke's desire to evaluate alternative approaches to remediation of the contamination on-site, it was further agreed that an impermeable barrier would be constructed along the property line, to prevent recontamination of the PWGSC property, subsequent to remediation.

After discussion of some of the details, the meeting was adjourned with the understanding that Arcturus would commit to paper the fundamentals of the agreed remedial action plan, to be appended to the minutes of the meeting and formally accepted by both property owners.

As you might expect, the wording of the "remedial action plan" has undergone several revisions and has yet not been finalized. However, given the sensitivity to timing of this project, the off-site work has commenced, and barring unforeseen delays, should be complete by the first week of December.



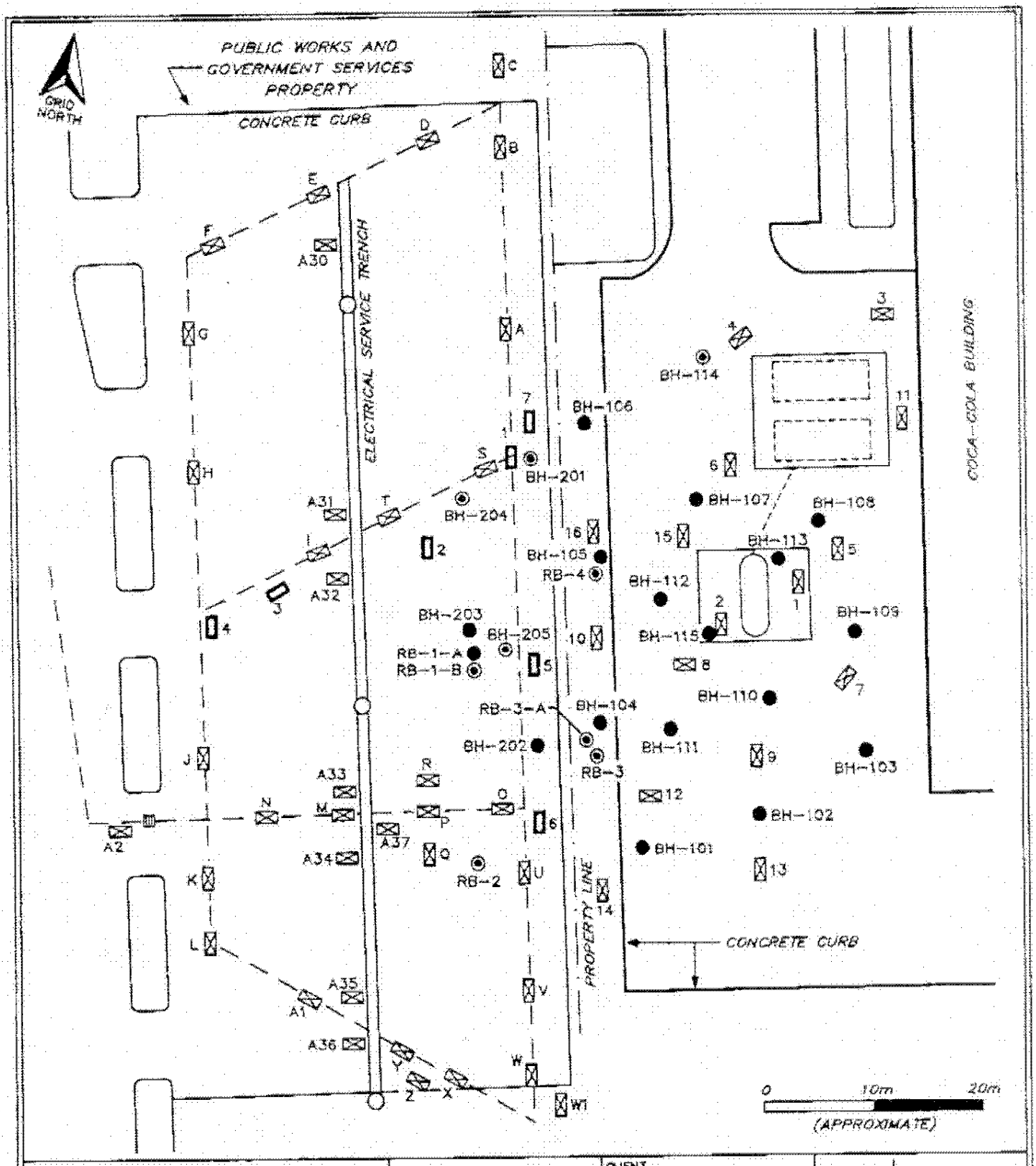
LEGEND

GENERAL SITE LAYOUT
500 COVENTRY ROAD
OTTAWA, ONTARIO

CLIENT: Coca-Cola

ARCTURUS

DATE NOVEMBER 1994		PROJECT No. E769.2	DRAWING No. FIGURE 1
DRWN TD	CHK'D SMG	SCALE AS SHOWN	



LEGEND

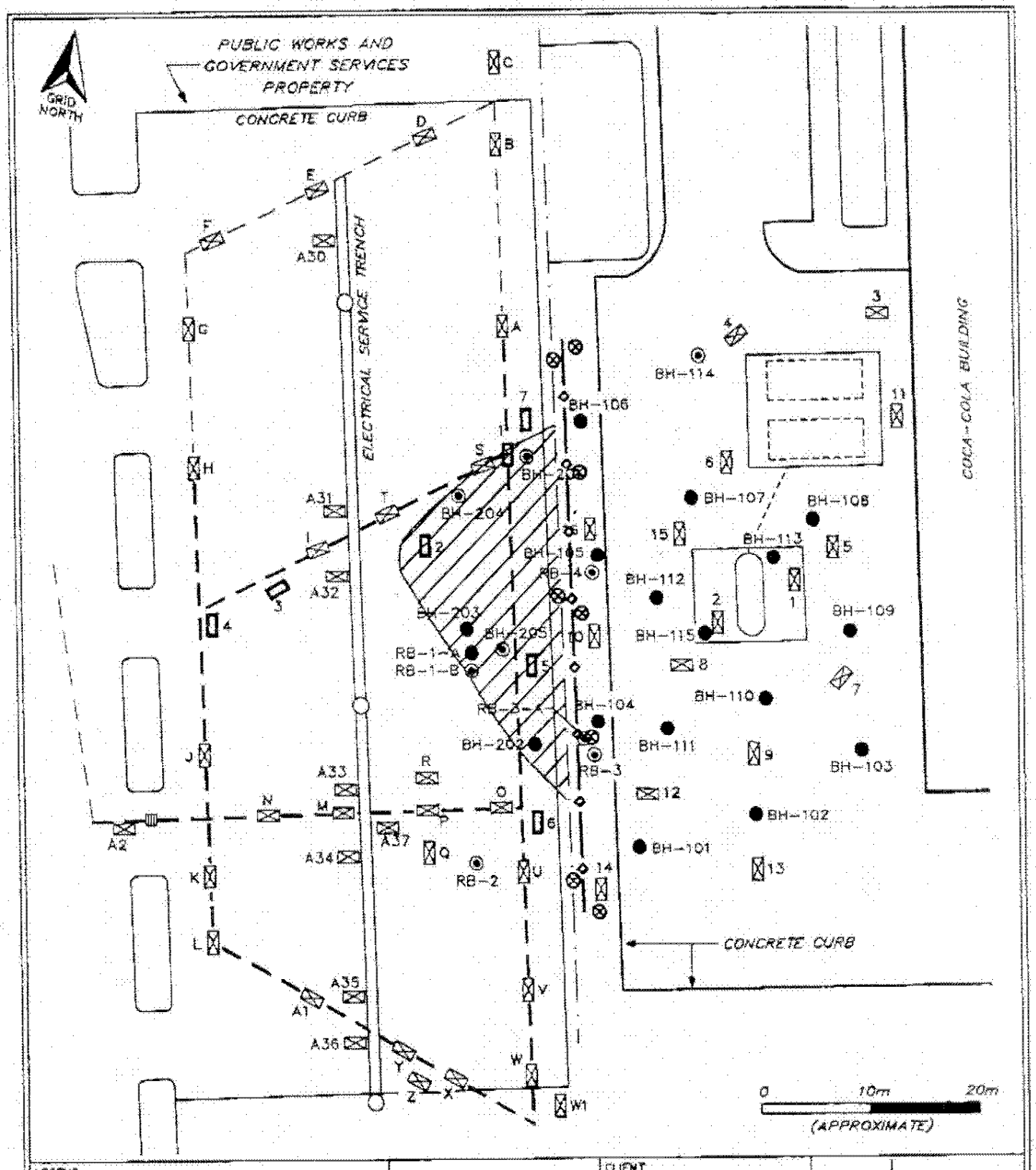
- ARCTURUS TEST PIT
- RAVEN BECK TEST PIT
- ARCTURUS BOREHOLE
- ARCTURUS MONITORING WELL
- DRAINAGE LINE
- CATCH BASIN

BOREHOLE AND TEST PIT LOCATIONS

CLIENT: Coca-Cola

ARCTURUS

DATE NOVEMBER 1994		PROJECT No. E769.2	DRAWING No. FIGURE 2
DRWN TD	CHK'D SMG	SCALE AS SHOWN	



LEGEND

- DRAINAGE LINE
- DRAINAGE LINE AND SURROUNDING SOIL REQUIRING REMEDIATION
- IMPERMEABLE MEMBRANE
- REMEDIAL EXCAVATION
- PROPOSED MONITORING WELL

CONCEPTUAL REMEDIAL ACTION PLAN

CLIENT: Coca-Cola

ARCTURUS

DATE NOVEMBER 1994		PROJECT No. E769.2	DRAWING No. FIGURE 3
DRWN TD	CHK'D SMG	SCALE AS SHOWN	

SUMMARY OF UST ACTIVITIES
COCA COLA BOTTLING LIMITED
500 COVENTRY ROAD, OTTAWA
ARCTURUS PROJECT E769.2

Chronology of events

October 15 and 16, 1993

- 2 x 22, 700 L (5000 imperial gallon) RFP USTs and associated equipment removed from Coca Cola (Coke) property by PetroGat Inc. under Arcturus' supervision.
- 16 test pits completed to approximate depth of 3.6 m on Coke property by Arcturus.

November 1 to 4, 1994

- 13 boreholes completed to approximate depth of 4 m on Coke property by Arcturus (BH-101 to BH-113).
- 2 monitoring wells installed on Coke property by Arcturus (BH-114 and BH-115).
- 7 test pits completed on PWGSC property by Raven Beck, after Hydrocarbon impacted water encountered in drainage pipes on PWGSC property (TP1 to TP7).
- 2 boreholes drilled on PWGSC property by Arcturus (BH-202 and BH-203).
- 3 monitoring wells installed on PWGSC property by Arcturus (BH-201, BH-204 and BH-205).

November 7 to 9, 1994

- 29 test pits excavated by Arcturus and Raven Beck to delineate soil conditions surrounding drainage pipes on PWGSC property (Test Pits A to Z, W1, A1 and A2).
- 2 additional monitoring wells installed on PWGSC property by Arcturus and Raven Beck (RB-1-B and RB-2).
- 3 additional monitoring wells installed on Coke property by Arcturus and Raven Beck (RB-3, RB-3A and RB-4).
- 8 additional test pits excavated by Arcturus and Raven Beck along the electrical service trench bisecting the PWGSC parking lot (Test Pits A30 to A37).

PWGSC Property

- Groundwater encountered from 0.60 to 2.4 m below surface in boreholes and test pits
- Site geology consists of the following:

0 to 0.15 m	asphalt
0.15 to 0.40 m	sand and gravel fill
0.40 m to 3.30 m	till, mixture of silty sand gravel till underlain by silty clay till with gravel and cobbles at depths of 1.20 to 2.10 m.

- Maximum combustible soil vapour concentrations measured:

Borehole	Maximum Concentration	Depth Interval
BH-201	>100% LEL	0.30 to 0.90 m
BH-202	200 ppm	0.90 to 1.50 m
BH-203	16% LEL	1.50 to 2.10 m
BH-204	75 ppm	0.90 to 1.50 m
BH-205	100 ppm	0.30 to 1.50 m 2.10 to 2.70 m
RB-1-A	75 ppm	0.76 to 1.36 m
RB-2	40 ppm	1.50 to 2.10 m

Test Pit	Maximum Concentration	Depth Interval
A	100 ppm	0.4 m
B	60 ppm	0.4 m
C	90 ppm	1.8 m
D	50 ppm	0.6 m
E	30 ppm	0.6 m
F	<10 ppm	0.7 m
G	40 ppm	0.8 m
H	70 ppm	0.85 m
I	475 ppm	0.7 m
J	75 ppm	0.5 m
K	90 ppm	0.7 m
L	25 ppm	0.7 m
M	8% LEL	0.5 m
N	75 ppm	0.6 m
O	>100% LEL	0.7 m
P	7% LEL	0.65 m
Q	250 ppm	0.6 m
R	110 ppm	0.7 m
S	>100% LEL	0.3 m
T	>100% LEL	0.7 m
U	73% LEL	0.75 m
V	3% LEL	0.7 m
W	10% LEL	0.9 m
W1	130 ppm	0.8 m
X	N.Ap.	N.Ap.
Y	18% LEL	0.3 m
Z	120 ppm	0.4 m
A1	180 ppm	0.6 m
A2	50 ppm	0.8 m
A30	36 ppm	0.3 m
A31	16 ppm	0.15 m
A32	16 ppm	0.9 m
A33	120 ppm	0.4 m
A34	20 ppm	0.4 m
A35	18 ppm	0.8 m
A36	67 ppm	0.5 m
A37	250 ppm	0.3 m

TABLE 1: COMPARISON OF CHEMICAL ANALYTICAL DATA FOR BTEX AND TPH IN SOIL TO ONTARIO MINISTRY OF THE ENVIRONMENT AND ENERGY (MOEE) INTERIM GUIDELINES, COCA COLA BOTTLING LTD., 500 COVENTRY ROAD. ALL DATA IN mg/kg OR PPM.

PROJECT E759.2

MOEE INTERIM SOIL REMEDIATION CRITERIA FOR PETROLEUM CONTAMINATION (mg/kg)				PARAMETER					
				BENZENE	ETHYLBENZENE	TOLUENE	TOTAL XYLENES	TPH*	TPH+
LEVEL I				0.05	0.5	1	1	100	1000
LEVEL II				0.5	5	10	5	1000	5000
LEVEL III				2	100	100	60	5000	8000
SAMPLE ID	SAMPLE DESCRIPTION	COMBUSTIBLE VAPOURS (%LEL)	DATE SAMPLED						
	Borehole investigation								
BH102 SS-3	1.5 to 2.1 m, silty sand	5	1 Nov. 1994	0.120	<0.038	0.130	0.054	<20	<500
BH102 SS-4	2.1 to 2.7 m, silty clay till	1	1 Nov. 1994	0.210	0.352	1.125	1.790	80	<500
BH103 SS-3	1.5 to 2.1 m, silty sand till	3.7	1 Nov. 1994	<0.038	<0.038	<0.038	<0.076	<20	<500
BH104 SS-4	2.4 to 3.0 m, silty clay till	77	1 Nov. 1994	0.425	0.483	1.32	2.917	60	<500
BH105 SS-3	1.5 to 2.1 m, silty clay till	53	2 Nov. 1994	6.53	10.2	29.2	53.2	1320	<500
BH106 SS-2	1.2 to 1.8 m, silty sand	3	2 Nov. 1994	0.074	0.112	<0.038	0.447	20	<500
BH110 SS-3	1.5 to 2.1 m, silty sand gravel till	25	2 Nov. 1994	6.82	3.67	19.2	67.56	180	<500
BH111 SS-2	0.9 to 1.5 m, silty sand	>100	2 Nov. 1994	12.930	50.0	>92.1	242.9	2100	<500
BH111 SS-6	3.0 to 3.6 m, silty clay till	20	2 Nov. 1994	0.862	1.620	6.530	10.580	200	<500
BH112 SS-4	2.1 to 2.7 m, silty clay till	>100	2 Nov. 1994	8.75	14.2	55.8	69.9	1100	<500
BH112 SS-5	2.7 to 3.3 m, silty clay till	5	2 Nov. 1994	0.340	0.38	1.83	2.35	100	<500
BH113 SS-4	2.1 to 2.7 m, silty clay till	90	2 Nov. 1994	>4.35	9.35	35.8	61.4	1700	<500
BH113 SS-6	3.3 to 3.9 m, silty clay till	12	2 Nov. 1994	0.391	0.785	3.67	7.8	140	<500
BH 114 SS-3	1.5 to 2.1 m, silty sand gravel till	65	4 Nov. 1994	0.178	1.27	0.116	2.247	200	<500
RB-3 SS-3	1.5 to 2.1 m, silty sand gravel till	>100	8 Nov. 1994	5.13	4.93	21	25.81	220	<500
RB-3 SS-6	3.6 to 4.4 m, silty clay till	2.9	8 Nov. 1994	0.103	<0.038	0.221	0.065	40	<500
RB-4 SS-3	1.5 to 2.1 m, silty sand gravel till	38	9 Nov. 1994	2.31	5.97	14.2	33.3	740	<500
RB-4 SS-6	3.6 to 4.3 m, silty clay till	0.6	9 Nov. 1994	<0.038	<0.038	<0.038	<0.076	60	<500
	Test Pitting program								
TP-9 SS-4	2.1 m, silty clay till	30	16 Oct. 1994	5.4	1.9	12	8.6	40	<500
TP-12 SS-1	0.6 m, sand	10	16 Oct. 1994	<0.038	<0.038	<0.038	<0.076	<20	<500
TP-13 SS-2	1.2 m, sand	35	16 Oct. 1994	0.083	0.16	0.35	0.6	<20	<500
TP-16 SS-3	2.1 m, silty clay till	10	16 Oct. 1994	0.83	0.27	1	1.05	100	<500

Verified by: SMG

BOLD : INDICATES PARAMETER CONCENTRATION EXCEEDS THE MOEE LEVEL III CRITERIA

BOXED : INDICATES PARAMETER CONCENTRATION IS BETWEEN THE MOEE LEVEL II AND LEVEL III CRITERIA

BOLD : INDICATES PARAMETER CONCENTRATION IS BETWEEN THE MOEE LEVEL I AND LEVEL II CRITERIA

*TPH (TOTAL PETROLEUM HYDROCARBONS) GAS DIESEL RANGE

+TPH (TOTAL PETROLEUM HYDROCARBONS) HEAVY OILS RANGE

Arcturus Env. Toronto 416 889 8078 P.09

TABLE 2: COMPARISON OF CHEMICAL ANALYTICAL DATA FOR BTEX AND TPH IN SOIL TO CANADIAN COUNCIL OF MINISTERS OF THE ENVIRONMENT (CCME) INTERIM GUIDELINES, PWGSC, 440 COVENTRY ROAD. ALL DATA IN mg/kg OR PPM.

PROJECT E769.2

	CCME INTERIM SOIL REMEDIATION CRITERIA FOR PETROLEUM CONTAMINATION (mg/kg)			PARAMETER					
				BENZENE	ETHYLBENZENE	TOLUENE	TOTAL XYLENES	TPH*	TPH+
AGRICULTURAL				0.05	0.1	0.1	0.1		
RESIDENTIAL/PARKLAND				0.5	5	3	5		
COMMERCIAL/INDUSTRIAL				5	50	30	50		
SAMPLE ID	SAMPLE DESCRIPTION	COMBUSTIBLE VAPOURS (%LEL)	DATE SAMPLED						
	Borehole Investigation								
BH201 SS-2	0.9 to 1.5 m, silty sand gravel till	15	4 Nov. 1994	0.265	0.414	2.09	3.179	50	< 500
BH203 SS-3	1.5 to 2.1 m, silty sand gravel till	16	4 Nov. 1994	2.9	7.86	28.1	39.2	400	< 500
RB-1 SS-5	3.0 to 3.3 m, silty clay till	< 0.1	8 Nov. 1994	<0.036	< 0.036	< 0.036	<0.076	60	< 500
RB-2 SS-5	3.0 to 3.3 m, silty clay till	< 0.1	8 Nov. 1994	<0.036	<0.036	< 0.036	<0.076	80	< 500
	Test Pitting Program								
TEST PIT E SS-1	Fill from below pipe	0.2	7 Nov. 1994	<0.036	<0.036	< 0.036	< 0.076	< 20	< 500
TEST PIT H SS-1	Fill from below pipe	0.6	7 Nov. 1994	<0.036	<0.036	< 0.036	< 0.076	< 20	< 500
TEST PIT I SS-1	Moist fill below pipe	3.7	7 Nov. 1994	<0.036	<0.036	< 0.036	0.12	< 20	< 500
TEST PIT K SS-1	Moist fill, silty clay till below pipe	0.7	7 Nov. 1994	<0.036	<0.036	0.042	0.082	40	< 500
TEST PIT M SS-1	Black sand fill below pipe	5.0	7 Nov. 1994	0.042	0.498	0.102	1.084	340	< 500
TEST PIT O SS-2	gravel fill, 0.3 m, SE corner	5.0	7 Nov. 1994	< 0.036	<0.036	<0.036	0.382	820	< 500
TEST PIT P SS-1	saturated silty sand gravel by pipe	7.0	7 Nov. 1994	0.082	0.275	0.92	8.31	130	< 500
TEST PIT Q SS-1	silty sand, 0.5 m	2.0	7 Nov. 1994	< 0.036	<0.036	<0.036	<0.076	< 20	< 500
TEST PIT S SS-3	native silty sand, 1.0 m	4.0	7 Nov. 1994	< 0.036	<0.036	0.041	0.222	20	< 500
TEST PIT T SS-2	sand fill, 0.2 m, west wall	8.0	7 Nov. 1994	< 0.036	<0.036	0.047	0.059	< 20	< 500
TEST PIT V SS-1	stained backfill below pipe	3.0	7 Nov. 1994	< 0.036	<0.036	< 0.036	0.135	80	< 500
TEST PIT W SS-1	stained granular fill surrounding pipe	10.0	7 Nov. 1994	< 0.036	< 0.036	< 0.036	0.401	340	< 500
TEST PIT W1 SS-1	0.5 m, native silty sand	1.0	7 Nov. 1994	<0.036	<0.036	< 0.036	< 0.076	< 20	< 500
TEST PIT Z SS-1	0.4 m, native silty sand	1.0	7 Nov. 1994	< 0.036	<0.036	< 0.036	< 0.076	< 20	< 500
TEST PIT A1 SS-1	native grey silty sand below pipe	1.4	7 Nov. 1994	<0.036	<0.036	< 0.036	< 0.076	< 20	< 500
TEST PIT A2 SS-1	0.8 m, native silty sand	0.4	7 Nov. 1994	<0.036	<0.036	< 0.036	< 0.076	< 20	< 500
TP-2	0.3 m, sampled by Raven Beck	7	3 Nov. 1994	3.97	17.2	48.3	68.2	1100	< 500
TP-5	2.9 m, sampled by Raven Beck	7	3 Nov. 1994	0.651	12.4	31.7	119.8	1260	< 500

Verified by: SMG

BOLD	: INDICATES PARAMETER CONCENTRATION EXCEEDS CCME COMMERCIAL/INDUSTRIAL CRITERIA
BOLD	: INDICATES PARAMETER CONCENTRATION IS BETWEEN CCME RESIDENTIAL/PARKLAND AND COMMERCIAL/INDUSTRIAL CRITERIA
BOLD	: INDICATES PARAMETER CONCENTRATION IS BETWEEN CCME AGRICULTURAL AND RESIDENTIAL/PARKLAND CRITERIA

*TPH (TOTAL PETROLEUM HYDROCARBONS) GAS DIESEL RANGE

+ TPH (TOTAL PETROLEUM HYDROCARBONS) HEAVY OILS RANGE

Arcturus Env. Toronto 416 889 8078 P.10

RECORD OF BH-101

SHEET 1 OF 1

PROJECT NAME: 500 COVENTRY ROAD
PROJECT LOCATION: OTTAWA, ONTARIO
CLIENT: COCA-COLA BOTTLING LTD.

PROJECT NUMBER: E769.2
BORING DATE: NOVEMBER 1, 1994

ARCTURUS

BORING METHOD	SOIL PROFILE: DESCRIPTION	STRATA PLOT	DEPTH (m)	SAMPLES: LOCATION	TYPE	% RECOV	SPT (N)	COMBUSTIBLE VAPOUR CONCENTRATION ± I.D. (CARBON FILTER CONCENTRATION)	ODOUR	LABORATORY TESTING	PIEZOMETER OR MONITORING WELL INSTALLATION
HOLLOW STEM AUGERS ACKER	GROUND SURFACE		0								
	ASPHALT										
	GRAVEL FILL										
	MOTTLED ORANGE TO BROWN, DAMP TO WET, LOOSE TO COMPACT, FINE, SAND WITH SOME SILT		1		SS	100	7	2.0	EARTHY		
					SS	100	19	1.7	EARTHY		
			2		SS	65	13	1.1	EARTHY		
					SS	90	12	<0.1	EARTHY		
	DARK GREY TO BLACK, MOIST TO WET, STIFF, FINE, SILTY CLAY TILL WITH SAND AND COBBLES		3		SS	60	19	0.2	EARTHY		
					SS	40	25	<0.1	EARTHY		
	BOTTOM OF BOREHOLE		4								
			5								
			6								
			7								
			8								
			9								
			10								

LOGGED BY: SMG INPUT BY: TD CHECKED BY: SMG INPUT DATE: NOVEMBER 10, 1994

RECORD OF BH-102

SHEET 1 OF 1

PROJECT NAME: 500 COVENTRY ROAD
PROJECT LOCATION: OTTAWA, ONTARIO
CLIENT: COCA-COLA BOTTLING LTD.

PROJECT NUMBER: E769.2
BORING DATE: NOVEMBER 1, 1994

ARCTURUS

BORING METHOD	SOIL PROFILE: DESCRIPTION	STRATA PLOT	DEPTH (m)	SAMPLES: LOCATION	TYPE	% RECOV	BPF (N)	COMBUSTIBLE VAPOUR CONCENTRATION % LEL (CARBON FILTER CONCENTRATION)	ODOUR	LABORATORY TESTING	PIEZOMETER OR MONITORING WELL INSTALLATION
	GROUND SURFACE		0								
HOLLOW STEM AUGERS ACKER	ASPHALT										
	GRAVEL FILL										
	MOTTLED ORANGE BROWN, MOIST, COMPACT, FINE SAND		1		SS	100	13	2.0	TRACE HC		
					SS	100	13	6	TRACE HC		
	LIGHT GREY TO BROWN, MOIST, COMPACT FINE SILTY SAND				SS	100	15	5	TRACE HC		
			2								
	DARK GREY TO BLACK, MOIST TO WET, STIFF, SILTY CLAY TILL WITH SAND AND COBBLES				SS	100	9	7	TRACE HC		
			3		SS	100	9	0.5	TRACE HC		
					SS	90	22	0.4	TRACE HC		
	BOTTOM OF BOREHOLE		4								
			5								
			6								
			7								
			8								
			9								
			10								

LOGGED BY: SMG INPUT BY: TO CHECKED BY: SMG INPUT DATE: NOVEMBER 10, 1994

RECORD OF BH-103

SHEET 1 OF 1

PROJECT NAME: 500 COVENTRY ROAD
PROJECT LOCATION: OTTAWA, ONTARIO
CLIENT: COCA-COLA BOTTLING LTD.

PROJECT NUMBER: E763.2
BORING DATE: NOVEMBER 1, 1994

ARCTURUS

BORING METHOD	SOIL PROFILE: DESCRIPTION	STRATA PLOT	DEPTH (m)	SAMPLES: LOCATION	TYPE	% RECOV	SPT (N)	COMBUSTIBLE VAPOUR CONCENTRATION % LEL (CARBON FILTER CONCENTRATION)	ODOUR	LABORATORY TESTING	PIEZOMETER OR MONITORING WELL INSTALLATION
	GROUND SURFACE		0								
HOLLOW STEM AUGERS ACKER	ASPHALT										
	GRAVEL FILL				SS	100	6	0.8			
	ORANGE/BROWN, DAMP TO WET, LOOSE, FINE SAND		1		SS	<5	8	NA			
	LIGHT GREY/BROWN, WET, DENSE, FINE SILTY SAND				SS	60	3.7				
	GREY TO BLACK, WET, VERY STIFF, FINE SILTY CLAY TILL WITH TRACE SAND AND ANGULAR GRAVEL		2		SS	60	8	0.2			
			3		SS	60	23	0.2			
					SS	70	22	1.0			
	BOTTOM OF BOREHOLE		4								
			5								
			6								
			7								
			8								
			9								
			10								

LOGGED BY: SMG INPUT BY: TO CHECKED BY: SMG INPUT DATE: NOVEMBER 10, 1994

RECORD OF BH-104

SHEET 1 OF 1

PROJECT NAME: 500 COVENTRY ROAD
PROJECT LOCATION: OTTAWA, ONTARIO
CLIENT: COCA-COLA BOTTLING LTD.

PROJECT NUMBER: E769.2
BORING DATE: NOVEMBER 1, 1994

ARCTURUS

BORING METHOD	SOIL PROFILE: DESCRIPTION	STRATA PLOT	DEPTH (m)	SAMPLES: LOCATION	TYPE	% RECOV	SPT (N)	COMBUSTIBLE VAPOUR CONCENTRATION ± LEL (CARBON FILTER CONCENTRATION)	ODOUR	LABORATORY TESTING	PIEZOMETER OR MONITORING WELL INSTALLATION
	GROUND SURFACE		0								
HOLLOW STEM AUGERS ACKER	TOPSOIL WITH ROOTLETS										
	MOTTLED ORANGE/BROWN, DAMP, LOOSE, FINE, SAND		1		SS	100	7	>100	STRONG HC		
					SS	100	10	>100	STRONG HC		
	LIGHT GREY, MOIST, COMPACT, FINE SILTY SAND										
	GREY TO BLACK, MOIST TO WET, VERY STIFF, FINE SILT CLAY TILL WITH SAND AND GRAVEL		2		SS	100	22	77	STRONG HC		
					SS	75	9	20	MOD HC		
			3		SS	75	11	6	MOD HC		
			4		SS	20	31	6	MOD HC		
	BOTTOM OF BOREHOLE										
			5								
			6								
			7								
			8								
			9								
			10								

LOGGED BY: SMG INPUT BY: TD CHECKED BY: SMG INPUT DATE: NOVEMBER 10, 1994

BORING METHOD	DESCRIPTION	STRATA PLOT	DEPTH (m)	LOCATION	TYPE	% RECOV	SPT (n)	VAPOUR CONCENTRATION % LEL (CARBON FILTER CONCENTRATION)	ODOUR	LABORATORY TESTING	PIEZOMETER OR MONITORING WELL INSTALLATION
	GROUND SURFACE		0								
HOLLOW STEM AUGERS ACKER	TOPSOIL WITH ROOTLETS										
	ORANGE/BROWN, DAMP, LOOSE, FINE SAND WITH SOME SILT		1		SS	100	4	8	STRONG HC		
	LIGHT GREY/BROWN, DAMP TO MOIST, COMPACT, FINE SILTY SAND WITH ANGULAR GRAVEL				SS	100	11	>100	STRONG HC		
			2		SS	65	30	53	MOD-STR HC		
	GREY TO BLACK, MOIST TO WET, VERY STIFF, SILTY CLAY TILL WITH ANGULAR COBBLES		3		SS	100	24	5	SLT HC		
					SS	100	23	1.3	MOD HC		
			4		SS	100	41	0.4	EARTHY		
	BOTTOM OF BOREHOLE		5								
			6								
			7								
			8								
			9								
			10								

LOGGED BY: SMG INPUT BY: TD CHECKED BY: SMG INPUT DATE: NOVEMBER 10, 1994

BORING METHOD	DESCRIPTION	STRATA PLOT	DEPTH (m)	LOCATION	TYPE	% RECOV	SPT 'N'	VAPOUR CONCENTRATION % LEL (CARBON FILTER CONCENTRATION)	ODOUR	LABORATORY TESTING	PIEZOMETER OR MONITORING WELL INSTALLATION
HOLLOW STEM AUGERS ACKER	GROUND SURFACE		0								
	TOPSOIL										
	ORANGE/BROWN, DAMP, LOOSE, FINE SAND		1		SS	100	7	1.2	EARTHY		
	ORANGE/BROWN, DAMP TO WET, COMPACT TO DENSE, FINE, SILTY SAND GRAVEL TILL		2		SS	100	18	3.0	STR HC		
					SS	87	36	1.0	EARTHY		
	DARK GREY TO BLACK, MOIST TO WET, VERY STIFF, FINE SILTY CLAY TILL		3		SS	100	25	0.2	EARTHY		
					SS	100	20	<0.1	EARTHY		
			4		SS	100	25	<0.1	EARTHY		
	BOTTOM OF BOREHOLE		5								
			6								
			7								
			8								
			9								
			10								

LOGGED BY: SMG INPUT BY: TD CHECKED BY: SMG INPUT DATE: NOVEMBER 10, 1994

BORING METHOD	DESCRIPTION	STRATA PLOT	DEPTH (m)	LOCATION	TYPE	% RECOV	SPT (N)	VAPOUR CONCENTRATION % LEL (CARBON FILTER CONCENTRATION)	ODOUR	LABORATORY TESTING	PIEZOMETER OR MONITORING WELL INSTALLATION
HOLLOW STEM AUGERS ACKER	GROUND SURFACE		0								
	ASPHALT										
	GRAVEL				SS	100	12	0.9	EARTHY		
	ORANGE/BROWN, DAMP, COMPACT, FINE SAND WITH SOME SILT		1		SS	100	NA	0.9	EARTHY		
	BOULDERS AND COBBLES										
	GREY TO BROWN, DAMP TO WET, COMPACT, FINE SILTY SAND TILL WITH TRACE CLAY AND GRAVEL		2		SS	80	15	1.0	EARTHY		
					SS	100	9	0.8	EARTHY		
			3		SS	100	9	0.6	EARTHY		
	GREY TO BLACK, WET, STIFF TO VERY STIFF, SILTY CLAY TILL WITH COBBLES				SS	100	21	0.5	EARTHY		
	BOTTOM OF BOREHOLE		4								
			5								
			6								
			7								
			8								
			9								
			10								

LOGGED BY: SMG INPUT BY: TD CHECKED BY: SMG INPUT DATE: NOVEMBER 10, 1994

BORING METHOD	DESCRIPTION	STRATA PLOT	DEPTH (ft)	LOCATION	TYPE	% REC	SPT	% LEL (CARBON FILTER CONCENTRATION)	COLOR	LABORATORY TESTS	MONITORING WELL INSTALLATION
HOLLOW STEM AUGERS ACKER	GROUND SURFACE		0								
	ASPHALT										
	GRAVEL FILL				SS	100	6	1.0	EARTHY		
	LIGHT BROWN TO GREY, DAMP TO WET, LOOSE TO COMPACT, FINE SAND WITH SOME SILT		1		SS	100	19	1.3	EARTHY		
	GREY TO BLACK, MOIST TO WET, FIRM TO VERY STIFF, SILTY SAND GRAVEL TILL WITH TRACE CLAY		2		SS	100	21	0.7	EARTHY		
					SS	100	7	0.4	EARTHY		
			3		SS	100	10	0.2	EARTHY		
	GREY TO BLACK, MOIST, VERY STIFF, SILTY CLAY TILL WITH TRACE SAND AND COBBLES				SS	100	16	0.4	EARTHY		
	BOTTOM OF BOREHOLE		4								
			5								
			6								
			7								
			8								
			9								
			10								

LOGGED BY: SMG INPUT BY: TO CHECKED BY: SMG INPUT DATE: NOVEMBER 10, 1994

BORING METHOD	DESCRIPTION	STRATA PLOT	DEPTH (m)	LOCATION	TYPE	% RECOVERY	SPT (N)	CONCENTRATION % LEL (CARBON FILTER CONCENTRATION)	ODOUR	LABORATORY TESTING	MONITORING WELL INSTALLATION
HOLLOW STEM AUGERS ACKER	GROUND SURFACE		0								
	ASPHALT										
	GRAVEL FILL				SS	100	6	0.7	EARTHY		
	LIGHT BROWN, DAMP, LOOSE, FINE SAND WITH IRON STAINING		1		SS	100	6	0.8	EARTHY		
	LIGHT ORANGE/BROWN, MOIST TO WET, LOOSE TO COMPACT, SILTY SAND WITH GRAVEL		2		SS	25	16	0.5	EARTHY		
	LIGHT GREY TO BLACK, WET, FIRM TO HARD, FINE SILTY SAND GRAVEL TILL WITH COBBLES AND TRACE CLAY		3		SS	100	6	0.5	TRACE HC		
					SS	<5	30	NA	EARTHY		
	BOTTOM OF BOREHOLE		4								
			5								
			6								
			7								
			8								
			9								
			10								

LOGGED BY: SMG INPUT BY: TO CHECKED BY: SMG INPUT DATE: NOVEMBER 10, 1994

RECORD OF BH-111

SHEET 1 OF 1

PROJECT NAME: 500 COVENTRY ROAD
PROJECT LOCATION: OTTAWA, ONTARIO
CLIENT: COCA-COLA BOTTLING LTD.

PROJECT NUMBER: E769 2
BORING DATE: NOVEMBER 3, 1994

ARCTURUS

BORING METHOD	SOIL PROFILE: DESCRIPTION	STRATA PLOT	DEPTH (m)	SAMPLES: LOCATION	TYPE	% RECOV	SPT (N)	COMBUSTIBLE VAPOUR CONCENTRATION % LEL (CARBON FILTER CONCENTRATION)	ODOUR	LABORATORY TESTING	PIEZOMETER OR MONITORING WELL INSTALLATION
HOLLOW STEM AUGERS ACME	GROUND SURFACE		0								
	ASPHALT										
	GRAVEL FILL				SS	100	9	>100	STR HC		
	ORANGE/BROWN, DAMP, LOOSE, FINE SAND		1		SS	100	24	>100	STR HC		
	GREYISH BLACK, MOIST TO WET, STIFF, FINE SILTY SAND GRAVEL TILL WITH TRACE CLAY		2		SS	100	15	>100	STR HC		
					SS	60	11	>100	STR HC		
	GREY/BLACK, MOIST TO WET, STIFF, FINE, SILTY CLAY TILL WITH SAND AND GRAVEL		3		SS	65	12	15	MOD HC		
					SS	65	22	20	TRACE HC		
	BOTTOM OF BOREHOLE		4								
			5								
			6								
			7								
			8								
			9								
			10								

LOGGED BY: SMG INPUT BY: TD CHECKED BY: SMG INPUT DATE: NOVEMBER 10, 1994

RECORD OF BH-112

SHEET 1 OF 1

PROJECT NAME: 500 COVENTRY ROAD
PROJECT LOCATION: OTTAWA, ONTARIO
CLIENT: COCA-COLA BOTTLING LTD.

PROJECT NUMBER: E763.2
BORING DATE: NOVEMBER 3, 1994

ARCTURUS

BORING METHOD	SOIL PROFILE: DESCRIPTION	STRATA PLOT	DEPTH (m)	SAMPLES: LOCATION	TYPE	% RECOV	SPT (N)	COMBUSTIBLE VAPOUR CONCENTRATION (% LEL) (CARBON FILTER CONCENTRATION)	ODOUR	LABORATORY TESTING	PIEZOMETER OR MONITORING WELL INSTALLATION
	GROUND SURFACE		0								
HOLLOW STEM AUGERS ACKER	ASPHALT										
	GRAVEL FILL				SS	100	10	>100	STR HC		
	ORANGE/BROWN, DAMP, LOOSE, FINE SAND		1		SS	100	17	>100	STR HC		
	GREYISH BROWN, DAMP TO MOIST, COMPACT, FINE SILTY SAND GRAVEL TILL		2		SS	100	12	>100	STR HC		
	GREY TO BLACK, WET, STIFF, FINE SILTY CLAY TILL WITH TRACE SAND AND COBBLES		3		SS	100	12	>100	MOD/STR HC		
					SS	100	10	5	MOD HC		
					SS		15				
	BOTTOM OF BOREHOLE		4								
			5								
			6								
			7								
			8								
			9								
			10								

LOGGED BY: SMG INPUT BY: TO CHECKED BY: SMG INPUT DATE: NOVEMBER 10, 1994

RECORD OF BH-113

SHEET 1 OF 1

PROJECT NAME: 500 COVENTRY ROAD
PROJECT LOCATION: OTTAWA, ONTARIO
CLIENT: COCA-COLA BOTTLING LTD.

PROJECT NUMBER: E769.2
BORING DATE: NOVEMBER 3, 1994

ARCTURUS

BORING METHOD	SOIL PROFILE: DESCRIPTION	STRATA PLOT	DEPTH (m)	SAMPLES: LOCATION	TYPE	% RECOV	SPT (N)	COMBUSTIBLE VAPOUR CONCENTRATION % LEL (CARBON FILTER CONCENTRATION)	ODOUR	LABORATORY TESTING	PIEZOMETER OR MONITORING WELL INSTALLATION
	GROUND SURFACE		0								
HOLLOW STEM AUGERS ACKER	GRAVEL FILL										
	LIGHT BROWN, DAMP TO WET, LOOSE, FINE SAND		1		SS	80	7	>100	STR HC		
					SS	100	21	45	STR HC		
	LIGHT GREY/BLACK, MOIST TO WET, STIFF, FINE SILTY SAND GRAVEL TILL WITH TRACE CLAY		2		SS	100	13	55	MOD/STR HC		
					SS	100	15	30	MOD/STR HC		
			3		SS	<5	12	5	MOD/STR HC		
	GREY/BROWN, WET, STIFF, FINE SILTY CLAY TILL WITH SAND AND GRAVEL				SS	90	24	12	TRACE HC		
	BOTTOM OF BOREHOLE		4								
			5								
			6								
			7								
			8								
			9								
			10								

LOGGED BY: SMG INPUT BY: TD CHECKED BY: SMG INPUT DATE: NOVEMBER 10, 1994

RECORD OF BH-114

SHEET 1 OF 1

PROJECT NAME: 500 COVENTRY ROAD
PROJECT LOCATION: OTTAWA, ONTARIO
CLIENT: COCA-COLA BOTTLING LTD

PROJECT NUMBER: E769.2
BORING DATE: NOVEMBER 4, 1994

ARCTURUS

BORING METHOD	SOIL PROFILE: DESCRIPTION	STRATA PLOT	DEPTH (m)	SAMPLES: LOCATION	TYPE	% RECOV	SPT (n)	COMBUSTIBLE VAPOUR CONCENTRATION % LEL (CARBON FILTER CONCENTRATION)	ODOUR	LABORATORY TESTING	PIEZOMETER OR MONITORING WELL INSTALLATION
	GROUND SURFACE		0								
HOLLOW STEM AUGERS ACKER	ASPHALT										
	GRAVEL FILL				SS	80	19	1	NA		
	DEBRIS ASPHALT AND BRICK		1								
	MOTTLED GREY/BROWN, DRY TO DAMP, COMPACT, FINE SAND WITH SOME SILT				SS	80	19	>100	STR HC		
	GREY TO BLACK, DAMP TO MOIST, COMPACT, FINE SILTY SAND GRAVEL TILL WITH TRACE CLAY		2		SS	80	17	85	STR HC		
					SS	80	13	2.0	MOD HC		
	GRETISH BLACK, MOIST TO WET, FIRM TO STIFF, FINE SILTY CLAY TILL WITH COBBLES		3		SS	100	6	1.4	TRA/MOD HC		
					SS	100	15	1.0	TRACE HC		
	BOTTOM OF BOREHOLE		4								
			5								
			6								
			7								
			8								
			9								
			10								

LOGGED BY: SMG INPUT BY: TO CHECKED BY: SMG INPUT DATE: NOVEMBER 10, 1994

RECORD OF BH-115

SHEET 1 OF 1

PROJECT NAME: 500 COVENTRY ROAD
PROJECT LOCATION: OTTAWA, ONTARIO
CLIENT: COCA-COLA BOTTLING LTD.

PROJECT NUMBER: E769.2
BORING DATE: NOVEMBER 4, 1994

ARCTURUS

BORING METHOD	SOIL PROFILE: DESCRIPTION	STRATA PLOT	DEPTH (m)	SAMPLES: LOCATION	TYPE	% RECOV	OPT (m)	COMBUSTIBLE VAPOUR CONCENTRATION % LEL (CARBON FILTER CONCENTRATION)	ODOUR	LABORATORY TESTING	PIEZOMETER OR MONITORING WELL INSTALLATION
HOLLOW STEM AUGERS ACKER	GROUND SURFACE		0								
	ASPHALT										
	GRAVEL FILL										
	LIGHT BROWN, DAMP TO WET, LOOSE, FINE, SAND		1		AU			>100	STRONG HC		
	GREY TO BLACK, MOIST, COMPACT, FINE, SILTY SAND GRAVEL TILL WITH TRACE CLAY		2		AU			>100	STRONG HC		
					AU			>100	STRONG HC		
					AU			>100	STRONG HC		
	GREY TO BLACK, MOIST TO WET, STIFF TO VERY STIFF, SILTY CLAY TILL WITH GRAVEL AND ANGULAR COBBLES		3		AU			48	STRONG HC		
					AU			55	STRONG HC		
	BOTTOM OF BOREHOLE		4								
			5								
			6								
			7								
			8								
			9								
			10								

LOGGED BY: SMG INPUT BY: TQ CHECKED BY: SMG INPUT DATE: NOVEMBER 10, 1994

RECORD OF BH-201

SHEET 1 OF 1

PROJECT NAME: 500 COVENTRY ROAD
PROJECT LOCATION: OTTAWA, ONTARIO
CLIENT: COCA-COLA BOTTLING LTD.

PROJECT NUMBER: E789.2
BORING DATE: NOVEMBER 4, 1994

ARCTURUS

BORING METHOD	SOIL PROFILE: DESCRIPTION	STRATA PLOT	DEPTH (m)	SAMPLES: LOCATION	TYPE	% RECOV	SPT (N)	COMBUSTIBLE VAPOUR CONCENTRATION % LEL (CARBON FILTER CONCENTRATION)	ODOUR	LABORATORY TESTING	PIEZOMETER OR MONITORING WELL INSTALLATION
HOLLOW STEM AUGERS ACKER	GROUND SURFACE		0								
	ASPHALT										
	GRAVEL FILL				SS	90	8	>100	STRONG HC		
	GREY BROWN, MOIST, LOOSE, SILTY SAND AND GRAVEL		1		SS	100	19	15	MOD-STR HC		
	GREY TO BROWN, MOIST TO WET, STIFF, FINE, SILTY SAND AND GRAVEL TILL		2		SS	80	13	10	MOD HC		
					SS	100	12	5	MOD HC		
	GREY BLACK, WET, STIFF, SILTY CLAY TILL AND COBBLES		3								
	BOTTOM OF BOREHOLE		10								

LOGGED BY: SMG INPUT BY: MJF CHECKED BY: SMG INPUT DATE: NOVEMBER 10, 1994

RECORD OF BH-202

SHEET 1 OF 1

PROJECT NAME 500 COVENTRY ROAD
PROJECT LOCATION OTTAWA, ONTARIO
CLIENT COCA-COLA BOTTLING LTD

PROJECT NUMBER E769.2
BORING DATE NOVEMBER 4, 1994

ARCTURUS

SOIL PROFILE				SAMPLES							
BORING METHOD	DESCRIPTION	STRATA PLOT	DEPTH (m)	LOCATION	TYPE	% RECOV	SPT (N)	COMBUSTIBLE VAPOUR CONCENTRATION (LEL) (CARBON FILTER CONCENTRATION)	ODOUR	LABORATORY TESTING	PIEZOMETER OR MONITORING WELL INSTALLATION
	GROUND SURFACE		0								
HOLLOW STEM AUGERS ACKER	ASPHALT										
	GRAVEL FILL				SS	100	6	1.4	MOD HC		
	BROWN TO GREY, MOIST TO WET, LOOSE, SILTY SAND TILL WITH GRAVEL AND CLAY		1		SS	90	10	1.6	TRACE HC		
					SS	80	5	0.6	TRACE HC		
	GREY TO BLACK, MOIST TO WET, SILTY CLAY TILL WITH SAND AND GRAVEL		2		SS	90	13	0.5	EARTHY		
	BOTTOM OF BOREHOLE		3								
			4								
			5								
			6								
			7								
			8								
			9								
			10								

LOGGED BY SMG INPUT BY MJF CHECKED BY SMG INPUT DATE NOVEMBER 10, 1994

RECORD OF BH-203

SHEET 1 OF 1

PROJECT NAME: 500 COVENTRY ROAD
PROJECT LOCATION: OTTAWA, ONTARIO
CLIENT: COCA-COLA BOTTLING LTD.

PROJECT NUMBER: E769 2
BORING DATE: NOVEMBER 4, 1994

ARCTURUS

BORING METHOD	SOIL PROFILE: DESCRIPTION	STRATA PLOT	DEPTH (m)	SAMPLES: LOCATION	TYPE	% RECOV	SPT (n)	COMBUSTIBLE VAPOUR CONCENTRATION (LEL CARBON FILTER CONCENTRATION)	ODOUR	LABORATORY TESTING	PIEZOMETER OR MONITORING WELL INSTALLATION
	GROUND SURFACE		0								
HOLLOW STEM AUGERS ACKER	ASPHALT										
	GRAVEL FILL				SS	100	4	0.6	EARTHY		
	ORANGE BROWN, DAMP TO WET, LOOSE, FINE SAND		1		SS	100	12	1.8	EARTHY		
	GREY BROWN, DAMP TO MOIST, LOOSE, FINE SILTY SAND AND GRAVEL TILL		2		SS	50	11	16	TRACE HC		
					SS	50	17	1.0	EARTHY		
	GREY TO BLACK, WET, STIFF, SILTY CLAY TILL WITH COBBLES										
	BOTTOM OF BOREHOLE		3								
			4								
			5								
			6								
			7								
			8								
			9								
			10								

LOGGED BY: SMG INPUT BY: MJF CHECKED BY: SMG INPUT DATE: NOVEMBER 10, 1994

RECORD OF BH-204

SHEET 1 OF 1

PROJECT NAME: 500 COVENTRY ROAD
PROJECT LOCATION: OTTAWA, ONTARIO
CLIENT: COCA-COLA BOTTLING LTD.

PROJECT NUMBER: E769.2
BORING DATE: NOVEMBER 4, 1994

ARCTURUS

BORING METHOD	SOIL PROFILE: DESCRIPTION	STRATA PLOT	DEPTH (m)	SAMPLES: LOCATION	TYPE	% RECOV	SPT (N)	COMBUSTIBLE VAPOUR CONCENTRATION X LEL (CARBON FILTER CONCENTRATION)	ODOUR	LABORATORY TESTING	PIEZOMETER OR MONITORING WELL INSTALLATION
	GROUND SURFACE		0								
HOLLOW STEM AUGERS ACKER	ASPHALT										
	GRAVEL FILL				SS	100	15	0.4	EARTHY		
	MOTTLED GREY BROWN, DAMP, COMPACT, SILTY SAND WITH LARGE COBBLES AND GRAVEL		1		SS	80	7	0.6	EARTHY		
	GREY BROWN, DAMP TO MOIST, LOOSE, SILTY SAND GRAVEL TILL WITH TRACE CLAY		2		SS	50	5	0.4	TRACE HC		
	GREY BLACK, WET, STIFF, SILTY CLAY TILL WITH COBBLES				SS	80	14	0.4	EARTHY		
			3		SS	30	NA	0.2	EARTHY		
	BOTTOM OF BOREHOLE										
			4								
			5								
			6								
			7								
			8								
			9								
			10								

LOGGED BY: SMG INPUT BY: MJF CHECKED BY: SMG INPUT DATE: NOVEMBER 10, 1994

RECORD OF BH-205

SHEET 1 OF 1

PROJECT NAME: 500 COVENTRY ROAD
PROJECT LOCATION: OTTAWA, ONTARIO
CLIENT: COCA-COLA BOTTLING LTD.

PROJECT NUMBER: E769.2
BORING DATE: NOVEMBER 4, 1994

ARCTURUS

BORING METHOD	SOIL PROFILE: DESCRIPTION	STRATA PLOT	DEPTH (m)	SAMPLES: LOCATION	TYPE	% RECOV	SPT (N)	COMBUSTIBLE VAPOUR CONCENTRATION (% LEL CARBON FILTER CONCENTRATION)	ODOUR	LABORATORY TESTING	PIEZOMETER OR MONITORING WELL INSTALLATION
HOLLOW STEM AUGERS ACKER	GROUND SURFACE		0								
	ASPHALT										
	GRAVEL FILL				SS	90	7	0.8	TRACE HC		
	LIGHT GREY BROWN, DAMP TO WET, LOOSE, FINE, SILTY SAND WITH SOME GRAVEL		1		SS	90	16	0.8	EARTHY		
	GREY BLACK, MOIST, LOOSE TO COMPACT, FINE, SILTY SAND TILL WITH TRACE CLAY		2		SS	80	4	0.4	TRACE HC		
	GREY TO BLACK, WET, FINE, SILTY CLAY TILL WITH SOME SAND AND COBBLES		3		SS	60	14	0.8	TRACE HC		
					SS	NA	16	0.4	TRACE HC		
	BOTTOM OF BOREHOLE		4								
			5								
			6								
			7								
			8								
			9								
			10								

LOGGED BY: SMG INPUT BY: MJF CHECKED BY: SMG INPUT DATE: NOVEMBER 10, 1994

RECORD OF RB-1A

SHEET 1 OF 1

PROJECT NAME: 500 COVENTRY ROAD
PROJECT LOCATION: OTTAWA, ONTARIO
CLIENT: COCA-COLA BOTTLING LTD.

PROJECT NUMBER: E769.2
BORING DATE: NOVEMBER 8, 1994

ARCTURUS

BORING METHOD	SOIL PROFILE: DESCRIPTION	STRATA PLOT	DEPTH (m)	SAMPLES: LOCATION	TYPE	% RECOV	SPT (N)	COMBUSTIBLE VAPOUR CONCENTRATION % LEL (CARBON FILTER CONCENTRATION)	ODOUR	LABORATORY TESTING	PIEZOMETER OR MONITORING WELL INSTALLATION
	GROUND SURFACE		0								
HOLLOW STEM AUGERS DIA 8"	ASPHALT										
	GRAVEL FILL				SS	25	7	<0.1	EARTHY		
	LIGHT BROWN TO GREY, DAMP TO WET, COMPACT, FINE, SILTY SAND AND GRAVEL TILL		1		SS	40	14	0.6	EARTHY		
					SS	50	12	0.2	ORGANIC		
	GREY TO BLACK, DRY TO DAMP, STIFF, FINE, SILTY CLAY TILL WITH SAND AND COBBLES		2		SS	60	15	0.4	EARTHY		
			3		SS	10	NA	<0.1	EARTHY		
	BOTTOM OF BOREHOLE		4								
			5								
			6								
			7								
			8								
			9								
			10								

LOGGED BY: SMG INPUT BY: MJF CHECKED BY: SMG INPUT DATE: NOVEMBER 10, 1994

ARCTURUS

Project No.:	E769.3
Section :	
Date:	November 22, 1994
Employee No:	243

29 Camelot Drive, Unit 500
Nepean, Ontario, K2G 5W6
Telephone (613)727-0216
Facsimile (613)727-1806

FACSIMILE TRANSMISSION COVER SHEET

PLEASE FORWARD THE FOLLOWING PAGES TO:

Name: Mr. Greg Montcalm
Company: MOEE Ottawa
Facsimile Phone No. 613 521 5437

SENT FROM:

Name: Daniel J. Garand
No. of pages including cover: 3
Hard Copy to follow: _ Yes X No

Mr. Montcalm,

As discussed with Mike Osborne, enclosed please find our proposed remedial action plan. Final details are being considered. They will be forwarded to you when they become available.

Regards,

Daniel J. Garand

REMEDIAL ACTION PLAN
COCA-COLA AND PWGSC PROPERTIES
500 AND 440 COVENTRY ROAD, OTTAWA

Arcturus proposes the following remedial action plan in order to:

- remediate hydrocarbon-impacted soil from PWGSC property;
- prevent recontamination of the PWGSC property by migration of hydrocarbons from the Coke property; and,
- replace hydrocarbon-impacted site drainage pipes on the PWGSC property.

The remedial action plan consists of the following:

1) **Installation of Impermeable Membrane**

A trench will be excavated parallel to the mutual boundary, on Coke property to bedrock. The trench will extend from approximately 8 m south of the contaminant plume, north to an equal distance north of the plume. The eastern wall of the trench will be lined with 20-mil high density polyethylene (HDPE) membrane. The purpose of the membrane is to prevent the migration of contamination from Coke property to PWGSC property in the interim period between remediation of the PWGSC property and the Coke property. The remediation of the Coke property is to commence in the Spring of 1995 and will be completed in accordance with provincial guidelines, as quickly as the onsite remedial action plan allows.

2) **Installation of Monitoring Wells**

Approximately five monitoring wells will be installed on each side of the HDPE membrane, during excavation of the trench. The monitoring wells will be constructed with corrugated metal piping, perforated from depth to surface, surrounded by granular material. The wells will be placed to monitor both hydraulic and hydrochemical conditions on both sides of the barrier.

3) **Soil Removal**

The intent of the soil removal program is to remove all hydrocarbon-impacted soil from PWGSC property and between the PWGSC property and the proposed trench. All soil with combustible vapours in excess of 200 ppm will be excavated and disposed of at Laidlaw's West Carleton landfill site. This includes the plume which has been identified adjacent to the Coke property, and impacted soil surrounding the drainage pipes beneath the PWGSC parking lot. Coke will be responsible for repair of any damage to underground utilities (e.g., light standard wires) caused by soil removal activities.

4) **Drainage Pipes**

All drainage pipes impacted by petroleum hydrocarbons will be removed and replaced. Hydrocarbon-impacted water accumulated in the drainage pipes on the eastern side of the electrical service trench on PWGSC property will be collected and appropriately disposed, prior to excavation.

5) **Backfill**

The site will be backfilled with imported sand fill and appropriately compacted to allow for paving and subsequent use of the paved area as a parking lot.

6) **Fencing**

In order to implement the remedial action plan as described, it will be necessary to remove a section of the fence along the property line. Upon completion of excavation and backfill, the fence will be replaced.

7) **Remediation Verification**

Depending on the size of the completed excavation, an appropriate number of soil samples will be collected from excavation floor and walls for verification analyses. The actual number of verification samples will be agreed upon in the field by representatives from Arcturus and Raven Beck. Samples will be analyzed for concentrations of benzene, toluene, ethylbenzene, xylenes (BTEX) and total petroleum hydrocarbons (TPH).

While the intent of the remediation is to achieve nondetectable concentrations of BTEX and TPH, in determining the success of the remediation, the verification analyses will be compared to the CCME Interim Remediation Criteria for Soil (Agricultural). In the absence of CCME criterion for TPH, a criterion of 100 mg/Kg will be used.

8) **Monitoring**

The monitoring wells along the HDPE membrane will be monitored twice monthly until such time as the remediation on Coke property is complete. Monitoring will comprise measurement of relative water table elevations (to evaluate hydraulic conditions) and groundwater sampling and analyses at each well. Each sample will be analyzed for BTEX and TPH. All monitoring results will be made available forthwith to PWGSC or their representative.

MINUTES OF MEETING

Coca-Cola/440 Coventry

November 4, 1994 1:00

MINISTRY OF ENVIRONMENT
NOV 16 1994
OTTAWA

Location:

Boardroom, Coca-Cola Canada Limited
450 Coventry Road
Ottawa, Ontario

Attendees:

Paul McCarthy, Property Manager, PWGSC
Shirley Jen, Property Management Division, PWGSC
R.B. Wallace, Environmental Operations, Coca-Cola
Wayne Sponakale, Manager, Coca-Cola
Ken Raven, Raven Beck Environmental Ltd.
Robert Timlin, Raven Beck Environmental Ltd.
Daniel Garand, Arcturus Environmental
Ron Nobes, Environment Canada
Greg Montcalm, Ministry of Environment and Energy Ontario
Luc St-Hilaire, Urban Planning, PWGSC
Brian Gray, Environmental Services, PWGSC
Steve Waxman, Legal Services, PWGSC

Items

1 Mr. R.B. Wallace opened the session by providing a brief background of Coca-Cola's national tank removal program. Some 50 tanks over 13 years old at 40 locations are to be removed. Approximately 50% of this program is complete. The two (2) tanks (gasoline and diesel) at the Ottawa location, each 22,700 litres in size, were removed on the weekend of October 17, 1994. Free product was observed on the water surface in the area of the tanks during the tank removal.

2 Based on the above findings, Arcturus Environmental proceeded with an investigation of the hydrocarbon contamination at the Coca-Cola site by excavating 16 test pits to delineate the extent of contamination, sampling soil and groundwater and doing an initial characterization by measuring VOCs. From this information, it was found that the LEL range was 20 to 100 percent (%) in the upper 2.4 meter sand unit at the Coca-Cola site. It was concluded that the pump island was the probable source of contamination and that the

western limit of contamination could not be defined. The second phase included boreholes on PWGSC property at 440 Coventry Road in order to delineate the extent of contamination off-site. PWGSC was notified of this condition on October 27, 1994. Subsequently, on November 2, 1994, PWGSC discovered diesel fuel in a parking lot excavation at the east side of 440 Coventry Road and requested today's meeting to confirm Coca-Cola's plan of action.

3 Mr. Wallace indicated that Coca-Cola had every intention of cooperating with PWGSC to resolve their off-site fuel contamination on federal land. It was proposed that Arcturus and Raven Beck meet this afternoon to share initial information and establish a plan of action. All agreed.

4 PWGSC have taken appropriate steps to ensure no fuel is leaving federal land and Environment Canada are satisfied that the initial response was handled diligently and the situation is stable for now. However, a potential concern arises because of the delays and resulting economic implications now facing PWGSC because of their contract with Prestige Paving. Coke indicated the earliest response for a decision would be November 9, 1994 and depending on the availability of the laboratory results, the latest could be November 15, 1994. An overall action plan including Coke's site remediation plan would be available November 30, 1994.

5 Mr. Paul McCarthy was to be PWGSC officer of principal interest (OPI). Sewermatic would continue to monitor fuel contamination in the sewers on federal land over the (expected rainy) weekend. Raven Beck was to provide direction to Sewermatic for any clean-up work on federal land.

6 The meeting adjourned with Mr. Wallace committing to take every reasonable effort to expedite the clean-up process and take appropriate remedial action as per the consultant's recommendations.

Prepared by B. Gray

0.05.17.cok.01

MCCR_ FVE

update

Ministry of Environment and Energy

OCCURRENCE REPORT

PAGE: 1

Entered: 94/11/02 15:52
Batch : 94/11/03
Abstracts[01] Diaries[00]

Received By
LISA LOCKERBY

ORIS No. 9400011904

I.E.B. No.

Occurrence Type: SPILL
Subtype: LAND

Work Plan [ ]

Occurrence: Date | Time

Reported by (Name/Organization)
RON NOBES
ENVIRONMENT CANADA
Telephone No. 613-239-6065 X
Alternate No. - - X
Address:
OTTAWA

Postal Code:

Report to MOE: 94/11/02 15:52
MOE at Scene:

Assigned To:

ERP Contacted:
Callout: [ ] NSP: [ ]
ERP Name:

Location of Occurrence:
OTTAWA CITY
440 CODENTRY ROAD

SOUTHEAST OTTAWA
Reg.[4] Dist.[OT] Municipality[20101]

Source:
COCA-COLA
FUEL STORAGE TANK

Sector: [FD] Source: [OS] SIC: [1111]
UTM:
N: [5026000] E: [447000] Zone: [18]

Syn:COCA-COLA: LEAKING UNDER-GROUND FUEL TANK. OFF- SITE IMPACT.

Brief Summary:
CALLER REPORTS PUBLIC WORKS CANADA DISCOVERED SIGNIFICANT FUEL CONTAMINATION ON THEIR PROPERTY UNDER THE PARKING LOT WHICH IS IN NEED OF REPLACING. CONTAMINATION WAS FOUND AT A DEPTH OF 3 FT AT EVERY SPOT THE ASPHALT BUCKLED. THERE IS ALSO EVIDENCE OF FUEL IN THE TWO CATCHBASINS ON-SITE. PUBLIC WORKS ARE MAKING ARRANGEMENTS FOR SEWER-MATIC TO PUMP OUT THE CATCHBASINS TONIGHT. COCA-COLA CURRENTLY HAVE RETAINED ARTURUS CONSULTANTS WHO ARE IN THE PROCESS OF SAMPLING TEST HOLES AND HAD PLANNED TO CONDUCT TESTING ON PUBLIC WORKS PROPERTY TOMORROW. THEY HAVE AN UNDERGROUND STORAGE TANK WHICH IS KNOWN TO BE LEAKING. FURTHER ARRANGEMENTS WILL BE MADE TOMORROW REGARDING CLEAN UP. >>>>>>>>>>>
If there are related reports, record initial/master ORIS No. here>>

Follow-up Action: [ ] Abatement [ ] IEB [ ] Other_____ | BF Date:

File Closed:
[✓] Abatement [ ] IEB [ ] OTHER

Complainant Contact Code [| |] Date

Suspected [ ]Violation

Report Prepared by: Date
F Montcalm 94/11/24

IEB Investigator IEB BF Date

Approving Officer Date
[signature] Nov 24/94

Reviewing Officer Date

Specify number(s) for routing original [2] [ ] [ ] [ ] Continued [ ] Yes
Specify number(s) for copy distribution [2] [ ] [ ] [ ] [ ]
1. Investigator/E.O. 2. D.O./File 3. SAC (all spills)
4. Reg.Dir./___ Mgr. 5. IEB Reg.Spv 6. IEB H.O./file 7. Other _____

SAC Action Class: 1:[16] 2:[25]

000092

OCCURRENCE REPORT CONT'D

ORIS No.: 9400011904 IEB No.:

Material 1: FUEL OIL — Code..: 13
Amount: UNK — UN No.: 1202
Material 2: — Code..:
Amount: — UN No.:

Cause.....: — Code..: 13
Reason.....: — Code..: 13

Person in Control: COCA-COLA — Waste GenNum:
Owner .....: COCA-COLA — Waste GenNum:
Agencies Involved.....: PUBLIC WORKS CANADA, ENV CANADA

Clean up and Restoration Carried out by:
[N] Controller [N] Owner [N] Other

% Cleaned up: 0.00 Estimated Cost: $
Were Directions or Approval Given Under
EPA Part X [N] Regulation 362 [N] | Manifest No.

Waste Class: TO BE DETERMINED — Code..: 001
Hauler: — Code..:
Disposal Site: — Code..:

Environmental Impact: CONFIRMED | Nature of Impact: Soil contamination — Code..: 07

People/Business Damaged
(Other than to Owner/Controller)

Nature of Damage: — Code..:

NOV- 2-94 THU 12:04 SPILLS ACTION CENTRE P.02/02

OKIS NO.: 9400011904 IEB No.:

ABSTRACT ENTRIES OT

94/11/02 17:34 lockerli
ABSTRACT #1 L.L.
CONTACT AT PUBLIC WORKS CANADA IS SUZIE LEMYRE AT (819) 775-4331. THE CONTACT FOR COCA-COLA IS BOB WALLACE (416) 424-6236.
UPDATE 94/11/03 (PW)
09:46 MIKE OSBORNE (ARCTURUS ENV) TO S.A.C. REPORTS THEY REMOVED 2 UNDERGROUND DIESEL TANKS ON 94/10/22-23 AND FOUND CONTAMINATION WHICH NOW IS CONFIRMED TO HAVE MIGRATED OFF SITE.ARCTURUS WILL BE DRILLING ON PUBLIC WORKS CANADA PROPERTY TO-DAY OR TOMORROW AND WILL BE CLEANING UP SITE.CONTACT NUMBER FOR MIKE IS 905-889-0070.
10:57 REC'D BY FAX,PAUL MCCARTHY (NCC) REPORTS DIESEL FUEL HAS BEEN FOUND IN A CATCHBASIN AT 400 COVENTRY RD.MATERIAL IS SUSPECTED OF COMING FROM 500 COVENTRY,COCA COLA PROPERTY.CITY OF OTTAWA NOTIFIED AND ARE RESPONDING.

- 13:00 Nov 4/94 meeting between Coke & Public Works Can. was attended by GFM. Hydrogeologists representing both parties agreed to work together to provide report for Nov 15/94 to propose clean-up. It was confirmed during this meeting that Coke did not report on site contamination when they became aware of it.

- 9:30 Nov 3/94 Paul McCarthy (991-4671 x593) NCC indicated diesel fuel was found in storm drain from Coke. city of Ottawa and MCCR were notified

- Report for clean up dated Nov 22/94 advising of remedial measures.

- no further action

NOV-2-94 THU 12:05 SPILLS ACTION CENTRE P.02/02

Industrial Abatement
2378 Holly Lane, Suite 204,
Ottawa, Ontario.
K1V 7P1

Area Code 613
Telephone 521-3450

July 29, 1980.

Coca Cola Ltd.,
500 Coventry Road,
Ottawa, Ontario.
K1K 2C4

Attention: Glen S. Warren
Production Manager

Re: Oil Spill on Rideau River.

Dear Sir:

This is to confirm our discussions on clean-up of your recent oil spill on the Rideau River.

Contaminated vegetation from the river bank appears to have been removed to a satisfactory degree and evidence of any remaining oil slick on the water is now diminishing.

It is felt that you should now be able to conclude your clean-up operations and remove the floating boom from the river.

As discussed previously, modifications will have to be made to the sewer system in your plant to prevent any future mishaps of this sort.

You should consult with the Regional Municipality on these modifications to ensure compliance with their sewer use by-law.

We would like to take this opportunity to thank you for the co-operative attitude demonstrated by Coca Cola in this matter.

Sincerely yours,

R. Stiles
Environmental Officer

RS/hm
c.c. Andy Hazck
Green Creek Pollution
Control

Date: November 26, 1970.

MEMORANDUM:

To: J. F. Pruner, P. Eng.,
District Engineer, Ottawa.

From: J. H. Lauder,
District Inspector, Kingston.

Subject: General Check Survey:

Company: Coca Cola Ltd.
Address: 500 Coventry Road, Ottawa 7, Ontario.

An inspection was made at the above premises on November 9, 1970, to catalogue the combustion equipment and operation that may cause or contribute to air pollution.

Contact: Mr. J. H. Harvey - Regional Manager; Mr. C. G. Sweetman - Plant Superintendent
Mr. G. Telford - Shift Engineer.
Products: Coca Cola, Fanta, Sprite, Tab and Fresca beverages.
Head Office: Coca Cola, 42 Overlea Blvd., Thorncliffe - Toronto, Ontario.

Equipment: Two Steam Generators.
Make: Foster Wheeles
Type: Scotch Marine Wet Back - 2 pass boilers
Rating: Each 12,000 gph; 292 H.P.; 3500 sq. ft. H.S.; Operating pressure - 12 psig
Fuel: No. 6 oil
Burner: Todd. Rotary Cup
Preheat: 160°F
Model: B.P.M.A.H.X.
Size: 4 RF
Capacity: 60 g.p.h.

Stack: Steel
Inside dimensions: 26" diameter
Ht. above roof: 18'
Ht. above grade: 42'

Fuel Supplier: Imperial Esso
Sulphur content: 1.72%
Oil Consumption: 130,000 gals. yearly

Auxiliary equipment includes forced draught fan, automatic combustion controls, smoke indicator and alarm flue gas indicator, fireye programmer, high and low limit controls, soot-blowers. Combustion air provided by roof intake approximate size 6' x 4'.

Observations:

1) Each boiler with individual stack.
2) There were no emissions in violation.
3) Both boilers operating during inspection.
4) Flame patterns satisfactory, flue gas temp. 445°F.
5) Boiler room well kept and maintained.
6) Plant located in industrial park area with large subdivision on N. boundry.
7) F.D. fan ; 5 H.P. motor.
8) Plant is registered 3rd Class Stationary.
9) Tubes punched bi-weekly; boilers overhauled yearly.

Cont'd

Equipment: Paint Booth
Make: Binks
Type: Dry
Method; Compressed air spray gun

The booth is vented by a 32" diameter fan, 2½ H.P. motor and exhausted to atmosphere through 32" dia. steel stack 5' above roof and 29' above grade, complete with weather cap. The spray booth is equipped to filter incoming air as well as removing particulate matter fromtthe exhausted air by the installation of 24 20" x 20" x 2" fibre filters.

Observations:

Location of exhaust stack carefully selected so as to prevent paint spotting on neighbouring property.

Comments:

Five trucks and two cars painted yearly plus 100 coolers.

No incinerator no open burning. Mr. Sweetman indicated all waste material pick-up by Ottawa Sanitation Service approximately 30 cubic yds. twice weekly. I left copies of the Act and Regulation.

Conclusions:

It is my opinion that discharge of particulate matter and organic solvent vapours is so small it would be of no consequence as to local nuisance. Normal operation and maintenance of the combustion equipment shall not violate the O. Reg.

Recommendations:

Should complaints arise because of organic solvent emissions, it is suggested the control method indicated be adsorption by activated carbon.

JH Lauder

JH Lauder

JFL/ac

CORPORATION OF THE CITY OF OTTAWA
DEPARTMENT OF PLANNING AND WORKS

A.P.C.S.
INSPECTION
MEMO
PHONE
LETTER
OTHER

Address: Coventry Rd
Name: Ora Bld Company Ltd

Complaint: Incin. ____ Heat ____ Power ____ O.F. ✓ Others ____ Time of Offence ____

Complainant ____ Address ____ Phone ____

Per ____ Time ____ A.M., P.M. ____ 19 ____

Inspectors Report - From 4 00 ~~A.M.~~, P.M. to 4 30 ~~A.M.~~, P.M. Date Sept 10 19 63

Activity Scale	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	MINUTES
4 (80%)																																																														
3 (60%)																																																														
2 (40%)																																																														
1 (20%)																																																														

Observ. ✓ Insp. ____ Surv. Card ✓ Viol. ✓ F.B. ✓ Incin. ____ O.F. ____ Veh. ____ Trains ____ New Instns. ____ Others ____

Offending Equip.: Boiler ✓ Incin. ____ Others ____ Wind Dir. N W Fuel #6 Oil

Make ____ Type ____ Size ____ Stoker ____

Type of Violation: Density Ringlman 4 Nuisance (describe) None

Recommendation and Remarks Conferred with Engineer Mr Gurney & Mr ~~the~~ Swetman and it was advised that they heat was released. The contractor began boiler because they are aware of the situation & felt to be right. The Ringlman is of an intermittent nature on the stack but does not happen on every stack. Usually they are apparent at the first end of the refractory which should be contributing to the problem

SUMMARY

Violation: Sev. ____ Mod. ____ Min. ____

Operation - G.F.P.B.

Maintenance - G.F.P.B.

Warnings ____

Summonses ____

Recommend - Sum. ____ Warn. ____ File ✓

Part ____ Sec. ____ Sub. Sect. ____

Inspector A D Leach District ____

000098

CORPORATION THE CITY OF OTTAWA
DEPARTMENT OF PLANNING AND WORKS
AIR POLLUTION CONTROL SECTION

Date.....19.....

OPERATING PERMIT

Nº 415

Equipment located at.....

Name.....

PERMIT TO OPERATE:

Equipment—Size, type, etc.....

.....

as set forth in Installation Permit dated.....

Manufacturer.....

Supplier.....

Address.....

.....
F. E. AYERS, Director

OWNER'S COPY

This Permit does not supersede Building By-laws.

OPERATING PERMIT, issued by Air Pollution Control Section of the city, shows that the installation meets the regulations.

PERMIT NO. 415

CORPORATION OF THE CITY OF OTTAWA
DEPARTMENT OF PLANNING AND WORKS
AIR POLLUTION CONTROL SECTION

FUEL BURNING INSTALLATION TEST

Test No. 1 Date of Test April 17 63 April 16 1963

Address 500 Coventry Rd

Name Coca-Cola Ltd 500 Coventry

2 BOILER: Foster Wheeler SP15-350 Package Unit

New ✓ Existing

Installer Becker Joule Ltd 1467 St Laurent Blvd

Draft:- Natural Forced ✓ Induced Combined

2 BURNER: Todd Size 4RF SPMAHX

New ✓ Existing

Installer Becker Joule Ltd

Fuel:- Type and Grade Fuel Oil #6 Supplier J. J. Shea

Fuel Rate Stated ~~Fuel Oil #6~~ 60 GPH Oil Temperature Stated 172°F

LOW FIRE 60%
HIGH FIRE 100%

CONDITIONS AS FOUND

	LOW	HIGH	LOW	HIGH	
Fuel Rate approx	30	35	30	35	GPH
Oil Temp.	150°F		160		°F
Draft Chimney	.02	.02	.01	.005	ins.
Draft Overfire	-	-			ins.
Flue Gas Temp.	425	450	450	500	°F
Spot Test No.	3	3+	3+	3+	Bach.
Carbon Dioxide	8½	10	8	12½	%
Oxygen	12	11	12½		%
Ventilation	4' x 3' High				
Ambient Temp.	90		90		°F
EFFICIENCY	81¾	83½	81	84	%.

[signature]
SIGNATURE

Typed Apr 23/63

000100

CORPORATION OF THE CITY OF OTTAWA
DEPARTMENT OF PLANNING AND WORKS

A.P.C.S.			
INSPECTION			
MEMO			
PHONE			
LETTER			
OTHER			

Address 500 Coventry Rd

Name Coca Cola of Canada Ltd

Complaint: Incin. ____ Heat ✓ Power ____ O.F. ____ Others ____ Time of Offence 2 pm

Complainant OE Andrew Address ____ Phone ____

Per ____ Time 2pm A.M., P.M. 31 Mar 19 63

Inspector's Report - From 2 A.M., P.M. to ____ A.M., P.M. Date 31 Mar 19 63

DENSITY SCALE — MINUTES

4 (80%)
3 (60%)
2 (40%)
1 (20%)

Observ. ✓ Insp. ✓ Surv. Card ____ Viol. ✓ F.B. ✓ Incin. ____ O.F. ____ Veh. ____ Trains ____ New Instns. ____ Others ____

Offending Equip.: Boiler ✓ Incin.: ____ Others ____ Wind Dir. South Fuel No 6 Oil

Make Foster Wheeler Type Matic Size 120 HP each Stoker Todd Burner

Type of Violation: Density Ringelmann 4 Nuisance (describe) Continuous smoke

Recommendation and Remarks Observed smoke when driving west on Queensway on Sunday afternoon. Visited plant on Monday Apr 1st at 2pm. Interviewed Mr Secretariano plant supt who claimed he had been making adjustments at that time.

SUMMARY

Violation: Sev. ____ Mod. ____ Min. ____

Operation - G.F.P.B. ✓

Maintenance - G.F.P.B. ✓

Warnings No

Summonses No

Recommend - Sum. ____ Warn. ✓ File ____

Part ____ Sec. 3 Sub. Sect. 2

Inspector OEAndrew District ____

000101

July 27th, 1962.

Coca Cola Ltd.,
605 Bronson Ave.,
Ottawa, Ontario.

Dear Sirs: Re: 500 Coventry Road

Becker-Joule Ltd., 1467 St. Laurent Blvd., Ottawa, Ontario,
Scotch Wet Back Boiler, Oil Fired

B.W.G.
Air Pollution Officer,
for

BWG/TB
Encl.

CORPORATION OF THE CITY OF OTTAWA
DEPARTMENT OF PLANNING AND WORKS
AIR POLLUTION CONTROL SECTION

Date ..... 19....

INSTALLATION PERMIT

Nº 415

Equipment located at .....

Name .....

PERMIT TO INSTALL:

Equipment—Size, type, etc. .....

.....

as set forth in Installation Permit dated .....

Manufacturer .....

Supplier .....

Address .....

.....
F. E. AYERS, Director

OWNER'S COPY

This Permit does not supersede Building By-laws.

INSTALLATION PERMIT, issued by Air Pollution Control Section of the city, shows that the installation meets the regulations.

415

RETURN IN DUPLICATE

CITY OF OTTAWA

DEPARTMENT OF PLANNING & WORKS

AIR POLLUTION CONTROL SECTION

111 SUSSEX DRIVE, OTTAWA

DATE July 23 19 62

APPLICATION FOR INSTALLATION PERMIT

(For Liquid, Gaseous, and Solid Fuel-Burning Equipment, Bake Ovens, Brick Kilns, Process Furnaces, Stacks, Stokers, New Installations, Alterations, and Repairs, etc., Required under By-law No. 390.59.)

See Departmental "requirements"

ADDRESS OF INSTALLATION Coca Cola Plant 500 Coventry Rd, Ottawa

OWNER OF PROPERTY Coca Cola Co Ltd ADDRESS 608 Bronson

APPLICANT'S NAME Becker Voule Ltd 'PHONE NO. SH 9-7458

APPLICANT'S ADDRESS 1467 St Laurent Blvd. Ottawa

BUILDING OCCUPANT Coca Cola Co ADDRESS

CONTRACTOR (or INSTALLER) Becker Voule Ltd ADDRESS 1467 St Laurent Blvd. Ottawa

ARCHITECT Mathers & Haldenby Toronto

THE FOLLOWING SECTION MUST BE COMPLETED NAMING INSTALLERS OF ALL RELATED EQUIPMENT.

EQUIPMENT	MANUFACTURER	CATALOGUE NO.	TYPE	INSTALLED BY	APPLICANT REQUESTS PERMIT FOR
BOILER	Foster Wheeler		Scotch Wet Back	Becker Voule Ltd	☒
FURNACE	—				☐
OIL BURNER	Todd		Roto Press	Becker Voule Ltd	☒
GAS BURNER	—				☐
STOKER	—				☐
*CHIMNEY	—				☐

*Chimney information must be given by all applicants.

THE FOLLOWING SECTION MUST BE FULLY COMPLETED BY INSTALLERS OF:

BOILERS & FURNACES

NEW ✓ USED — EXISTING ON PREMISES — ; THE UNIT IS USED FOR:—

HEATING ✓ POWER — HOT WATER — STEAM ✓ WARM AIR — ;

BOILER, RATED CAPACITY ..... B.H.P., HEATING SURFACE 1805 SQ. FT., E.D.R. .....,

OPERATING PRESSURE 15 P.S.I.G.; FURNACE, VOLUME ..... CU. FT., B.T.U. .....;

HEAT RELEASE OF UNIT ..... B.T.U. PER CU. FT.; FUEL CONSUMPTION 60 PER HR.; ~~(LBS., U.S.~~ GALS., ~~CU. FT., B.T.U.)~~

TYPE OF FUEL Oil; GRADE OF OIL #6; GRADE OF COAL (BITUMINOUS, ANTHRACITE, ETC.) .....;

THE FOLLOWING SECTION MUST BE FULLY COMPLETED BY INSTALLERS OF:

BURNERS & STOKERS

NEW ✓ USED — EXISTING ON PREMISES — ;

FUEL CONSUMPTION 60 (~~LBS., U.S.~~ GALS., ~~CU. FT., B.T.U.)~~ PER HR.; TYPE OF FUEL Oil;

GRADE OF OIL #6; OIL PREHEAT TEMP. 122 °F, THERM. PROVIDED? Yes;

GRADE OF COAL (BITUMINOUS, ANTHRACITE, ETC.) —

000104

Form No. 1-107

ACCESSORIES and CONTROL (Check items below used with this installation)—

Controls	Damper	Draft	Overfire-Jets
Limit 1 ✓ 2 ✓ 3 ✓	Manual	Natural	Steam-air
Modulating ✓	Automatic ✓	Forced ✓	Steam
Hold-fire ✓	Barometric	Induced	Air
Low water ✓	Draft-Hood	Secondary Air	

Relief valve size 3 - 3" Set At 20 Lbs. Other

Flame Failure Protection - - Yes ✓ No Mfgr. Fireye Type and Model No. 26 R18 Mod. 1008

Smoke Indicator (See By-Law) Yes ✓ No Mfgr. Presentey Type and Model No. APN-11 c/w TB2 Ancona & Alarm

Fly Ash Collector - - - - Yes No Mfgr. Type and Model No.

Boiler Room Ventilation, How Introduced? Natural Pre-Heated; Free Area? 54" x 34"

CHIMNEY OR STACK (Must Be Completed By All Applicants)

Type of Construction Steel New ✓ Existing — Height above grade 44' 3" ft.

Height above roof 20 ft. Inside dimensions 28" Dia. Area sq. in.

Height above breeching ft.; Boiler ft. above grade; ft. below grade.

Height of nearest building ft. Distance from nearest building ft.

Area of flue gas outlets on the device 16½" x 60½" sq. in.

Breeching Dimensions Nil Length Nil Number of bends Nil

Area of breeching at stack Nil sq. in.

Other equipment connected to breeching Nil Area of connections — sq. in.

Other equipment connected to stack? Yes — No ✓ Flue Gas Test openings provided? Yes ✓ No —

Submit Detailed Plans and Specifications for Combustion Devices, Stacks, Dust Separation or Gas Cleaning Equipment, Gas Flow Calculations and Plans and Elevations not detailed of the Building showing the location of the foregoing Combustion Devices, etc.

Application will be Returned if Incomplete.

THE ESTIMATED COST OF THE INSTALLATION IS $36,000.00

THIS INSTALLATION WILL BE STARTED ON July 30, 1962, AND COMPLETED BY Sept. 15, 1962

APPLICANT'S SIGNATURE [signature]

FEE $ 50.00 25 COVERING 2 UNITS AT $25.00 EACH IS ATTACHED HEREWITH

Cheques to be made out to: "CORPORATION OF THE CITY OF OTTAWA"

Do Not Write Below This Line—For Departmental Use Only.

Fee Paid $ 25 Cash Receipt No. 97831 Cheque ✓

Received July 27 1962 per ERL Remarks

REMARKS TO APPLICANT

This application if stamped "Accepted" is subject to the following terms and conditions:

Installation Permit Issued # 415 July 26 1962 by [signature]

Operating Permit Issued 415 April 22 1963 by [signature]

000105

ONTARIO

AIR POLLUTION CONTROL SERVICE

ONTARIO DEPARTMENT OF HEALTH

COMPLAINT MEMORANDUM

Date received March 15 1974 Time received [illegible] am/pm

Telephone ✓ Letter ..... Other .....

Source Coca-Cola

Company address Country Road

Nature of complaint Black smoke

Complainant's name [illegible]

Complainant's address Information Canada Exposition

Telephone 973-9567

Received by [illegible]

Instructions to G. Cheyne - I called the Plant Superintendent who will investigate the [illegible] and take [illegible]

District [illegible] Region [illegible]

Senior Inspector [illegible]

2000 5/68
68-636

330

ORIGINAL

ZONE No.

OF OTTAWA

ANNING & WORKS DEP'T.

PLANT SURVEY

AIR POLLUTION CONTROL SECTION

CLASSIFICATION OF BUILDING: Bottling Works

OWNER OR OCCUPANT: Coca Cola Canada Ltd

DRESS: 500 Coventry Rd.

ller ☒ Furnace ☐ Incinerator ☐

ake: Foster Wheeler

ade Name: Marine Model: Ser 3380 " 3381

ot Air ☐ High Pressure Steam ☐

ot Water ☐ Low Pressure Steam ☒ 15 psi

orse Power Rating: 2 @ 1750 sq' H.S.

ire Box: Length ..... Width ..... Height .....

rate Area .....

Hand Fired ☐ Stationary ☐ or Shaker Grates ☐

Stoker ☐ Oil Burner ☒ Blower ☐

Make—Trade Name: 2-Todd 4 RF

Model: BRMAHX Rotapac oil

Retort

Fire Pot .....

Size and Description — Location

Fuel { Lbs. per Hour .....

Gals. per Hour: 68 #6 Temp 160.

Maximum Coal Consumption Per Sq. Ft. of Grate Area .....

Describe Bridge Wall .....

Breeching .....

Smoke Pipe — Length: 2 @ 34' high

Diameter: 28"

Dampers Yes ☒ Manual ☐

No ☐ Automatic ☒ Location .....

Chimney ☒ Stack ☐ Outlet ☐

Location: over boilers Construction: Steel

Diameter and Area: 28" each

Height over Grate Section: 34'

Boiler Mountings and Controls: Conventional

Manual ☐

Automatic ☐

Overfire Air Unit ☐ Steam Jet Unit ☐ Location .....

Number of Outlets ..... Motor and Fan-Size ..... C.F.M. per minute .....

Location, etc. .....

Hot Water Generator — Type: Conversion for process hot water Model .....

Tank Capacity: Individual 50 gal glassteel for washroom Fuel: elect.

Proposed Changes or Installations ..... Definite Change .....

General Operating Conditions: Good New plant

REMARKS: Mr Sweetnam - Plant Supt. Presently smoke monitors indicating & alarm

DATE: 1 Apr 63 TIME: 2 pm. INSPECTOR: [illegible]

000107

Jacques Whitford Environment Limited

2781 Lancaster Road, Suite 200, Ottawa, Ontario, Canada K1B 1A7
Tel 613 738 0708 Fax 613 738 0721

Consulting Engineers
Environmental Scientists
Risk Consultants

World Wide Web: www.jacquieswhitford.com
E-mail: info@jacquieswhitford.com

Ontario • Quebec • New Brunswick • Nova Scotia • Prince Edward Island • Newfoundland & Labrador • Saskatchewan • Alberta • British Columbia • Northwest Territories
Maine • New Hampshire • Massachusetts • Connecticut • Florida • Rhode Island • Pennsylvania • New York • Trinidad • Russia • Argentina • Brunei

October 28, 2003

Mike Heeringa, Environmental Officer
Ottawa District
Eastern Region
Ontario Ministry of the Environment
2435 Holly Lane
Ottawa, Ontario
K1V 7P2

Project No. ONO31403
Alternate File No. ONO030762

MINISTRY OF THE ENVIRONMENT
OCT 31 2003
OTTAWA

Dear Mr. Heeringa:

Subject: Record of Site Condition
500 Coventry Road, Ottawa, Ontario

Further to our telephone conversation today, Jacques Whitford Environment Limited (Jacques Whitford) determined that a plotting error exists on Drawing No. 2 included with the Record of Site Condition (RSC) submitted to the Ontario Ministry of the Environment (MOE) for the above-referenced site. Jacques Whitford submitted the RSC on behalf of Morguard Real Estate Investment Trust (Morguard) on August 10, 2001. You issued a letter of acknowledgement of receipt of the RSC to Morguard on August 28, 2001.

Please substitute the corrected Drawing No. 2 (attached) for the original drawing. No new data was acquired since the RSC was submitted to the MOE. The nature of the error on Drawing No. 2 is administrative. The results of the 2001 remediation program at the subject site remain unchanged and no changes to the summary of environmental conditions in the RSC are required.

© Jacques Whitford 2003

We apologize for any inconvenience this has caused you and your colleagues at the Ministry. I trust that this information meets your requirements. Please do not hesitate to call me should you have any questions or require additional information regarding this matter.

Yours truly,

JACQUES WHITFORD ENVIRONMENT LIMITED

Pierre J. Maheux, M.Sc., P.Geo.
Senior Project Manager

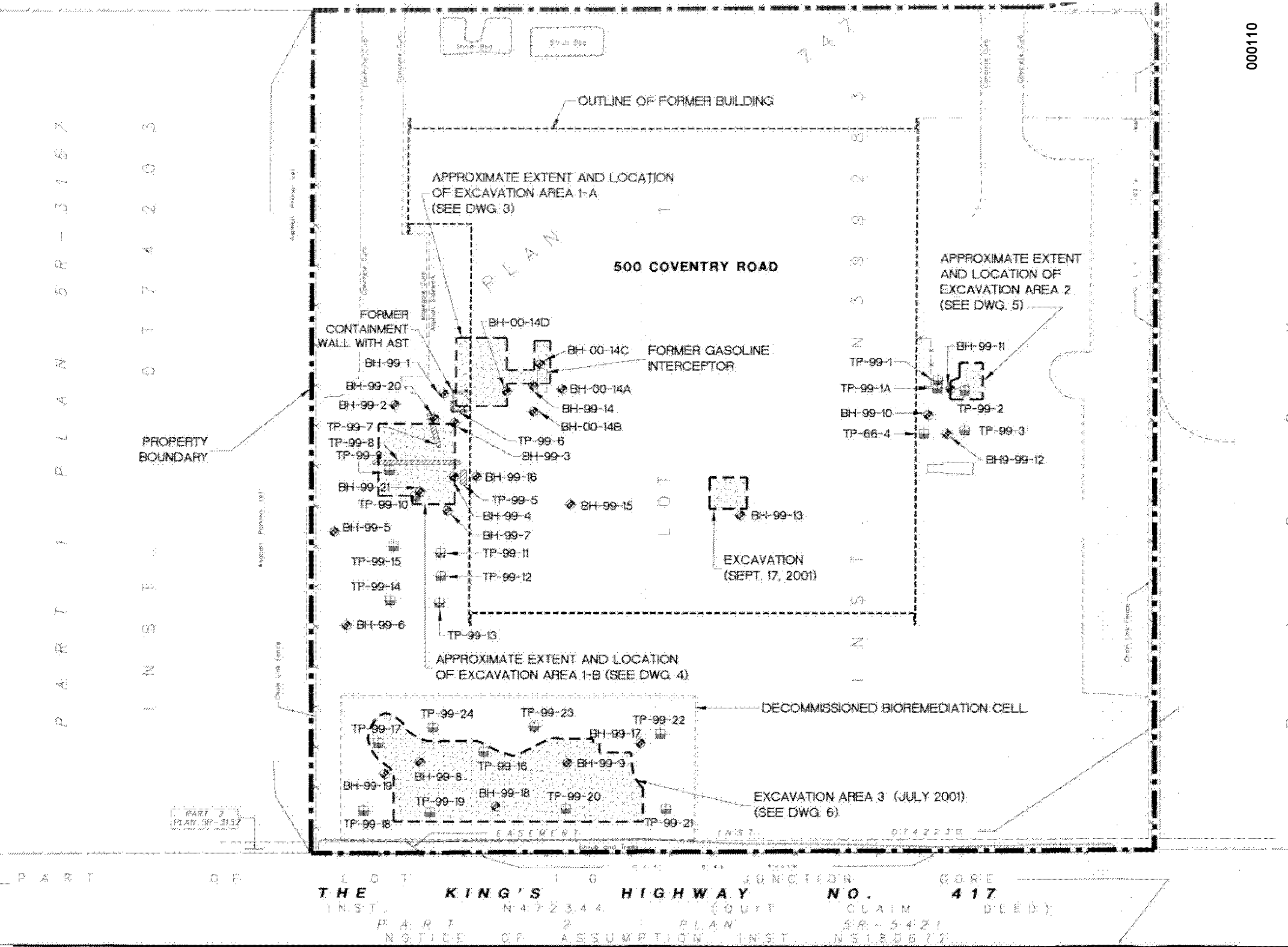
Attachment: Drawing No. 2

Distribution: (1) Addressee
(1) K. Nicholls - Morguard Investments Limited, Toronto
(1) R. Sinukoff, Jacques Whitford – Markham, ON

PJM:

O:\2003\030762\MOEltr_2003-10-28.doc

© Jacques Whitford 2003


OUTLINE OF FORMER BUILDING
APPROXIMATE EXTENT AND LOCATION OF EXCAVATION AREA 1-A (SEE DWG. 3)
500 COVENTRY ROAD
APPROXIMATE EXTENT AND LOCATION OF EXCAVATION AREA 2 (SEE DWG. 5)
FORMER CONTAINMENT WALL WITH AST
BH-00-14D
BH-00-14C
FORMER GASOLINE INTERCEPTOR
BH-99-1
BH-99-20
BH-99-2
BH-00-14A
BH-99-14
BH-00-14B
TP-99-7
TP-99-8
TP-99-9
TP-99-6
BH-99-3
PROPERTY BOUNDARY
BH-99-16
BH-99-21
TP-99-10
TP-99-5
BH-99-4
BH-99-15
BH-99-13
BH-99-5
BH-99-7
TP-99-15
TP-99-11
TP-99-12
TP-99-14
BH-99-6
TP-99-13
EXCAVATION (SEPT. 17, 2001)
APPROXIMATE EXTENT AND LOCATION OF EXCAVATION AREA 1-B (SEE DWG. 4)
TP-99-1
BH-99-11
TP-99-1A
TP-99-2
BH-99-10
TP-66-4
TP-99-3
BH9-99-12
DECOMMISSIONED BIOREMEDIATION CELL
TP-99-24
TP-99-23
TP-99-22
TP-99-17
BH-99-17
TP-99-16
BH-99-9
BH-99-8
BH-99-19
BH-99-18
TP-99-20
TP-99-19
TP-99-18
TP-99-21
EXCAVATION AREA 3 (JULY 2001) (SEE DWG. 6)
PART 1 PLAN 5R-3157
PART 2 PLAN 5R-3152
EASEMENT
INST. 0742238
PART OF LOT 10 JUNCTION GORE
THE KING'S HIGHWAY NO. 417
INST. N472344 (QUIT CLAIM DEED)
PART 2 PLAN 5R-5421
NOTICE OF ASSUMPTION INST. NS180672
REFERENCE:
SCALE: 1:1000
MORGUARD REAL ESTATE INVESTMENT TRUST

000110

Ministry of the Environment

2435 Holly Lane
Ottawa ON K1V 7P2
Telephone: (613) 521-3450
Fax: (613) 521-5437

Ministère de l'Environnement

2435 Holly Lane
Ottawa ON K1V 7P2
Téléphone: (613) 521-3450
Télécopieur: (613) 521-5437

Ontario

August 28, 2001

Les Wayne/Jay Camacho
1339895 Ontario Limited
(Morguard Real Estate Investment Trust)
1 University Ave., Suite 1400
Toronto, ON
M5J 2P1

Dear Mr. Wayne/Mr. Camacho:

RE: Site Remediation at 500 Coventry Road, Ottawa ON

Further to your submission of a Record of Site Condition dated *August 10, 2001* regarding the above-noted site, the acknowledged Record of Site Condition is attached.

As noted in the Guideline, in order to monitor and maintain the integrity of the Guideline process selected sites submitting a Record of Site Condition will be audited by a MOE audit team. Your site has not been chosen to be audited at this time.

By acknowledging this Record of Site Condition the Ministry of Environment (MOE) is not making any comments, positive or negative on the suitability of the site for the intended land use. The MOE has not reviewed or supervised the preparation of the report(s) cited in Part 2 of the Record of Site Condition and does not assume any liability for the assessment, restoration or environmental condition of the site. It is your responsibility and the responsibility of future owners to ensure that the report(s) and Record of Site Condition accurately represent conditions at the site.

Yours truly,

Mike Heeringa
Environmental Officer
Ottawa District

Attachment

cc: P. Maheux, Jacques Whitford Environment Ltd., 2871 Lancaster Road, Suite 200, Ottawa ON K1B 1A7
F. Cirello, Central Audit Team, MOE, 2 St. Clair Ave. W., Toronto ON

bc: P. Kehoe/File SI OC OT CO 142

Jacques Whitford Environment Limited

2781 Lancaster Road, Suite [illegible], Ottawa, Ontario, Canada K1B 1A7
Tel 613 738 0708 Fax 613 738 0721

Consulting Engineers
Environmental Scientists
Risk Consultants

World Wide Web: www.jacquewhitford.com
E-mail: info@jacquewhitford.com

Ontario • Quebec • New Brunswick • Nova Scotia • Prince Edward Island • Newfoundland & Labrador • Saskatchewan • Alberta • British Columbia • Northwest Territories
Maine • New Hampshire • Vermont • Pennsylvania • New York • Trinidad • Russia • Argentina

August 10, 2001

Mike Heeringa, Environmental Officer
Ottawa District
Eastern Region
Ontario Ministry of the Environment
2435 Holly Lane
Ottawa, Ontario K1V 7P2

Project No. ONO31403

MINISTRY OF THE ENVIRONMENT
AUG 10 2001
OTTAWA

Dear Mr. Heeringa:

Subject: Record of Site Condition
500 Coventry Road, Ottawa, Ontario

Jacques Whitford Environment Limited (Jacques Whitford), on behalf of Morguard Real Estate Investment Trust (Morguard), has completed a Record of Site Condition (RSC) for the above-referenced site. The RSC documents the remediation of the areas identified at the subject site that were impacted beyond the applicable generic criteria provided in the *Guideline for Use at Contaminated Sites in Ontario*, revised 1999 (MOE Guideline).

The areas requiring remediation were delineated during a Phase II Environmental Site Assessment completed by others. The reports that presented the results of the assessment work were reviewed by Jacques Whitford and we concurred with their findings.

The RSC has been completed according to *the Instructions for Completing the Record of Site Condition* (RSC), rev. September 1998 (Instructions), in Accordance with Schedule A of the *Guideline for Use at Contaminated Sites in Ontario*, February 1999, Ontario Ministry of the Environment (MOE Guideline).

In accordance with the Instructions, we have attached the following documents to our submission:

(1) Engineered plan of the site that shows the areas of remediation in relation to the site legal boundaries and the applicable Registered Plan lots.
(2) Scaled drawings that show the position of the verification soil samples.
(3) A letter from Morguard that states its relationship to the subject property owner of record.

(4) The *Certificate of Status* (Ontario Ministry of Consumer and Commercial Relations – Companies Branch) for the registered owner of the subject property.

(5) *Parcel Register for Property Identifier* (Ontario Ministry of Consumer and Commercial Relations – Land Registry Office).

(6) Certified True Copy of Instrument: *Transfer/Deed of Land* and *Affidavit of Residence and Value of the Consideration*.

I trust that this information meets your requirements to acknowledge the RSC in accordance with Schedule A of the MOE Guideline. Please do not hesitate to call me should you have any questions or require additional information.

Yours truly,
JACQUES WHITFORD ENVIRONMENT LIMITED

Pierre J. Maheux, M.Sc., FGAC, P.Geo.
Senior Project Manager

Distribution w/ attachments: (1) Addressee
(1) J. Camacho - Morguard REIT, Toronto
(1) N. Abbas - Morguard REIT, Toronto

Attachments

PJM:

P:\2001\30000\31403\Remediation\M.O.E. R.S.C\MOEltr010Aug2001.doc

RECORD OF SITE CONDITION (RSC)

A Summary of Environmental Site Conditions
In Accordance with
Schedule A of the "Guideline For Use at Contaminated Sites in Ontario",
Revised February 1997

September, 1998

Ontario Ministry of the Environment

CONTENTS

Part 1 Site Ownership 1

Part 2 Site Environmental Reports 2

Part 3 Summary of Environmental Site Conditions 3

Part 3.1 Explanatory Notes 3
Part 3.2 Site Assessment and Restoration Approach 4

Part 4 Summary of Risk Management Measures 10

Part 5 Affidavit of Principal Consultant 11

Part 6 Statement of Site Owner 13

Part 7 MOE Acknowledgement of Receipt 14

List of Tables

Table 1: List of Environmental Reports 2

Table 2: Summary of Site Conditions - Background, and Generic (Full Depth and Stratified) Approaches 5

Table 3: Summary of Site Conditions - Site Specific Risk Assessment Approach 8

Schedule A - Record of Site Condition (Revised September, 1998)
for the ***Guideline for Use at Contaminated Sites in Ontario,*** Revised February 1997

i

Send To: Ottawa (Attention: Mike Heeringa)

Name of MOE District Office
2435 Holly Lane, Ottawa, Ontario K1V 7P2

Address of MOE District Office

The RSC becomes a public document after it has been acknowledged by the Ministry of the Environment (MOE). Section 167 of the *Environmental Protection Act (R.S.O. 1990)* states: "No person shall hinder or obstruct a provincial officer in the lawful performance of his or her duties or furnish a provincial officer with false information or refuse to furnish the provincial officer with information required for the purposes of this Act and the regulations."

Part 1 - SITE[1] OWNERSHIP

From: 1339895 Ontario Limited (Morguard Real Estate Investment Trust)
Name of site owner [2,3]
One University Avenue, Suite 1400, Toronto, ON M5J 2P1
Address for correspondence
Tel: (416) 369-1711 Fax: (416) 369-1975
Telephone and Fax numbers

Site: 500 Coventry Road, Ottawa, ON
Municipal address of the site

LT 1, PL 747 / City of Ottawa
Legal description of site[1]

Additional site identifiers including plot plan number, assessment role number, etc.

Does this Record of Site Condition (RSC) apply to the entire property? ☐ Yes ☑ No

[1] "Site" means the portion of the property to which this RSC applies. Where the site does not include the entire property a certified document containing a registrable description of the applicable portion of the property must accompany this document Where the site includes the entire property a certified copy of the most recent deed/transfer for the property must be submitted.

[2] A Certificate of Status obtained from the Ministry of Consumer and Commercial Relations must accompany this RSC if the site owner is a corporation.

[3] If you are submitting as the agent or as the lessee acting as an agent of the site owner, provide the owner's name here and indicate you are the agent in Part 6.

Ministry of the Environment

Part 2 – SITE ENVIRONMENTAL REPORTS

Provide a complete listing of all environmental reports that have been prepared and/or used by the principal consultant retained by the site owner/agent on behalf of the owner and used to make the statements contained in the Record Site Condition (RSC).

Table 1: List of Environmental Reports

REPORT TITLE	DATE	AUTHOR	AFFILIATION
Environmental Site Assessment 500 Coventry Road, Ottawa, ON	August 22, 1996	Tattersall, Morphet, Hergel	Jacques Whitford
Decommissioning Report Coca-Cola Beverages Limited Distribution Plant 500 Coventry Road, Ottawa, ON	October 1996	Maddalena	Arcturus Environmental
Phase II Environmental Site Assessment 500 Coventry Road, Ottawa, ON	February 2000	Byerley Marentette	Golder Associates
Phase I Environmental Site Assessment 500 Coventry Road, Ottawa, ON	April 2000	Edmond Marentette	Golder Associates
Proposed Parking Lot – Geotechnical Investigation 500 Coventry Road, Ottawa, ON	July 24, 2001	Kenny Haché	Jacques Whitford
Fill Quality and Soil Waste Classification Area of Proposed Pavement 500 Coventry Road, Ottawa, ON	August 7, 2001	Maheux	Jacques Whitford
Remediation Report 500 Coventry Road, Ottawa, ON	August 9, 2001	MacGarvie Maheux	Jacques Whitford

Are additional pages of Table 1 attached to this RSC? ☐ Yes ☑ No
(Do not include reports.) (If Yes, how many pages?__)

Part 3 - SUMMARY OF ENVIRONMENTAL SITE CONDITIONS

3.1 Explanatory Notes for Completing Part 3 of the RSC

Part 3 of the RSC describes the final environmental conditions of the site after the process outlined in the Guideline has been followed. The statements signed in Part 5 by the consultant are to confirm that the site meets the conditions indicated in Part 3.2.

- A plan showing property lines, site boundaries, the locations of all soil and groundwater sampling locations, and all Level 2 risk management measures implemented must be attached to this RSC.

- Only the maximum concentration remaining at the sample locations should be reported in Column II, of either Table 2 or Table 3, for each chemical. Do not include the results from all sampling locations.

- The appropriate Guideline criteria for either the background or the type of generic approach used, as indicated in Part 3.2 of this RSC should be listed in Column III, Table 2 for the applicable chemical. If a parameter is analysed but not detected, then indicate this with "ND". The subsurface soil section in Table 2 should only be completed if the Stratified approach is indicated.

- If SSRA criteria are developed for any chemicals at the site, these values should be reported in Column III, Table 3.

- Soil concentrations should be reported on a dry weight basis in $\mu g/g$ (micrograms/gram) and groundwater concentrations should be reported in $\mu g/L$ (micrograms/litre).

- Photocopies of Tables 1, 2, or 3 may be made if additional space is required for data entry.

- A completed RSC may be submitted after a Phase 1 Environmental Site Assessment (ESA) has been completed and it is determined that there are no potential sources of contamination, and therefore no systematic testing of soil groundwater is required. When noted in the appropriate box in Part 3.2 of the RSC, this will indicate that the RSC is based only on a completed Phase 1 ESA and no soil or groundwater testing was conducted.

3.2 Site Assessment and Restoration Approach

Is this a potentially sensitive site as defined in the Guideline? ☐ Yes ☑ No

Has a Phase 1 ESA been completed (Step 1 in the Guideline)? ☑ Yes ☐ No

Did the Phase 1 ESA identify any potential sources of contamination on the site? ☑ Yes ☐ No

Has a Phase 2 ESA been completed (Step 2 in the Guideline)? ☑ Yes ☐ No

Has there been any chemical testing of the soil at the site? ☑ Yes ☐ No

Has there been any chemical testing of the groundwater at the site? ☐ Yes ☑ No

The site is classified as having:

☑ coarse textured soil ☐ medium/fine textured soil (Indicate one only)

Assessment and/or Restoration Approach(es) used:

☐ Background ☑ Generic Full Depth ☐ Site Specific Risk Assessment - Level 1

☐ Generic Stratified ☐ Site Specific Risk Assessment - Level 2

Were any site specific criteria developed for this site using the SSRA approach? ☐ Yes ☑ No

Has there been any restoration of the site (Step 3 in the Guideline)? ☑ Yes ☐ No

Are any risk management measures required at this site? ☐ Yes ☑ No
(If Yes, Complete Part 4)

In accordance with the Guideline, upon completion of the assessment and restoration (if necessary), the site meets the following conditions:

Land Use:

☐ Agricultural

☐ Residential/Parkland

☑ Industrial/Commercial

Groundwater Condition:

☐ Potable

☑ Nonpotable

If nonpotable criteria are used, was the Municipality notified? ☑ Yes ☐ No

Table 2: Summary of Site Conditions – Background and Generic (Full Depth and Stratified) Approaches

Column I	Column II	Column III	Column IV
Chemical Name	**Maximum Concentration Remaining at Sampling Locations (µg/g)**	**Appropriate Background or Generic Criteria (µg/g)**	**Sampling Location and Depth (m)** **(Location as shown on attached plan)**
Surface Soil -	(For full depth in Background and Generic Full Depth approaches, but only for depths less than 1.5 m in a Generic Stratified approach.)		
Benzene	4.9	5.3	Area 3 Floor F-5, 3.0 m
Toluene	1.1	34	Area 3 West Wall W-2, 2.7 m
Ethylbenzene	1.8	290	Area 3 West Wall W-2, 2.7 m
Total Xylenes	8.6	34	Area 3 West Wall W-2, 2.7 m
TPH (gas/diesel)	460	1000	Area 3 Floor F-1, 2.5 m
TPH (heavy oil)	350	5000	Area 3 West Wall W-1, 2.4 m
Antimony	ND	40	Area 2 Floor F-2, 2.0 m
Arsenic	4.0	40	Area 2 Floor F-2, 2.0 m
Barium	110	1500	Area 2 Floor F-2, 2.0 m
Beryllium	ND	1.2	Area 2 Floor F-2, 2.0m
Cadmium	ND	12	Area 2 Floor F-2, 2.0m
Chromium (total)	20	750	Area 2 Floor F-2, 2.0 m
Cobalt	10	80	Area 2 Floor F-2, 2.0 m
Copper	25	225	Area 2 Floor F-2, 2.0 m
Lead	10	1000	Area 2 Floor F-2, 2.0 m
Molybdenum	2.0	40	Area 2 Floor F-2, 2.0 m

Are additional pages of Table 2 (Surface Soil) attached to this RSC? ☑ Yes ☐ No

Table 2: Summary of Site Conditions – Background and Generic (Full Depth and Stratified) Approaches

Column I	Column II	Column III	Column IV
Chemical Name	**Maximum Concentration Remaining at Sampling Locations (µg/g)**	**Appropriate Background or Generic Criteria (µg/g)**	**Sampling Location and Depth (m)** **(Location as shown on attached plan)**
Surface Soil -	(For full depth in Background and Generic Full Depth approaches, but only for depths less than 1.5 m in a Generic Stratified approach.)		
Nickel	30	150	Area 2 Floor F-2, 2.0 m
Silver	ND	40	Area 2 Floor F-2, 2.0 m
Thallium	ND	32	Area 2 Floor F-2, 2.0 m
Vanadium	30	200	Area 2 Floor F-2.0 m
Zinc	40	600	

Are additional pages of Table 2 (Surface Soil) attached to this RSC? ☐ Yes ☐ No

(Do not include reports) (If Yes how many pages ?_1_)

Table 2 (*continued*): Summary of Site Conditions - Background and Generic (Full Depth and Stratified) Approaches

Column I	Column II	Column III	Column IV
Chemical Name	Maximum Concentration Remaining at Sampling Locations (μg/g)	Appropriate Background or Generic Criteria (μg/g)	Sampling Location and Depth (m) (Location as shown on attached plan)
Subsurface Soil - (For depths greater than 1.5 m in a Generic Stratified approach.)			

Are additional pages of Table 2 (Subsurface Soil) attached to this RSC? ☑ No ☐ Yes
(Do not include reports) (If Yes how many pages ____)

Table 2 (*continued*): Summary of Site Conditions - Background and Generic (Full Depth and Stratified) Approaches

Column I	Column II	Column III	Column IV
Chemical Name	Maximum Concentration Remaining at Sampling Locations (*µg/L*)	Appropriate Background or Generic Criteria (*µg/L*)	Sample Location, Depth (m) and Screened Interval (m) (Location as shown on attached plan)
Groundwater - (For all sites where groundwater testing was conducted.)			

Are additional pages of Table 2 (Groundwater) attached to this RSC? ☑ No ☐ Yes
(Do not include reports) (If Yes how many pages?__)

Table 3: Summary of Site Conditions - Site Specific Risk Assessment Approach

Column I	Column II	Column III	Column IV
Chemical Name	Maximum Concentration Remaining at Sampling Locations ($\mu g/g$)	Acceptable Concentration Developed Using the SSRA Approach ($\mu g/g$)	Sample Location and Depth (m) (Location as shown on attached plan)
Soil Profile			

Are additional pages of Table 3 (Soil Profile) attached to this RSC? ☑ No ☐ Yes
(Do not include reports) (If Yes, how many pages?____)

Part 4 - SUMMARY OF LEVEL 2 RISK MANAGEMENT MEASURES

Complete this Section if Level 2 Risk Management measures are in place at this site. Provide a summary of the Level 2 risk management measures and/or engineered controls which have been designed and implemented to allow reuse of the site as part of a Site Specific Risk Assessment approach as indicated in Part 3.2 of the RSC.

Not Applicable

Is there additional information on the Level 2 risk management measures used, attached as part of this RSC? ☐ Yes ☑ No (If Yes, how many pages ?____)

Was public communication undertaken as part of the risk assessment/risk management process ?
☐ Yes ☑ No

Are there any ongoing monitoring or care requirements with respect to the Level 2 risk management measures? ☐ Yes ☑ No

Part 5 - AFFIDAVIT OF PRINCIPAL CONSULTANT

I [Name of consultant] Pierre J. Maheux Of the Municipality

of Ottawa in the Province of Ontario

MAKE OATH AND SAY AS FOLLOWS:

1. I am the (position/title) Project Manager of (firm/company) Jacques Whitford Environmental Limited and have personal knowledge of the matters set out below.

2. I (or name of firm/company) Pierre J. Maheux was retained/or employed as the principal environmental consultant to undertake or supervise the ~~assessment and~~ restoration of the site (*strike out and initial if no restoration was undertaken*), located at [site/property address] 500 Coventry Road, Ottawa, Ontario.

3. I ~~am~~ am not (*strike out and initial that which does not apply*) employed or retained by the site owner / agent of the owner, or the company operating on the site in any other capacity.

4. I had the expertise required to perform these services. The details of my expertise and the expertise of those subcontractors who performed services at the site are set out in the report(s) noted in Table 1, Part 2 of this RSC.

5. All subcontractors employed by me in connection with the ~~assessment and~~ restoration of the site (*strike out and initial if no restoration was undertaken*) warranted to me that they possessed or are known by me to possess the expertise required to perform the services for which they were employed and which were carried out.

6. The ~~assessment activities and~~ restoration activities (*strike out and initial if no restoration was undertaken*) at the site requiring the application of scientific principles have been undertaken or supervised by a natural scientist qualified to perform such services.

7. The ~~assessment activities and~~ restoration activities (*strike out and initial if no restoration was undertaken*) at the site requiring the application of engineering principles have been undertaken or supervised by a professional engineer qualified to perform such services.

8. The ~~assessment activities and~~ restoration activities (*strike out and initial if no restoration was undertaken*) at the site have been completed in accordance with the MOE *Guideline for Use at Contaminated Sites in Ontario*, Revised February 1997. Generally accepted geoscience practices and/or environmental practices and/or engineering practices were also followed where appropriate. None of the verification test results exceed the applicable criteria allowed for in the site assessment and/or restoration approach indicated in Part 3 of this RSC. Although the information represents the site conditions at the test locations at the time of sampling only, and conditions between and beyond the test locations may vary, I have collected sufficient information and taken all reasonable steps to form the opinion that the site meets the criteria for the land use set out in Part 3.2 of this RSC.

Part 5 - Affidavit of Principal Consultant (*continued*):

9. I have prepared and/or reviewed the report(s) identified in Part 2, Table 1 of this RSC and am not aware of any soil, groundwater or sediment contamination on or within the site which would interfere with its use for the categories of land use(s) and groundwater condition, set out in Part 3.2 of this RSC.

10. ~~The site specific risk assessment (SSRA) was prepared in accordance with the MOE *Guidance on Site Specific Risk Assessment for Use at Contaminated Sites in Ontario*, July 1996, and reviewed by an independent consultant who warranted to me that they possessed the expertise required to perform such review. *(strike out and initial if no SSRA was undertaken).*~~

11. I acknowledge that public authorities, parties acquiring or intending to acquire an interest in this site, current occupants and their consultants may rely on the statements in this RSC. Reliance on the statements contained herein is subject to the limitations and qualifications contained in the MOE *Guideline for Use at Contaminated Sites in Ontario*, Revised February 1997 and further subject to the actual use of the site since the date of this RSC.

12. I have made no modifications to this RSC except as allowed by the form.

SWORN BEFORE ME

at the City of Ottawa

in the Province of Ontario

this 10th day of August 2001

Signature of Consultant

2781 Lancaster Road, Suite 200, Ottawa, ON K1B 1A7
Address

(613) 738-0708
Phone Number

Commissioner of Oaths
LAWYER
(613) 594-9844

Schedule A - Record of Site Condition (Revised September, 1998)
for the ***Guideline for Use at Contaminated Sites in Ontario***, Revised February 1997

Part 6 - STATEMENT OF SITE OWNER

This is to certify that as the owner ~~/ as the agent on behalf of the owner~~[1] *(strike out and initial that which does not apply)* of the site I have hired PIERRE J. MAUEUX as the principal consultant to undertake, supervise or monitor the assessment and if necessary the restoration of the site to make it suitable for the land use(s) set out in Part 3.2. This is to confirm that the principal consultant has certified to me that the assessment and/or restoration activities have been completed in accordance with the Guideline. I ~~*(and/or the owner)*~~ agree to provide, on request, all reports listed in Table 1, Part 2 to municipal authorities dealing with the site and a party who is acquiring an interest in the site from me. I have undertaken reasonable inquiry into the previous ownership and uses of the property and to the best of my knowledge I have provided to the consultant, information relevant to the consultant's investigation of the environmental condition of the site, in the preparation of this RSC.

I acknowledge that this RSC becomes a public document after it has been acknowledged by the Ministry of the Environment. Any party intending to purchase, lease, take a security interest in, or occupy the site may review the RSC and any supporting documents to satisfy themselves with respect to the environmental condition of the site, and the extent of responsibility and liability that may arise from taking ownership, taking a security interest, or occupying the site.

I have made no modifications to this RSC except as allowed by the form.

MORGUARD REAL ESTATE INVESTMENT TRUST

Name[1] PER: JAY CAMACHO

PER:

Signature LES WAYNE

ONE UNIVERSITY AVENUE, SUITE 1400
TORONTO, ONTARIO M5J 2P1

Address for Correspondence

AUGUST 8, 2001

Date

[1] If you are signing as the agent of the owner written consent from the owner authorizing you to sign the RSC must be attached.

500 COVENTRY ROAD, OTTAWA ON.

Part 7 - MOE ACKNOWLEDGEMENT OF RECEIPT

The MOE acknowledges receipt of this RSC. The MOE has not reviewed, considered or commented on the content of the report(s) cited in Table 1, Part 2 of this RSC except where a site specific risk assessment has been submitted for review. MOE may review the report(s) cited in Part 2 of this RSC if the site is selected for audit. The MOE has not supervised the assessment and/or restoration work undertaken at the site and does not assume any responsibility or liability for the assessment, restoration or environmental conditions of the site, or for notifying future owners or present or future occupants of the site of the assessment, restoration or environmental condition of the site.

Proof of the quality of the site and of the effectiveness of the assessment or restoration undertaken at the site are the responsibility of the owner of the site and subsequent owners. Any persons intending to purchase or occupy the site must assess for themselves the environmental condition of the site, and the extent of responsibility and liability that may arise from taking ownership or from occupying the site.

M. HEGULA
Name of Provincial Officer (Print)

Signature of Provincial Officer — *Date* Aug 28/01

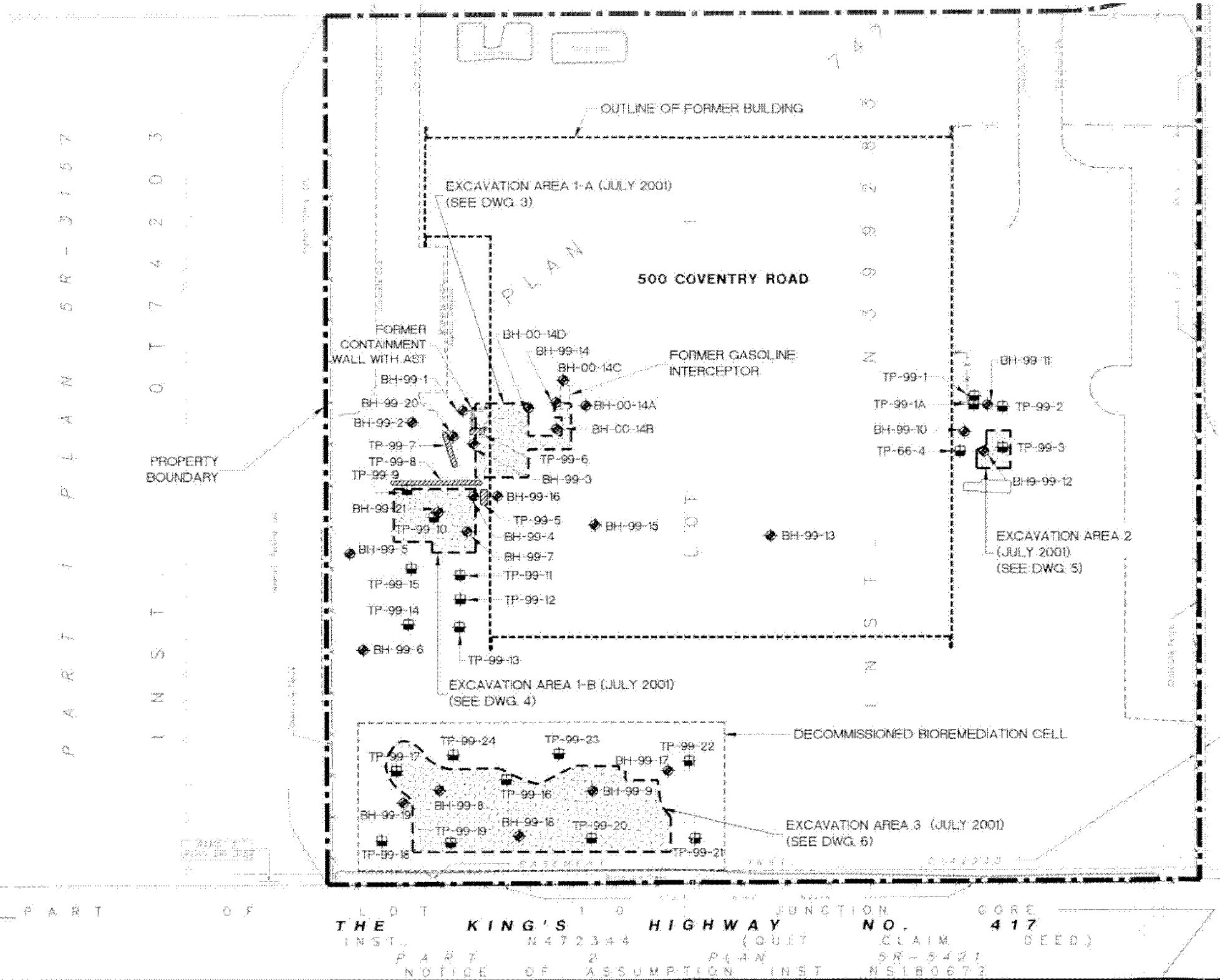
OTTAWA DISTRICT
Name of MOE District Office

2435 HOLLY LANE, OTTAWA ONT. K1V 7P2
Address

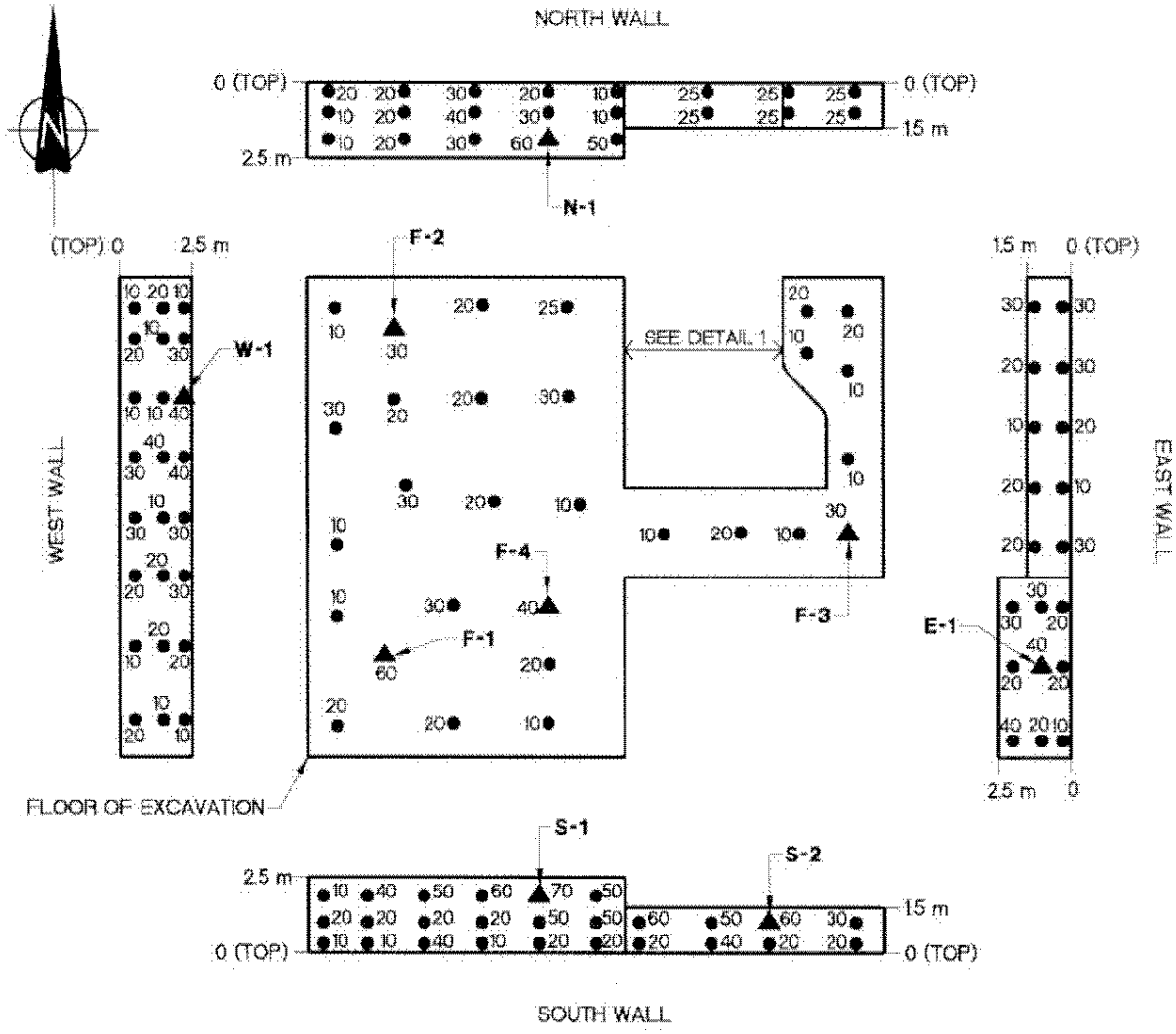
P: (613) 521-3450 F: (613) 521-5437
Telephone and Fax Numbers

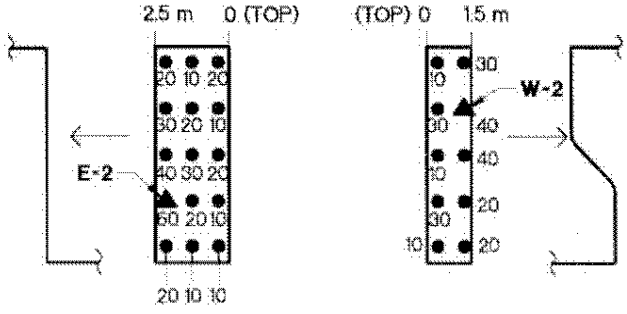
Where the Guideline provides that a Certificate under Section 197 of the *Environmental Protection Act* must be registered on title pursuant to a director's order, acknowledgement of receipt of this RSC will not be issued until such time as the director is provided with a duplicate copy of the Certificate and evidence

that the Certificate has been registered on title.

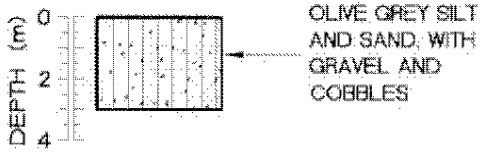


REFERENCE:	SCALE: 1 : 1000	MORGUARD REAL ESTATE INVESTMENT TRUST





DETAIL 1



STRATIGRAPHY (TYPICAL)

LEGEND:

20● PETROLEUM HYDROCARBON VAPOUR CONCENTRATION IN PPM

F-2▲ SOIL SAMPLE SUBMITTED FOR LABORATORY ANALYSIS

MORGUARD REAL ESTATE INVESTMENT TRUST
(1339895 ONTARIO LIMITED)

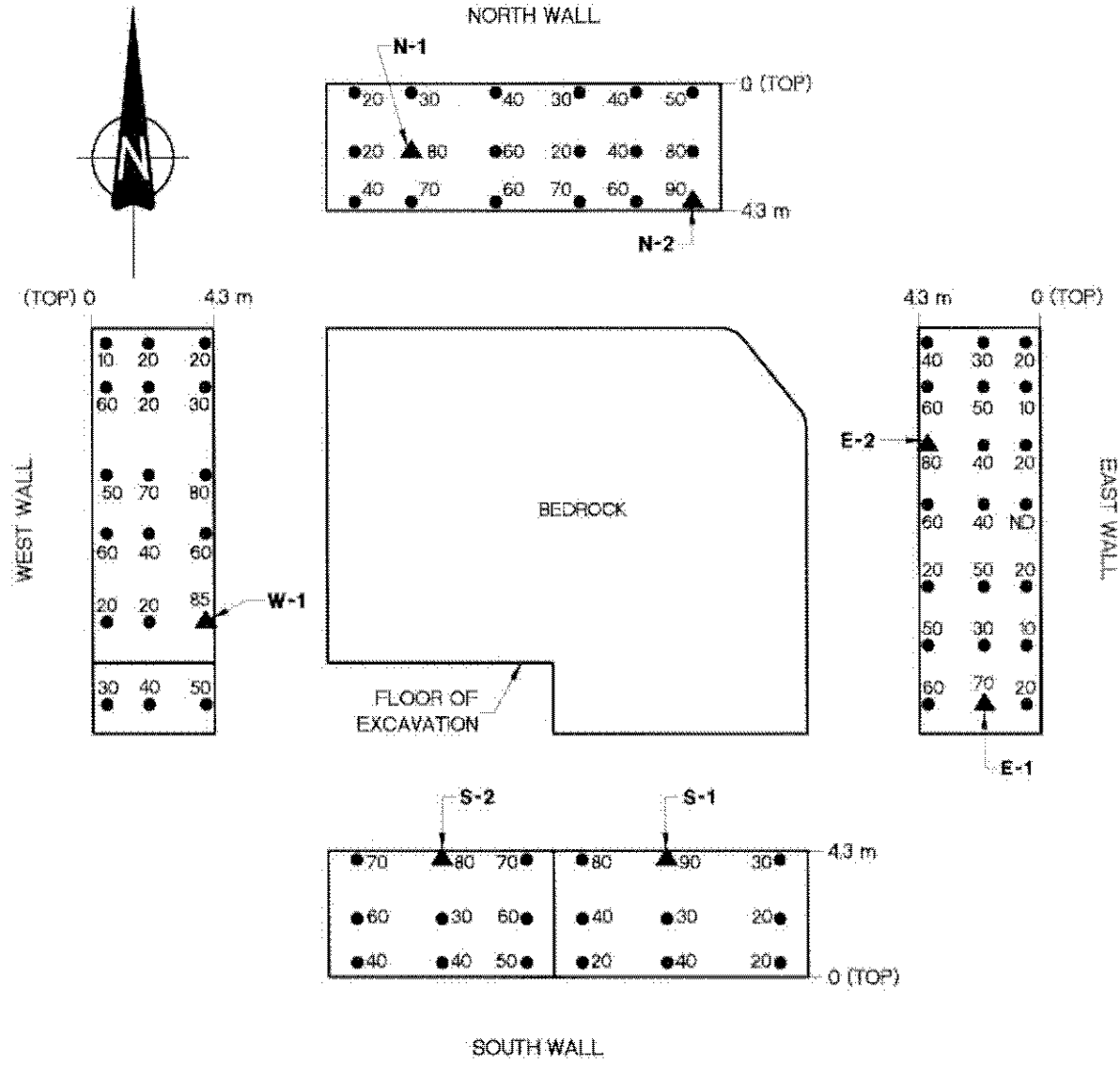
SITE REMEDIATION, 500 COVENTRY ROAD
EXCAVATION AREA 1-A, SAMPLE LOCATION PLAN

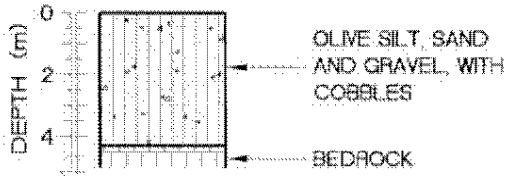
OTTAWA, ONTARIO

Scale:	Proj. No.:	Dwg. No.:
1 : 250	ON031403	3
Date:	Dwn. by:	Appd.:
01/08/09	GBB	

Jacques Whitford

31403-3-3





STRATIGRAPHY (TYPICAL)

LEGEND:

20● PETROLEUM HYDROCARBON VAPOUR CONCENTRATION IN PPM

E-2▲ SOIL SAMPLE SUBMITTED FOR LABORATORY ANALYSIS

MORGUARD REAL ESTATE INVESTMENT TRUST
(1339895 ONTARIO LIMITED)

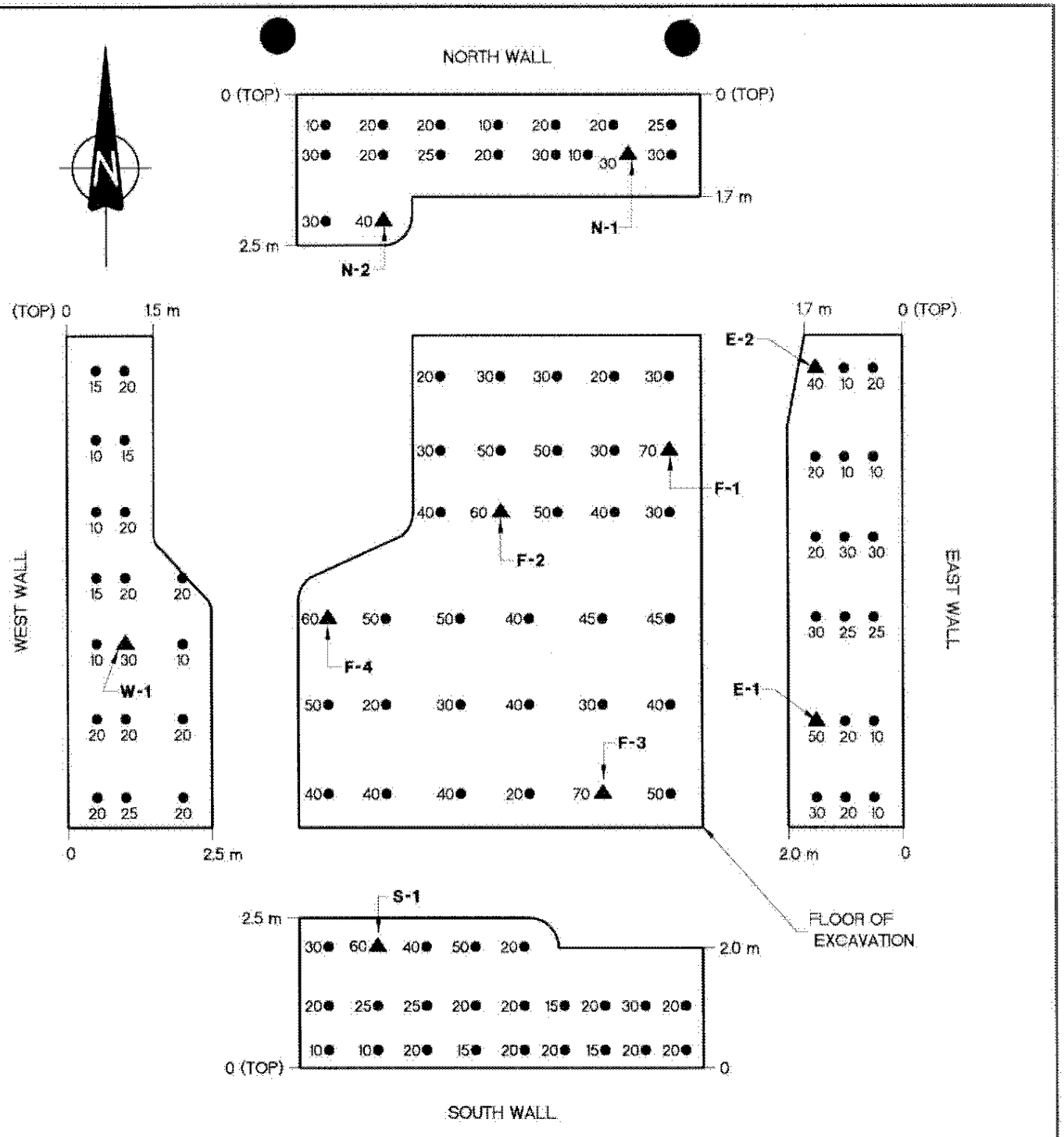
SITE REMEDIATION, 500 COVENTRY ROAD
EXCAVATION AREA 1-B, SAMPLE LOCATION PLAN

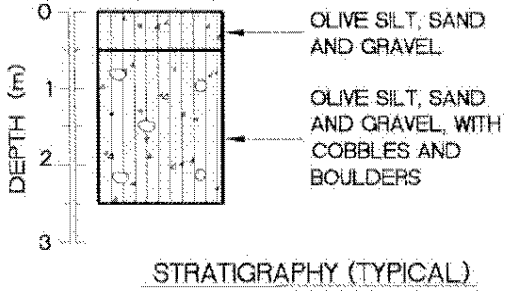
OTTAWA, ONTARIO

Scale:	Proj. No.:	Dwg. No.:
1 : 250	ONO31403	4
Date:	Dwn. by:	Appd.:
01/08/09	GBB	

Jacques Whitford

31403_3-4





STRATIGRAPHY (TYPICAL)

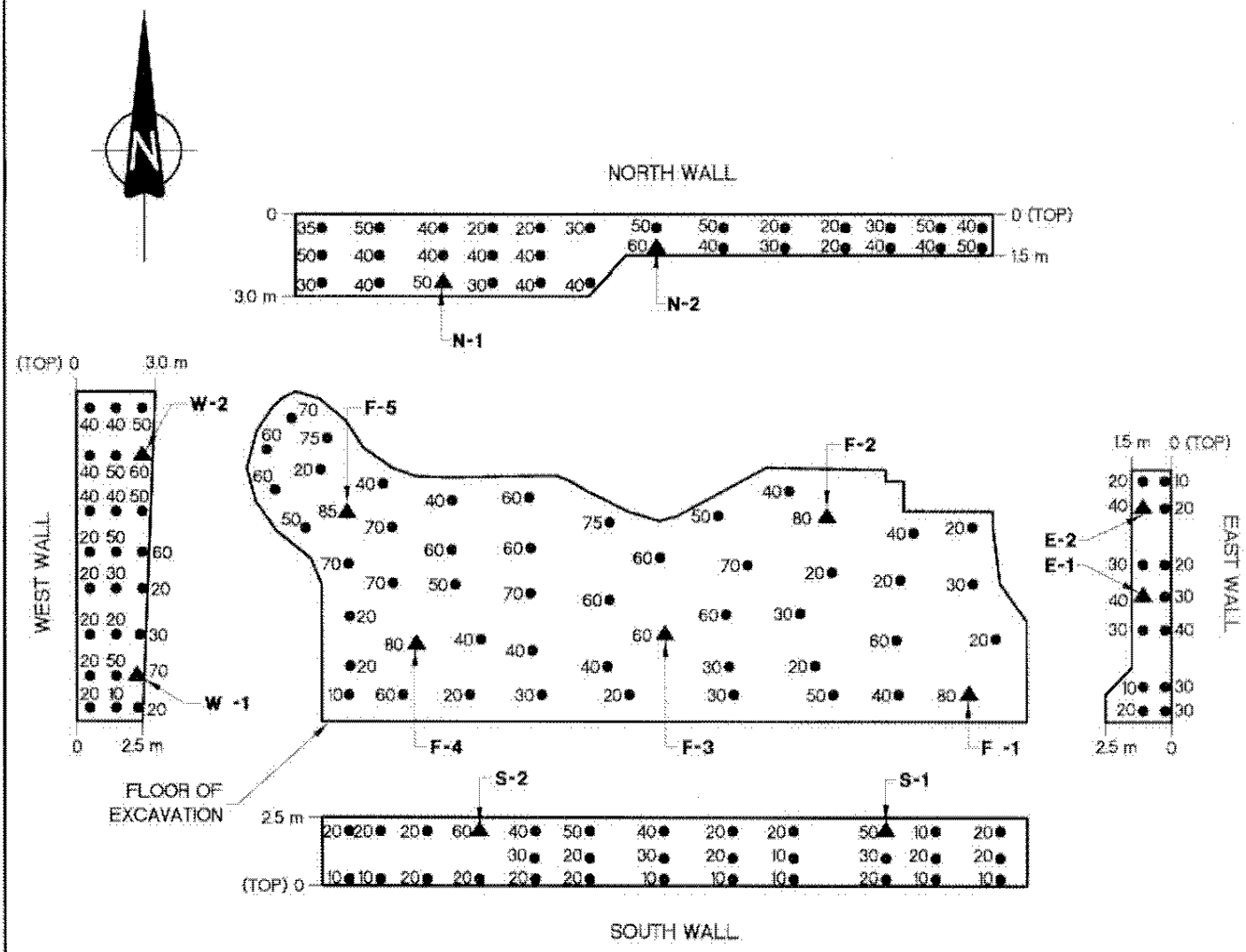
LEGEND:

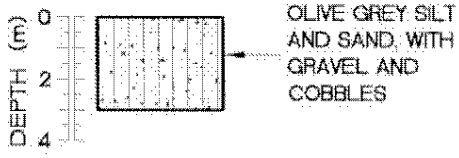
50● PETROLEUM HYDROCARBON VAPOUR CONCENTRATION IN PPM

F-3▲ SOIL SAMPLE SUBMITTED FOR LABORATORY ANALYSIS

MORGUARD REAL ESTATE INVESTMENT TRUST (1339895 ONTARIO LIMITED)	Scale: 1 : 100	Proj. No.: ONO31403	Dwg. No.: 5
SITE REMEDIATION, 500 COVENTRY ROAD EXCAVATION AREA 2, SAMPLE LOCATION PLAN	Date: 01/08/09	Dwn. by: GBB	Appd.:
OTTAWA, ONTARIO			Jacques Whitford

31403-3-5





STRATIGRAPHY (TYPICAL)

1 : 250

LEGEND:

20● PETROLEUM HYDROCARBON VAPOUR CONCENTRATION IN PPM

F-2▲ SOIL SAMPLE SUBMITTED FOR LABORATORY ANALYSIS

MORGUARD REAL ESTATE INVESTMENT TRUST
(1339895 ONTARIO LIMITED)

SITE REMEDIATION, 500 COVENTRY ROAD
EXCAVATION AREA 3, SAMPLE LOCATION PLAN

OTTAWA, ONTARIO

Scale:	Proj. No.:	Dwg. No.:
1 : 500 H 1 : 250 V	ONO31403	6
Date:	Dwn. by:	Appd.:
01/08/09	GBB	

Jacques Whitford

31403-3-6

Morguard
Real Estate Investment Trust

One University Avenue
Suite 1400
Toronto, Ontario
M5J 2P1
Tel: (416) 369-8711
Fax: (416) 369-1975
www.morguardreit.com

Writer's Direct Line: (416) 369-8602

VIA COURIER AND FAX (519) 622-5720

August 8, 2001

Pierre Maheux
Jacques Whitford Environmental Ltd.
Suite 200
2781 Lancaster Rd.
Ottawa, ON K1B 1A7

Dear Pierre:

RE: 500 Coventry Road, Ottawa, Ontario

Further to our recent conversation, kindly consider this letter as confirmation that the registered owner of 500 Coventry Road is 1339895 Ontario Limited which is a nominee company of Morguard Real Estate Investment Trust.

I trust that this is to your satisfaction, should you require anything further kindly contact the undersigned.

Yours truly,
MORGUARD REAL ESTATE INVESTMENT TRUST

Jay Camacho
Vice President, Finance & Administration
JC:mv

Encl.

Request ID: 003723188
Demande n°:
Transaction ID: 16619188
Transaction n°:
Category ID: CT
Catégorie:

Province of Ontario
Province de l'Ontario
Ministry of Consumer and Commercial Relations
Ministère de la Consommation et du Commerce
Companies Branch
Direction des compagnies

Date Report Produced: 2001/07/27
Document produit le:
Time Report Produced: 15:17:58
Imprimé à:

Certificate of Status
Certificat de statut

This is to certify that according to the records of the companies branch

Je certifie par les présentes que, conformément aux dossiers de la Direction des compagnies,

1339895 ONTARIO LIMITED

Ontario Corporation No.

Numéro matricule de la personne morale en Ontario

001339895

is a corporation incorporated, amalgamated or continued under the laws of the Province of Ontario.

est constituée, fusionnée ou prorogée en vertu des lois de la province de l'Ontario.

The corporation came into existence on

La personne morale a été fondée le

FEBRUARY 12 FÉVRIER, 1999

and has not been dissolved.

et n'a pas été dissoute.

Dated

Fait le

JULY 27 JUILLET, 2001

Director (A)
Directrice intérimaire

The issuance of this certificate in electronic form is authorized by the Director of Companies Branch.
La délivrance du présent certificat sous forme électronique est autorisée par la Directrice de la Direction des compagnies.

* CERTIFIED BY LAND REGISTRAR IN ACCORDANCE WITH LAND TITLES ACT * SUBJECT TO RESERVATIONS IN CROWN GRANT *

PTION: LT 1, PL 747 ; S/T INTEREST, IF ANY, IN OT42230 ; OTTAWA/GLOUCESTER

S:

R	RECENTLY	PIN CREATION DATE	OWNERS' NAMES	CAPACI
UALIFIED	FIRST CONVERSION FROM BOOK 428	1996/12/16	1339895 ONTARIO LIMITED	

TE	INSTRUMENT TYPE	AMOUNT	PARTIES FROM	PARTIES TO	CERT/ CHKD	FILM	FUTURE OF
29 THE NOTATION OF THE "BLOCK IMPLEMENTATION DATE" OF 1996/12/16 ON THIS PIN **							
H THE "PIN CREATION DATE" OF 1996/12/16 **							
ALL DOCUMENT TYPES (DELETED INSTRUMENTS NOT INCLUDED) **							
REGISTRATION UNDER THE LAND TITLES ACT, TO: **							
CTION 44(1) OF THE LAND TITLES ACT, EXCEPT PARAGRAPH 11, PARAGRAPH 14, PROVINCIAL SUCCESSION DUTIES **							
SCHEATS OR FORFEITURE TO THE CROWN. **							
GHTS OF ANY PERSON WHO WOULD, BUT FOR THE LAND TITLES ACT, BE ENTITLED TO THE LAND OR ANY PART OF **							
OUGH LENGTH OF ADVERSE POSSESSION, PRESCRIPTION, MISDESCRIPTION OR BOUNDARIES SETTLED BY **							
NTION. **							
ASE TO WHICH THE SUBSECTION 70(2) OF THE REGISTRY ACT APPLIES. **							
ON TO LAND TITLES: 1996/12/16 **							
/11/21	AGREEMENT			THE CORPORATION OF THE CITY OF OTTAWA THE HYDRO ELECTRIC COMMISSION OF THE CITY OF OTTAWA THE BELL TELEPHONE CO. OF CANADA	C		
/05/01	R C APPL ANNEX				C		
/04/14	TRANSFER	$ 2,600,000	KAYSUSH DEVELOPMENTS LTD.	1339895 ONTARIO LIMITED	C		
/04/14	CHARGE	$ 500,000	1339895 ONTARIO LIMITED	KAYSUSH DEVELOPMENTS LTD.	C		
/04/14	CHARGE	$ 500,000	1339895 ONTARIO LIMITED	KAYSUSH DEVELOPMENTS LTD.	C		

OTE JOINING PROPERTIES SHOULD BE INVESTIGATED TO ASCERTAIN DESCRIPTIVE INCONSISTENCIES, IF ANY, WITH DESCRIPTION REPRESENTED FOR THIS PROPERTY.
OTE SURE THAT YOUR PRINTOUT STATES THE TOTAL NUMBER OF PAGES AND THAT YOU HAVE PICKED THEM ALL UP.

Certified True Copy of Instrument
(Designated Area)

Certificate

(Clause 16(4) (c) of the Registry act or clause 164(4) (c) of the Land Titles Act)

CERTIFIED to be a true copy of LT 1275984
(instrument or deposit number)

(If record, add: _____**)**
(year, month, day, time)

Asst. **Deputy Land Registrar**

FOR OFFICE USE ONLY

1275

CERTIFICATE OF RE
CERTIFICAT DE RECE
OTTAWA-CARLETON

'00 APR 14 13

GAIL NOUMEAU
CERTIFICATION OFFICE

TWO MILLION SIX HUNDRED THOUSAND

Dollars $ 2,600,000.00

(5) Description This is a: Property Division ☐ Property Consolidation ☐

Lot 1, Plan 747
subject to interest, if any, in OT42230;
Ottawa/Gloucester

New Property Identifiers

Additional See Schedule ☐

Executions EXECUTIONS CLEAR

Additional See Schedule ☐

(6) This Document Contains (a) Redescription New Easement Plan/Sketch ☐ (b) Schedule for: Description ☐ Additional Parties ☐ Other ☐

(7) Interest/Estate Transferred Fee Simple

(8) Transferor(s) The transferor hereby transfers the land to the transferee ~~[illegible]~~

Name(s)	Signature(s)	Date of Signature Y	M	D
KAYSUSH DEVELOPMENTS LTD., IN TRUST	Per: Kewal Dilawri	2000	04	13
I have authority to bind the Corporation.				

(9) Spouse(s) of Transferor(s) I hereby consent to this transaction

Name(s)	Signature(s)	Date of Signature Y	M	D

(10) Transferor(s) Address for Service 955 Richmond Road, Ottawa, Ontario K2B 6R1

(11) Transferee(s)

	Date of Birth Y	M	D
1339895 ONTARIO LIMITED			

(12) Transferee(s) Address for Service c/o 1 University Avenue, Suite 1400, Toronto, Ontario, M5J 2P1, Attn: General Counsel

Planning Act - OPTIONAL

(13) Transferor(s) The transferor verifies that to the best of the transferor's knowledge and belief, this transfer does not contravene section 50 of the Planning Act.

Date of Signature Y M D

Signature ..... Signature .....

Solicitor for Transferor(s) I have explained the effect of section 50 of the Planning Act to the transferor and I have made inquiries of the transferor to determine that this transfer does not contravene that section and based on the information supplied by the transferor, to the best of my knowledge and belief, this transfer does not contravene that section. I am an Ontario solicitor in good standing.

Name and Address of Solicitor

Date of Signature Y M D

Signature .....

Affix Statement by Solicitor for Transferee(s) here if necessary

(14) Solicitor for Transferee(s) I have investigated the title to this land and to abutting land where relevant and I am satisfied that the title records reveal no contravention as set out in subclause 50 (22) (c) (ii) of the Planning Act and that to the best of my knowledge and belief this transfer does not contravene section 50 of the Planning Act. I act independently of the solicitor for the transferor(s) and I am an Ontario solicitor in good standing.

Name and Address of Solicitor

Date of Signature Y M D

Signature .....

(15) Assessment Roll Number of Property	Cty.	Mun.	Map	Sub.	Par.
	06	14	031	301	73400

ONLY

Fees and Tax

Registration Fee 50

(16) Municipal Address of Property

(17) Document Prepared by

000141

I, *(see instruction 2 and print name(s) in full)* Randy T. Hooke

MAKE OATH AND SAY THAT:

1. I am *(place a clear mark within the square opposite that one of the following paragraphs that describes the capacity of the deponent(s))*: *(see instruction 2)*

☐ (a) A person in trust for whom the land conveyed in the above-described conveyance is being conveyed;

☐ (b) A trustee named in the above-described conveyance to whom the land is being conveyed;

☐ (c) A transferee named in the above-described conveyance;

☒ (d) The authorized agent or solicitor acting in this transaction for *(insert name(s) of principal(s))* 1339895 Ontario Limited

described in paragraph(s) (a), (b), (c) above; *(strike out references to inapplicable paragraphs)*

☐ (e) The President, Vice-President, Manager, Secretary, Director, or Treasurer authorized to act for *(insert name(s) of corporation(s))*

described in paragraph(s) (a), (b), (c) above; *(strike out references to inapplicable paragraphs)*

☐ (f) A transferee described in paragraph ( ) *(insert only one of paragraph (a), (b) or (c) above, as applicable)* and am making this affidavit on my own behalf and on behalf of *(insert name of spouse)* who is my spouse described in paragraph ( ) *(insert only one of paragraph (a), (b) or (c) above, as applicable)* and as such, I have personal knowledge of the facts herein deposed to.

2. ***(To be completed where the value of the consideration for the conveyance exceeds $400,000).***

I have read and considered the definition of "single family residence" set out in clause 1(1)(ja) of the Act. The land conveyed in the above-described conveyance:

☐ contains at least one and not more than two single family residences.

☒ does not contain a single family residence.

☐ contains more than two single family residences. *(see instruction 3)*

Note: **Clause 2(1)(d) imposes an additional tax at the rate of one-half of one per cent upon the value of consideration in excess of $400,000 where the conveyance contains at least one and not more than two single family residences.**

3. I have read and considered the definitions of "non-resident corporation" and "non-resident person" set out respectively in clauses 1(1)(f) and (g) of the Act and each of the following persons to whom or in trust for whom the land is being conveyed in the above-described conveyance is a "non-resident corporation" or a "non-resident person" as set out in the Act. *(see instructions 4 and 5)* None

4. **THE TOTAL CONSIDERATION FOR THIS TRANSACTION IS ALLOCATED AS FOLLOWS:**

(a) Monies paid or to be paid in cash	$ 2,600,000.00	
(b) Mortgages (i) Assumed *(show principal and interest to be credited against purchase price)*	$ Nil	
(ii) Given back to vendor	$ Nil	
(c) Property transferred in exchange *(detail below)*	$ Nil	
(d) Securities transferred to the value of *(detail below)*	$ Nil	
(e) Liens, legacies, annuities and maintenance charges to which transfer is subject	$ Nil	
(f) Other valuable consideration subject to land transfer tax *(detail below)*	$ Nil	
(g) VALUE OF LAND, BUILDING, FIXTURES AND GOODWILL SUBJECT TO LAND TRANSFER TAX *(Total of (a) to (f))*	$ 2,600,000.00	$ 2,600,000.00
(h) VALUE OF ALL CHATTELS – items of tangible personal property *(Retail Sales Tax is payable on the value of all chattels unless exempt under the provisions of the "Retail Sales Tax Act", R.S.O. 1980, c.454, as amended)*		$ Nil
(i) Other consideration for transaction not included in (g) or (h) above		$ Nil
(j) TOTAL CONSIDERATION		$ 2,600,000.00

All Blanks Must Be Filled In. Insert "Nil" Where Applicable

5. If consideration is nominal, describe relationship between transferor and transferee and state purpose of conveyance. *(see instruction 6)*

6. If the consideration is nominal, is the land subject to any encumbrance?

7. Other remarks and explanations, if necessary.

Sworn before me at the City of Toronto
in the
this 13 day of April 19 2000

A Commissioner for taking Affidavits, etc.

Randy T. Hooke
signature(s)

Property Information Record

A. Describe nature of instrument: Transfer/Deed of Land

B. (i) Address of property being conveyed *(if available)* 500 Coventry Road, Ottawa, Ontario

(ii) Assessment Roll No. *(if available)* 06 14 031 301 73400

C. Mailing address(es) for future Notices of Assessment under the Assessment Act for property being conveyed *(see instruction 7)* c/o 1 University Avenue, Suite 1400, Toronto, Ontario, M5J 2P1

D. (i) Registration number for last conveyance of property being conveyed *(if available)* not available

(ii) Legal description of property conveyed: Same as in D.(i) above. Yes ☐ No ☒ Not known ☐

E. Name(s) and address(es) of each transferee's solicitor

Randy T. Hooke
AIRD & BERLIS, Barristers & Solicitors, Suite 1800, 181 Bay Street, Toronto, Ontario M5J 2T9

For Land Registry Office Use Only	
Registration No.	
Registration Date	Land Registry Office No.

Jacques Whitford

Consulting Engineers
Environmental Scientists
Information Consultants

2781 Lancaster Road
Suite 200
Ottawa, Ontario
Canada K1B 1A7

Tel.: 613 738 0708
Fax: 613 738 0721

Environmental Sciences
Environmental Engineering
Air Quality
Hydrogeology
Geotechnical Engineering
Materials Engineering & Research
Mining Engineering

Facsimile Transmission

TO: COMPANY	ATTENTION	FAX NO.
MOE	MIKE HEERINGA	521-5437

FR: PIERRE MAHEUX DATE AUG 23, 2001 FILE ON031403

We are transmitting 2 page(s) including this page. If you do not receive all pages, please telephone 613 738 0708.
May contain confidential information. If you have received in error, please notify us and destroy the original.

ORIGINAL TO FOLLOW No X On File _____ Yes/By Mail _____ Yes/By Courier _____

MESSAGE/RE:

500 COUNTRY ROAD
RECORD OF SITE CONDITION

MIKE,

REVISED PART 6 - STATEMENT OF SITE OWNER IS ATTACHED

PLEASE LET ME KNOW IF THIS SATISFIES MOE'S NEEDS.

PIERRE

Reply:

Schedule A - Record of Site Condition (Revised September, 1998)
for the ***Guideline for Use at Contaminated Sites in Ontario***, Revised February 1997

Part 6 - STATEMENT OF SITE OWNER

This is to certify that as the owner ~~/ as the agent on behalf of the owner~~[1] *(strike out and initial that which does not apply)* of the site I have hired PIERRE J. MAHEUX as the principal consultant to undertake, supervise or monitor the assessment and if necessary the restoration of the site to make it suitable for the land use(s) set out in Part 3.2. This is to confirm that the principal consultant has certified to me that the assessment and/or restoration activities have been completed in accordance with the Guideline. I ~~(and/or the owner)~~ agree to provide, on request, all reports listed in Table 1, Part 2 to municipal authorities dealing with the site and a party who is acquiring an interest in the site from me. I have undertaken reasonable inquiry into the previous ownership and uses of the property and to the best of my knowledge I have provided to the consultant, information relevant to the consultant's investigation of the environmental condition of the site, in the preparation of this RSC.

I acknowledge that this RSC becomes a public document after it has been acknowledged by the Ministry of the Environment. Any party intending to purchase, lease, take a security interest in, or occupy the site may review the RSC and any supporting documents to satisfy themselves with respect to the environmental condition of the site, and the extent of responsibility and liability that may arise from taking ownership, taking a security interest, or occupying the site.

I have made no modifications to this RSC except as allowed by the form.

MORGUARD REAL ESTATE INVESTMENT TRUST

Name[1] PER: JAY CAMACHO

PER: LES WAYNE

Signature

ONE UNIVERSITY AVENUE, SUITE 1400
TORONTO, ONTARIO M5J 2P1

Address for Correspondence

Date AUGUST 8, 2001

[1] If you are signing as the agent of the owner written consent from the owner authorizing you to sign the RSC must be attached.

Schedule A - Record of Site Condition (Revised September, 1998)
for the ***Guideline for Use at Contaminated Sites in Ontario,*** Revised February 1997

Part 6 - STATEMENT OF SITE OWNER

This is to certify that as the beneficial owner / ~~as the agent on behalf of the owner~~[1] *(strike out and initial that which does not apply)* of the site I have hired JACQUES WHITFORD ENVIRONMENT LIMITED as the principal consultant to undertake, supervise or monitor the assessment and if necessary the restoration of the site to make it suitable for the land use(s) set out in Part 3.2. This is to confirm that the principal consultant has certified to me that the assessment and/or restoration activities have been completed in accordance with the Guideline. I ~~*(and/or the owner)*~~ agree to provide, on request, all reports listed in Table 1, Part 2 to municipal authorities dealing with the site and a party who is acquiring an interest in the site from me. I have undertaken reasonable inquiry into the previous ownership and uses of the property and to the best of my knowledge I have provided to the consultant, information relevant to the consultant's investigation of the environmental condition of the site, in the preparation of this RSC.

I acknowledge that this RSC becomes a public document after it has been acknowledged by the Ministry of the Environment. Any party intending to purchase, lease, take a security interest in, or occupy the site may review the RSC and any supporting documents to satisfy themselves with respect to the environmental condition of the site, and the extent of responsibility and liability that may arise from taking ownership, taking a security interest, or occupying the site.

I have made no modifications to this RSC except as allowed by the form.

MORGUARD REAL ESTATE INVESTMENT TRUST

Name[1]

PER: JAY CAMACHO

PER:

Signature LES WAYNE

ONE UNIVERSITY AVE., SUITE 1400
TORONTO, ONTARIO, M5J 2P1

Address for Correspondence

Date AUGUST 8, 2001

[1] If you are signing as the agent of the owner written consent from the owner authorizing you to sign the RSC must be attached.

Coca-Cola Bottling Company

A COCA-COLA ENTERPRISES COMPANY

42 Overlea Boulevard
Toronto, Ontario, M4H 1B8

MINISTRY OF THE ENVIRONMENT
APR - 4 2001
OTTAWA

FAX TRANSMITTAL

TO:
NAME N. Matthews
COMPANY Ministry of the Environment

FAX NO. 613-548-6908
TEL NO. 613-549-4000

FROM:
Antonetta Volpe
Insurance & Risk Specialist

FAX NO. (416) 424-6384 or 6079
TEL. NO. (416) 424-6135

DATE: March 28, 2001

IF YOU EXPERIENCE TRANSMISSION PROBLEMS, PLEASE TELEPHONE (416) 424-6135.

THE INFORMATION CONTAINED IN THIS TELECOPIER COMMUNICATION IS CONFIDENTIAL AND MAY BE PRIVILEGED. IF THE READER OF THIS COVER PAGE IS NOT THE INTENDED RECIPIENT OR AN AUTHORIZED AGENT OR REPRESENTATIVE THEREOF, YOU ARE HEREBY NOTIFIED THAT THE READING, DISCLOSURE, DISSEMINATION, DISTRIBUTION OR COPYING OF THIS TELECOPIER COMMUNICATION IS STRICTLY PROHIBITED. IF YOU HAVE RECEIVED THIS TELECOPIER COMMUNICATION IN ERROR, PLEASE NOTIFY THE SENDER IMMEDIATELY BY A COLLECT TELEPHONE CALL AND WE WILL ARRANGE TO HAVE THE ORIGINAL TELECOPIER COMMUNICATION RETURNED TO US AT OUR EXPENSE.

COMMENTS:

Letter of Credit (LOC) issued to the Ministry of Environment and Energy on November 17, 1995 in the amount of C$49,313 pertaining to Provisional Certificate of Approval Number A710060, copy attached. Could you please provide us with a copy of the Provisional Certificate and also advise if we are still required to keep the LOC in place.

Your assistance in this matter is greatly appreciated. Should you have any questions or require further particulars, please do not hesitate to contact me.

Regards,
Antonetta

APPLICATION FOR STANDBY LETTER OF CREDIT

FOR ASSISTANCE, IN CANADA CALL TRADE FINANCE SUPPORT LINES 1-800-268-6331 (TORONTO 950-2222), OR THE TRADE FINANCE CENTRE/LETTER OF CREDIT ISSUING OFFICE IN YOUR AREA.

TO: THE MANAGER
CANADIAN IMPERIAL BANK OF COMMERCE
Don Mills & Lawrence

BRANCH OF ACCOUNT
8910516

BANK REFERENCE NUMBER
T-369385

DATE RECEIVED

PLEASE ISSUE THE FOLLOWING: ☒ IRREVOCABLE ☐ REVOCABLE

PLEASE RUSH !!

STANDBY LETTER OF CREDIT ☐ BY MAIL ☐ BY TELETRANSMISSION

APPLICANT'S ID NUMBER
70004320

CURRENCY
CAD

EXPIRY DATE
1 1 1 9 6

AMOUNT
$49,313.00

AUTOMATIC RENEWAL CLAUSE ☒ YES ☐ NO

60 DAYS NOTICE TO BENEFICIARY IN ORDER TO PREVENT THE AUTOMATIC RENEWAL OF THE LETTER OF CREDIT ON ITS EXPIRY DATE OR ON ANY SUBSEQUENT EXPIRY DATE.

REMEMBER THE AUTOMATIC RENEWAL CLAUSE WILL, UNLESS YOU REQUEST OTHERWISE UNDER "DETAILS" BELOW, PROVIDE FOR THE AUTOMATIC RENEWAL OF THE LETTER OF CREDIT FOR SUCCESSIVE ONE YEAR PERIODS COMMENCING ON THE EXPIRY DATE, AS WELL, AN AUTOMATIC RENEWAL CLAUSE MAY ALSO CONTAIN CIRCUMSTANCES UNDER WHICH THE BENEFICIARY MAY PLACE UNDER THE LETTER OF CREDIT, IF YOU ARE CHANGE THE CONDITIONS UNDER WHICH THE BENEFICIARY MAY PLACE UNDER THE LETTER OF CREDIT, PLEASE CONTACT UNCERTAIN AS TO THE EFFECT OF AN AUTOMATIC RENEWAL CLAUSE ON THE LETTER OF CREDIT, IF YOU ARE YOUR TRADE FINANCE CENTRE/LETTER OF CREDIT ISSUING OFFICE FOR FURTHER INFORMATION.

BENEFICIARY - FULL NAME AND ADDRESS
Ministry of Environment & Energy
133 Dalton Avenue
Kingston, Ontario

APPLICANT - FULL NAME AND ADDRESS
Coca-Cola Bottling Ltd.
42 Overlea Boulevard
Toronto, Ontario

MENTAL CODE
L L 7 1 L 4 1 X 1 6

MENTAL CODE
M 1 1 H 1 1 8 1 8

DETAILS INCLUDING PURPOSE AND DOCUMENTATION REQUIRED IN THE EVENT OF A DRAWING.

Claims under the LC must quote the LC# and must be accompanied by a written statement from the Ministry of Environment & Energy that the monies are required in connection with obligation of CCB pursuant to Provisional Certificate of Approval Number A710060, which ~~obligators~~ CCB is unwilling or unable to carry out.

OBLIGATORS

Non-Interest
15%

☐ REQUESTED PROFORMA ATTACHED ☐ USE SIMILAR FORMAT AS LC NO. _____

THE UNDERSIGNED HEREBY REQUESTS CANADIAN IMPERIAL BANK OF COMMERCE (THE "BANK") TO ISSUE ITS STANDBY LETTER OF CREDIT SUBSTANTIALLY IN ACCORDANCE WITH THE FOREGOING INSTRUCTIONS AND THE BANK'S USUAL WORDING AND AUTHORIZES THE BANK TO ISSUE A BANK GUARANTEE IN LIEU THEREOF ON THE BASIS OF ITS USUAL PRACTICE. THE BANK IS AUTHORIZED TO ARRANGE FOR THE ISSUANCE OF THE REQUESTED STANDBY LETTER OF CREDIT OR A GUARANTEE IN LIEU THEREOF BY ANOTHER INSTITUTION OF ITS CHOICE AGAINST THE BANK'S COUNTER-GUARANTEE OR SUPPORTING LETTER OF CREDIT. THE UNDERSIGNED AGREES TO BE BOUND BY THE TERMS AND CONDITIONS ON THE REVERSE HEREOF, WHICH SHALL GOVERN THE BANK TO ISSUE ITS STANDBY LETTER OF CREDIT OR BANK GUARANTEE OR TO ARRANGE FOR THE ISSUANCE OF A STANDBY LETTER OF CREDIT OR GUARANTEE BY ANOTHER INSTITUTION.

AUTHORIZED SIGNATURE

Nov. 13 1995
DATE

FOR COMPLETION BY THE BRANCH OF ACCOUNT/ISSUE

AUTHORIZING BRANCH/DEPT TRANSIT NO. SIGNATURE AND DATE

PORTFOLIO

BRANCH OF A/C TO BE DEBITED / AND DATE IF ESTIMATE FROM AUTHORIZING BRANCH

We hereby authorize debiting of the above ☐ Financial ☐ Non-financial

Check if applicable: ☐ COLLATERALIZED BY CASH / CDCD DEPOSIT CERT / SECURITIES ISSUED BY CDCD MAKER AND ISSUED CENTRAL GOV'T OR THEIR CENTRAL BANKS

AUTH. NO. DAY68 BY

AUTHORIZED SIGNATURE OR COMPUTER COUNTERSIGNATURE

AUTH. NO. 7168 BY

AUTHORIZED SIGNATURE

BRANCHING CONTACT PERSON AND TELEPHONE NUMBER

Debbie 310 8416

BRANCHING INSTRUCTIONS TO THE ISSUING OFFICE:

☐ RETURN COMPLETED LETTER OF CREDIT TO ORIGINATING BRANCH/DEPT

☐ PRINT LIC AT DESIGNATED BRANCH/DEPT TRANSIT NO. _____

☐ OTHER

☐ CALL CUSTOMER AT _____

☐ MAIL BRANCH/DEPT OF ACCOUNT NO. FOR PICK-UP BY BANK

SIGNATURE

THIS APPLICATION REQUESTS THE BANK TO ESTABLISH ITS STANDBY LETTER OF CREDIT OR TO ARRANGE FOR THE ISSUANCE OF A STANDBY LETTER OF CREDIT BY ANOTHER INSTITUTION & UTILIZE A STANDBY LETTER OF CREDIT. THIS ALSO AUTHORIZES THE BANK TO ISSUE A BANK GUARANTEE OR TO ARRANGE FOR THE ISSUANCE OF A GUARANTEE BY ANOTHER INSTITUTION IN LIEU OF A STANDBY LETTER OF CREDIT. YOU RELATE A SPECIFIC TYPE OF INSTRUMENT, YOUR REQUIREMENTS SHOULD BE DISCUSSED WITH THE BRANCH PRIOR TO COMPLETION OF THIS FORM. UPON ISSUANCE OF A STANDBY LETTER OF CREDIT, BANK CHARGES OR OTHER CHARGES, YOUR REQUIREMENTS SHOULD BE DISCUSSED WITH THE BRANCH PRIOR TO COMPLETION OF THIS FORM. UPON ISSUANCE OF A STANDBY LETTER OF CREDIT, THE PARTY DESIGNATED TO REQUEST REPORTS THEREUNDER WITH THE TERMS OF THE ISSUING INSTITUTION WILL BE BOUND TO MAKE PAYMENT THEREUNDER UPON TIMELY STATEMENT OF THE TERMS AND CONDITIONS SET OUT IN THIS APPLICATION. YOU ARE RESPONSIBLE FOR PROVIDING THE BANK WITH A SUFFICIENT NUMBER OF THE DOCUMENTS, IF ANY, REQUIRED TO BE PAID. IN ADDITION, PLEASE NOTE THAT EACH INSTRUMENT OF ALL PARTIES HERETO.

Fax
Télécopie

Ontario

Date	April 03, 2001	Time/Heure	08:44:51 am	Fax/Télécopieur	
To/A	Natalie Matthews Fax 613-548-6908				

From/De	Ministry of the Environment Environmental Assessment and Approvals Branch 2 St. Clair Avenue West Floor 12A Toronto ON M4V 1L5	Ministère de l'Environnement Direction des évaluations environnementales et des autorisations 2, avenue St. Clair Ouest Étage 12A Toronto (Ontario) M4V 1L5
Name/Nom	Rita Ramkaran	
Telephone/Téléphone	416-314-7254	
Fax/Télécopieur	(416) 314-8452	
Pages to follow/Pages à suivre	19	

Message

Copy of C/A A710060

7540-2000 (89/09)

APR 03 '01 09:22 FR TO 916135486908 P.01/19

Ontario

Ministry of Environment and Energy

Ministère de l'Environnement et de l'Énergie

PROVISIONAL CERTIFICATE OF APPROVAL FOR A WASTE DISPOSAL SITE

CERTIFICAT D'AUTORISATION PROVISOIRE DE DÉCHARGE

Provisional Certificate Number A710060
Certificat provisoire no.

Under the Environmental Protection Act and Regulations, and subject to the limitations thereof, this Provisional Certificate of Approval is issued to:
Aux termes de la Loi sur la protection de l'environnement et des règlements et sous réserve des restrictions qui y sont stipulées, le présent certificat provisoire d'autorisation est délivré à:

Coca-Cola Bottling Ltd.
42 Overlea Blvd.
Toronto, Ontario
M4H 1B8

for the use and operation of a 3.2 hectare Waste Disposal Site (Processing) for the ex-situ remediation of on-site soil contaminated with petroleum hydrocarbons,

all in accordance with the plans and specifications as listed in Schedule "A" which is attached and forms part of this Certificate except as specified in the Terms and Conditions of this Certificate,

Located at: 500 Coventry Road
City of Ottawa, Ontario

which includes the use of the site for the transfer and processing of the following categories of waste only:

a) non-hazardous solid waste limited to on-site soil contaminated with petroleum hydrocarbons; and
b) groundwater contaminated with petroleum hydrocarbons.

(Note: Use of the site for additional categories of waste requires a new application and amendments to this Certificate)

and subject to the following Definitions and Conditions:

APR 03 '01 09:22 FR TO 916135486908 P.02/19

Definitions:

1. For the purposes of this Provisional Certificate of Approval:

"Act" means the Environmental Protection Act, R.S.O. 1990, c. E-19 as amended;

"BTEX" means benzene, toluene, ethylbenzene, xylene;

"Certificate" means this entire Provisional Certificate of Approval for a Waste Disposal Site (Processing) No. **A710060**, including its schedules, if any, issued in accordance with Section 27, Part V of the Environmental Protection Act;

"contaminated groundwater" means petroleum hydrocarbon contaminated groundwater to be pumped out of the excavation during excavation and out of the treatment area during processing;

"contaminated soil" means petroleum hydrocarbon contaminated soil to be excavated from this site for on-site processing;

"Director" means the Regional Director of the Eastern Region of the Ministry of Environment and Energy;

"District Manager" means the District Manager of the Ottawa District Office, Eastern Region of the Ministry of Environment and Energy;

"treatment area" means the engineered bioremediation cell;

"Ministry" means the Ontario Ministry of Environment and Energy, Province of Ontario;

"Owner/Operator" means **Coca-Cola Bottling Ltd.**, and its officers, employees, agents or contractors;

"processed soil" means soil that has undergone remediation for the purpose of removing petroleum hydrocarbon contaminants in accordance with Level II Interim Soil Remediation Criteria for Petroleum Contamination specified in the document "Interim Guidelines for the Assessment and Management of Petroleum Contaminated Sites in Ontario", August 1993;

"Residual waste" means waste resulting from the on-site operations and which is directed, directly or indirectly, for final disposal, at a Ministry of Environment and Energy approved site in Ontario or a site licensed or certified by an equivalent governmental agency to accept such waste;

"site" means the area being approved under this Certificate, located at 500 Coventry Road in the City of Ottawa, Ontario; and

"TPH" means Total Petroleum Hydrocarbons.

General Conditions:

2. The Owner/Operator shall ensure a copy of this Certificate, in its entirety and including any future Notices of Amendment, shall be retained on-site until the remediation is completed.

Spills:

3. The Owner/Operator shall immediately report any spill which occurs at this site directly to the Ministry's Spills Action Centre at 1-800-268-6060 and to the local municipality. In addition, the Owner/Operator shall record the spill in the log book referred to in Condition 19 below.

Hours of Operation:

4. (1) The excavation of the contaminated soil and placement of the remediated soil may occur at this site between the hours of 7:00 am and 6:00 pm, Monday through Friday.

   (2) The processing of the contaminated soil, once placed in the treatment area may occur twenty-four (24) hours per day.

Site Operations:

5. (1) The Owner/Operator shall ensure that the quantity of waste stored in the treatment area at this site does not exceed the maximum site storage capacity of twelve-thousand (12,000) tonnes or (6,000 cubic metres) of contaminated soil.

APR 03 '01 09:23 FR TO 916135486900 P.04/19

(2) The Owner/Operator shall not store contaminated groundwater on-site but shall transfer it directly into the sanitary sewer system, if prior approval has been received from the Regional Municipality of Ottawa-Carleton.

(3) If there is excess water/sediment slurry from the excavation, the contaminated groundwater may be temporarily stored in a four-hundred (400) litre settling tank prior to treatment and discharge into the sanitary sewer.

6. (1) Further to the limitations specified in other terms and conditions of this Certificate, under no circumstances shall the Owner/Operator accept any waste (as defined in Ontario Regulation 347, R.R.O. 1990) from off-site except those which were impacted by spills/leaks generated from on-site.

(2) The Owner/Operator shall ensure no inoculants or other additives are added to the contaminated soil, except for the addition of nutrients as detailed in the supporting documentation listed in Schedule "A".

(3) The Owner/Operator shall not conduct excavation operations during any period in which precipitation could result in a danger to the health and safety of any person or cause an adverse effect to the natural environment.

(4) Prior to commencement of excavation, the Owner/Operator shall prepare the treatment area as detailed in the supporting documentation.

(5) The Owner/Operator shall ensure that all remediation of contaminated soil in the treatment area occurs on an impermeable liner for the collection and containment of the leachate.

(6) The Owner/Operator shall ensure that all contaminated soil is contained in the treatment area during processing.

(7) The Owner/Operator shall ensure the contaminated soil in the treatment area is covered at all times during the remediation process except during required mixing, nutrient addition and sampling.

(8) To prevent recontamination of soils, the Owner/Operator shall ensure that provisions are made to stockpile the processed soil at an elevation above the highest level of seasonal shallow groundwater table.

Site Security:

7. (1) The Owner/Operator shall ensure this site is maintained in a secure manner with a fence and lockable gate(s) such that unauthorized persons cannot enter this site.

(2) The excavation area shall be secured and marked in a fashion so as to prevent entry/injury and restrict access to authorized personnel only.

8. The Owner/Operator shall ensure that a sign is posted at the entrance to this site, identifying the Owner/Operator's name, the Certificate number, an emergency telephone number and the nature of work being conducted.

Nuisance Control:

9. (1) The Owner/Operator shall ensure this site is operated in a manner which minimizes the impacts of odour, dust, litter, noise and traffic on the natural environment and the public.

(2) The Owner/Operator shall ensure that waste is stored in a safe and secure manner and that waste is properly handled and contained so as not to pose any threat to the public, site personnel or the natural environment.

Wastewater Management:

10. (1) The Owner/Operator shall manage all discharges from this site in accordance with appropriate Municipal, Provincial and/or Federal legislation, Regulation and By-laws.

(2) The Owner/Operator shall ensure that an above-ground storage tank is available should the leachate from the treatment cell, after treatment, not meet the Regional Municipality of Ottawa-Carleton's sewer-use by-law.

(3) The Owner/Operator shall ensure the above-ground storage tank, which may be used to store contaminated groundwater, is maintained in good condition to prevent leakage; is examined during regular inspection and maintenance to ensure there are no leaks, and is immediately removed from service should a leak be found.

Waste Disposal:

11. (1) The Owner/Operator shall ensure any residual waste transported off-site for final disposal, does not exceed two-hundred (200) tonnes on any day. Residual waste shall only be disposed of at a site for which a Provisional Certificate of Approval has been issued by the Ministry of Environment and Energy or an equivalent governmental agency of appropriate jurisdiction.

(2) The Company must ensure that all waste generated at this site is disposed in accordance with Ontario Regulation 347, R.R.O. 1990.

(3) The Owner/Operator shall ensure that only waste haulers approved by the Ministry are used to transport waste from this site.

Soil Sampling Program:

12. (1) The Owner/Operator shall ensure contaminated soil is sampled and analyzed in accordance with the "Interim Guidelines for the Assessment and Management of Petroleum Contaminated Sites in Ontario", August 1993, or its latest amendment, and in accordance with the sampling techniques, analysis and frequency as detailed in the supporting documentation listed in Schedule "A" which includes the following:

a) pre-remediation to establish background concentrations of BTEX and TPH in the soil to be excavated and the groundwater to be pumped-out;
b) on a monthly basis during the processing; and
c) at the end of the processing in accordance with Condition 16 below.

APR 03 '01 09:24 FR TO 916135486908 P.07/19

(2) The Owner/Operator shall not mix or dilute the processed soil with any other soils prior to sampling.

Monthly Soil Sampling:

13. In addition to the sampling required by Certificate of Approval (Air) No. 8-4089-95-006, the Owner/Operator shall ensure that on a monthly basis, representative samples of the contaminated soil in the treatment area are taken and analyzed for the following parameters and in accordance with sampling techniques, analysis and frequency as detailed in the supporting documentation listed in Schedule "A":

a)	oxygen;	b)	temperature;
c)	moisture content;	d)	BTEX;
e)	TPH;	f)	nutrients;
g)	pH; and	h)	hydrocarbon utilizing bacteria.

Progress Reports:

14. (1) To monitor the progress of the remediation, at four (4) month intervals, commencing upon placement of the soils into the treatment area, the Owner/Operator shall submit a progress report to the District Manager.

(2) The progress report required by Condition 14(1) above shall include the analyses of one representative soil sample taken from the treatment area for BTEX and TPH in accordance with the supporting documentation listed in Schedule "A" and the current progress report shall always include the pre-treatment results and the previous progress report(s) results.

15. If the remediation is not completed within the eight (8) month time frame proposed in the application, the Owner/Operator shall submit a status report to the District Manager within two (2) weeks detailing the following:

a) background concentration of the contaminants in the soil and groundwater prior to processing;
b) current concentration of the contaminants in the soil and groundwater;

APR 03 '01 09:25 FR TO 916135486908 P.08/19

c) suggested reason for delay in completion of remediation;
d) anticipated completion date of remediation;
e) total quantity of contaminated soil currently undergoing remediation; and
f) total volume of contaminated groundwater pumped out to-date.

Verification Soil Sampling:

16. (1) The Owner/Operator shall ensure that upon completion of the remediation, all processed soil meets the cleanup criteria as outlined in the Ministry's document entitled "Interim Guidelines for the Assessment and Management of Contaminated Sites in Ontario" dated 1993, and in accordance with the supporting documentation listed in Schedule "A". If the processed soil does not meet this criteria it shall be managed as a waste in accordance with the requirements of the Environmental Protection Act, and shall only be disposed of at a Ministry of Environment and Energy approved site or at a site approved to accept such waste by an equivalent jurisdiction.

(2) The Owner/Operator shall ensure that the soil excavated for this remediation remains on-site after the remediation is completed.

Site Inspection/Maintenance:

17. The Owner/Operator shall ensure this site is inspected in accordance with the application for this Certificate. The Owner/Operator shall correct any deficiencies which these inspections reveal and shall maintain a written record of the inspections and any maintenance conducted as a result of these inspections, as follows:

a) name and title of attendant conducting inspection/maintenance;

APR 03 '01 09:25 FR TO 916135486908 P.09/19

b) time and date of the inspection/maintenance;
c) list of all storage areas, containment structures, etc. inspected and any deficiencies or discharges observed;
d) a brief description of any maintenance procedures conducted; and
e) any remedial action taken to prevent future occurrences.

Contingency Plan:

18. (1) Within thirty (30) days of issuance of this Certificate, the Owner/Operator shall notify the local Fire Department, in writing, of the existence and operations at this site.

(2) Within thirty (30) days of issuance of this Certificate, the Owner/Operator shall ensure a copy of the contingency plan for this site is located on-site at all times and is available for inspection by Provincial Officer(s), emergency response personnel and the local Fire Department.

(3) Within thirty (30) days of any amendment to the contingency plan, the Owner/Operator shall update the contingency plan.

(4) The Owner/Operator shall ensure staff are trained in the operation and maintenance of the specific equipment which they operate at this site and in emergency response procedures.

19. A log book shall be maintained at this site of all spills or leaks which occur at this site. The log book must include the type and amount of material spilled, a description of how the material was cleaned up and stored, and the date and location of final disposal.

20. The Owner/Operator shall maintain on-site a site plan identifying the location of the treatment area, the excavation pit and other areas specific to the remediation. The Owner/Operator shall ensure the diagram is a true representation of the waste stored on-site and make the diagram available for inspection upon request by emergency response personnel and/or Provincial Officer(s).

On-Site Record Keeping:

21. The Owner/Operator shall maintain on-site, a written record of all waste processed and transferred at this site. This record shall be in the form of a log (all measurements shall be recorded in consistent metric units of measurement) and the log shall include the following:

    a) date and quantity of contaminated soil excavated at this site and transferred into the treatment area for processing;
    b) date and volume of contaminated groundwater pumped out, treated and discharged off-site via the sanitary sewers; and
    c) date, quantity and disposal destination of any residual waste transferred from this site.

22. The Owner/Operator shall retain for a minimum of two (2) years from the date of their creation, or longer if requested in writing by the Director, all records and information related to or resulting from the activities approved under this Certificate.

Final Report:

23. Within thirty (30) days of the completion of the remediation at this site, which is estimated to be approximately eight (8) months after the issuance of this Certificate, the Owner/Operator shall submit to the District Manager a final report which shall cover the entire duration of the project and include the following:

    a) the total amount of soil processed;
    b) the final volume of the contaminated groundwater pumped out, treated and discharged off-site via the sanitary sewers;
    c) a descriptive summary describing any unapproved waste excavated at this site during the remediation including quantity, type, origin and disposal destination;
    d) a summary of the analyses of the contaminated soil and groundwater before, during and at the end of the remediation;

e) an evaluation of the effectiveness of the remediation including confirmation that the contaminants have been reduced to the Ministry's remediation criteria;
f) recommendations for any future monitoring;
g) a summary of any residual waste transferred off-site for final disposal and the disposal destination; and
h) total duration of the remediation operation.

Financial Assurance:

24. (1) The Owner/Operator shall ensure that the financial assurance provided to the Director is in the amount of forty-nine thousand, three-hundred and thirteen ($49,313.00). This financial assurance shall be in the form of a fund, bond or irrevocable letter of credit satisfactory to the Director. This assurance shall be available to the Director for remedial measures at this site as well as ensuring proper closure should this site be abandoned. The amount of financial assurance is subject to review at any time by the Director and may be amended at his discretion. If any financial assurance is scheduled to expire or notice is received, indicating financial assurance will not be renewed, and satisfactory methods have not been made to replace the financial assurance at least sixty (60) days before the financial assurance terminates, the Owner/Operator shall forthwith replace the financial assurance with cash.

(2) Upon receipt of the written confirmation of site cleanup required by Condition 25 below and upon subsequent revocation of this Certificate, the Ministry shall return the financial assurance to the Owner/Operator.

APR 03 '01 09:26 FR TO 916125486908 P.12/19

Expiry:

25. (1) After submission of the written confirmation required by Condition 23 part (e) above, the Owner/Operator shall arrange for an inspection of this site with the District Manager.

    (2) If the inspection referred to in Condition 25(1) above is satisfactory to the Ministry, the Owner/Operator will receive written confirmation from the Ministry that this site has been cleaned-up in accordance with the submitted plan, and the Owner/Operator may then present this Certificate for revocation to the Director.

26. The obligations imposed by the terms and conditions of this Certificate of Approval are obligations of due diligence.

APR 03 '01 09:27 FR TO 916135486908 P.13/19

SCHEDULE "A"

This Schedule "A" forms part of Certificate No. A710060.

1. Application form for a Certificate of Approval for a Waste Disposal Site (Processing) dated February 23, 1995 and the supporting documentation submitted on February 28, 1995.

2. Letter dated April 5, 1995, to K. Lendvay, Ministry of Environment and Energy, from A.L. Maddalena, Arcturus Environmental, RE: Supporting documentation i.e. Articles of incorporation; financial assurance; liability insurance; adjacent property notification.

3. Letter dated April 19, 1995, to K. Lendvay, Ministry of Environment and Energy, from A.L. Maddalena, Arcturus Environmental, RE: Articles of incorporation.

4. Letter dated July 18, 1995, to K. Lendvay, Ministry of Environment and Energy, from A.L. Maddalena, Arcturus Environmental, RE: Supplementary information i.e. laboratory analytical results for soil samples.

5. Letter dated July 21, 1995, to K. Lendvay, Ministry of Environment and Energy, from A.L. Maddalena, Arcturus Environmental, RE: Supplementary information i.e. proposed sampling program for groundwater.

6. Facsimile dated November 17, 1995, to K. Lendvay, Ministry of Environment and Energy, from P. Hubley, Arcturus, RE: Certificate of Approval (Air) No. 8-4089-95-006; and oxygen and temperature monitoring.

7. Facsimile dated November 17, 1995, to K. Lendvay, Ministry of Environment and Energy, from P. Hubley, Arcturus, RE: Excavated Soil.

8. Financial assurance in the form of a Letter of Credit dated November 20, 1995, in the amount of forty-nine thousand, three-hundred and thirteen dollars ($49,313.00) provided to K. Lendvay, Ministry of Environment and Energy, on November 21, 1995.

You are hereby notified that Certificate No. A710060 has been issued to you subject to the Conditions outlined therein.

This Notice forms part of Certificate No. A710060.

The reasons for the imposition of these conditions are as follows:

1. The reason for Condition 1 is to simplify the wording of the subsequent conditions and define the specific meaning of terms as used in this Notice and the Certificate.

2. The reason for Condition 2 is to provide easy access to the Certificate and any future Notices of Amendment and their Terms, Conditions and operating requirements to operators and personnel working at this site, as well as, to Ministry staff during site inspections or in emergency situations.

3. The reason for Condition 3 is to ensure incidents of spills are reported to the Ministry pursuant to Section 15 of the Environmental Protection Act, to minimize the impact of a spill or upset to the natural environment and to ensure public health and safety and environmental protection.

4. The reason for Condition 4 is to ensure that this site will not be operated at hours during which such operation could cause discomfort to any person.

5. The reason for Condition 5 is to ensure the quantities and types of waste processed and transferred at this site are in accordance with that approved under this Certificate.

6. The reason for Conditions 6 and 9 is to minimize and/or prevent nuisance or adverse environmental effects from occurring and to ensure the site is operated in accordance with the application and supporting information submitted for this Certificate.

7. The reason for Condition 7 is to minimize the risk of vandalism at this site and to ensure this site is only operated in the presence of an attendant to ensure waste is properly managed in accordance with the application and supporting information submitted for this Certificate.

8. The reason for Condition 8 to ensure the Owner/Operator's name, Certificate number, the hours of operation and an emergency telephone number are available in the event of an emergency situation at this site.

APR 03 '01 09:27 FR TO 916135486908 P.16/19

9. The reason for Condition 10 is to minimize the risk of contamination of the natural environment and to minimize the egress of contaminants for this purpose.

10. The reason for Condition 11 is to ensure that all residual waste generated from this site is transported and disposed of in an environmentally acceptable manner in accordance with legislation governing the handling of waste.

11. The reason for Conditions 12, 13, 14, 15, 16, 21, 22 and 23 is to ensure that all aspects of waste processing and transfer at this site are clearly identified, recorded and controlled, to allow the Ministry and the Owner/Operator to review and assess the operations at this site.

12. The reason for Conditions 17 is to ensure the Owner/Operator conducts adequate inspections of this site and to ensure this site is operated and maintained appropriately and in accordance with the application made for this Certificate and the supporting documentation submitted therewith, and not in any manner which the Director has not been asked to consider.

13. The reason for Conditions 18, 19 and 20 is to ensure the Owner/Operator, the Ministry and the local Fire Department are familiar with this site's operations and its associated hazards in the event of an emergency situation and to ensure each have accessibility to the emergency response plan to minimize the time in assessing an emergency incident.

14. The reason for Condition 24 is that financial assurance is necessary to ensure funds are available from the Owner/Operator to remediate this site, to remove and dispose of any processed or unprocessed waste and any residual waste relating to the operations carried out at this site in the event the Owner/Operator is unable or unwilling to do this work and to ensure that this site will be closed in an environmentally acceptable manner. The financial assurance can also be utilized by the Ministry to bring this site into compliance with this Certificate if the Owner/Operator is unable or unwilling to do so. The use and operation of this site without this Condition would not be in the public interest.

15. The reason for Condition 25 is to ensure this site is remediated in accordance with Ministry standards and protects the health and safety of the public and the natural environment.

16. The reason for Condition 26 is required to clarify that the terms and conditions of this Certificate impose a standard of due diligence and not absolute liability.

APR 03 '01 09:28 FR TO 916135408908 P.17/19

PROVISIONAL CERTIFICATE OF APPROVAL
FOR A WASTE DISPOSAL SITE

CERTIFICAT D'AUTORISATION PROVISOIRE
DE DÉCHARGE

Provisional Certificate Number A710060
Certificat provisoire no.

In accordance with Section 139 of the Environmental Protection Act, R.S.O. 1990, Chapter E-19, you may by written notice served upon me, the Environmental Appeal Board and the Environmental Commissioner, Environmental Bill of Rights, S.O. 1993, Chapter 28, within 15 days after receipt of this Notice, require a hearing by the Board. The Environmental Commissioner will place notice of your appeal on the Environmental Registry. Section 142 of the Environmental Protection Act, as amended provides that the Notice requiring a hearing shall state:

1. **The portions of the approval or each Term or Condition in the approval in respect of which the hearing is required, and;**
2. **The grounds on which you intend to rely at the hearing in relation to each portion appealed.**

In addition to these legal requirements, the Notice should also include:

3. **The name of the appellant;**
4. **The address of the appellant;**
5. **The Certificate of Approval number;**
6. **The date of the Certificate of Approval;**
7. **The name of the Director;**
8. **The municipality within which the Waste Disposal Site is located;**

And the Notice should be signed and dated by the appellant.

APR 03 '01 09:28 FR TO 916135486908 P.18/19

PROVISIONAL CERTIFICATE OF APPROVAL FOR A WASTE DISPOSAL SITE

CERTIFICAT D'AUTORISATION PROVISOIRE DE DÉCHARGE

Provisional Certificate Number A710060
Certificat provisoire no.

This Notice must be served upon:

The Secretary,
Environmental Appeal Board,
112 St. Clair Avenue West,
Suite 502,
Toronto, Ontario
M4V 1N3

AND

B.R. Ward
Director, Section 39
Environmental Protection Act,
Ministry of Environment and Energy
133 Dalton Avenue
P.O. Box 820
Kingston, Ontario
K7L 4X6

AND

The Environmental Commissioner
1075 Bay Street
Suite 605
6th Floor
Toronto, Ontario
M5S 2W5

This instrument is subject to Section 38 of the Environmental Bill of Rights, that allows residents of Ontario to seek leave to appeal the decision on this instrument. Residents of Ontario may seek to appeal for 15 days from the date this decision is placed on the Environmental Registry. By accessing the Environmental Registry, you can determine when the leave to appeal period ends.

This Certificate of Approval No. A710060 is issued at Kingston this 23 day of November, 1995.

THIS IS A TRUE COPY OF THE ORIGINAL CERTIFICATE SIGNED BY B. R. WARD

AND MAILED ON: 95/11/24

BY: K Landway

Ontario

Ministry of the Environment

CERTIFICATE OF APPROVAL
(AIR)

Granted under Section 8 of The Environmental Protection Act, 1971

Application number 8-4079-81-006 *This Certificate dated* November 6, *19* 81

Owner/Operator Coca-Cola Limited

Owner/Operator address 42 Overlea Boulevard, Toronto, Ontario M4H 1B8

This approval is for the installation of a new gas or number 2 oil fired burner for a Foster Wheeler Model SP-15-350 boiler rated at 15,451,353 kilojoules per hour exhausting through a stack extending 13.4 metres above grade.

located at 500 Coventry Road, Ottawa, Ontario

Your application has been reviewed on the basis of the information submitted and is approved, subject to the terms and conditions stated below.

THIS IS A TRUE COPY OF THE ORIGINAL CERTIFICATE MAILED ON November 12/81

(Signed)

MINISTRY OF ENVIRONMENT NOV 25 1981 OTTAWA

MINISTRY OF ENVIRONMENT NOV 1981 OTTAWA

DIRECTOR, SECTION 8

000167

M 1107

Ministry of the Environment
Ontario

NOV 13 1981

AIR RESOURCES BRANCH
APPROVALS RECORD FOR
EMISSION INVENTORY UPDATE

FORM UP-12

[4] Region [ ] District

Company Name: Coca-Cola Ltd.

Source Location: 500 Coventry Road, Ottawa, Ontario

Contact: Mr. J. D. Rogers Telephone: 416-424-6012

Nature of Business:

Type of Equipment for Approval: A new burner for an existing boiler.

Combustion		Process		Incineration	
New	[ ]	New	[ ]	New	[ ]
Modification	[X]	Modification	[ ]	Modification	[ ]

General Description:

Equipment Production [ ] or Feed [X] Rate: 414.7 m^3/h or 401.6 l/h

Specify kind of product [ ] or Feed [X] natural gas or No. 2 oil.

Control Equipment: Estimated Efficiency

PART A Preliminary Assessment - Regional Office

Type of Application [ ] Simple, complete Part B

[ ] Complex, forward to Environmental Approvals Branch

Application Attached Yes [ ] No [ ]

Form Initiated By: Date:

Significant Pollutants (g/s)

SO_2 0.923

Part

HC

NO_x

CO

Other

PART B Approval

Application No: 8-4079-81

Anticipated Completion Date:

Application Confirmation: Approved [X] Cancelled [ ] Denied [ ]

Comments:

Approved By: A. M. Pennanen Date: November 6, 1981

A.M. Pennanen

PART C Air Resources Branch

New Source Logged: Date:

Update Requested Date:

Date Completed:

PART D Installation Check - District Office

[ ] Satisfactory [ ] Not operational [ ] Unsatisfactory

Comments:

Inspected by: Date:

000168

MOE 1149

Ministry of the Environment
Ontario

AIR RESOURCES BRANCH
APPROVALS RECORD FOR
EMISSION INVENTORY UPDATE

FORM UP-12

[4] Region [ ] District

Company Name: Coca-Cola Ltd.

Source Location: 500 Coventry Road, Ottawa, Ontario

Contact: Mr. J. D. Rogers Telephone: 416-424-6012

Nature of Business:

Type of Equipment for Approval: A new burner for an existing boiler.

Combustion		Process		Incineration	
New	[ ]	New	[ ]	New	[ ]
Modification	[X]	Modification	[ ]	Modification	[ ]

General Description:

Equipment Production [ ] or Feed [X] Rate: 414.7 m^3/h or 401.6 l/h

Specify kind of product [ ] or Feed [X] natural gas or No. 2 oil.

Control Equipment: Estimated Efficiency

PART A Preliminary Assessment - Regional Office

Type of Application [ ] Simple, complete Part B

[ ] Complex, forward to Environmental Approvals Branch

Application Attached Yes [ ] No [ ]

Form Initiated By: Date:

Significant Pollutants (g/s)

SO_2 0.923

Part

HC

NO_x

CO

Other

PART B Approval

Application No: 8-4079-81

Anticipated Completion Date:

Application Confirmation: Approved [X] Cancelled [ ] Denied [ ]

Comments:

Approved By: A. M. Pennanen Date: November 6, 1981

PART C Air Resources Branch

New Source Logged: Date:

Update Requested Date:

Date Completed:

PART D Installation Check - District Office

[ ] Satisfactory [ ] Not operational [ ] Unsatisfactory

Comments:

Inspected by: Date:

000169

MOE 1149

Ministry of the Environment
Ontario

AIR RESOURCES BRANCH
APPROVALS RECORD FOR
EMISSION INVENTORY UPDATE

FORM UP-12

[4] Region [ ] District

Company Name: Coca-Cola Ltd.

Source Location: 500 Coventry Road, Ottawa, Ontario

Contact: Mr. J. D. Rogers Telephone: 416-424-6012

Nature of Business:

Type of Equipment for Approval: A new burner for an existing boiler.

Combustion		Process		Incineration	
New	[ ]	New	[ ]	New	[ ]
Modification	[X]	Modification	[ ]	Modification	[ ]

General Description:

Equipment Production [ ] or Feed [X] Rate: 414.7 m^3/h or 401.6 l/h

Specify kind of product [ ] or Feed [X] natural gas or No. 2 oil.

Control Equipment: Estimated Efficiency

PART A Preliminary Assessment - Regional Office

Type of Application [ ] Simple, complete Part B

[ ] Complex, forward to Environmental Approvals Branch

Application Attached Yes [ ] No [ ]

Form Initiated By: Date:

Significant Pollutants (g/s)

SO_2 0.923

Part

HC

NO_x

CO

Other

PART B Approval

Application No: 8-4079-81

Anticipated Completion Date:

Application Confirmation: Approved [X] Cancelled [ ] Denied [ ]

Comments:

Approved By: A. M. Bennanen Date: November 6, 1981

PART C Air Resources Branch

New Source Logged: Date:

Update Requested Date:

Date Completed:

PART D Installation Check - District Office

[ ] Satisfactory [ ] Not operational [ ] Unsatisfactory

Comments:

Inspected by: Date:

000170

MOE 1149

Ministry of the Environment
Ontario

Coca-Cola Ltd.
42 Overlea Blvd.,
Toronto, Ontario M4H 1B8

Attention: J.D. Rogers

FOR OFFICE USE
Application No. 4/79-81
Date Received

MINISTRY OF THE ENVIRONMENT - ONTARIO
NOV 16 1981
KINGSTON - ONTARIO

ENVIRONMENTAL APPROVALS BRANCH
RECEIVED
NOV 2 1981
INDUSTRIAL APPROVALS SECTION

Application for a Certificate of Approval (AIR)

FOR COMBUSTION EQUIPMENT

In accordance with the Environmental Protection Act, 1971

The undersigned applies for approval of plans and specifications, submitted herewith in duplicate, for the construction of:

☐ New combustion facilities

☒ Modifications to existing combustion facilities

The following information is submitted:

1. Owner of combustion equipment Coca-Cola Ltd.
   (Postal address) 42 Overlea Blvd., Toronto, Ontario M4H 1B8 (Telephone No.) 424-6000
2. Location of combustion equipment 500 Coventry Road, (Street & No.) or (Lot & Concession No.)
   (City, Town or Township) Ottawa (County) Ottawa-Carleton
3. Name of Applicant (Please print) Coca-Cola Ltd.
   (Postal address) 42 Overlea Blvd., Toronto, Ontario M4H 1B8 (Telephone No.) 424-6000
4. Plans and specifications prepared by (Name) Coca-Cola Ltd.
   (Postal address) 42 Overlea Blvd., Toronto, Ontario M4H 1B8 (Telephone No.) 424-6000
5. **Combustion Equipment for which approval is required:**

	No. of Units	Manufacturer & Model No.	Total Kilojoule (KJ) Rating
Boiler			
a) Oil Burner			
b) Gas Burner	One	North American Mfg. Company Model 6121 - 14.7 (gas & light oil)	12,360,000 KJ/hr.
c) Stoker			
Unit Heater			
Duct Heater			
Heating and Cooling Unit			

Other equipment None

Drawings and Manufacturer's data for combustion equipment must be included.

000171

(a) Gas Equipment: Total Maximum Rate 414.7 cu. metres per hour (m^3/h) or Total Maximum Input 15,451,353 (KJ) per hour

(b) Oil Equipment: Grade No. 2 Sulphur Content Maximum % Average %

Total Maximum Rate 401.6 litres per hour (L/Hr.) Oil preheat temp. None °C

Does burner modulate? Max. Yes Min. * litres per hour (L/Hr.)
(4 to 1 turndown)

(c) Other pertinent information

Additional information enclosed: ☐ YES ☐ NO

7. **Accessories and Controls** (where applicable)

Damper		Draft		Overfire · Jets	
Manual		Natural		Steam-Air	
Automatic	X	Forced	X	Steam	
Barometric		Induced		Air	

8. **Boiler Room Ventilation:** How introduced? Roof Grille (Window, Duct, Grille, Mechanical) Free area? 1.184 m^2

9. **Pollution Control Equipment** (if applicable)

Type and Manufacture None

Collection efficiency

Drawings and Manufacturers data are to be included.

10. **Chimney or Stack**

(a) Material of construction Steel New Existing X

Height above roof 6.1 metres(m.) Height above grade 13.4 m. is stack insulated? No

Type of insulation None Thickness Inside dimensions at exit 71.1 cm Diam.

(b) Quantity of stack gases Not Known Std. cu. metres per minute (m^3 per min.)

Temperature of exhaust gases at stack exit Not known °C (Full load)

Temperature at breeching °C (Full load)

Stack exit velocity m./second (Full load)

(c) If oil fired —

Temperature at stack exit Not known °C (Low load)

Temperature at breeching °C (Low load)

Stack exit velocity m./second (Low load)

(d) If there are other boilers exhausted to this stack, or if there are other boilers in this boiler house or plant exhausting to other stacks, give:

The number of boilers, type of fuel and maximum firing rate for each boiler, details of each stack (height above grade and above roof, diameter at the exit, etc.)

One other boiler, presently burning #6 oil, max. rate 369 litres/hr. It has its own stack, similar to other (71.1 cm diam., 13.4m HT) uninsulated

Additional information enclosed: ☐ YES ☐ NO

(e) Other pertinent information

Additional information enclosed: ☐ YES ☐ NO

11. **Building Dimensions** Length 113.7 metres(m.) Height 7.3 m. Width 110.3

12. **Receptors on Other Property**

Distance from the emission point to the nearest critical receptor (air intake, open/shut window, door, etc.) 15.2 m.

Is there any other building on the property No

A plot, roof, and elevation plan, drawn to scale, and showing the emission points and distances from them to critical receptors (air intakes, open/shut windows, door, etc.) on the attached building and other on-property buildings, must be included. The distance from the points of emission to all property lines must be indicated.

13. **Surrounding Land Use**

Distance from stack to nearest building exposition warehouse 150 metres(m.)

Height of nearest building 12 m.

Distance from stack to nearest building higher than the stack 200 m.

Height of this building exposition office 15 m.

Land use: Commercial X

Residential X

Industrial X

Agricultural

A plan showing the relation of the points of emission to structures in the immediate neighbourhood must be supplied. This should include distances from the points of emission to the structures in question and the heights of the structure relative to the ground level elevation at the points of emission. "Immediate neighbourhood" means that area around the installation likely, to be affected by air-borne emissions from the installation.

14. **Estimate of Capital Cost**

Combustion equipment cost	$ 17,000 approx.	Control equipment	$
Labour	$ 8,000 approx.	Labour	$
Other	$	Other	$
Total	$ 25,000 approx.	Total	$

15. (A) Expected starting date for installation of proposed combustion equipment December 1, 1981

(B) Expected completion date December 7, 1981

I hereby declare that the plans, specifications and information stated in this application are true and complete in every respect.

Date October 30, 1981

Signature J.D. Rogers, P. Eng.

Title Sr. Project Engineer

CHECK LIST TO BE USED BY APPLICANT IN ASSEMBLING COMPLETED APPLICATION

☐ (1) Plot, roof, and elevation plans showing property lines and emission points, and critical receptors related to on-property structures.

☐ (2) Plans showing the relation of the points of emission to off-property structures in the immediate neighbourhood.

☐ (4) Drawings and manufacturers data for all combustion and pollution control equipment.

☐ (4) Application — duly signed.

Page 174

is withheld pursuant to section

est retenue en vertu de l'article

17

of the Freedom of Information and Protection of Privacy Act

de la Freedom of Information and Protection of Privacy Act

Ontario

Ministry of Environment and Energy | Ministère de l'Environnement et de l'Énergie

250 Davisville Avenue
Toronto ON M4S 1H2

250, avenue Davisville
Toronto ON M4S 1H2

APPROVALS BRANCH
3RD FLOOR
TEL: (416) 440-3718
FAX: (416) 440-6973

MINISTRY OF ENVIRONMENT
MAR - 9 1995
OTTAWA

3 Mar 1995

A.L. Maddalena, M.Sc.
Remediation Manager
ARCTURUS ENVIRONMENTAL LIMITED
7900 Canadian Drive
Niagara Falls, Ontario
L2E 6S5

DISTRICT OFFICER

Should Regional response not be received within two (2) weeks from the date of the attached acknowledgement letter, the application will be processed and a Director's decision rendered without Regional input.

Dear Sirs:

We acknowledge receipt of your application for Approval and fee in the amount of $600.00, on 02/27/95, for the following:

Industrial Air
500 COVENTRY ROAD
BIOFILTER TREATMENT, COCA-COLA PLANT

A duplicate copy of your submission should also have been forwarded to your local District Office. If this has not been done, please do so as soon as possible. A copy of any additional information requested should also be forwarded to the District Office.

The Ministry's reference number for your application is 8-4050-95. Please quote this number in any correspondence or enquiries regarding this application.

We have screened your submission for completeness and find that the information outlined on the attached form is required. This information is necessary for us to process your application.

Please be advised that should we not receive the above information or a response with explanations within two weeks of the above date, your file will be closed.

Should you have any questions related to your application, please contact the reviewer named in the attached form.

Sincerely

Brad Ross
Information Officer

cc: District Manager
Ottawa District Office

0761LB (08/93)

100% Unbleached Post-Consumer Stock

Ministry of Environment and Energy
Ontario

Acknowledgement Summary
Air

24 10887

Name of applicant	Application number
ARCTURUS ENVIRONMENTAL LTD	8 4050 95

Your application has been screened and determined complete. Additional information may be required as a result of the detailed techinical review.

☐ **Application complete** ☐ **Anticipated completion** _____ **weeks**

The information noted ☑ below is required as a result of screening the application. Additional information may be required as a result of the detailed technical review.

☑ **Application Incomplete** ☐ **Application to be returned** ☐ Yes ☐ No

☐ **Copy of Acknowledgement Summary**

To: _____ FAX No. ( )

To: _____ FAX No. ( )

Missing Information		
A. General		Refer to comments and / or on reverse side
	Application form	
	Approval fee	
	Proof of legal name	
	Signature	
B. Detailed description of proposal		
	Data sheets / equipment specifications	
	Emission information / emission table	
	Mechanical / accoustical specifications for equipment	
	Process flow diagram	
	Proposed noise and vibration control measures	
	Site, plot, roof and elevation plans	
	Land use zoning designation plan	
/	Other	See comments

Name of Review Engineer (Air)	Telephone	Fax
S.J. Chellener	(416) 440- 7002	(416) 440-6973
Name of Review Engineer (Noise)	**Telephone**	**Fax**
	(416) 440-	(416) 440-6973

Please forward your inquiries or responses to the appropriate engineer as indicated above.

1306 (04/93)

Comments

1. In order to evaluate the applicability of the emissions data used to estimate emission rates for this proposal, please provide the following details of the Quebec remediation program

- volume of contaminated soil in EBC's
- type of contamination
- individual contaminant concentrations in soil
- individual contaminant soil vapour concentrations
- contaminant concentrations in vapour entering biofilters
- biofilter removal efficiency
- biofilter volume and construction
- biofilter operation - temperature and relative humidity of vapour stream
- operating intervals and overall duration of remediation
- biofilter exhaust monitoring data
- exhaust volumetric flow rate from biofilter

Also, please provide a comparison of this information with the proposed remediation plan for the Ottawa site.

2. Please note that hydrocarbon monitoring from soil remediation air treatment systems requires the use of a portable FID monitor or portable NDIR monitor in accordance with US EPA Method 25A and Method 25B, respectively

KEYS: Ctrl/W Save changes and exit

TYPE:8 NUMBER:4050 YEAR:95 STATUS: 111

PROPONENT :ARCTURUS ENVIRONMENTAL LIMITED
LOCATION : 500 COVENTRY ROAD
MUNICIPALITY: OTTAWA CITY MUNICIPALITY CODE: 04460102

WORK DESCRIPTION: BIOFILTER TREATMENT, COCA-COLA PLANT

COST $000: 30 REVIEW ENGINEER: SJ
SIC CODE : SUB. SIC CODE :

CONTAMINANT CODE:
CONTROL CODE :

IN DATE : 02/27/95 OUT DATE : / / CLERK : PRIORITY :

ARCTURUS

7900 Canadian Drive
Niagara Falls, Ontario, L2E 6S5
Telephone (905)357-6424
Facsimile (905)357-6447

Project No.: E769.6
Section: 1
Date: Apr. 11/95
Employee No.:

PLEASE FORWARD THE FOLLOWING PAGE(S) TO:

Name: Mr. G. Montcalm
Company: MOEE Ottawa
Voice Phone No.:
Facsimile Phone No.: 613-521-5437

FACSIMILE SENT FROM:

Name: Al Maddalena
Number of pages including cover: 7
Hard Copy to follow: ☐ Yes ☒ No
Date Sent: Time Sent: Operator:

MESSAGE/COMMENTS:

ARCTURUS
ENVIRONMENTAL

April 10, 1995
E769.8

Ontario Ministry of the Environment and Energy
Approvals Branch
250 Davisville Avenue
3rd Floor, Toronto
Ontario,
M4S 1H2

Attention: Mr. S. J. Challaner, P. Eng.
Review Engineer

Re: Application for Certificate of Approval (Air) No.: 8-4050-95
Supplementary Information
Biofilter Treatment System
Coca-Cola Distribution Plant,
500 Coventry Road, Ottawa, Ontario

Dear Mr. Challaner:

Thank you for your Acknowledgement Summary and letter dated March 3rd, 1995. This was received in our office on March 9th, 1995. As required, a duplicate copy of our completed application has been sent to Mr. G. Montcalm of the local district office of the MOEE in Ottawa.

As described in voice mail messages to you, Arcturus has been in the process of obtaining all the information you requested, but we have encountered some delays. Some of the requested information was either not available for the same system or not available at all. In order to comply with your requests, we have supplemented the data from one system, with information from another Quebec biofilter with the same design specifications.

The information requested in the Acknowledgement Summary is presented below. It is understood that this information is to be used to evaluate the applicability of the emission data for the biofilter treatment system proposed at this site and will be kept confidential.

Quebec Biofilter Treatment System

- volume of contaminated soil to be treated — 4,000 T
- type of contamination — gasoline

• individual contaminant concentrations in soil*	benzene	150-200 ppm
	toluene	250-300 "
	ethylbenzene	100-150 "
	xylene	500-1000 "
• soil vapour concentrations (total combustible vapours)		not available
• biofilter intake concentrations (total combustibles - Gastech 1238)*		250 ppm
• biofilter discharge (total combustibles - Gastech 1238)*		100 ppm
• biofilter removal efficiency*		66 %
• biofilter volume		40 m^3
• biofilter operation temperature		15-20 °c
• biofilter intake relative humidity		95 %
• biofilter operation interval		3-6 mths
• overall duration of site remediation (for 10,000 T)		3-6 mths
• biofilter exhaust monitoring data (table attached)		
• ratio of contaminated soil (T)/m^3 biomass		100
• biofilter exhaust volumetric flow rate		4,272 m^3/hr
		2,400 cfm

* data are derived from an alternate biofilter system, with same design specifications

Differences between the systems described above and the proposed system for the Coca-Cola site are described below:

Coca-Cola Plant

• volume of contaminated soil in EBC	6,000 T
• biofilter volume	40 m^3
• volumetric flow rate (anticipated)	1,020 m^3/hr
	600 cfm
• anticipated biofilter intake vapour concentrations	100 ppm
• ratio of contaminated soil (T)/m^3 biomass	150
• anticipated overall duration	6 mths-1 yr
• soil vapour concentrations (total combustible vapours)	70% of samples, 3-85 %LEL
	30% of samples, > 100 %LEL

- soil BTEX concentrations

benzene	6-13 ppm
toluene	20-100 ppm
ethylbenzene	6-51 ppm
xylene	25-243 ppm

Although the biofilter efficiency was 66 % in the Quebec case, it could have been improved considerably by simply reducing the flow rate and allowing greater residence time in the biofilter. This was not conducted as there were no requirements to do so by Quebec regulators.

In the Coca-Cola case, soil BTEX concentrations are approximately 3 to 10 times lower than the Quebec case. This suggests that both intake and discharge concentrations should be significantly lower for the Coca-Cola system, if operated at a similar flow rate. As the anticipated flow rate for the system at Coca-Cola is approximately 3 times lower than the Quebec case, biofilter efficiency will increase significantly, as vapour residence time within the biofilter is increased.

Biofilter Discharge Monitoring

As with our previous system of this type at Mississauga, biofilter discharge will be monitored using US EPA Method 25A. It is proposed that monitoring of the discharge will be conducted according to the following schedule:

- once per week for the first three months of equipment operation
- once per month for the following three months of operation
- once every three months of operation to completion (if required)

Biofilter Maintenance Parameters

The biofilters will be monitored for the following parameters:

- pressure drop across biofilter
- temperature, moisture content and pH

It is understood that biofilter parameters would be monitored with the same frequency as the biofilter discharge.

Could you please review our supplementary information at your earliest convenience. If you have any questions or comments, please do not hesitate to call.

Thank you for your continued cooperation.

Sincerely,

Mr. A. L. Maddalena, M.Sc.
Remediation Manager

ALM:hll

c.c. Mr. R. B. Wallace, Coca-Cola Beverages Ltd. (w/a)
Mr. G. Montcalm, MOEE District Office, Ottawa, Ontario (w/a)

T MONITORING DATA

n	Date	Volume (L)	Benzene (mg/m3)	Toluene (mg/m3)	Chlorobenzene (mg/m3)	Ethylbenzene (mg/m3)	m,p-Xylenes (mg/m3)	o-Xylenes (mg/m3)	1,3-Dichlorobenzene (mg/m3)	1,4-Dichlorobenzene (mg/m3)	1,2-Dichlorobenzene (mg/m3)	Styrene (mg/m3)	Napthalene (mg/m3)
1	April 29, 1993	12	8.8	8.6	0.8	1.5	23.0	1.3	0.5	0.4	0.1	9.7	<0.1
2	April 30, 1993	12	0.8	6.2	0.7	1.1	12.0	0.9	0.2	0.2	<0.1	4.7	<0.1
1	May 05, 1993	12	1.7	1.0	0.9	0.7	1.6	0.6	0.5	0.3	0.1	4.0	<0.1
2	May 07, 1993	12	1.4	0.6	0.7	0.7	1.4	0.8	0.5	2.9	0.5	8.2	0.1
1	May 12, 1993	12	1.1	0.5	0.5	0.4	0.9	0.5	0.3	1.3	0.3	0.3	<0.1
2	May 12, 1993	12	1.0	0.4	0.5	0.4	0.8	0.5	0.3	1.4	0.4	3.6	0.1
2	May 19, 1993	12	0.1	0.1	0.2	0.1	0.2	0.1	0.1	0.3	0.1	0.5	<0.1
1	May 28, 1993	12	0.1	0.1	0.1	0.2	0.2	0.3	0.8	1.9	0.2	1.9	<0.1
2	May 28, 1993	12	0.1	0.1	0.1	0.1	0.1	0.2	0.4	1.2	0.2	1.0	<0.1
1	June 02, 1993	12	<0.1	<0.1	<0.1	0.1	0.1	0.1	0.1	0.2	<0.1	0.4	<0.1
2	June 02, 1993	12	0.1	0.2	0.1	0.1	0.2	0.2	<0.1	0.1	<0.1	0.4	0.1
1	June 07, 1993	12	0.1	0.1	0.1	<0.1	0.1	0.1	0.1	0.4	0.2	0.5	<0.1
2	June 07, 1993	12	0.8	0.5	0.1	0.1	0.5	0.5	0.1	0.2	0.3	–	<0.1
1	June 08, 1993	12	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.7	0.2	0.4	0.1
2	May 28, 1993	12	0.6	0.2	0.1	0.1	0.1	0.1	0.1	0.6	0.2	0.4	<0.1
1	May 28, 1993	12	<0.1	0.1	<0.1	<0.1	0.1	<0.1	<0.1	0.1	0.1	0.1	<0.1
2	June 02, 1993	12	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
1	June 02, 1993	12	<0.1	0.1	<0.1	0.1	1.2	0.1	0.1	0.6	0.3	0.5	0.1
2	June 07, 1993	12	<0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.3	0.1	0.3	<0.1

BLE 1: COMPARISON OF CHEMICAL ANALYTICAL DATA FOR BTEX AND TPH IN SOIL TO ONTARIO MINISTRY OF THE ENVIRONMENT AND ENERGY (MOEE) INTERIM GUIDELINES, COCA COLA BOTTLING LTD., 500 COVENTRY ROAD. ALL DATA IN mg/kg OR PPM.

OJECT E789.3

	MOEE INTERIM SOIL REMEDIATION CRITERIA FOR PETROLEUM CONTAMINATION (mg/kg)			PARAMETER					
				BENZENE	ETHYLBENZENE	TOLUENE	TOTAL XYLENES	TPH*	TPH+
VEL I				0.05	0.5	1	1	100	1000
VEL II				0.5	5	90	5	1000	5000
VEL III				2	100	100	50	5000	5000
MPLE ID	SAMPLE DESCRIPTION	COMBUSTIBLE VAPOURS (%LEL)	DATE SAMPLED						
	Borehole Investigation								
102 SS-3	1.5 to 2.1 m, silty sand	5	1 Nov. 1994	0.120	<0.038	0.130	0.064	<20	<500
102 SS-4	2.1 to 2.7 m, silty clay till	7	1 Nov. 1994	9.219	0.352	1.125	1.790	80	<500
103 SS-3	1.5 to 2.1 m, silty sand till	9.7	1 Nov. 1994	<0.038	<0.038	<0.038	<0.079	<20	<500
104 SS-4	2.4 to 3.0 m, silty clay till	77	1 Nov. 1994	0.425	0.483	1.30	2.917	60	<500
105 SS-3	1.8 to 2.4 m, silty clay till	53	2 Nov. 1994	[illegible]	16.2	29.2	[illegible]	1320	<500
105 SS-2	1.2 to 1.8 m, silty sand	3	2 Nov. 1994	0.074	0.112	<0.038	0.447	20	<500
110 SS-3	1.5 to 2.1 m, silty sand gravel till	25	2 Nov. 1994	[illegible]	9.97	19.2	17.58	160	<500
111 SS-2	0.9 to 1.5 m, silty sand	> 100	2 Nov. 1994	[illegible]	50.9	>92.1	[illegible]	2100	<500
111 SS-6	3.3 to 3.9 m, silty clay till	20	2 Nov. 1994	0.682	1.825	6.530	10.590	200	<500
112 SS-4	2.1 to 2.7 m, silty clay till	> 100	2 Nov. 1994	[illegible]	14.2	50.6	[illegible]	1100	<500
112 SS-5	2.7to 3.3 m, silty clay till	5	2 Nov. 1994	0.343	0.38	1.83	2.35	100	<500
113 SS-4	2.1 to 2.7 m, silty clay till	30	2 Nov. 1994	[illegible]	8.35	35.6	[illegible]	1700	<500
113 SS-6	3.3 to 3.9 m, silty clay till	12	2 Nov. 1994	0.391	0.765	3.47	7.8	140	<500
114 SS-3	1.5 to 2.1 m, silty sand gravel till	65	4 Nov. 1994	0.178	1.27	0.116	2.247	200	<500
3-3 SS-3	1.5 to 2.1 m, silty sand gravel till	> 100	8 Nov. 1994	[illegible]	4.93	21	25.81	220	<500
3-3 SS-6	3.8 to 4.4 m, silty clay till	2.8	8 Nov. 1994	0.100	<0.038	0.221	0.085	40	<500
3-4 SS-2	1.5 to 2.1 m, silty sand gravel till	30	9 Nov. 1994	[illegible]	5.97	14.2	33.3	740	<500
3-4 SS-5	3.8 to 4.3 m, silty clay till	0.6	9 Nov. 1994	<0.038	<0.038	<0.038	<0.070	60	<500
	Test Pitting program								
8 SS-4	2.1 m, silty clay till	30	16 Oct. 1994	[illegible]	1.8	12	8.8	40	<500
12 SS-1	0.6 m, sand	10	16 Oct. 1994	<0.038	<0.038	<0.038	<0.070	<20	<500
13 SS-2	1.2 m, sand	35	16 Oct. 1994	0.003	0.18	0.35	0.8	<20	<500
16 SS-3	2.1 m, silty clay till	10	16 Oct. 1994	0.03	0.27	1	1.08	100	<500

Verified by:

[illegible] : INDICATES PARAMETER CONCENTRATION EXCEEDS THE MOEE LEVEL III CRITERIA

BOLD : INDICATES PARAMETER CONCENTRATION IS BETWEEN THE MOEE LEVEL II AND LEVEL III CRITERIA

BOLD : INDICATES PARAMETER CONCENTRATION IS BETWEEN THE MOEE LEVEL I AND LEVEL II CRITERIA

PH (TOTAL PETROLEUM HYDROCARBONS) GAS DIESEL RANGE.

TPH (TOTAL PETROLEUM HYDROCARBONS) HEAVY OILS RANGE.

[illegible]

000185

APPLICATION FOR
CERTIFICATE OF APPROVAL (AIR)
500 COVENTRY ROAD
OTTAWA, ONTARIO

FEBRUARY 1995

E769.6

ARCTURUS ENVIRONMENTAL LIMITED
7900 Canadian Drive
Niagara Falls, Ontario, L2E 6S5
Phone (905) 357-6424 Fax (905) 357-6447

ARCTURUS
ENVIRONMENTAL

February 21, 1995
E769.6

Ontario Ministry of the Environment and Energy
250 Davisville Avenue
3rd Floor, Toronto
Ontario,
M4S 1H2

MINISTRY OF ENVIRONMENT
FEB 25 1995
MINISTRY OF ENVIRONMENT
OTTAWA
FEB 27 1995
OTTAWA

Attention: Director, Section 9
Environmental Protection Act
Approvals Branch

Re: Application for Certificate of Approval (Air)
Biofilter Treatment System
Coca-Cola Distribution Plant,
500 Coventry Road, Ottawa, Ontario

Dear Sir/Madame:

Arcturus Environmental has been hired by Coca-Cola Beverages Ltd. to conduct on-site remediation of petroleum contaminated soil at their distribution facility at this location. Part of the remediation involves vapour extraction and biofilter treatment of hydrocarbon vapours derived from the soil, and discharge of treated air to the environment.

Attached is the completed Application for a Certificate of Approval (Air) for the proposed biofilter treatment system, and all related documentation. Included with this application, is a certified check for $600 payable to the Treasurer of Ontario, for the required fee payment.

We would appreciate your review of our application at your earliest convenience. If you have any questions regarding our submission, please do not hesitate to call.

Sincerely,

Mr. A. L. Maddalena, M.Sc.
Remediation Manager

ALM:kan
Attachment

c.c. Mr. R. B. Wallace, Coca-Cola Beverages Ltd. (w/a)
Mr. G. Montcalm, MOEE District Office, Ottawa, Ontario (w/a)

7900 Canadian Drive, Niagara Falls, Ontario L2E 6S5 (905) 357-6424 Fax (905) 357-6447
Niagara Falls Toronto Montréal Ottawa Thunder Bay Sudbury Niagara Falls, N.Y.

Ministry of Environment and Energy
Ontario

Application for Approval (Air)

Ce formulaire est disponible en français

FOR OFFICE USE ONLY				
Application Number(s)	Client Number	Payment Received	Date	Initials
		$		

Information requested by this form is collected under the authority of the *Environmental Protection Act*, R.S.O. 1990 (EPA) and the *Environmental Bill of Rights*, c.28, Statutes of Ontario, 1993 (EBR) and will be used to evaluate applications for approval under Section 9 of the EPA. Questions should be directed to the Approvals Branch, 250 Davisville Avenue, 3rd Floor, Toronto, Ontario, M4S 1H2, Telephone No. (416)440-3713 or 1-800-461-6290, or to your local Ministry of Environment and Energy District Office.

Instructions

1. When completing this form, please refer to the "Guide For Applying for Approval (Air)", Section 9, EPA (referred to as the Guide).
2. This form must be completed with respect to all the requirements of the Guide in order for it to be considered as an application for approval. INCOMPLETE APPLICATIONS WILL BE RETURNED TO THE APPLICANT OR DENIED APPROVAL.
3. A complete application for approval consists of;
   (1) a completed and signed application form;
   (2) all supporting information as requested by this form and by the Guide; and
   (3) a certified cheque or money order for the approval fee, if applicable.
   The Ministry may require additional information following a review of the complete application.
4. Two (2) copies of the application together with the supporting information must be submitted to the Ministry of Environment and Energy,
   One copy to: Director of Approvals Branch, Ministry of Environment and Energy, 250 Davisville Avenue, 3rd Floor, Toronto, Ontario, M4S 1H2

   A duplicate copy must be sent to the District Office having jurisdiction over the area in which the works will be located.
5. Information contained in this application is not considered confidential and will be made available to the public upon request. Certain information submitted as supporting information may be claimed as confidential but will be subject to the *Freedom of Information and Protection of Privacy Act* (FOIPOPA) and EBR. If you do not claim confidentiality at the time of submitting the information, the Ministry may make the information available to the public without further notice to you.

1. APPLICANT

Name (attach proof of name if applicable)
Dr. A. W. Panko, President, Arcturus Environmental Ltd.

Address (include street number, concession, lot etc.)	City / Province
7900 Canadian Drive	Niagara Falls, Ontario

Postal Code	Telephone Number	Fax Number
L2E 6S5	905-357-6424	905-357-6447

Owner of the Proposed Equipment? [X] Yes [ ] No If no, attach name and address of the Owner of the Equipment

Operator of the Proposed Equipment? [X] Yes [ ] No If no, attach name and address of the Operator of the Equipment

2. CONTACT FOR TECHNICAL AND DESIGN INFORMATION

Name / Title
Mr. A. Maddalena, Project Manager

Address	City / Province
SAME AS ABOVE	

Postal Code	Telephone Number	Fax Number

3. LOCATION

[X] Mobile [ ] Stationary (Provide location (street, concession, lot etc.) and complete reminder of this section)

Immediate use proposed for 500 Coventry Road, Ottawa, Ontario

Adjacent Land Use Designation

[X] Industrial [XX] Commercial [ ] Residential [ ] Agricultural

Are the proposed works located in an area of development control as defined by the *Niagara Escarpment Planning and Development Act* (NEPDA)?
[ ] Yes [X] No (If Yes, attach copy of NEPDA permit)

4. PROCESS/ACTIVITY DESCRIPTION – Brief description of the nature of business, industrial process or activity related to this site.

The site is a central soft drink distribution facility (Coca-Cola Beverages Ltd.) in which trucks enter load/unload, and then exit to various retail outlets.

5. TYPE OF APPLICATION

[X] New Certificate of Approval

[ ] Amendment to a current Certificate of Approval

Current Certificate Number _____

Date of Issue _____

6. PROJECT/APPLICATION DESCRIPTION – EBR Abstract (Brief description of the proposal)

This project involves on-site soil bioremediation/vapour extraction. Petroleum contaminated soil will be placed into an Engineered Biocell, from which vapours will be removed by a Vapour Extraction System. Hydrocarbon vapours will be treated using a Biofilter Treatment System. Treated air will then be discharged to the atmosphere. Prior to discharge, the treated air stream will be monitored for hydrocarbon vapours.

7. EBR REQUIREMENTS

Is this a proposal for a Prescribed Instrument under EBR?	[X] Yes, Class of Instrument? II	[ ] No
If "Yes", is it excepted from public notification?	[X] Yes	[ ] No
If it is excepted from public notification, provide reason	[ ] Emergency	[ ] Equivalent Public Participation
	[X] EAA or Tribunal Decision	[ ] Environmentally Insignificant Amendment or Revocation

Documentation in support of the above noted exception must be provided in the attached information.

8. PUBLIC CONSULTATION/NOTIFICATION – Specify all public consultations/notification (such as public meetings, notification of First Nations, Canada – U.S. Air Quality Agreement notification etc.) that has been completed or is in the process of being completed.

Public Consultation Notification letters will be sent to all businesses/residents immediately adjacent to the Coca-Cola property (Attached). Notification includes a request for comments regarding the proposal to be sent to local MOEE and the Applicant. All comments from adjacent property owners will be addressed in consultation with MOEE Officials prior to operation.

9. OTHER APPROVALS/PERMITS – List all other environmental approvals/permits applied for or received under the Ontario Water Resources Act (OWRA) (water works, permit to take water, etc.) and EPA (waste management, sewage systems, etc.)

Permit to take water (Attached)

Permit to discharge treated water to sanitary sewer system (submitted to Region)

Emergency Certificate of Approval (Processing) (Submitted to MOEE)

10. PROJECT SCHEDULE

Estimated Date for Start of Construction	Estimated Date for Start of Operation
March 1995	April 1995

11. FEES ESTIMATE – The "cost" to be used to estimate the fee includes, all equipment and construction costs but does not include costs for land, engineering services or the costs of facilities for which a permit or approval is applied for under other Sections of the EPA or OWRA for which appropriate fees have or will be paid. The fee shall not be less than $50.00 or more than $100,000.00. (For more information refer to the Guide)

Cost for purpose of fee estimate	$ 30,000
2% of cost	$ 600
Estimated Fee ($50.00 minimum, $100,000.00 maximum)	$ 600

Certified cheque or money order attached? [X] Yes [ ] No

When the application is submitted to the Ministry for review the fee must be in the form of a certified cheque or money order payable to "The Minister of Finance".

DO NOT SEND CASH

12. SUPPORTING INFORMATION CHECKLIST – This is a list of all supporting information attached to this application and is subject to the FOIPOPA and EBR.

INFORMATION	ATTACHED?	REFERENCE	CAN BE DISCLOSED
GENERAL			
Verification of Legal Name of Applicant	[X] Yes [ ] No	Appendix VI	[X] Yes
Copy of NEPDA Permit	[ ] Yes [ ] No	N/A	[ ] Yes
Copy of Current Certificate of Approval	[ ] Yes [ ] No	N/A	[ ] Yes
Verification of EBR Public Notification Exception	[X] Yes [ ] No	Appendix II	[X] Yes
Proof of Public Notification/Consultation	[X] Yes [ ] No	Appendix II	[X] Yes
Address of Owner/Operator (if different from section 1)	[ ] Yes [ ] No	N/A	[ ] Yes
TECHNICAL			
Production Data	[X] Yes [ ] No		[X] Yes [ ] No
Data Sheets	[ ] Yes [ ] No	N/A	[ ] Yes
Contaminant Emission Summary Table	[X] Yes [ ] No		[X] Yes [ ] No
Supporting Information for Estimate of Contaminant Emmissions	[X] Yes [ ] No		[X] Yes [ ] No
Site, Plot, Roof and Elevation Plans	[X] Yes [ ] No		[X] Yes
Dispersion Calculation	[X] Yes [ ] No		[X] Yes [ ] No
Supporting Information for Noise and Vibration Assessment	[X] Yes [ ] No		[X] Yes [ ] No

OTHER ATTACHED INFORMATION
(refer to following page)

12. SUPPORTING INFORMATION (Continued)

OTHER ATTACHED INFORMATION	CAN BE DISCLOSED
Appendix I - Site Assessment and Recommended Remediation	[X] Yes [ ] No
Appendix II - Proof of Public Notification/Consultation	[X] Yes [ ] No
Appendix III - Material Safety Data Sheets	[X] Yes [ ] No
Appendix IV - Point of Impingement Results	[X] Yes [ ] No
Appendix V - Blower Specifications	[X] Yes [ ] No
Appendix VI - Articles of Incorporation	[X] Yes [ ] No
Appendix VII - Permits	[X] Yes [ ] No
	[ ] Yes [ ] No
	[ ] Yes [ ] No
	[ ] Yes [ ] No
	[ ] Yes [ ] No
	[ ] Yes [ ] No
	[ ] Yes [ ] No
	[ ] Yes [ ] No
	[ ] Yes [ ] No
	[ ] Yes [ ] No
	[ ] Yes [ ] No
	[ ] Yes [ ] No
	[ ] Yes [ ] No

13. STATEMENT OF APPLICANT

I, the undersigned, hereby declare that, to the best of my knowledge, the information contained herein and the information submitted in support of this application is complete and accurate in every way and that the Contact for Technical and Design Information identified in item 2 of this form is/are authorized to act on my behalf for the purpose of obtaining approval under Section 9 of the EPA for the proposed equipment identified herein.

Name DR. ANDREW PANKO	Position PRESIDENT - ARCTURUS ENVIRONMENTAL
Signature	Date FEB 22, 1995

APPLICATION FOR CERTIFICATE OF APPROVAL (AIR)

12.0 SUPPORTING INFORMATION

The following sections detail the suporting information used for the completion of Section 12 of the Application for a Certificate of Approval (Air) Section 9, Environmental Protection Act, R.S.O. 1990.

12.1 EXECUTIVE SUMMARY

Arcturus has conducted pre-consultation with Mr. G. Montcalm, Senior Environmental Officer, regarding the installation and operation of a soil treatment facility. The proposed facility will be composed of an engineered bioremediation cell (EBC) and vapour extraction/biofilter treatment system at the Coca-Cola Distribution Facility, 500 Coventry Road, Ottawa, Ontario. The facility is designed to treat approximately 12,000 T of petroleum contaminated soil derived from two former underground fuel storage tanks. Part of this facility is a vapour extraction/biofilter treatment system that will be used to remove hydrocarbon vapours from the soil and promote natural bioremediation under controlled conditions. This application is being made for a virtual source atmospheric discharge after biofilter treatment.

12.2 ABSTRACT

Petroleum hydrocarbon contaminated soil originating from the former underground storage tanks and pump island would be excavated, placed into a controlled, engineered bioremediation cell, and treated using vapour extraction/bioremediation. The bioremediation process in each cell would be enhanced by adding appropriate nutrients, and extracting hydrocarbon vapours, through vapour extraction piping installed throughout the soil pile, and drawing oxygen through the soil above. Oxygen would then be used by the existing soil micro-organisms to degrade petroleum hydrocarbons to carbon dioxide and water within the soil pile. The extracted air, containing this carbon dioxide and water vapour, and also residual hydrocarbon vapours, would be treated using two biofilters before being discharged to the atmosphere. The biofilters would ensure that all extracted hydrocarbon vapours are destroyed. Discharge would be monitored regularly to ensure

compliance with applicable air emission standards. After treatment, the EBC would be decommissioned and soil would remain in-place on-site.

This application is being made for a Certificate of Approval (Air) for the virtual source discharge from the biofilter system to be used in the treatment of volatile organic contaminants extracted from soil in the EBC. Although the EBC system is site specific, and is stationary on-site, the vapour extraction system and support process facility is mobile. The system proposed for use at this site has been used in a similar soil treatment facility in Quebec, and was successful in treating approximately 12,000 T of petroleum contaminated soil in approximately six months. This system and monitoring program was approved by MENVQ for use in Quebec.

12.3 GENERAL DESCRIPTION

A site location map with surrounding land use is shown in Figure 12.1. As shown the site is surrounded by lands that are designated as general commercial and light industrial.

A schematic diagram illustrating the EBC, vapour extraction/biofilter treatment system and support process facility is shown in Figure 12.2. A basal network of drainage tile will underlie the soil pile to be treated and provide suitable drainage of leachate to a central sump where it can be removed from the system and either returned to the soil pile to ensure adequate moisture, or treated through a Granular Activated Carbon (GAC) water treatment and then discharged to the local sanitary sewer.

A network of air extraction lines would be installed above the basal drainage tile to facilitate the withdrawal of petroleum hydrocarbon vapours, and the induction of fresh air through the entire soil pile. Hydrocarbon vapours in the EBC soil are removed by two blowers (five hp each). Any excess water in the lines is removed by an air/water separator. Vapours are then moisturized before entering two biofilters where volatile organic contaminants (VOCs) are removed from the air stream and degraded by micro-organisms. These micro-organisms in the biofilters, readily use hydrocarbons and convert them to carbon dioxide and water as by-products. Discharge from the biofilters would consist primarily of these by-products of micro-organism activity, and will not adversely affect the existing air

LEGEND

SITE LOCATION MAP IMAGE TAKEN FROM AN AIR PHOTO A27909-52, DATED 02/05/93

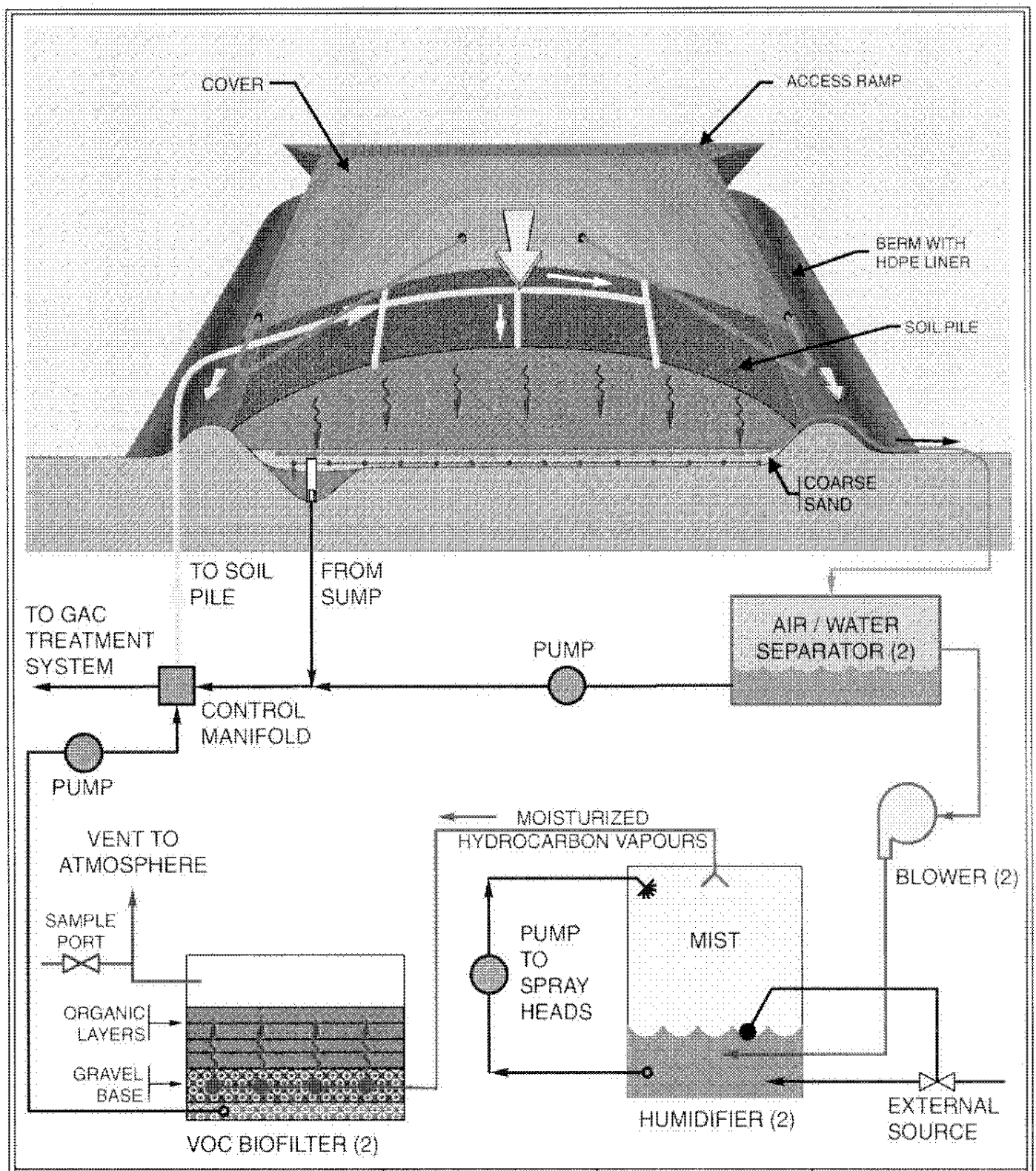
SITE LOCATION

500 COVENTRY ROAD
OTTAWA, ONTARIO

CLIENT: Coca-Cola

ARCTURUS

DATE: FEBRUARY 1995		PROJECT No: E769.6	DRAWING No. FIGURE 12.1
DRAWN: TD	CHK'D: ALM	SCALE: AS SHOWN	



LEGEND

SCHEMATIC OF REMEDIATION SYSTEM PROCESS FLOW

CLIENT: Coca-Cola

ARCTURUS

DATE: FEBRUARY 1995		PROJECT No.: E769 6	DRAWING No.: FIGURE 12.2
DRWN: MJF	CHK'D: ALM	SCALE: NOT TO SCALE	

quality.

A schematic of a typical biofilter is shown in Figure 12.3, 12.4 and 12.5. It consists of a metal container with rear-loading access doors. Vapours enter the base of the container through 5 cm PVC screens, and are diffused through an air distribution system composed of a 0.5 m layer of finely crushed stone. The basal stone layer also provides efficient drainage of excess water from the base of the biofilter. Overlying this stone is a biofilter matrix composed of compost, peat moss, and other natural organic materials. These materials provide an extensive surface area on which volatile organic contaminants (VOCs) can become adsorbed and are available for micro-organism metabolism.

12.4 PRODUCTION DATA

Process flow of vapours from the soil in the EBC through the vapour extraction to the biofilter treatment system is shown schematically in Figure 12.2.

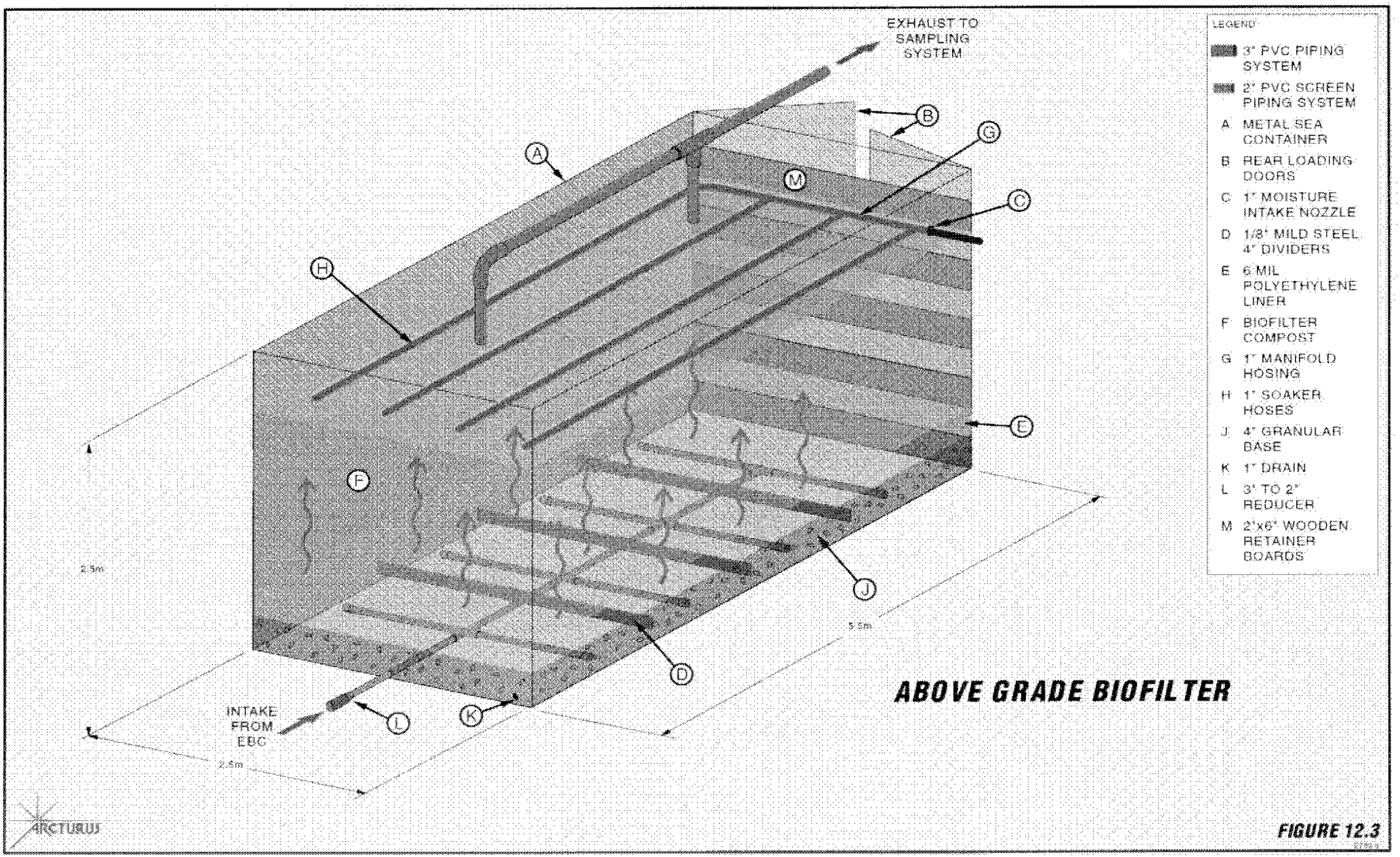
12.4.1 Process Steps and/or Units

Vapour and water extracted from the soil piles, pass through two air-water separators. Excess water is directed to a water storage tank, and then is returned to the soil pile to maintain proper soil moisture for active bioremediation or is treated through the GAC treatment system and discharged to the local sanitary sewer. Vapours are pumped from the separators to two humidifiers where they are moisturized with a water vapour mist, and then directed to the biofilters. Vapours are then passed through the organic layers of the biofilters and treated. Prior to discharge, emissions are monitored for Volatile Organic Compounds (VOCs) to evaluate the quality of the discharge.

12.4.2 Operating Conditions, Process Streams and Flow Rates

The maximum discharge from the biofilter system has been determined using manufacturer's specifications for the proposed blowers and is expected to be approximately 6000 ft^3m (2.85 m^3/s). Discharge would be directed through a 0.12 m diameter stack, at a temperature of approximately 25°C.

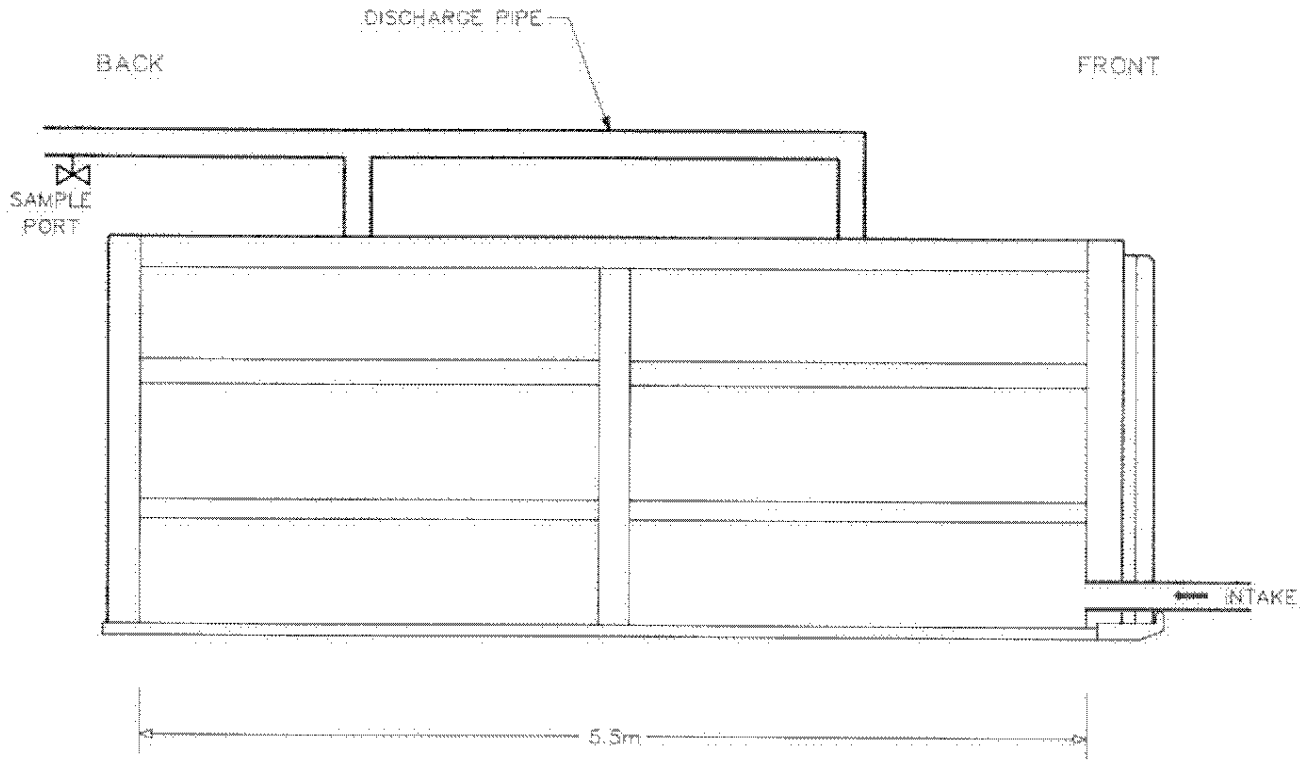
Operating hours for the system would be 24 hours per day, 7 days per week, for



ABOVE GRADE BIOFILTER

FIGURE 12.3

000197



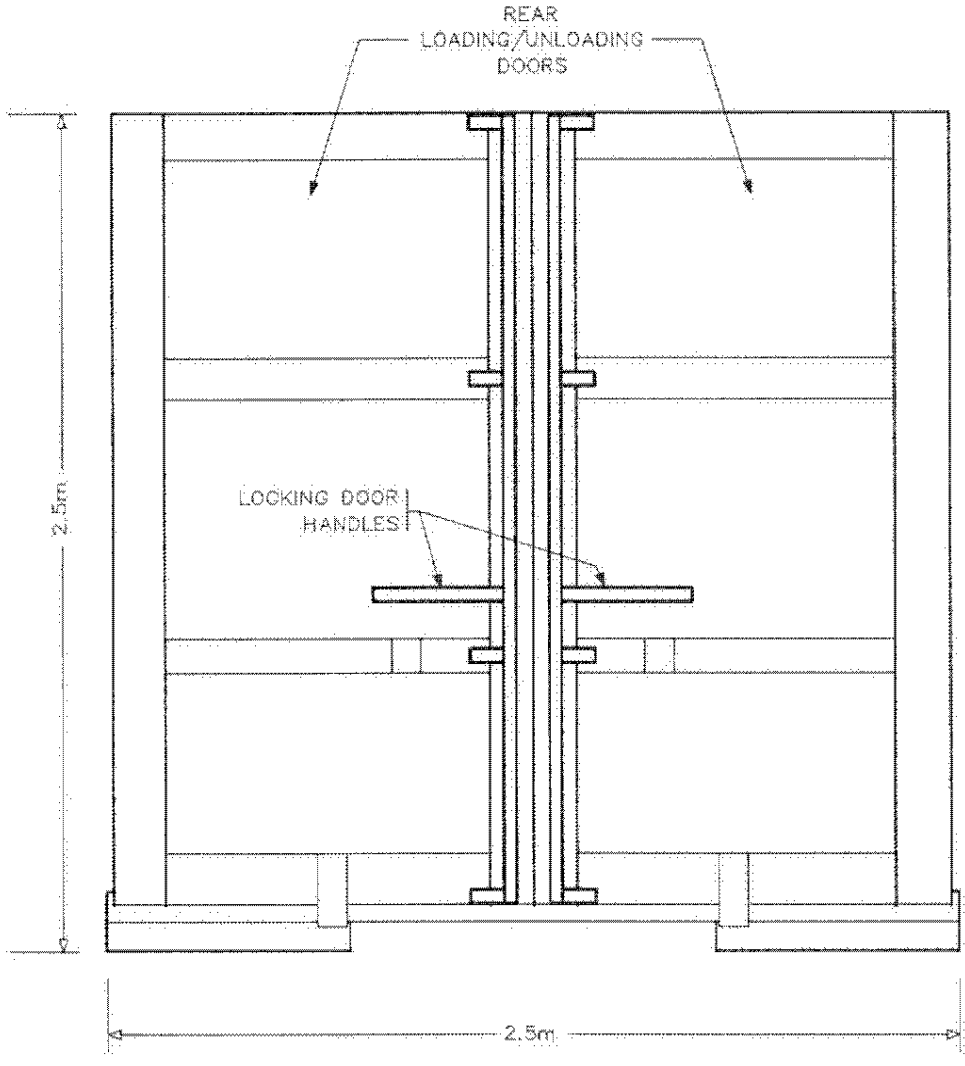
LEGEND

VOC BIOFILTER "SIDE VIEW"

CLIENT: Coca-Cola

ARCTURUS

DATE FEBRUARY 1995		PROJECT No. E769.6	DRAWING No. FIGURE 12.4
DRWN TD/MJF	CHK'D ALM	SCALE NOT TO SCALE	



LEGEND	VOC BIOFILTER "BACK VIEW"	CLIENT Coca-Cola	ARCTURUS
	DATE FEBRUARY 1995	PROJECT No. E769.6	DRAWING No. FIGURE 12.5
	DRWN TD/MJF CHK'D ALM	SCALE NOT TO SCALE	

approximately 30-40 weeks of the year. The only non-operational periods would be during servicing which would be required every two to three months. At this time, inspection/maintenance of pumps and the blowers would be conducted. Maintenance of the biofilters (if required) would also be conducted with pump and blower inspection/maintenance. The contents of the biofilters may require mixing to prevent matting of the organic material, development of preferred airways and blockage of air pathways.

12.4.3 Air Discharge Monitoring Program

Reliable monitoring results have been obtained for the biofilter treatment system discharge using GAC cartridge sampling according to the National Institute for Occupational Safety and Health (NIOSH) Method 1501 for aromatic hydrocarbons. Cartridges are submitted to the laboratory and analyzed according to USEPA Method 8021. As these methods provide accurate results and have been acceptable for monitoring in Quebec, it is proposed that a similar program be initiated for monitoring of biofilter emissions for the system at this site.

Samples of stack discharge would be collected from the sample port located on the discharge stack of the biofilter. Sampling is conducted by inserting an open activated carbon tube at the end of a suitable probe. Stack discharge is drawn into the carbon tube by a portable air pump for a suitable sampling period that will ensure against breakthrough (NIOSH method 1501).

After an appropriate sampling period, the carbon tube is removed, labelled, sealed, and submitted for laboratory analysis of the above parameters. Analyses of these parameters are conducted by a certified laboratory using Gas Chromatography - Mass Spectrometer Purge and Trap, USEPA Method 8021. Measurements would also be taken with a Gastech™ Model 1238 Combustible Vapour meter to immediately evaluate discharge quality on a regular basis. Immediate field monitoring of the discharge would allow rapid adjustments to be made to the system, and ensure preservation of the existing air quality.

The proposed frequency of monitoring for this site is described below :

- 12 emission samples would be collected using GAC cartridges during an initial 12 hour test run of the system; collection of samples would be conducted using GAC cartridges according to NIOSH Method 1501

- laboratory analysis would be conducted on these samples for the target volatile parameters identified earlier; the laboratory analytical technique used for analysis of the carbon cartridges would be USEPA Method 8021

- after obtaining acceptable results from the test run monitoring, the sampling frequency would be reduced to weekly, and the analytical target parameters would include BTEX only; weekly sampling would be supplemented by weekly intake and discharge measurements using a Gastechtor Model 1238 Combustible Vapour Monitor

- after obtaining acceptable results for the first month of monitoring (ie. compliance with MOEE Half-Hour Point of Impingement Guidelines), GAC cartridge sampling would be reduced to once per month, while Gastechtor measurements would continue to be taken weekly for the duration of operation

12.5 DATA SHEETS

As baghouses, cyclones, packed scrubbers, and spray booths are not part of this system, MOEE data sheets for these items are not applicable.

12.6 CONTAMINANT EMISSION INFORMATION TABLE

Discharge from the biofilter complex will be through a 0.12 m stack at roof level about 2.5 m above grade. A sampling port will be installed on the stack to conduct emissions sampling.

Stack Number - Virtual Source	1
Stack Parameters	
Max. Volumetric Flow Rate (m^3/s)	2.82
Temperature of Gases Discharged(°C)	25
Stack Height above roof (m)	0
Stack Height above grade (m)	2.5
Stack Diameter (m)	0.12

12.6.1 Supporting Information for Estimate of Containment Emissions

Actual emission data from the biofilter treatment system used in Quebec have been used to estimate potential emission rates for the system proposed on this site. For biofilter treatment system used in Quebec, all samples were obtained using NIOSH Method 1501 and analyzed using USEPA Method 8021. The data obtained from the Quebec site is applicable to this situation as soils in both locations are contaminated with volatile petroleum hydrocarbons.

All existing monitoring data from April to August 1993 were used to determine the worst case emission rate for each contaminant. Only peak contaminant concentrations for each parameter were used in determining the maximum possible loadings from the biofilter discharge stack. These would be considered worst-case concentrations for emissions.

In addition, a total discharge of 6,000 ft^3/min or 2.82 m^3/s as determined from the manufacturers specifications was used to determine worst-case flow rate. Using this flow rate, a safety factor of 10 has been built in to the emission estimate.

Therefore, by combining peak contaminant concentrations with a flow rate 10 times higher than regular operations, it is possible to simulate worst-case emission rates as follows:

Benzene

Emission Rate = 2.83 m^3/s x 8.6 mg/m^3 /1000 g/mg = 0.0243 g/s

VOC Contaminants	Peak Stack Conc. (mg/m3)	Worst Case Emission Rate (g/s)
benzene	8.6	0.0243
toluene	18.0	0.0509
chlorobenzene	0.9	0.0025
ethylbenzene	4.4	0.0125
m,p xylene	35.0	0.0991
o-xylene	1.3	0.0037
1,3 dichlorobenzene	0.8	0.0023
1,4 dichloro benzene	3.5	0.0099
1,2 dichlorobenzene	1.5	0.0042
styrene	9.7	0.0275
napthalene	0.2	0.0006

These emission rates were used in MOEE Reg. 346 Point of Impingement Modelling.

12.6.2 Canada/US Air Quality Agreement

Based on these emission rates, the total VOC emissions are less than 90 tonnes/year and total hazardous pollutant emissions are less than 10 tonnes/year. As such, Transboundary Notification is not required.

12.6.3 Fugitive Emissions

Fugitive emissions within the vapour extraction support facility and sample shed are controlled through implementation of a regular inspection/maintenance and monitoring program, together with installation of durable parts and flexible hoses. All major components of the extraction system and are contained within the suitable trailer where leaks may be detected immediately with standard monitoring equipment such as a Gastech™ Model 1238 Combustible Vapour meter. Monitoring of the ambient air within the enclosure is conducted during regular inspections to ensure immediate detection of hydrocarbon vapours. Arcturus has operated five

biofilter systems to date without release of fugitive emissions within the system process facility.

12.6.4 Supporting Information For Contaminants

The contaminants expected in the intake of the biofilter treatment system and specifically listed in the *Summary of Point of Impingement Standards, Ambient Air Quality Criteria (AAQCs), and Approvals Screening Levels (ASLs)* are as follows:

Contaminant Name	CAS number
benzene	71-43-2
ethylbenzene	100-41-4
toluene	108-88-3
xylenes	1330-20-7
hexane	110-54-3
cyclohexane	110-82-7
n-octane	11-65-9
1,3,5,-trimethylbenzene	95-63-6
isopropylbenzene	98-82-8
styrene	100-42-5
napthalene	91-20-3

As the above contaminants are not handled in raw form, their MSDS sheets are not required. The only fuels stored and handled on this site are gasoline and diesel. As such, the Material Safety Data Sheets (MSDS) for gasoline and diesel fuel are included in Appendix III.

12.6.5 Other Existing Sources of Contaminants

We have reviewed the General Information Document as required, and have determined that there are no other sources of contaminants to be evaluated for this certificate.

12.7 SITE, PLOT, ROOF AND ELEVATION PLANS

The proposed location of the biofilter system on-site is shown in Figure 12.6. As

indicated, one building is present on-site and is approximately 5 m. above the height of the biofilter discharge stack.

Points of impingement used in the dispersion modelling consist of windows on this building approximately 30 m north of the biofilter complex, as well as the west, south and east property boundaries surrounding the proposed location of the biofilter system.

12.8 DISPERSION CALCULATIONS

Dispersion modelling was conducted to determine point of impingement (POI) concentrations under worst case conditions.

All of the dispersion selection criteria were evaluated to determine the most appropriate model for this system. As the emission source is a biofilter stack fairly clos to the ground surface, the virtual source POI model was used for modelling.

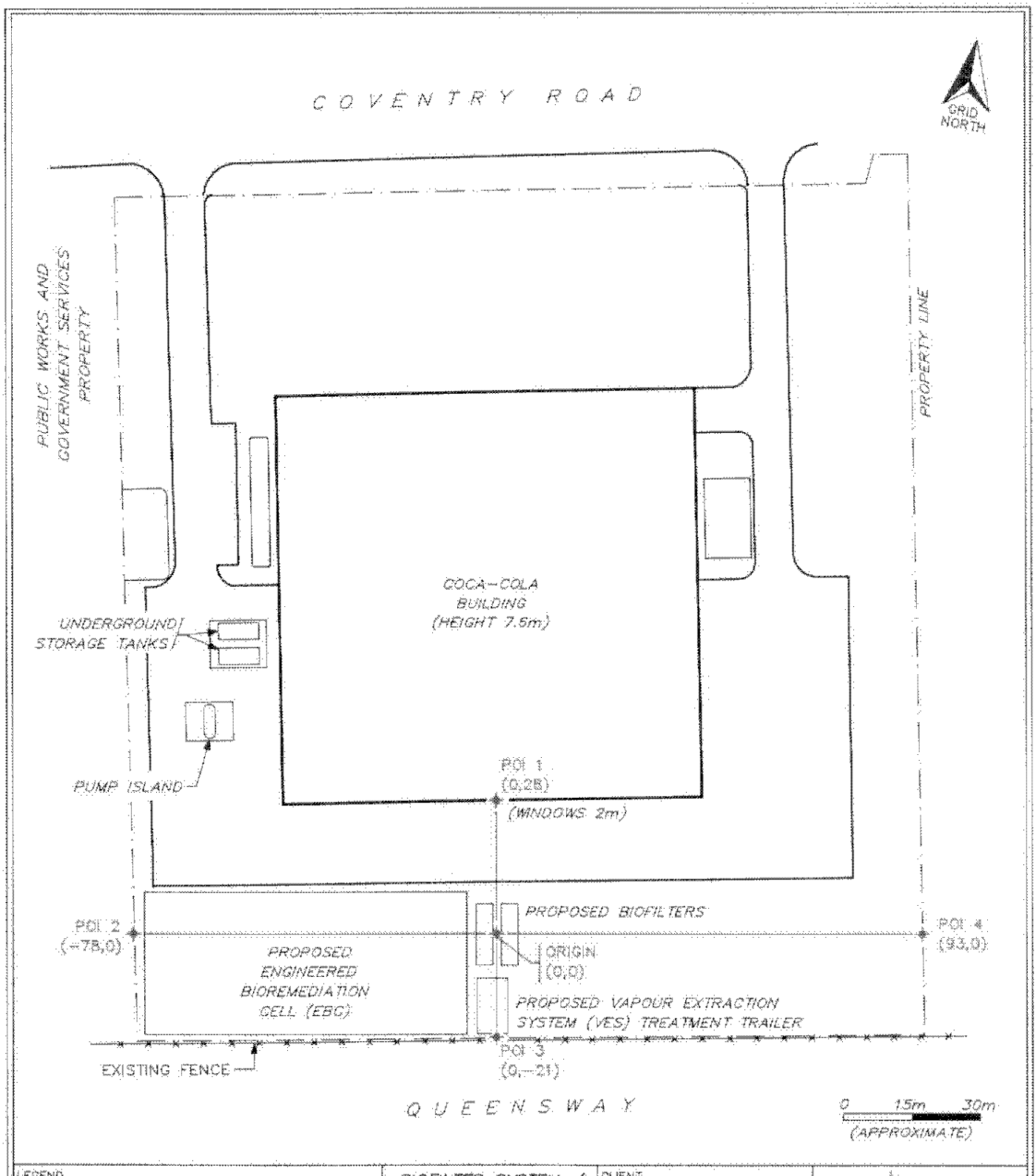
12.8.1 Dispersion Results

The MOEE, Regulation 346 Dispersion Program Version 2.00 was executed on an IBM compatible computer for the parameters described earlier. The location and dimensions of the biofilter system, as well as receptor coordinates used for modelling, are shown in Figure 12.6. Results of dispersion modelling are attached in Appendix IV.

These data indicate that all worst-case emissions for the parameters analyzed are still well below the Point of Impingement Standard, Half Hour Point of Impingement Limits. Therefore operation of this system will not likely result in concentrations that exceed POI limits.

12.9 SUPPORTING INFORMATION FOR ASSESSMENT OF NOISE AND VIBRATION ASSESSMENT

The only major source of noise and vibration from the operation of this proposed biofilter treatment system are the blowers. Specifications for the blowers have been included in Appendix V.



LEGEND	BIOFILTER SYSTEM / POINT OF IMPINGEMENT (POI) LOCATIONS 500 COVENTRY ROAD OTTAWA, ONTARIO	CLIENT: Coca-Cola	ARCTURUS
	DATE: FEBRUARY 1995	PROJECT No. E769.6	DRAWING No. FIGURE 12.6
	DRWN: TD/MJF CHK'D: SMG	SCALE: AS SHOWN	

As shown, both the inlet and discharge of the blowers are equipped with appropriate silencers. Specifications for these blowers indicate that the combined noise level rating is 194 dba. The blower would also be mounted on anti-vibration pads to minimize operational vibrations.

Below are the calculated noise level ratings for various distances from the proposed blowers. The acceptable noise level rating as specified by the Ministry of Labour is 90 dba. As shown below, an acceptable noise level rating is achieved at a distance of 4 m from the blowers, if not enclosed.

Distance from Blowers (m)	Calculated Noise Level Rating (dba) (2 blowers)
1	194.0
2	97.0
4	48.6
8	24.2
16	12.2
32	6.0
64	3.0
128	1.6

As blowers will be completely contained within a VES enclosure, sound and vibration impacts from the blowers are not anticipated.

APPENDIX I

SITE ASSESSMENT AND RECOMMENDED REMEDIATION

DRAFT

COCA-COLA BEVERAGES LTD.

SITE ASSESSMENT AND EVALUATION OF REMEDIATION ALTERNATIVES

500 COVENTRY ROAD, OTTAWA, ONTARIO

EXECUTIVE SUMMARY

In October and November 1994, Arcturus was on-site at the Coca-Cola distribution facility at 500 Coventry Road in Ottawa, to supervise the decommissioning of two underground fuel storage tanks, and to conduct a comprehensive assessment of subsurface conditions, with respect to petroleum-hydrocarbon impact.

The results of the assessment indicate that approximately 6,600 tonnes of soil on the Coca-Cola property have been impacted to a degree which exceeds the currently applicable remediation criteria established by the Ministry of the Environment and Energy.

Using the results of the assessment as a basis, Arcturus conducted a cursory review of alternative approaches to remediate the petroleum-hydrocarbon impacted soil. On the basis primarily of cost, giving due consideration to timing and space constraints, and technical effectiveness, it is our recommendation that on-site ex-situ bioremediation be selected as the preferred approach.

It is recommended that the application process for required Certificates of Approval be initiated immediately, so that construction of the remedial works can begin in the beginning of April 1995. If this schedule is achieved, it is anticipated that remediation of the soil will be complete, and the site restored, no later than the end of October 1995.

TABLE OF CONTENTS

EXECUTIVE SUMMARY i

1.0 INTRODUCTION 1

2.0 SITE ASSESSMENT 1
- 2.1 UNDERGROUND FACILITY REMOVAL 1
- 2.2 TEST PITTING PROGRAM 3
- 2.3 BOREHOLE INSTALLATION 3

3.0 SITE CONDITIONS 5
- 3.1 SITE SENSITIVITY ANALYSIS 5
- 3.2 STRATIGRAPHY 6
- 3.3 SOIL CHEMICAL ANALYTICAL RESULTS 6
- 3.4 REMEDIATION REQUIREMENTS 8

4.0 PREFERRED REMEDIATION APPROACH 8
- 4.1 PROCESS 8
- 4.2 PERMITTING REQUIREMENTS 10
- 4.3 SCHEDULING 10

LIST OF FIGURES

Figure 1 General Site Layout
Figure 2 Borehole and Test Pit Locations
Figure 3 Approximate Extent of Petroleum Hydrocarbon Impact
Figure 4 Schematic of Remediation System Process Flow
Figure 5 Location of Remediation Facilities

LIST OF APPENDICES

Appendix I Test Pit Logs
Appendix II Borehole Logs
Appendix III Site Sensitivity Analysis

1.0 INTRODUCTION

Arcturus Environmental Limited was retained by Coca-Cola Beverages Ltd. to manage the decommissioning of two underground fuel storage tanks, and removal of petroleum-hydrocarbon impacted soil, in accordance with the requirements of the Gasoline Handling Act, at the distribution facility located at 500 Coventry Road, in Ottawa.

However, during the excavation and removal of the tanks, it became apparent that the quantity of impacted soil requiring remediation was significant. Therefore, a comprehensive site assessment was undertaken prior to removal of any soil, in order to facilitate determination of the most cost-effective remediation approach.

The site assessment indicated that, in addition to the impacted soil on Coca-Cola property, migration of petroleum hydrocarbons had occurred off-site, onto the adjoining property to the west. The delineation of the off-site impacts, and subsequent remediation, which is now complete, will be described in detail under separate cover.

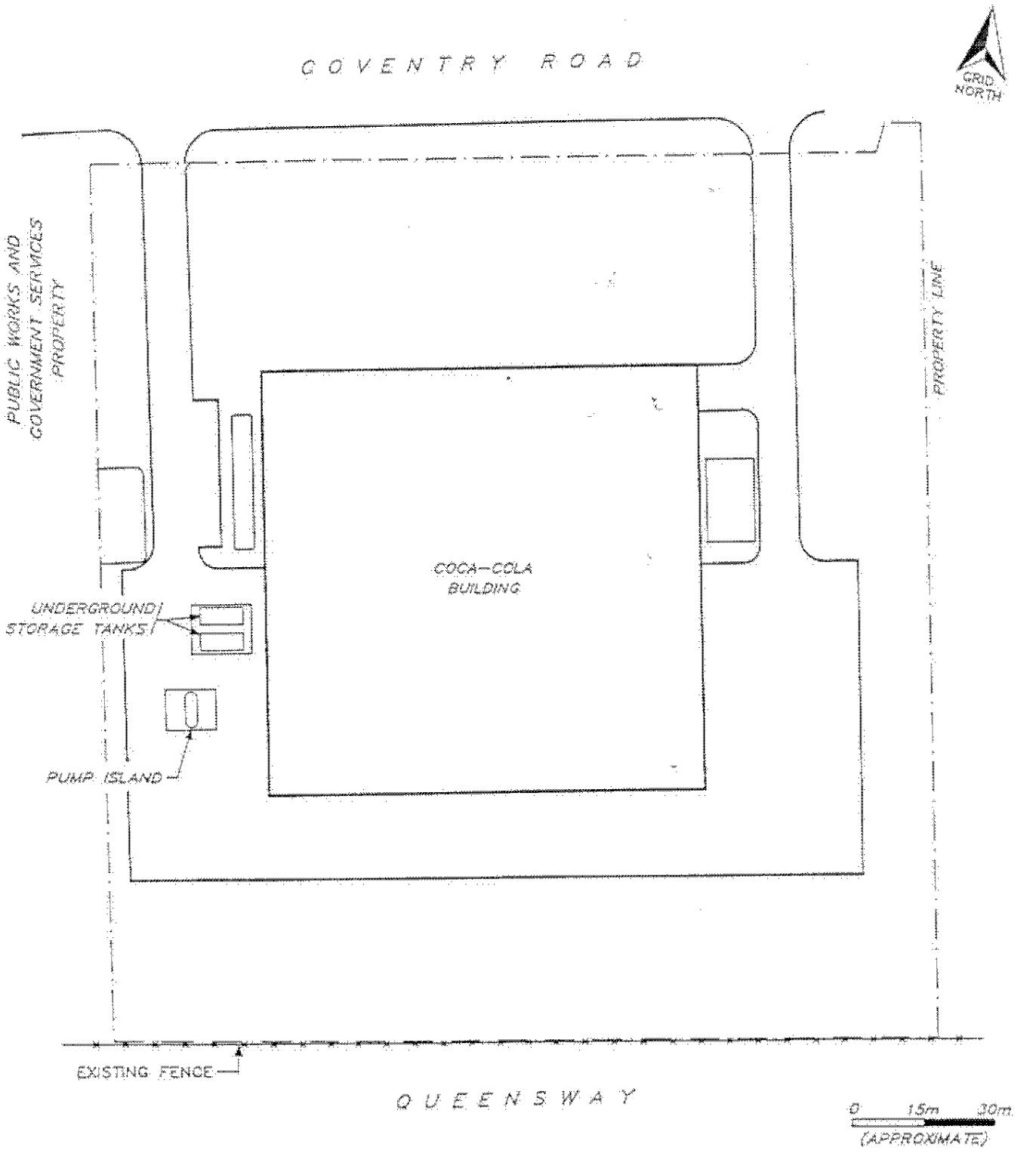
This report presents a brief description of the on-site assessment, a summary of current site conditions, a comparative review of remediation alternatives, and a discussion of the preferred approach to remediation of the site.

2.0 SITE ASSESSMENT

2.1 UNDERGROUND FACILITY REMOVAL

On October 15, 1994, two fibreglass-reinforced plastic (FRP) 22,700-L underground storage tanks were removed from the site, by PetroGat Inc., under subcontract to Arcturus. The tanks appeared in good condition at the time of removal. At the same time, associated pumps, distribution and vent lines were also removed.

The general site layout, prior to removal of facilities, is shown in Figure 1.



LEGEND

GENERAL SITE LAYOUT

500 COVENTRY ROAD
OTTAWA, ONTARIO

CLIENT

ARCTURUS

DATE NOVEMBER 1994		PROJECT No. E769.2	DRAWING No. FIGURE 1
DRAWN TD	CHK'D SMG	SCALE AS SHOWN	

2.2 TEST PITTING PROGRAM

During removal of the pump island and distribution lines, it became apparent from visual and olfactory observation that there might be significant subsurface petroleum hydrocarbon impact. Therefore, prior to removal of any soil from the site, a test pitting program was conducted to delineate the extent of the impact, and to determine the volume of soil requiring remediation.

On October 15 and 16, 1994, sixteen test pits were excavated around the tank nest and pump island, to an average depth of approximately 3.3 m. The locations of the test pits are shown on Figure 2.

During excavation, soil samples were collected from the walls of the test pits at regular depth intervals. The samples were logged according to visual and textural observations by Arcturus' field technician. In addition, combustible soil vapour concentrations (CVC's) were measured, using a Gastechtor™ Hydrocarbon Surveyor, calibrated to hexane, and set for methane elimination.

Stratigraphic logs of the test pits, including CVC data, are included as Appendix I.

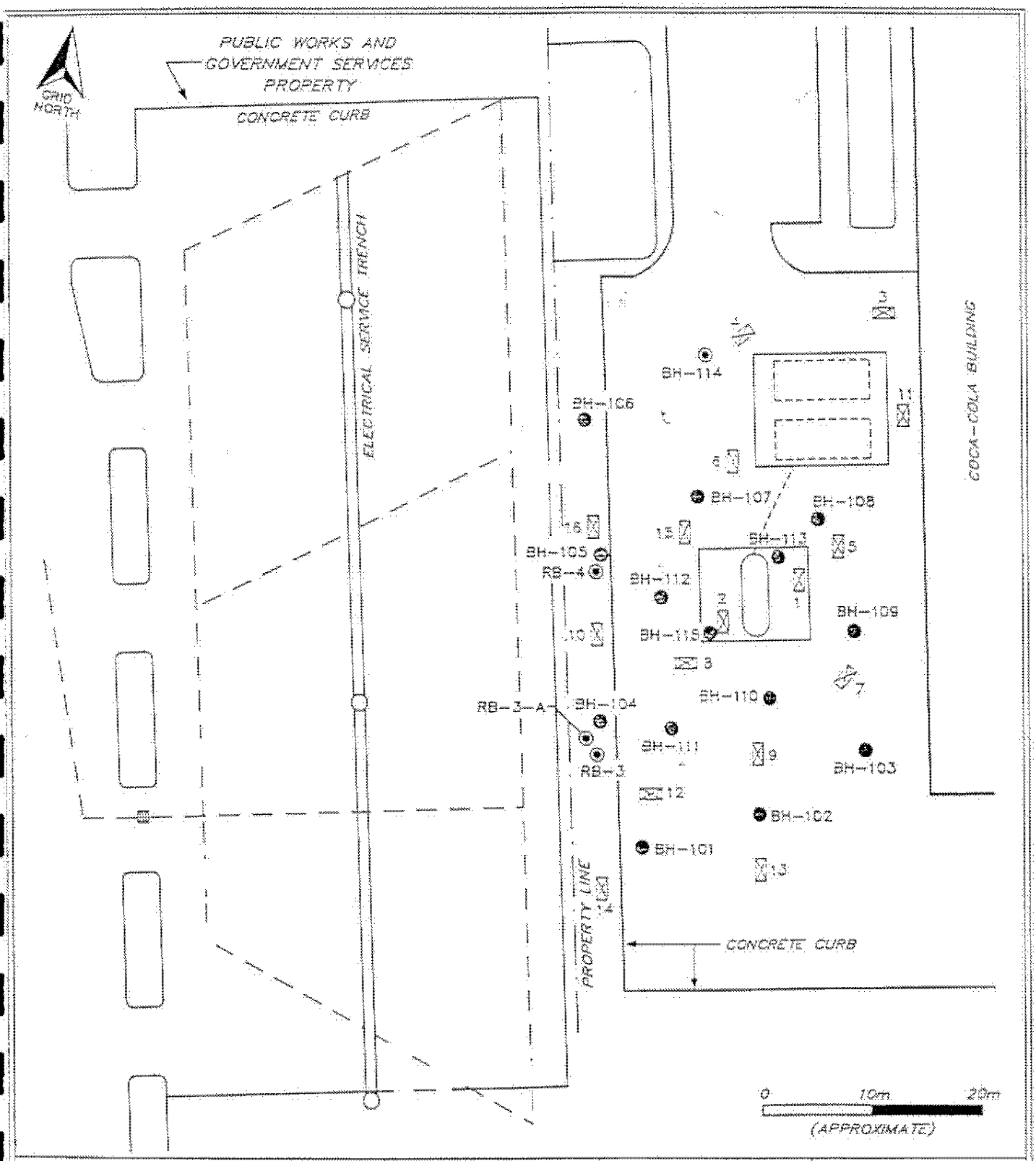
Four soil samples were selected for laboratory analyses of benzene, toluene, ethylbenzene, xylenes (BTEX), and total petroleum hydrocarbons (TPH). Two samples were chosen from each of the two stratigraphic layers encountered in the test-pits.

The samples were selected on the basis of CVC's measured in the field, to provide a preliminary indication of the relationship between actual residual concentrations of petroleum-related constituents in the soil, and the field measurements.

2.3 BOREHOLE INSTALLATION

Following consultation with Coca-Cola, it was decided that additional information was required to accurately delineate the horizontal and vertical distribution of the petroleum-hydrocarbon impact in the soil.

On November 1 to 4, 1994, fifteen boreholes were advanced to an average depth of approximately 4 m, using a track-mounted drill rig, equipped with hollow-stem augers. The locations of the boreholes are shown on Figure 2.



LEGEND

- ARCTURUS TEST PIT
- ARCTURUS BOREHOLE
- ARCTURUS MONITORING WELL
- DRAINAGE LINE
- CATCH BASIN

BOREHOLE AND TEST PIT LOCATIONS

CLIENT: Coca-Cola

ARCTURUS

DATE NOVEMBER 1994		PROJECT No. E769.2	DRAWING No. FIGURE 2
DRWN TD	CHK'D SWG	SCALE AS SHOWN	

During drilling, soil samples were collected at regular intervals using a 50 mm diameter split-spoon sampler. Each sample was logged and monitored for CVC, as above. Graphic borehole logs, including CVC data, are included in Appendix II.

Two of the boreholes (BH-114 and BH-115) were equipped with monitoring wells, constructed of 50 mm diameter, schedule 40, PVC pipe. The wells are screened from the bottom of the borehole to within one meter of ground surface. The are completed flush with grade, in steel, lockable, protective casings. Construction details are illustrated on the borehole logs.

On November 9, three additional boreholes (RB-3, 3A, and 4) were installed on Coca-Cola property, at the request of the environmental consultant acting on behalf of the adjacent property owner. These boreholes were also equipped with monitoring wells.

A total of eighteen soil samples from the drilling program were selected for laboratory analyses of BTEX and TPH. Again, the samples were selected to represent a wide cross-section of the CVC's measured in each of the two stratigraphic layers encountered during drilling.

3.0 SITE CONDITIONS

3.1 SITE SENSITIVITY

A site sensitivity analysis was conducted in accordance with the *Interim Guidelines for the Assessment and Management of Petroleum Contaminated Sites in Ontario* (Ministry of Environment and Energy, August 1993). The analysis indicates that the sensitivity of this site is MODERATE, and therefore, the Interim Level II soil remediation criteria are appropriate.

The site sensitivity flow chart, and key decision rationale, are included as Appendix III.

3.2 STRATIGRAPHY

Based on observations made during excavation of the test pits, and installation of the boreholes, the stratigraphy of the site can be generalized as follows:

• 0 - 1.2 mbg*	sand and gravel fill beneath asphalt
• 1.2 - 2.4 mbg	grey to brown, damp to wet, compact, silty sand gravel till, with trace to some clay
• 2.4 - 4.0 mbg	grey to black, moist to wet, stiff to very stiff, silty clay till, with trace to some sand and cobbles

* mbg - metres below grade

Underlying the clay till, at an average depth of approximately 4 m, is grey to black shale bedrock.

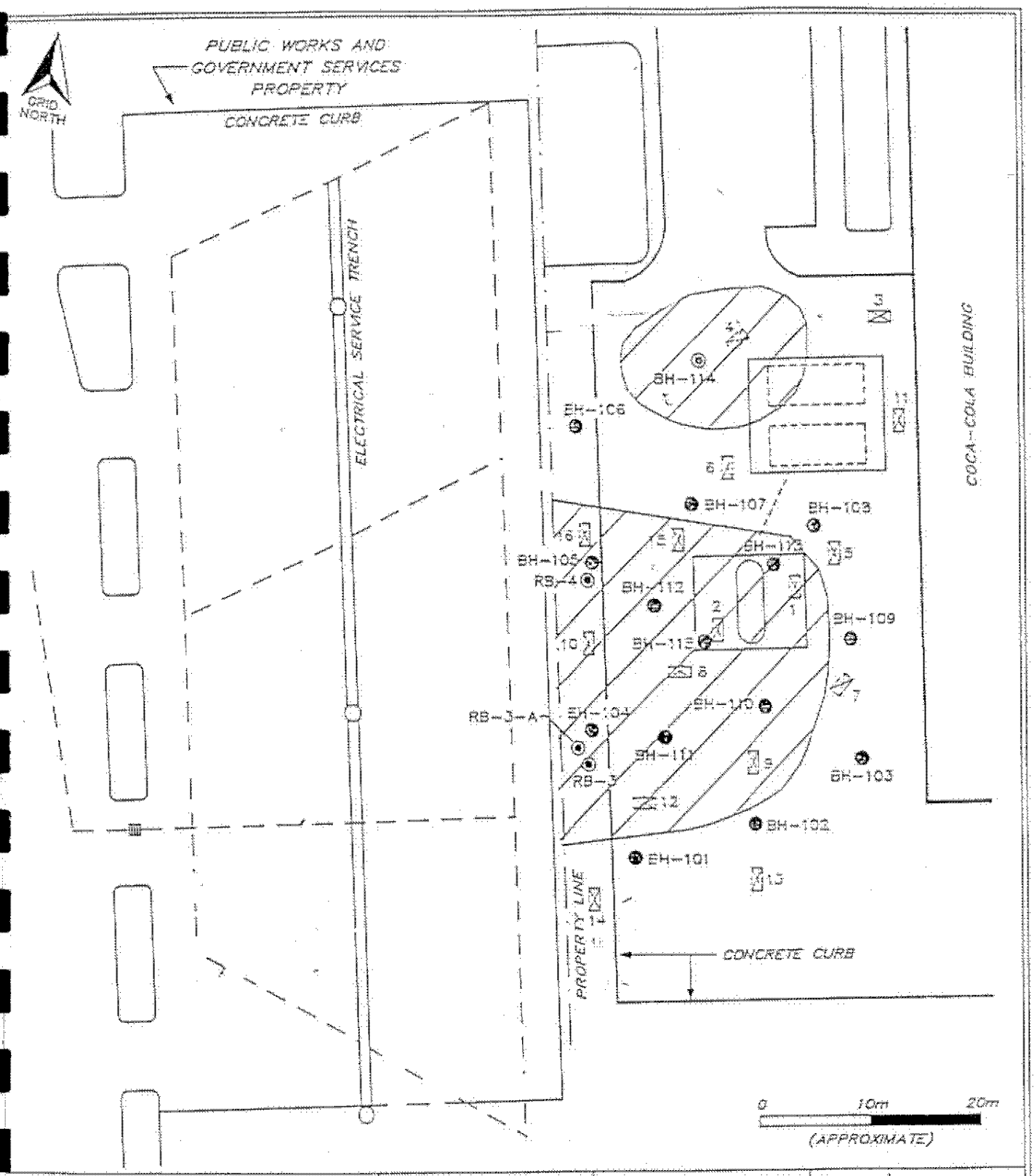
Groundwater was generally observed at depths between 1.5 to 2.5 mbg, in the relatively permeable silty sand till. It is likely that this reflects perched conditions on top of the less permeable clay till unit.

3.4 SOIL CHEMICAL ANALYTICAL RESULTS

The results of the laboratory analyses of soil samples from both the test pits and the boreholes are presented in Table 1. Of the 22 samples submitted, 11 contained concentrations of one or more parameters exceeding the Interim Level II criteria.

Twelve of the samples analyzed were collected from the silty clay till unit. Of these, seven samples, exhibiting CVC's ranging from 10% to >100% of the lower explosive limit (LEL), exceeded the Level II criteria. Four of the samples which did not exceed the criteria had CVC's of 7% LEL or less, while the fifth was anomalous with a CVC of 77% LEL.

While there is no direct correlation between CVC and the actual residual concentrations of BTEX and TPH in soil, CVC's are frequently used in the field to guide remedial excavations. Based on the data obtained at this site, it appears that a maximum CVC of 5% in the clay till would be a reasonable objective to ensure compliance with the Level II criteria.



LEGEND

- ARCTURUS TEST PIT
- ARCTURUS BOREHOLE
- ARCTURUS MONITORING WELL
- DRAINAGE LINE
- CATCH BASIN

APPROXIMATE EXTENT OF PETROLEUM HYDROCARBON IMPACT

CLIENT: Coca-Cola

ARCTURUS

DATE: NOVEMBER 1994	PROJECT No.: E769.2	DRAWING No.: FIGURE 3
DRWN: TD/CEH CHK'D: SMG	SCALE: AS SHOWN	

Six of the ten samples analyzed from the silty sand unit met the Level II criteria, with CVC's ranging from 3% to 85% LEL. The four samples which exceeded the criteria had CVC's ranging from 25% to >100% LEL. This data suggests that a higher field objective (15-20% LEL) could be used to achieve compliance with the Level II criteria in the sand unit.

3.5 REMEDIATION REQUIREMENTS

The results of the test pitting and borehole programs indicate a plume of petroleum-hydrocarbon impact in soil, originating at the former pump island, and migrating west and southwest to the property line. The approximate extent of the plume is shown on Figure 3. The depth of petroleum-hydrocarbon impact varies over this area, but averages approximately 3.9 m.

In addition, an estimated area of approximately 100 m^2, located northwest of the former tank nest, appears, on the basis of elevated CVC's, to have been moderately impacted. The average depth of impact in this area is approximately 3.5 m.

In total, it is estimated that approximately 3,300 m^3, or 6,600 tonnes (assuming an average density of 2 tonnes/m3), of soil will require remediation. Of this, 5,000 tonnes are from the silty sand till, and the remaining 1,600 tonnes are from the underlying silty clay till.

4.0 PREFERRED REMEDIATION APPROACH

On the basis primarily of cost, and in consideration of available space, timing, and technical effectiveness, Arcturus recommends that on-site, ex-situ bioremediation be adopted by Coca-Cola as the preferred approach to remediation of the petroleum-impacted soil at the Ottawa facility.

4.1 PROCESS

The bioremediation process flow is schematically illustrated on Figure 4. Arcturus proposes to build an engineered bioremediation cell in the southwest corner of the Coca-Cola property. The dimensions of the cell will be approximately 30 m by 70 m, and it will be excavated to a depth of approximately 2 m below grade.

The cell will be lined with 30 mil high density polyethylene (HDPE) membrane, and it will be graded to one corner, where a sump will be installed to collect water which drains from the soil. A network of drainage tile will be laid in a granular base on the membrane to enhance the collection of water.

Above the drainage tile, at the surface of the granular material, a network of perforated airline will be installed. The impacted soil is placed on top of the airlines, and covered with a 20 mil HDPE membrane to prevent fugitive emission of volatile organics.

Air System

In order to optimize the oxygen content in the soil pile, and to further mitigate fugitive emission, the system is operated under vacuum. Air is pulled through the pile, using a 5 Hp blower. To protect the blower, the air stream is dehumidified before it passes the blower. The separated water is added to the water storage tank for recirculation.

Downstream of the blower, the air is rehumidified, prior to passage through a volatile organic biofilter, and discharge to the atmosphere.

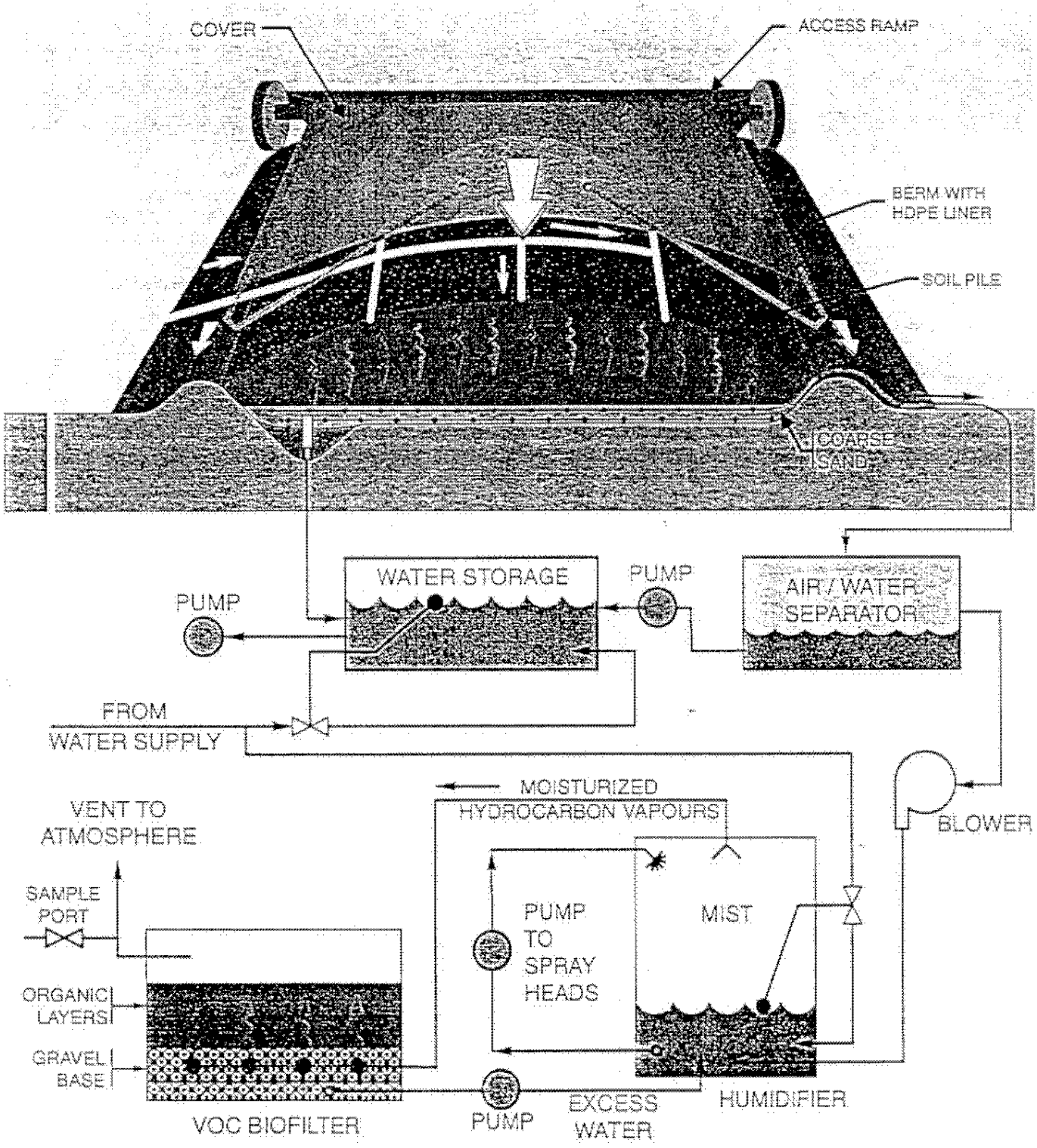
During operation, the biofilter exhaust is monitored on a routine basis to ensure that emissions are in compliance with relevant regulations. In addition, temperature and oxygen and carbon dioxide concentrations are monitored in the soil pile, to provide an indication of the biological activity.

Implementation

Arcturus proposes to excavate and construct the cell in the location shown on Figure 5. The clean soil, comprising primarily silty sand, will be temporarily stockpiled adjacent to the cell, while the impacted soil is excavated and placed in the cell. The clean stockpile will then be used to replace the impacted soil in the excavation, to allow continued use of the traffic area.

The treatment system will be housed in a trailer beside the cell, and the biofilter will be placed behind the trailer, as shown on Figure 5.

Once the monitoring indicates that the bioremediation is complete, the treated soil will be excavated from the cell, and the liner and piping will be removed for disposal. The treated soil will then be replaced in the former cell, and compacted for paving.

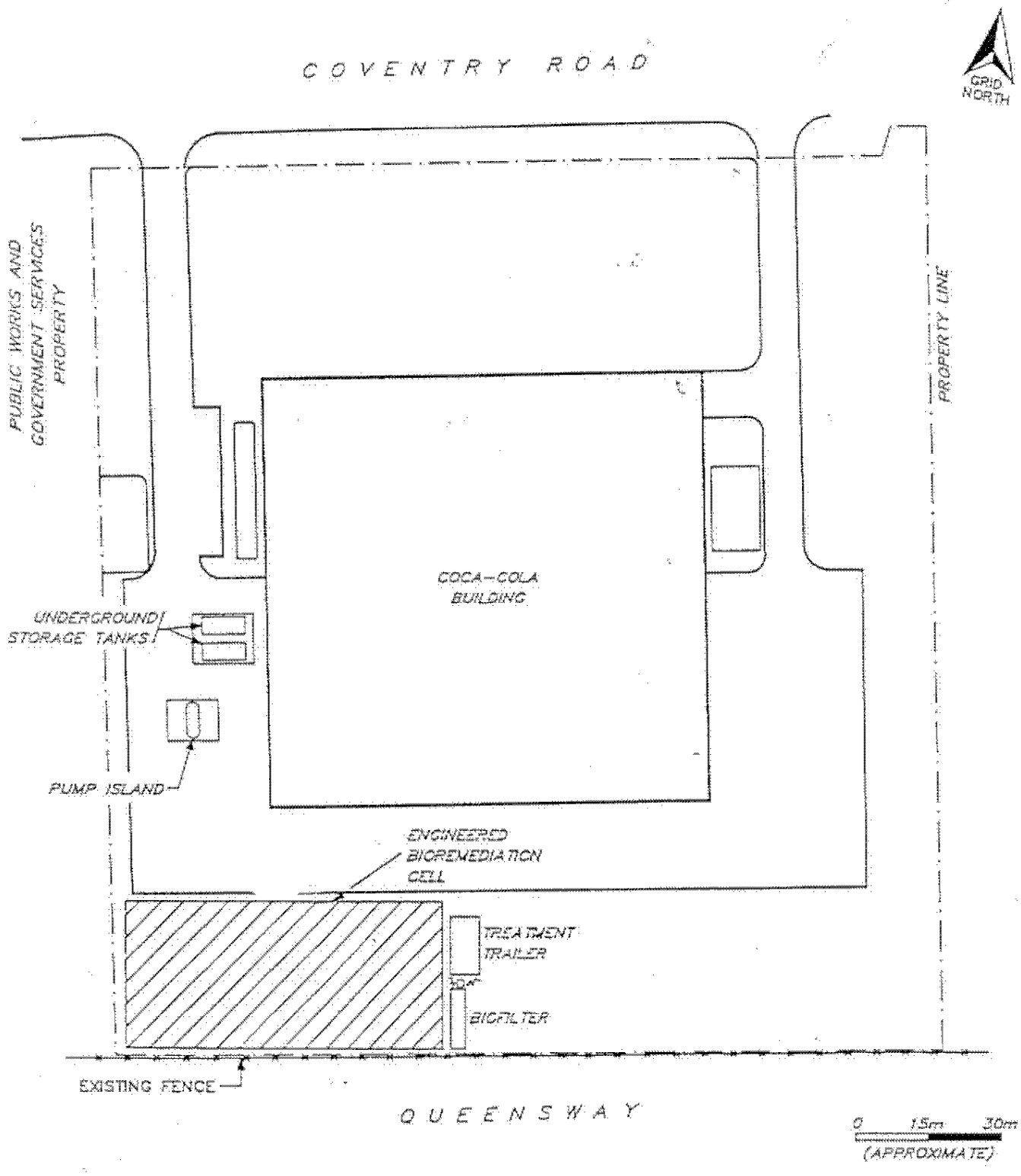


SCHEMATIC OF REMEDIATION SYSTEM PROCESS FLOW

ARCTURUS

DRAWING No.

FIGURE 4



LEGEND

GENERAL SITE LAYOUT 500 COVENTRY ROAD OTTAWA, ONTARIO		CLIENT Coca-Cola	ARCTURUS
DATE NOVEMBER 1994		PROJECT No. E769.2	DRAWING No. FIGURE 5
DRWN TD	CHK'D SMG	SCALE AS SHOWN	

4.2 PERMITTING REQUIREMENTS

The following approvals will be required prior to construction and operation of the bioremediation cell:

- Certificate of Approval (Air) from the Ministry of the Environment and Energy (MOEE)

- Certificate of Approval (EPA Section V - Waste Processing Facility) from the MOEE

The application for the latter Certificate of Approval will be circulated for comment by the MOEE to the local Municipality, neighbours, and other interested parties. It is our experience, however, that other than creating a time lag, this process is not overly restrictive.

4.3 SCHEDULING

In order to take advantage of a full season of warm weather for treatment of the impacted soil, we propose to commence construction of the bioremediation cell at the beginning of April. It is anticipated that construction of the cell will take three days.

Immediately upon completion of the cell, the impacted soil will be excavated and placed, and the stockpiled spoil from the cell will be backfilled into the traffic area. This task is anticipated to take four days, for a total construction period of one week.

If the work is scheduled to begin on a Monday, and alternate employee parking can be arranged for one week (to provide room for soil stockpiling), then the traffic area should only be disrupted over one Thursday, Friday, and possibly a Monday.

We have budgeted for a full six months of operation of the biocell. However, we anticipate that sufficient remediation will be realized in a significantly shorter timeframe, because of the nature of the contaminants.

Closure of the cell is anticipated to take five days, during which time alternate employee parking arrangements may also be required.

TEST PITTING PROGRAM (continued)

SAMPLE ID	DEPTH (m)	STRATIGRAPHY	COMBUSTIBLE SOIL VAPOURS (%LEL)
TP8, SS-1	0.6	Sand and gravel fill	>100
TP8, SS-2	1.5	Sand and gravel fill	>100
TP8, SS-3	2.4	Silty sand gravel till with trace clay	>100
TP8, SS-4	3.0	Silty sand gravel till with trace clay	>100
TP8, SS-5	3.45	Silty sand gravel till with trace clay	>100
TP8, SS-6	3.75	Silty sand gravel till with trace clay	>100
TP9, SS-1	0.6	Sand fill	>100
TP9, SS-2	1.2	Silty sand with gravel	>100
TP9, SS-3	2.1	Silty clay with sand and cobbles	>100
TP9, SS-4	2.7	Silty clay with sand and cobbles	30
TP9, SS-5	3.3	Silty clay with sand and cobbles	1.0
TP10, SS-1	0.6	Sand fill	>100
TP10, SS-2	1.5	Silty sand with gravel	>100
TP10, SS-3	2.4	Silty clay with sand and gravel	7
TP10, SS-4	3.0	Silty clay with sand and gravel	40
TP10, SS-5	3.6	Silty clay with sand and gravel	2.3
TP11, SS-1	1.2	Sand and gravel fill	0.6
TP11, SS-2	2.1	Sand and gravel fill	0.8
TP11, SS-3	2.7	Silty clay with sand and cobbles	0.6
TP12, SS-1	0.6	Sand fill	10
TP12, SS-2	1.2	Sand fill	90
TP12, SS-3	1.8	Silty clay with sand and cobbles	10
TP12, SS-4	2.4	Silty clay with sand and cobbles	100
TP12, SS-5	3.0	Silty clay with sand and cobbles	20
TP12, SS-6	3.6	Silty clay with sand and cobbles	2.3

APPENDIX I
TEST PIT LOGS

TEST PITTING PROGRAM

SAMPLE ID	DEPTH (m)	STRATIGRAPHY	COMBUSTIBLE SOIL VAPOURS (% LEL)
TP1, SS-1	0.9	Sand fill	>100
TP1, SS-2	1.5	Silty clay with trace sand and boulders	6
TP1, SS-3	2.1	Silty clay with trace sand and boulders	7
TP1, SS-4	3.0	Silty clay with trace sand and boulders	12
TP1, SS-5	3.6	Silty clay with trace sand and boulders	6
TP2, SS-1	1.2	Silty sand with gravel	>100
TP2, SS-2	2.1	Silty sand with trace clay and gravel	>100
TP2, SS-3	3.0	Silty sand with trace clay and gravel	55
TP2, SS-4	3.6	Silty clay with trace sand and cobbles	58
TP3, SS-1	0.9	Sand fill	0.6
TP3, SS-2	1.8	Sand fill	0.4
TP4, SS-1	0.45	Sand fill	98
TP4, SS-2	1.2	Silty sand with gravel and cobbles	90
TP4, SS-3	2.4	Silty clay with gravel and cobbles	90
TP4, SS-4	3.0	Silty clay with gravel and cobbles	7
TP5, SS-1	0.6	Sand fill	0.6
TP5, SS-2	1.8	Silty clay with some sand and gravel	0.4
TP5, SS-3	2.7	Silty clay with gravel and boulders	0.2
TP5, SS-4	3.6	Silty clay with gravel and boulders	<0.1
TP6, SS-1	0.6	Sand fill	1.0
TP6, SS-2	1.8	Silty sand with trace clay	0.4
TP6, SS-3	2.7	Silty sand with trace clay	0.2
TP6, SS-4	3.3	Silty sand with trace clay	0.6
TP7, SS-1	1.05	Sand fill	>100
TP7, SS-2	2.4	Silty sand with gravel and cobbles	70

TEST PITTING PROGRAM (continued)

SAMPLE ID	DEPTH (m)	STRATIGRAPHY	COMBUSTIBLE SOIL VAPOURS (%LEL)
TP8, SS-1	0.6	Sand and gravel fill	>100
TP8, SS-2	1.5	Sand and gravel fill	>100
TP8, SS-3	2.4	Silty sand gravel till with trace clay	>100
TP8, SS-4	3.0	Silty sand gravel till with trace clay	>100
TP8, SS-5	3.45	Silty sand gravel till with trace clay	>100
TP8, SS-6	3.75	Silty sand gravel till with trace clay	>100
TP9, SS-1	0.6	Sand fill	>100
TP9, SS-2	1.2	Silty sand with gravel	>100
TP9, SS-3	2.1	Silty clay with sand and cobbles	>100
TP9, SS-4	2.7	Silty clay with sand and cobbles	30
TP9, SS-5	3.3	Silty clay with sand and cobbles	1.0
TP10, SS-1	0.6	Sand fill	>100
TP10, SS-2	1.5	Silty sand with gravel	>100
TP10, SS-3	2.4	Silty clay with sand and gravel	7
TP10, SS-4	3.0	Silty clay with sand and gravel	40
TP10, SS-5	3.6	Silty clay with sand and gravel	2.3
TP11, SS-1	1.2	Sand and gravel fill	0.6
TP11, SS-2	2.1	Sand and gravel fill	0.8
TP11, SS-3	2.7	Silty clay with sand and cobbles	0.6
TP12, SS-1	0.6	Sand fill	10
TP12, SS-2	1.2	Sand fill	90
TP12, SS-3	1.8	Silty clay with sand and cobbles	10
TP12, SS-4	2.4	Silty clay with sand and cobbles	100
TP12, SS-5	3.0	Silty clay with sand and cobbles	20
TP12, SS-6	3.6	Silty clay with sand and cobbles	2.3

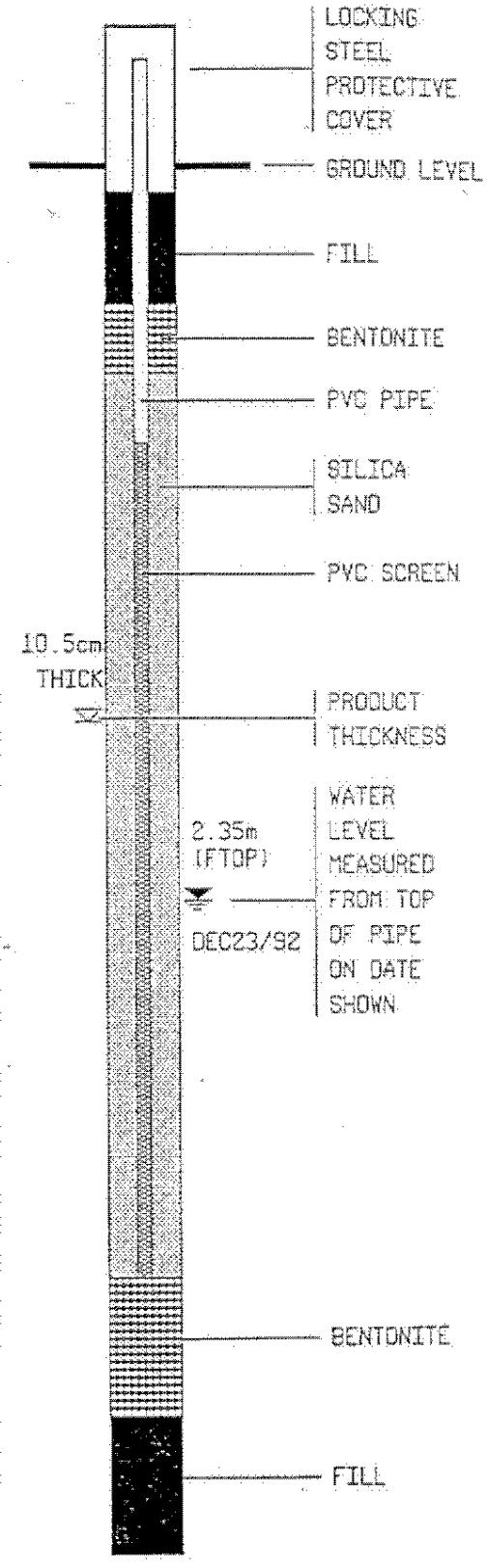
TEST PITTING PROGRAM (continued)

SAMPLE ID	DEPTH (m)	STRATIGRAPHY	COMBUSTIBLE SOIL VAPOURS (%LEL)
TP13, SS-1	0.6	Sand fill	1.4
TP13, SS-2	1.2	Sand fill	35
TP13, SS-3	2.1	Silty clay with sand and cobbles	0.6
TP13, SS-4	3.0	Silty clay with sand and cobbles	2.0
TP13, SS-5	3.6	Silty clay with sand and cobbles	0.6
TP14, SS-1	0.6	Sand fill	0.5
TP14, SS-2	1.2	Sand fill	1.6
TP14, SS-3	2.1	Silty sand with trace clay	0.4
TP14, SS-4	3.0	Silty clay with sand and cobbles	<0.1
TP14, SS-5	3.3	Silty clay with sand and cobbles	<0.1
TP15, SS-1	0.6	Sand fill	35
TP15, SS-2	1.2	Sand fill	>100
TP15, SS-3	2.1	Silty clay with sand and cobbles	15
TP15, SS-4	3.0	Silty clay with sand and cobbles	2.1
TP15, SS-5	3.6	Silty clay with sand and cobbles	0.8
TP16, SS-1	0.6	Sand fill	0.6
TP16, SS-2	1.5	Sand fill	95
TP16, SS-3	2.1	Silty clay with cobbles	10
TP16, SS-4	3.0	Silty clay with cobbles	0.6
TP16, SS-5	3.6	Silty clay with cobbles	0.4

APPENDIX II
BOREHOLE LOGS

BOREHOLE LOG LEGEND

FILL PATTERN	LITHOLOGY DESCRIPTION
	CLAY
	SILT
	TILL
	TOPSOIL
	ASPHALT
	FILL
	LIMESTONE
	SAND
	GRANITE
	SHALE
	CONCRETE
	GRAVEL
	SAND AND GRAVEL
	SILTY GRAVEL
	SILTY CLAY OR CLAYEY SILT
	SILTY CLAY WITH SAND
	SANDY CLAY OR CLAYEY SAND
	CLAYEY SHALE
	SANDY SILT OR SILTY SAND



WATER LEVEL OBSERVED FOLLOWING COMPLETION OF DRILLING

SYMBOLS AND TERMS

SOIL DESCRIPTION

Behavioural properties, such as structure and strength, take precedence over particle gradation in describing soils. Terminology describing soil structure are as follows:

Desiccated	-	having visible signs of weathering by oxidation of clay minerals, shrinkage cracks, etc.
Fissured	-	having cracks, and hence a blocky structure.
Varved	-	composed of regular alternating layers of silt and clay.
Stratified	-	composed of alternating layers of different soil types, e.g. silt and sand or silt and clay.
Well-Graded	-	having wide range in grain sizes and substantial amounts of all intermediate particle sizes (see Grain Size Distribution).
Uniformly-Graded	-	predominantly of one grain size (see Grain Size Distribution).

The standard terminology to describe the strength of cohesionless soils is the relative density, usually inferred from the results of the Standard Penetration Test (SPT) 'N' value. The SPT N value is the number of blows of a 63.5 kg hammer, falling 760 mm, required to drive a 51 mm outside diameter split spoon sampler 300 mm into the soil after an initial penetration of 150 mm.

Compactness Condition	'N' Value (SPT)	Relative Density %
Extremely Loose	WH*	<15
Very Loose	<5	<15
Loose	5-10	15-35
Compact	10-30	35-65
Dense	30-50	65-85
Very Dense	>50	>85

*WH = weight of hammer. No blows are required to drive the split spoon sampler. The weight of the hammer alone is sufficient.

The standard terminology to describe the strength of cohesive soils is the consistency, which is based on the undisturbed undrained shear strength as measured by in situ or laboratory vane tests, penetrometer tests, unconfined compression tests, or occasionally by Standard Penetration Tests.

Consistency	Undrained Shear Strength (kPa) (C_u)	'N' Value (SPT)
Very Soft	<12	<2
Soft	12-25	2-4
Firm	25-50	4-8
Stiff	50-100	8-15
Very Stiff	100-200	15-30
Hard	>200	>30

ROCK DESCRIPTION

The structural description of the bedrock mass is based on the Rock Quality Designation (RQD).

The RQD classification is based on a modified core recovery percentage in which all pieces of sound core over 100 mm long are counted as recovery. The smaller pieces are considered to be a result of closely-spaced discontinuities (resulting from shearing, jointing, faulting, or weathering) in the rock mass and are not counted. RQD is ideally determined from NXL (50 mm) size core. However, it can be used on smaller core sizes, such as BXL (36 mm), if the bulk of the fractures caused by drilling stresses (called "mechanical breaks") are easily distinguishable from the normal in-situ fractures.

RQD %	ROCK QUALITY
90-100	Excellent, intact, very sound
75-90	Good, massive, moderately jointed or sound
50-75	Fair, blocky and seamy or blocky, severely fractured
25-50	Poor, shattered and very seamy or blocky, severely fractured
0-25	Very poor, crushed, very severely fractured

WEATHERING STATE OF ROCK

Fresh:	no visible sign of weathering
Faintly weathered:	weathering limited to the surface of major discontinuities
Slightly weathered:	penetrative weathering developed on open discontinuity surfaces but only slight weathering of rock material
Moderately weathered:	weathering extends throughout the rock mass but the rock material is not friable
Highly weathered:	weathering extends throughout rock mass and the rock material is partly friable
Completely weathered:	rock is wholly decomposed and in a friable condition but the rock texture and structure are preserved

SAMPLE TYPES

SS	-	Split spoon sample (obtained in conjunction with the performing of the Standard Penetration Test (SPT))
TW	-	Thin wall tube or Shelby tube
PS	-	Piston sample
AU	-	Auger sample or bulk sample
WS	-	Wash sample
RC	-	Rock core sample (Core bit size AXT (27 mm), BXL (36 mm), etc). Rock core samples are obtained with the use of standard diamond drilling bits

GRAIN SIZE DISTRIBUTION

MC%	-	Natural moisture content or water content of sample, %
LL	-	Liquid limit, % (water content above which soil behaves as a liquid)
PL	-	Plastic limit, % (water content above which soil behaves plastically)
PI	-	Plasticity index, % (difference between LL and PL)
Dxx	-	Grain size at which xx% of the soil, by weight, is of finer grain sizes. These grain size descriptions are not used below 0.075 mm grain size
D10	-	Grain size at which 10% of the soil is finer (effective grain size)
D60	-	Grain size at which 60% of the soil is finer
Cc	-	Concavity coefficient $= (D30)^2 / (D10 \times D60)$
Cu	-	Uniformity coefficient $= D60 / D10$

Cc and Cu are used to assess the grading of sands and gravels:

Well-graded gravels have:	$1<Cc<3$	and	$Cu>4$
Well-graded sands have:	$1<Cc<3$	and	$Cu>6$

Sand and gravels not meeting the above requirements are poorly-graded or uniformly-graded (more than 10% finer than 0.075 mm or the #200 sieve).

GRAIN SIZE

Term	Size*
Very Coarse Grained	>60 mm
Coarse Grained	2-60 mm
Medium Grained	60 microns - 2 mm
Fine Grained	2-60 microns
Very Fine Grained	<2 microns

Note: *Grains >60 microns diameter are visible to the naked eye.

PERMEABILITY TEST

k - Coefficient of permeability, or hydraulic conductivity, is a measure of the ability of water to flow through the sample. The value of k is measured at a specified unit weight for (remoulded) cohesionless soil samples, because its value will vary with the unit weight or density of the sample during the test.

ABBREVIATIONS FOR BORING AND TEST DATA

Amor	- Amorphous
Asph	- Asphalt
BR	- Bedrock
Blk	- Black
Bl	- Blue
Bld(y)	- Boulder(y)
Blds	- Boulders
BU	- Break Up
Br	- Brown
Cl	- Clay
Co	- Coarse
Cob	- Cobbles
Comp	- Compact
Conc	- Concrete
Contam	- contaminated
Cord	- Corduroy
Cr	- Crushed
Dk	- Dark
Decomp	- Decomposed
E	- Earth
Fib	- Fibrous
w	- Field Moisture Content
F	- Fine
FrWat	- Free Water
FB	- Frost Boil
FH	- Frost Heave
Gran	- Granular
Gr	- Gravel(ly)
Grn	- Green
Grey	- Grey
Hi	- Highly
HM	- Hot Mix
Lt	- Light
Liq	- Liquid
w_L	- Liquid Limit
Matl	- Material
Max	- Maximum
MDD	- Maximum Dry Density
MWD	- Maximum Wet Density
Med	- Medium
Mod	- Moderate
Mott	- Mottled
Mul	- Mulch
NFP	- No Further Progress
NFP (Blds)	- No Further Progress (Boulders)
Num	- Numerous
Occ	- Occasional
w_{opt}	- Optimum Moisture Content
Ora	- Orange
Org	- Organic
Org M	- Organic Matter
Ob	- Overburden
Pavt	- Pavement
Pedo	- Pedological
Pen Mac	- Penetration Macadam
w_p	- Plastic Limit
I_p	- Plasticity Index
PSty	- Polystyrene
Poss	- Possible
PST	- Prime & Surface Treated
Quant	- Quantity
Reinf	- Reinforced
RF	- Rock Fill
Sa	- Sand
Sat	- Saturated
Sh Rk	- Shot Rock
Si	- Silt(y)
Sl(y)	- Slight(ly)
D_R	- Relative Density
Stks	- Streaks
Surf	- Surface
Temp	- Temperature
Tps	- Topsoil
Tr	- Trace
Unreinf	- Unreinforced
Varv	- Varved
VF	- Very Fine
WT	- Water Table
Weath	- Weathered
Wd(y)	- Wood(y)
Yel	- Yellow

SUSCEPTIBILITY TO FROST HEAVING (SFH)

HSFH - High
BSFH - Borderline
LSFH - Low

RECORD OF BH-101

SHEET 1 OF 1

PROJECT NAME: 500 COVENTRY ROAD
PROJECT LOCATION: OTTAWA, ONTARIO
CLIENT: COCA-COLA BOTTLING LTD.

PROJECT NUMBER: E769.2
BORING DATE: NOVEMBER 1, 1994

ARCTURUS

BORING METHOD	SOIL PROFILE: DESCRIPTION	STRATA PLOT	DEPTH (m)	SAMPLES: LOCATION	TYPE	% RECOV	SPT (N)	COMBUSTIBLE VAPOUR CONCENTRATION % LEL (CARBON FILTER CONCENTRATION)	ODOUR	LABORATORY TESTING	PIEZOMETER OR MONITORING WELL INSTALLATION
	GROUND SURFACE		0								
HOLLOW STEM AUGERS ACKER	ASPHALT										
	GRAVEL FILL				SS	100	7	2.0	EARTHY		
	MOTTLED ORANGE TO BROWN, DAMP TO WET, LOOSE TO COMPACT, FINE, SAND WITH SOME SILT		1		SS	100	19	1.7	EARTHY		
					SS	65	13	1.1	EARTHY		
			2		SS	90	12	<0.1	EARTHY		
	DARK GREY TO BLACK, MOIST TO WET, STIFF, FINE, SILTY CLAY TILL WITH SAND AND COBBLES		3		SS	60	19	0.2	EARTHY		
					SS	40	25	<0.1	EARTHY		
	BOTTOM OF BOREHOLE		4								
			5								
			6								
			7								
			8								
			9								
			10								

LOGGED BY: SMG INPUT BY: TD CHECKED BY: SMG INPUT DATE: NOVEMBER 10, 1994

RECORD OF BH-102

SHEET 1 OF 1

PROJECT NAME: 500 COVENTRY ROAD
PROJECT LOCATION: OTTAWA, ONTARIO
CLIENT: COCA-COLA BOTTLING LTD.

PROJECT NUMBER: E769.2
BORING DATE: NOVEMBER 1, 1994

ARCTURUS

BORING METHOD	SOIL PROFILE: DESCRIPTION	STRATA PLOT	DEPTH (m)	SAMPLES: LOCATION	TYPE	% RECOV	SPT (n)	COMBUSTIBLE VAPOUR CONCENTRATION % LEL (CARBON FILTER CONCENTRATION)	ODOUR	LABORATORY TESTING	PIEZOMETER OR MONITORING WELL INSTALLATION
	GROUND SURFACE		0								
HOLLOW STEM AUGERS ACKER	ASPHALT										
	GRAVEL FILL				SS	100	13	2.0	TRACE HC		
	MOTTLED ORANGE BROWN, MOIST, COMPACT, FINE SAND		1		SS	100	13	6	TRACE HC		
	LIGHT GREY TO BROWN, MOIST, COMPACT FINE SILTY SAND		2		SS	100	15	5	TRACE HC		
	DARK GREY TO BLACK, MOIST TO WET, STIFF, SILTY CLAY TILL WITH SAND AND COBBLES				SS	100	9	7	TRACE HC		
					SS	100	9	0.5	TRACE HC		
					SS	80	22	0.4	TRACE HC		
	BOTTOM OF BOREHOLE		4								

LOGGED BY: SMG INPUT BY: TD CHECKED BY: SMG INPUT DATE: NOVEMBER 10, 1994

000236

RECORD OF BH-103

SHEET 1 OF 1

PROJECT NAME: 500 COVENTRY ROAD
PROJECT LOCATION: OTTAWA, ONTARIO
CLIENT: COCA-COLA BOTTLING LTD.

PROJECT NUMBER: E769.2
BORING DATE: NOVEMBER 1, 1994

ARCTURUS

BORING METHOD	SOIL PROFILE: DESCRIPTION	STRATA PLOT	DEPTH (m)	SAMPLES: LOCATION	TYPE	% RECOV	SPT (N)	COMBUSTIBLE VAPOUR CONCENTRATION % LEL (CARBON FILTER CONCENTRATION)	ODOUR	LABORATORY TESTING	PIEZOMETER OR MONITORING WELL INSTALLATION
	GROUND SURFACE		0								
HOLLOW STEM AUGERS, ACKER	ASPHALT										
	GRAVEL FILL										
	ORANGE/BROWN, DAMP TO WET, LOOSE, FINE SAND		1		SS	100	6	0.8			
					SS	<5	8	NA			
	LIGHT GREY/BROWN, WET, DENSE, FINE SILTY SAND				SS	60	3.7				
	GREY TO BLACK, WET, VERY STIFF, FINE SILTY CLAY TILL WITH TRACE SAND AND ANGULAR GRAVEL		2		SS	60	8	0.2			
			3		SS	60	23	0.2			
					SS	70	22	1.0			
	BOTTOM OF BOREHOLE		4								
			5								
			6								
			7								
			8								
			9								
			10								

LOGGED BY: SMG INPUT BY: TD CHECKED BY: SMG INPUT DATE: NOVEMBER 10, 1994

RECORD OF BH-104

SHEET 1 OF 1

PROJECT NAME: 500 COVENTRY ROAD
PROJECT LOCATION: OTTAWA, ONTARIO
CLIENT: COCA-COLA BOTTLING LTD.

PROJECT NUMBER: E769.2
BORING DATE: NOVEMBER 1, 1994

ARCTURUS

BORING METHOD	SOIL PROFILE: DESCRIPTION	STRATA PLOT	DEPTH (m)	SAMPLES: LOCATION	TYPE	% RECOV	SPT (n)	COMBUSTIBLE VAPOUR CONCENTRATION % LEL (CARBON FILTER CONCENTRATION)	ODOUR	LABORATORY TESTING	PIEZOMETER OR MONITORING WELL INSTALLATION
	GROUND SURFACE		0								
HOLLOW STEM AUGERS ACKER	TOPSOIL WITH ROOTLETS										
	MOTTLED ORANGE/BROWN, DAMP, LOOSE, FINE, SAND		1		SS	100	7	>100	STRONG HC		
					SS	100	10	>100	STRONG HC		
	LIGHT GREY, MOIST, COMPACT, FINE SILTY SAND										
	GREY TO BLACK, MOIST TO WET, VERY STIFF, FINE SILTY CLAY TILL WITH SAND AND GRAVEL		2		SS	100	22	77	STRONG HC		
					SS	75	9	20	MOD HC		
			3		SS	75	11	6	MOD HC		
			4		SS	20	31	6	MOD HC		
	BOTTOM OF BOREHOLE		5								
			6								
			7								
			8								
			9								
			10								

LOGGED BY: SMG INPUT BY: TD CHECKED BY: SMG INPUT DATE: NOVEMBER 10, 1994

RECORD OF BH-105

SHEET 1 OF 1

PROJECT NAME: 500 COVENTRY ROAD
PROJECT LOCATION: OTTAWA, ONTARIO
CLIENT: COCA-COLA BOTTLING LTD.

PROJECT NUMBER: E769.2
BORING DATE: NOVEMBER 1, 1994

ARCTURUS

BORING METHOD	SOIL PROFILE: DESCRIPTION	STRATA PLOT	DEPTH (m)	SAMPLES: LOCATION	TYPE	% RECOV	SPT (N)	COMBUSTIBLE VAPOUR CONCENTRATION (CARBON FILTER CONCENTRATION)	ODOUR	LABORATORY TESTING	PIEZOMETER OR MONITORING WELL INSTALLATION
	GROUND SURFACE		0								
HOLLOW STEM AUGERS ACKER	TOPSOIL WITH ROOTLETS										
	ORANGE/BROWN, DAMP, LOOSE, FINE SAND WITH SOME SILT		1		SS	100	4	8	STRONG HC		
	LIGHT GREY/BROWN, DAMP TO MOIST, COMPACT, FINE SILTY SAND WITH ANGULAR GRAVEL		2		SS	100	11	>100	STRONG HC		
					SS	65	30	53	MOD-STR HC		
	GREY TO BLACK, MOIST TO WET, VERY STIFF, SILTY CLAY TILL WITH ANGULAR COBBLES		3		SS	100	24	5	SLT HC		
					SS	100	29	1.3	MOD HC		
			4		SS	100	41	0.4	EARTHY		
	BOTTOM OF BOREHOLE		5								
			6								
			7								
			8								
			9								
			10								

LOGGED BY: SMG INPUT BY: TD CHECKED BY: SMG INPUT DATE: NOVEMBER 10, 1994

RECORD OF BH-106

SHEET 1 OF 1

PROJECT NAME: 500 COVENTRY ROAD
PROJECT LOCATION: OTTAWA, ONTARIO
CLIENT: COCA-COLA BOTTLING LTD.

PROJECT NUMBER: E769.2
BORING DATE: NOVEMBER 2, 1994

ARCTURUS

BORING METHOD	SOIL PROFILE: DESCRIPTION	STRATA PLOT	DEPTH (m)	SAMPLES: LOCATION	TYPE	% RECOV	SPT (N)	COMBUSTIBLE VAPOUR CONCENTRATION % LEL (CARBON FILTER CONCENTRATION)	ODOUR	LABORATORY TESTING	PIEZOMETER OR MONITORING WELL INSTALLATION
	GROUND SURFACE		0								
HOLLOW STEM AUGERS ACKER	TOPSOIL										
	ORANGE/BROWN, DAMP, LOOSE, FINE SAND		1		SS	100	7	1.2	EARTHY		
	ORANGE/BROWN, DAMP TO WET, COMPACT TO DENSE, FINE, SILTY SAND GRAVEL TILL		2		SS	100	18	3.0	STR HC		
					SS	87	36	1.0	EARTHY		
	DARK GREY TO BLACK, MOIST TO WET, VERY STIFF, FINE SILTY CLAY TILL		3		SS	100	25	0.2	EARTHY		
					SS	100	20	<0.1	EARTHY		
			4		SS	100	25	<0.1	EARTHY		
	BOTTOM OF BOREHOLE		5								
			6								
			7								
			8								
			9								
			10								

LOGGED BY: SMG INPUT BY: TD CHECKED BY: SMG INPUT DATE: NOVEMBER 10, 1994

000240

RECORD OF BH-107

SHEET 1 OF 1

PROJECT NAME: 500 COVENTRY ROAD
PROJECT LOCATION: OTTAWA, ONTARIO
CLIENT: COCA-COLA BOTTLING LTD.

PROJECT NUMBER: E769.2
BORING DATE: NOVEMBER 2, 1994

ARCTURUS

BORING METHOD	SOIL PROFILE: DESCRIPTION	STRATA PLOT	DEPTH (m)	SAMPLES: LOCATION	TYPE	% RECOV	SPT (N)	COMBUSTIBLE VAPOUR CONCENTRATION % LEL (CARBON FILTER CONCENTRATION)	ODOUR	LABORATORY TESTING	PIEZOMETER OR MONITORING WELL INSTALLATION
	GROUND SURFACE		0								
HOLLOW STEM AUGERS ACKER	ASPHALT										
	GRAVEL				SS	100	12	0.9	EARTHY		
	ORANGE/BROWN, DAMP, COMPACT, FINE SAND WITH SOME SILT		1		SS	100	NA	0.5%	EARTHY		
	BOULDERS AND COBBLES										
	GREY TO BROWN, DAMP TO WET, COMPACT, FINE SILTY SAND TILL WITH TRACE CLAY AND GRAVEL		2		SS	80	16	1.0	EARTHY		
					SS	100	9	0.8	EARTHY		
			3		SS	100	9	0.6	EARTHY		
	GREY TO BLACK, WET, STIFF TO VERY STIFF, SILTY CLAY TILL WITH COBBLES				SS	100	21	0.5	EARTHY		
	BOTTOM OF BOREHOLE		4								

LOGGED BY: SMG INPUT BY: TO CHECKED BY: SMG INPUT DATE: NOVEMBER 10, 1994

000241

RECORD OF BH-108

SHEET 1 OF 1

PROJECT NAME: 500 COVENTRY ROAD
PROJECT LOCATION: OTTAWA, ONTARIO
CLIENT: COCA-COLA BOTTLING LTD.

PROJECT NUMBER: E769.2
BORING DATE: NOVEMBER 2, 1994

ARCTURUS

BORING METHOD	SOIL PROFILE: DESCRIPTION	STRATA PLOT	DEPTH (m)	SAMPLES: LOCATION	TYPE	% RECOV	SPT (n)	COMBUSTIBLE VAPOUR CONCENTRATION % LEL (CARBON FILTER CONCENTRATION)	ODOUR	LABORATORY TESTING	PIEZOMETER OR MONITORING WELL INSTALLATION
	GROUND SURFACE		0								
HOLLOW STEM AUGERS ACKER	ASPHALT										
	GRAVEL FILL				SS	100	6	1.0	EARTHY		
	LIGHT BROWN TO GREY, DAMP TO WET, LOOSE TO COMPACT, FINE SAND WITH SOME SILT		1		SS	100	19	1.3	EARTHY		
	GREY TO BLACK, MOIST TO WET, FIRM TO VERY STIFF, SILTY SAND GRAVEL TILL WITH TRACE CLAY		2		SS	100	21	0.7	EARTHY		
					SS	100	7	0.4	EARTHY		
			3		SS	100	10	0.2	EARTHY		
	GREY TO BLACK, MOIST, VERY STIFF, SILTY CLAY TILL WITH TRACE SAND AND COBBLES		4		SS	100	16	0.4	EARTHY		
	BOTTOM OF BOREHOLE		5								
			6								
			7								
			8								
			9								
			10								

LOGGED BY: SMG INPUT BY: TD CHECKED BY: SMG INPUT DATE: NOVEMBER 10, 1994

RECORD OF BH-109

SHEET 1 OF 1

PROJECT NAME: 500 COVENTRY ROAD
PROJECT LOCATION: OTTAWA, ONTARIO
CLIENT: COCA-COLA BOTTLING LTD

PROJECT NUMBER: E769.2
BORING DATE: NOVEMBER 2, 1994

ARCTURUS

BORING METHOD	SOIL PROFILE: DESCRIPTION	STRATA PLOT	DEPTH (m)	SAMPLES: LOCATION	TYPE	% RECOV	SPT (n)	COMBUSTIBLE VAPOUR CONCENTRATION % LEL (CARBON FILTER CONCENTRATION)	ODOUR	LABORATORY TESTING	PIEZOMETER OR MONITORING WELL INSTALLATION
	GROUND SURFACE		0								
HOLLOW STEM AUGERS ACKER	ASPHALT										
	GRAVEL FILL				SS	100	6	0.7	EARTHY		
	LIGHT BROWN, DAMP, LOOSE, FINE SAND WITH IRON STAINING		1		SS	100	6	0.8	EARTHY		
	LIGHT ORANGE/BROWN, MOIST TO WET, LOOSE TO COMPACT, SILTY SAND WITH GRAVEL		2		SS	25	16	0.5	EARTHY		
	LIGHT GREY TO BLACK, WET, FIRM TO HARD, FINE SILTY SAND GRAVEL TILL WITH COBBLES AND TRACE CLAY		3		SS	100	6	0.5	TRACE HC		
					SS	<5	30	NA	EARTHY		
	BOTTOM OF BOREHOLE		4								
			5								
			6								
			7								
			8								
			9								
			10								

LOGGED BY: SMG INPUT BY: TD CHECKED BY: SMG INPUT DATE: NOVEMBER 10, 1994

RECORD OF BH-110

SHEET 1 OF 1

PROJECT NAME: 500 COVENTRY ROAD
PROJECT LOCATION: OTTAWA, ONTARIO
CLIENT: COCA-COLA BOTTLING LTD.

PROJECT NUMBER: E769.2
BORING DATE: NOVEMBER 2, 1994

ARCTURUS

BORING METHOD	SOIL PROFILE: DESCRIPTION	STRATA PLOT	DEPTH (m)	SAMPLES: LOCATION	TYPE	% RECOV	SPT (N)	COMBUSTIBLE VAPOUR CONCENTRATION % LEL (CARBON FILTER CONCENTRATION)	ODOUR	LABORATORY TESTING	PIEZOMETER OR MONITORING WELL INSTALLATION
	GROUND SURFACE		0								
HOLLOW STEM AUGERS ACKER	ASPHALT										
	GRAVEL FILL				SS	100	13	10	MOD HC		
	ORANGE/BROWN, DAMP, LOOSE, FINE SAND		1		SS	100	8	18	MOD HC		
	LIGHT BROWN TO GREY, MOIST TO WET, LOOSE, FINE SILTY SAND GRAVEL TILL		2		SS	100	8	25	MOD HC		
					SS	100	7	6	V STR HC		
	GREY TO BLACK, WET, STIFF, FINE SILTY CLAY TILL WITH TRACE SAND		3		SS	100	13	12	STR HC		
					SS	100	17	4	MOD HC		
			4		SS	30	NA	1.4	TRACE HC		
	BOTTOM OF BOREHOLE		5								
			6								
			7								
			8								
			9								
			10								

LOGGED BY: SMG INPUT BY: TO CHECKED BY: SMG INPUT DATE: NOVEMBER 10, 1994

RECORD OF BH-111

SHEET 1 OF 1

PROJECT NAME: 500 COVENTRY ROAD
PROJECT LOCATION: OTTAWA, ONTARIO
CLIENT: COCA-COLA BOTTLING LTD.

PROJECT NUMBER: E769.2
BORING DATE: NOVEMBER 3, 1994

ARCTURUS

BORING METHOD	SOIL PROFILE: DESCRIPTION	STRATA PLOT	DEPTH (m)	SAMPLES: LOCATION	TYPE	% RECOV	SPT (n)	COMBUSTIBLE VAPOUR CONCENTRATION ± LEL (CARBON FILTER CONCENTRATION)	ODOUR	LABORATORY TESTING	PIEZOMETER OR MONITORING WELL INSTALLATION
	GROUND SURFACE		0								
HOLLOW STEM AUGERS ACKER	ASPHALT										
	GRAVEL FILL				SS	100	9	>100	STR HC		
	ORANGE/BROWN, DAMP, LOOSE, FINE SAND		1		SS	100	24	>100	STR HC		
	GREYISH BLACK, MOIST TO WET, STIFF, FINE SILTY SAND GRAVEL TILL WITH TRACE CLAY		2		SS	100	15	>100	STR HC		
					SS	50	11	>100	STR HC		
	GREY/BLACK, MOIST TO WET, STIFF, FINE, SILTY CLAY TILL WITH SAND AND GRAVEL		3		SS	65	12	16	MOD HC		
					SS	65	22	20	TRACE HC		
	BOTTOM OF BOREHOLE		4								
			5								
			6								
			7								
			8								
			9								
			10								

LOGGED BY: SMG INPUT BY: TD CHECKED BY: SMG INPUT DATE: NOVEMBER 10, 1994

RECORD OF BH-112

SHEET 1 OF 1

PROJECT NAME: 500 COVENTRY ROAD
PROJECT LOCATION: OTTAWA, ONTARIO
CLIENT: COCA-COLA BOTTLING LTD.

PROJECT NUMBER: E769.2
BORING DATE: NOVEMBER 3, 1994

ARCTURUS

BORING METHOD	SOIL PROFILE: DESCRIPTION	STRATA PLOT	DEPTH (m)	SAMPLES: LOCATION	TYPE	% RECOV.	SPT (n)	COMBUSTIBLE VAPOUR CONCENTRATION % LEL (CARBON FILTER CONCENTRATION)	ODOUR	LABORATORY TESTING	PIEZOMETER OR MONITORING WELL INSTALLATION
	GROUND SURFACE		0								
HOLLOW STEM AUGERS ACKER	ASPHALT										
	GRAVEL FILL				SS	100	10	>100	STR HC		
	ORANGE/BROWN, DAMP, LOOSE, FINE SAND		1		SS	100	17	>100	STR HC		
	GREYISH BROWN, DAMP TO MOIST, COMPACT, FINE SILTY SAND GRAVEL TILL		2		SS	100	12	>100	STR HC		
	GREY TO BLACK, WET, STIFF, FINE SILTY CLAY TILL WITH TRACE SAND AND COBBLES				SS	100	12	>100	MOD/STR HC		
			3		SS	100	10	5	MOD HC		
					SS		15				
	BOTTOM OF BOREHOLE		4								
			5								
			6								
			7								
			8								
			9								
			10								

LOGGED BY: SMG INPUT BY: TD CHECKED BY: SMG INPUT DATE: NOVEMBER 10, 1994

RECORD OF BH-113

SHEET 1 OF 1

PROJECT NAME: 500 COVENTRY ROAD
PROJECT LOCATION: OTTAWA, ONTARIO
CLIENT: COCA-COLA BOTTLING LTD.

PROJECT NUMBER: E769.2
BORING DATE: NOVEMBER 3, 1994

ARGTURUS

BORING METHOD	SOIL PROFILE: DESCRIPTION	STRATA PLOT	DEPTH (m)	SAMPLES: LOCATION	TYPE	% RECOV	SPT (N)	COMBUSTIBLE VAPOUR CONCENTRATION P.I.D. (CARBON FILTER CONCENTRATION)	ODOUR	LABORATORY TESTING	PIEZOMETER OR MONITORING WELL INSTALLATION
	GROUND SURFACE		0								
HOLLOW STEM AUGERS ACKER	GRAVEL FILL										
	LIGHT BROWN, DAMP TO WET, LOOSE, FINE SAND		1		SS	80	7	>100	STR HC		
					SS	100	21	45	STR HC		
	LIGHT GREY/BLACK, MOIST TO WET, STIFF, FINE SILTY SAND GRAVEL TILL WITH TRACE CLAY		2		SS	100	13	55	MOD/STR HC		
					SS	100	15	30	MOD/STR HC		
			3		SS	<5	12	5	MOD/STR HC		
	GREY/BROWN, WET, STIFF, FINE SILTY CLAY TILL WITH SAND AND GRAVEL				SS	90	24	12	TRACE HC		
	BOTTOM OF BOREHOLE		4								
			5								
			6								
			7								
			8								
			9								
			10								

LOGGED BY: SMG INPUT BY: TD CHECKED BY: SMG INPUT DATE: NOVEMBER 10, 1994

RECORD OF BH-114

SHEET 1 OF 1

PROJECT NAME: 500 COVENTRY ROAD
PROJECT LOCATION: OTTAWA, ONTARIO
CLIENT: COCA-COLA BOTTLING LTD.

PROJECT NUMBER: E769.2
BORING DATE: NOVEMBER 4, 1994

ARCTURUS

BORING METHOD	SOIL PROFILE: DESCRIPTION	STRATA PLOT	DEPTH (m)	SAMPLES: LOCATION	TYPE	% RECOV	SPT (n)	COMBUSTIBLE VAPOUR CONCENTRATION % LEL (CARBON FILTER CONCENTRATION)	ODOUR	LABORATORY TESTING	PIEZOMETER OR MONITORING WELL INSTALLATION
	GROUND SURFACE		0								
HOLLOW STEM AUGERS ACKER	ASPHALT										
	GRAVEL FILL				SS	80	19	1	NA		
	DEBRIS ASPHALT AND BRICK		1								
	MOTTLED GREY/BROWN, DRY TO DAMP, COMPACT, FINE SAND WITH SOME SILT				SS	80	19	>100	STR HC		
	GREY TO BLACK, DAMP TO MOIST, COMPACT, FINE SILTY SAND GRAVEL TILL WITH TRACE CLAY		2		SS	80	17	85	STR HC		
					SS	80	13	2.0	MOD HC		
	GREYISH BLACK, MOIST TO WET, FIRM TO STIFF, FINE SILTY CLAY TILL WITH COBBLES		3		SS	100	5	1.4	TRA/MOD HC		
					SS	100	15	1.0	TRACE HC		
	BOTTOM OF BOREHOLE		4								
			5								
			6								
			7								
			8								
			9								
			10								

LOGGED BY: SMG INPUT BY: TO CHECKED BY: SMG INPUT DATE: NOVEMBER 10, 1994

RECORD OF BH-115

SHEET 1 OF 1

PROJECT NAME: 500 COVENTRY ROAD
PROJECT LOCATION: OTTAWA, ONTARIO
CLIENT: COCA-COLA BOTTLING LTD.

PROJECT NUMBER: E769.2
BORING DATE: NOVEMBER 4, 1994

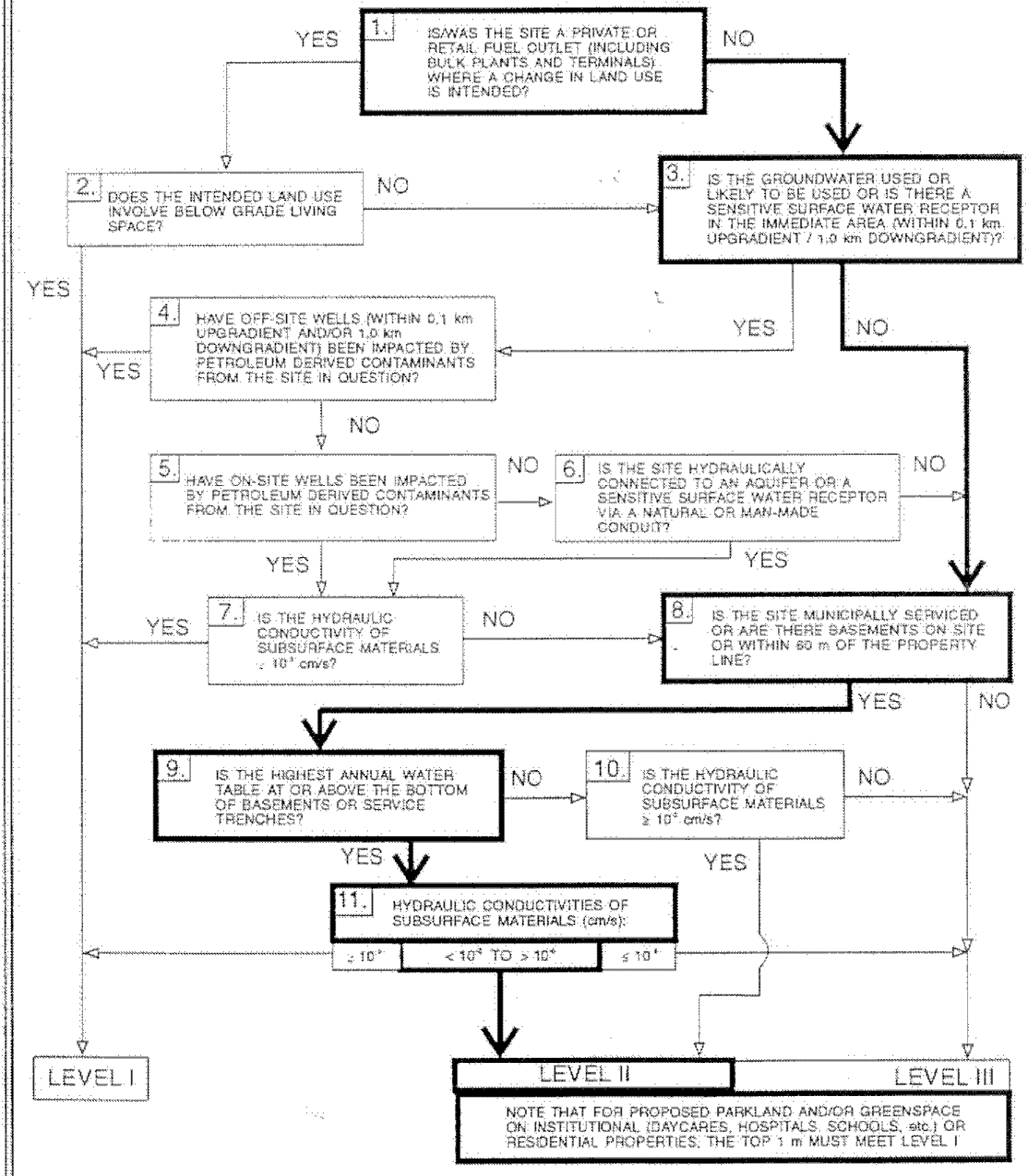
ARCTURUS

BORING METHOD	SOIL PROFILE: DESCRIPTION	STRATA PLOT	DEPTH (m)	SAMPLES: LOCATION	TYPE	% RECOV	SPT (n)	COMBUSTIBLE VAPOUR CONCENTRATION (ppm) (CARBON FILTER CONCENTRATION)	ODOUR	LABORATORY TESTING	PIEZOMETER OR MONITORING WELL INSTALLATION
	GROUND SURFACE		0								
HOLLOW STEM AUGERS ACKER	ASPHALT										
	GRAVEL FILL										
	LIGHT BROWN, DAMP TO WET, LOOSE, FINE, SAND		1		AU			>100	STRONG HC		
	GREY TO BLACK, MOIST, COMPACT, FINE, SILTY SAND GRAVEL TILL WITH TRACE CLAY				AU			>100	STRONG HC		
			2		AU			>100	STRONG HC		
					AU			>100	STRONG HC		
	GREY TO BLACK, MOIST TO WET, STIFF TO VERY STIFF, SILTY CLAY TILL WITH GRAVEL AND ANGULAR COBBLES		3		AU			48	STRONG HC		
					AU			95	STRONG HC		
	BOTTOM OF BOREHOLE		4								
			5								
			6								
			7								
			8								
			9								
			10								

LOGGED BY: SMG INPUT BY: TD CHECKED BY: SMG INPUT DATE: NOVEMBER 10, 1994

APPENDIX III
SITE SENSITIVITY ANALYSIS

SITE SENSITIVITY ANALYSIS



E769.4

SITE SENSITIVITY ANALYSIS
KEY DECISION RATIONALE

Question	Answer	Rationale
1	No	The site is a private fuel outlet where no change in land use is intended
3	No	Groundwater is not used or likely to be used, and there are no sensitive surface water receptors within the specified distances
8	Yes	The site is municipally serviced
9	Yes	The water table was observed in test pits within 2 m of grade
11	Level II	The majority of the subsurface material from surface to the water table is a silty sand which typically has a hydraulic conductivity in the range of 10^{-4} to 10^{-5} cm/s

APPENDIX II

PROOF OF PUBLIC NOTIFICATION/CONSULTAION

February 17, 1995
E769.6

--address---
Ottawa, Ontario
--postal code--

Re: Cleanup of Coca-Cola Distribution Plant
500 Coventry Road
Ottawa, Ontario

Dear Resident:

Plans have recently been developed by Coca-Cola Beverages Ltd. to conduct a clean up at this Distribution facility.

In order to bring this site into environmental compliance, a site cleanup has been proposed by Arcturus Environmental Limited of Niagara Falls, Ontario, on behalf of Coca-Cola. This cleanup will involve the excavation, removal, and on-site treatment of soils containing gasoline contamination. Treatment of these soils would be conducted within a covered, and controlled engineered containment cell. Part of this cleanup involves extraction of vapours from the soil and treatment of these vapours through a biofilter treatment system. The biofilters to be used on this site have already been used successfully by Arcturus in Quebec. Test results for the air discharge from this biofilter system meet Ontario Ministry of the Environment and Energy guidelines.

As a result, this cleanup will not cause any adverse impacts to air, water, soil or sewer systems, and as such, no adverse impacts to neighbouring residents are anticipated.

Cleanup activities are expected to begin this spring subject to the approval from the Ontario Ministry of the Environment and Energy (MOEE). Activities will be from 7:00 a.m. to 6:00 p.m. daily, over a period of approximately 17 days.

Some noise is to be expected, due to the operation of construction equipment, but no inconvenience to neighbouring residents is anticipated.

This cleanup proposal has been presented to the MOEE. Although the cleanup proposal involves proven technology and has been shown to be environmentally sound, as part of the normal approval process, it is necessary to inform all neighbouring residents of the proposed plan and ask to direct any concerns in writing to the local Ottawa District Office of the MOEE at 2435 Holly Lane, Ottawa, Ontario, K1V 7P2 within the next 30 days.

Thank you for your cooperation.

Sincerely,

Al Maddalena
Project Manager, Arcturus Environmental Limited

ALM:hll

APPENDIX III

MATERIAL SAFETY DATA SHEETS (MSDS) FOR GASOLINE AND DIESEL FUEL

PETRO-CANADA®

MATERIAL SAFETY DATA SHEET

WHMIS CLASSIFICATION

Combustible Liquid (Class B 2)
Poisonous Material (Class D 2)

PRODUCT CODE: N/A

DATE: June 15, 1991

SECTION I — MATERIAL IDENTIFICATION

Trade Name: UNLEADED GASOLINE

Other Names: Maximum Supreme, Maximum Plus and Maximum Unleaded Gasoline, Unleaded "Plus" Gasoline, Unleaded Gasoline (US Grade)

Chemical Synonyms and Family: Petroleum hydrocarbon.

Name of Manufacturer/Supplier Address & Emergency Phone Number: **Petro-Canada Inc. (403) 296-3000 P.O. Box 2844, Petro-Canada Centre Calgary, Alberta T2P 3E3**

Poison Control Centre Numbers: Consult local telephone directory for emergency numbers.

Application: Unleaded Gasoline is used as a motor vehicle fuel. Maximum Supreme, Maximum Plus and Maximum contain an advanced deposit control additive.

SECTION II — TRANSPORTATION

UN Number: 1203 Primary Classification: 3.1 Subsiduary Classification: N/A

Compatibility Groups: N/A CANUTEC Transport Emergency No. (613) 996-6666

SECTION III — COMPOSITION

COMPONENTS	ALLOWABLE LIMITS (8 HR.)	% (VOL.)	CAS #
Complex mixture of aliphatic & aromatic hydrocarbons (C_4 - C_{12})*	300 ppm (gasoline)	100	8006-61-9

* Contains trace amounts of conventional gasoline additives such as antioxidant, MMT and dye. May also contain methyl-tert-butyl ether (MTBE) CAS #1634-04-4.

FLAMMABLE LIQUID

NR-Not Regulated N/A-Not Applicable U-Unknown

Cette fiche est aussi disponible en français.

SECTION IV — PHYSICAL DATA

Density: (@ 15°C)	0.8 kg/L (approx.)	Boiling Point/Range: (@ 1 atm)	25-220°C (approx.)
Vapour Pressure: (@ 37.8°C)	56-107 kPA	Percent Volatile: (@ 20°C)	100%
Vapour Density: (@ 20°C)	3-4 (approx.)	Evaporation Rate:	4 (approx.) (n-butyl acetate = 1)
Solubility in Water:	Insoluable		
Viscosity (Kinematic): (@ 38°C)	0.60 cSt		
pH:	Max: 9.0	Appearance: & Odour	Clear, undyed liquid (Maximum); Green clear liquid (Maximum Supreme); Light green clear liquid (Maximum Plus); gasoline odour.* *

SECTION V — FIRE & EXPLOSION DATA

Flash Point (method used= COC): - 50°C (minimum)

Flammable limits in air (% by volume): Lower 1.4% Upper 7.6%

Auto-Ignition Temperature: 257°C

Fire and Explosion Hazards: Easily ignitable by flame or spark. Vapours are heavier than air and may travel considerable distance to sources of ignition and flash back. Do not cut, drill or weld empty containers.

EXTREME FIRE HAZARD

Extinguishing Media: Dry chemical or carbon dioxide for small fires. Water spray or foam for large fires.

Fire Fighting Procedures: Use full protective equipment and self-contained breathing apparatus. Stop flow. Contain spill. Cover with extinguishing agent. Use water spray to cool fire-exposed containers and as a protective screen. Isolate all ignition sources in area of spill. Use gas detector in confined spaces. To avoid spreading fire do not point solid water stream directly into burning product.

SECTION VI — HEALTH HAZARD INFORMATION

Toxicity Data

* Estimated acute LD_{50} = 12750 mg/kg (rat, oral): practically non-toxic.
Rabbit dermal primary skin irritation score (Draize) = 0.98: slightly irritating.
Rabbit eye irritation index (Draize) = 0: no irritation.
IARC states that gasoline is possibly carcinogenic to humans (Group 2B).

Effects of Overexposure

Inhalation: Irritation of nose and throat; headache, nausea, vomiting, dizziness, fatigue, light-headedness, reduced coordination and unconsciousness; central nevous depressant; kidney and liver damage from long-term exposure. May be narcotic in high concentrations.

Skin and Eyes: Drying, cracking or inflammation of skin. Prolonged exposure to skin may cause dermatitis. Eye contact may cause irritation, but not permanent damage.

Ingestion: Overexposure due to ingestion is unlikely for adults since taste and smell limit the amount swallowed. May be harmful or fatal if swallowed.

NOTE 1: AVOID BREATHING VAPOUR. AVOID CONTACT WITH SKIN AND EYES. AVOID ASPIRATION. NOTE 2: GASOLINE CONTAINS A SMALL AMOUNT OF BENZENE WHICH IS A SUSPECT HUMAN CARCINOGEN.

* Based on API Study PS-6 on Unleaded Motor Gasoline which quotes oral, rat LD_{50} = 18.75 ml/kg.

* * May be dyed a different colour for tax exempt purposes.

N/A-Not Applicable U-Unknown

Emergency and First Aid Procedures Information

Skin: Remove contaminated clothing - launder before reuse. Soap and water wash. Discard saturated leather articles.

Eyes: Coplous warm water flush - 15 minutes. Physician assessment if irritation persists.

Inhalation: Evacuate to fresh air. Apply Cardio Pulmonary Resuscitation if required. Administer oxygen if available. If resuscitation is required, physician assessment mandatory.

Ingestion: DO NOT INDUCE VOMITING. If vomiting - take care to prevent aspiration. Give 250 ml (1/2 pint) of milk. Mandatory physician assessment.

Notes to Physician Gastric lavage should only be done after endotracheal intubation in view of the risk of aspiration which can cause serious chemical pneumonitis for which antibiotic and corticosteroid therapy may be indicated.

SECTION VII — REACTIVITY DATA

Stability:	Stable under normal storage and use.
Conditions to avoid:	Sources of ignition; heating greatly increases fire and explosion hazards.
Materials to avoid:	Strong oxidizing agents (nitric acid, sulfuric acid, chlorine, ozones, peroxides, etc.) which cause detonation on contact.
Hazardous Decomposition products:	CO_x, oxides of manganese, partially oxidized hydrocarbons, smoke on combustion.
Can hazardous polymerization occur?:	No.

SECTION VIII — SPILL OR LEAK PROCEDURES

Steps to be taken if material is released or spilled:	Evacuate personnel. Avoid contact. Use full protective equipment and breathing apparatus. Eliminate ignition sources. Shutoff source of spill. Absorb with inert absorbent such as dry clay, sand or diatomaceous earth, commercial sorbents, or recover using electrically grounded explosion-proof pumps. Place absorbent in closed metal containers. DO NOT FLUSH TO SEWER. Large spills may be pumped from upwind locations using vacuum trucks and extended hoses. Large pools may be covered with foam to prevent vapour evolution. Immediate shut down and evacuation if wind shifts. Constant monitoring required.
Waste Disposal Method:	Dispose in approved, SECURE landfill site or licenced waste reclaimer facility.

SECTION IX SPECIAL PROTECTION INFORMATION

Ventilation:	General ventilation. Use explosion-proof mechanical ventilation suitable for group D atmospheres. Local exhaust, if necessary, to control vapours to allowable limits.
Respiratory Protection:	Between 300 ppm and 3000 ppm, use an approved full-face organic vapour cartridge respirator in areas with adequate oxygen. Above this level, use full-face air-supplied or self-contained breathing apparatus.
Protective Gloves:	For direct contact with hydrocarbons of more than 2 hours,VITON or NITRILE recommended. Otherwise PVC gloves may be worn.
Eye Protection:	Chemical goggles if splashing likely.
Other Protective Clothing:	Long sleeved clothing to minimize skin contact.

SECTION X SPECIAL PRECAUTIONS

HANDLE AS EXTREMELY FLAMMABLE LIQUID. DO NOT USE AS CLEANING FLUID OR SIPHON BY MOUTH. Store in cool, well-ventilated area. Electrically ground/bond during pumping or transfer to avoid static accumulation. PRECAUTIONS SHOULD BE TAKEN TO MINIMIZE SKIN AND EYE CONTACT AND INHALATION. High standards of personal hygiene are necessary. Wash skin thoroughly with soap and water after contact and before eating. Launder work clothes frequently. Petro-Canada recommends an allowable exposure of 300 ppm when handling UNLEADED GASOLINE.

SECTION XI REFERENCES

CONCAWE, First Aid Measures, Medical Toxicology Data and Professional Advice to Clinicians on Petroleum Products, February 1983.
ACGIH, Threshold Limit Values and Biological Exposure Indices for 1989-90.
API, Petroleum Process Stream Terms Included in the Chemical Substances Inventory Under the Toxic Substances Control Act (TSCA), 1983.
ITI, Toxic and Hazardous Industrial Chemicals Safety Manual, 1982.
CONCAWE, Health Aspects of Petroleum Fuels - General Principles, April, 1985.
API, Petroleum Process Stream terms included in the Chemical Substances Inventory Under the Toxic Substances Control Act (TSCA), 1983.
API, Acute Toxicity Tests, API #PS-6, Unleaded Gasoline, July 16, 1982.
IARC Monographs on the Evaluation of Carcinogenic Risks to Humans, Volume 45, 1987.

Petro-Canada and its affiliates assume no responsibility for injury to anyone caused by the material if reasonable safety procedures are not adhered to as stipulated in the data sheet. Additionally, Petro-Canada Inc. and its affiliates assume no responsibility for injury to anyone caused by abnormal use of the material even if reasonable safety procedures are followed. Furthermore, vendee and third persons assume the risk in their use of the material.

Petro-Canada Inc.

MATERIAL SAFETY DATA SHEET

PETRO-CANADA®

WHMIS CLASSIFICATION

Combustible Liquid (Class B3)
Poisonous Material (D2)

PRODUCT CODE: N/A

DATE: February 15, 1991

SECTION I — MATERIAL IDENTIFICATION

Trade Name:	DIESEL FUEL
Other Names:	Diesel 20X, 0, 15, 20, 25, 30, 40, 40S, 50, 60 Diesel AA, Diesel GM 35, 45 Domestic Marine Diesel, Power Plus Diesel
Chemical Synonyms and Family:	Petroleum Hydrocarbon
Name of Manufacturer/Supplier Address & Emergency Phone Number:	**Petro-Canada Inc. (403) 296-3000 P.O. Box 2844, Petro-Canada Centre Calgary, Alberta T2P 3E3**
Poison Control Centre Numbers:	Consult local telephone directory for emergency numbers.
Application:	Diesel Fuels are distillate fuels suitable for use in high and medium speed internal combustion engines of the compression igniton type.

SECTION II — TRANSPORTATION

UN Number: 1202 Primary Classification: 3.3 Subsiduary Classification: NR

Compatibility Groups: N/A CANUTEC Transport Emergency No. (613) 996-6666

SECTION III — COMPOSITION

COMPONENTS	ALLOWABLE LIMITS (8 HR.)	% (VOL.)	CAS #
Complex mixture of petroleum hydrocarbons* (C_9 - C_{18}).	5 mg/m^3 (oil mist)**	>99.9	68334-30-5
Anti-static additive, cetane improver, pour point depressant.	N/A	<0.1	N/A

* Aromatic content is 38% maximum (Benzene nil)
** Petro-Canada recommendation.

NR-Not Regulated N/A-Not Applicable U-Unknown

Cette fiche est aussi disponible en français.

W104E(9102)

SECTION IV — PHYSICAL DATA

Density: (@15°C)	0.78-0.90 kg/L	Boiling Point/Range: (@ 1 atm)	145-371°C (approx.)
Vapour Pressure: (@ 25°C)	1 kPA (approx.)	Percent Volatile: (@ 20°C)	25% in 10 Hr. (approx.)
Vapour Density: (@ 20°C)	4.5 (approx.)	Evaporation Rate:	N/A
Solubility In Water:	Insoluble		
Viscosity (Kinematic): (@ 40°C)	1.2-4.1 cSt		
Pour Point:	-45 to -6°C (-50 to 20°F)	Appearance: & Odour	Clear to yellow, bright oily liquid with hydrocarbon odour.**

** May be dyed purple or red for taxation purposes.

SECTION V — FIRE & EXPLOSION DATA

Flash Point (method used- COC):	40°C (minimum)
Flammable limits in air (% by volume):	Lower 0.7% Upper 6.0%
Auto-ignition Temperature:	>225°C
Fire and Explosion Hazards:	Treat as combustible liquid. Do not cut, drill or weld empty containers.

MODERATE FIRE HAZARD

Extinguishing Media:	Foam, dry chemical, carbon dioxide for small fires, water spray.
Fire Fighting Procedures:	Use full protective equipment and self-contained breathing apparatus. Cover with extinguishing agent. Use water spray to cool fire-exposed containers and as a protective screen. Do not point solid water stream directly into burning product to avoid spreading fire.

SECTION VI — HEALTH HAZARD INFORMATION

Toxicity Data

* Estimated acute LD_{50} =7650 mg/kg (rat, oral): practically non-toxic. Rabbit primary dermal irritation index (Draize) = 6.8: extremely irritating. Rabbit eye irritation index (Draize) = 0: non-irritating.

Effects of Overexposure

Inhalation:	Inhalation of vapours or mist will cause headaches, nausea, dizziness, and intoxication; severe central nervous system depressant.
Skin and Eyes:	Irritation, defatting and drying of skin. Prolonged exposure to skin may cause chapping, cracking or possibly dermatitis. Eye contact may cause irritation, but not permanent damage.
Ingestion:	Ingestion is unlikely.

* Base on API Study #79-6 on diesel fuel where LD_{50}=9.0 ml/k (rat, oral).

N/A-Not Applicable U-Unknown

Emergency and First Aid Procedures Information

Skin: Remove contaminated clothing - launder before reuse. Soap and water wash. Discard saturated leather articles.

Eyes: Coplous warm water flush - 15 minutes. Physician assessment mandatory.

Inhalation: Evacuate to fresh air. Apply Cardio Pulmonary Resuscitation if required.Administer oxygen if available. If resuscitation is required, physician assessment is mandatory.

Ingestion: DO NOT INDUCE VOMITING. If vomiting - take care to prevent aspiration. Give 250 ml. (1/2 pint) of milk to drink. Mandatory physician assessment.

Notes to Physician Gastric lavage should only be done after endotracheal intubation in view of the risk of aspiration which can cause serious chemical pneumonitis for which antibiotic and corticosteroid therapy may be indicated.

SECTION VII REACTIVITY DATA

Stability:	Stable under normal storage and use.
Conditions to avoid:	Excessive heat, sources of ignition, formation of oil mist.
Materials to avoid:	Strong oxidizing agents (strong acids, peroxides, chlorine, etc.).
Hazardous Decomposition products:	COx, SOx, smoke on combustion.
Can hazardous polymerization occur?:	No.

SECTION VIII SPILL OR LEAK PROCEDURES

Steps to be taken if material is released or spilled:	Avoid contact. Use full protective equipment and breathing apparatus if required. ELIMINATE IGNITION SOURCES. Contain spill. Absorb with inert absorbent such as dry clay, sand or diatomaceous earth, commercial sorbents, or recover using electrically grounded explosion-proof pumps. Place absorbent in closed metal containers. DO NOT FLUSH TO SEWER.
Waste Disposal Method:	Dispose in approved, SECURE landfill site or licensed waste reclaimer facility.

N/A-Not Applicable U-Unknown

SECTION IX SPECIAL PROTECTION INFORMATION

Ventilation:	General ventilation. Use explosion-proof mechanical ventilation suitable for group D atmospheres.
Respiratory Protection:	Up to 5 mg/m^3 (oil mist), none required. From 5 to 50 mg/m^3, use an approved organic vapour respirator suitable for oil mist in areas with sufficient oxygen. Above 50 mg/m^3, use full-face air-supplied or self-contained breathing apparatus.
Protective Gloves:	For direct contact with hydrocarbons of more than 2 hours, VITON or NITRILE reccomended. Otherwise, PVC gloves may be worn.
Eye Protection:	Chemical goggles if splashing likely.
Other Protective Clothing:	Wear long sleeved clothing to minimize skin contact.

SECTION X SPECIAL PRECAUTIONS

Store in cool, well-ventilated area. Electrically ground/bond during pumping or transfer to avoid static accumulation. AVOID SKIN CONTACT AND INHALATION. Practice good personal hygiene. DO NOT SIPHON BY MOUTH OR USE AS A CLEANING SOLVENT. Launder work clothes frequently. Petro-Canada recommends an allowable exposure of 5 mg/m^3 (oil mist) when handling DIESEL FUELS.

SECTION XI REFERENCES

ACGIH, Threshold Limit Values and Biological Exposure Indices for 1989-90.
CONCAWE, First Aid Measures, Medical Toxicology Data and Professional Advice to Clinicians on Petroleum Products, Feburary 1983.
API, Petroleum Process Stream Terms Included in the Chemical Substances Inventory Under the Toxic Substances Control Act (TSCA), 1983.
Environment Canada Manual for Spills of Hazardous Materials, March, 1984.
Patty's Industrial Hygiene and Toxicology, 3rd Edition, Vol. 2B, 1981.
NIOSH, The Industrial Environment - Its Evaluation and Control, 1973.
API, Acute Toxicity Tests on Diesel Fuel, API # 79-6, 1980.
API, The Toxicology of Petroleum Hydrocarbons, May, 1982.

Petro-Canada and its affiliates assume no responsibility for injury to anyone caused by the material if reasonable safety procedures are not adhered to as stipulated in the data sheet. Additionally, Petro-Canada Inc. and its affiliates assume no responsibility for injury to anyone caused by abnormal use of the material even if reasonable safety procedures are followed. Furthermore, vendee and third persons assume the risk in their use of the material.

APPENDIX IV

POINT OF IMPINGEMENT RESULTS

The following are a list of on-site contaminants and associated MOEE Half-Hour Point of Impingement Limits for each. All values in ug/m^3

Contaminant	Half Hour Point of Impingement Limit
Benzene	(no guideline)
Toluene	2,000
Ethylbenzene	4,000
Dichlorobenzene	37,000
M,O,P Xylenes	2,300
Styrene	400
Napthalene	36

CONCENTRATION AT POINTS
VERSION 2.00

Date: February 14, 1995

Title: Point of Impingement - benzene

Virtual Sources

Number	Height	Emission Rate	Width	Length	Angle	X	Y
	m	gm/s	m	m	deg	m	m
1	2.5	.243E-01	10.0	5.0	90.0	0.	0.

Points of impingement

No	x (m)	y (m)	z (m)	type	Description
1	0.	28.	2.	closed	Coca-cola Distribution Plant Windows
2	-78.	0.	0.	closed	western property boundary
3	0.	-21.	0.	closed	southern property boundary
4	93.	0.	0.	closed	eastern property boundary

Point of Impingement (m)	(m)	(m)	Stab	Concentration (ug/m3)	Wind Conditions Direction	Speed (m/s)	Height (m)
0.	28.	2.	C	36.790	90.0	5.000	2.0
			D	72.835	90.0	5.000	2.0
-78.	0.	0.	C	12.325	180.0	5.000	.0
			D	34.686	180.0	5.000	.0
0.	-21.	0.	C	55.528	-90.0	5.000	.0
			D	106.11	-90.0	5.000	.0
93.	0.	0.	C	9.3125	.0	5.000	.0
			D	27.006	.0	5.000	.0

CONCENTRATION AT POINTS
VERSION 2.00

Date: February 14, 1995

Title: toluene

Virtual Sources

Number	Height	Emission Rate	Width	Length	Angle	X	Y
	m	gm/s	m	m	deg	m	m
1	2.5	.509E-01	10.0	5.0	90.0	0.	0.

Points of impingement

No	x (m)	y (m)	z (m)	type	Description
1	0.	28.	2.	closed	
2	-78.	0.	0.	closed	
3	0.	-21.	0.	closed	
4	93.	0.	0.	closed	

Point of Impingement (m)	(m)	(m)	Stab	Concentration (ug/m3)	Wind Conditions Direction	Speed (m/s)	Height (m)
0.	28.	2.	C	77.062	90.0	5.000	2.0
			D	152.56	90.0	5.000	2.0
-78.	0.	0.	C	25.817	180.0	5.000	.0
			D	72.655	180.0	5.000	.0
0.	-21.	0.	C	116.31	-90.0	5.000	.0
			D	222.26	-90.0	5.000	.0
93.	0.	0.	C	19.506	.0	5.000	.0
			D	56.567	.0	5.000	.0

CONCENTRATION AT POINTS
VERSION 2.00

Date: February 14, 1995

Title: chlorobenzene

Virtual Sources

Number	Height	Emission Rate	Width	Length	Angle	X	Y
	m	gm/s	m	m	deg	m	m
1	2.5	.250E-02	10.0	5.0	90.0	0.	0.

Points of impingement

No	x (m)	y (m)	z (m)	type	Description
1	0.	28.	2.	closed	
2	-78.	0.	0.	closed	
3	0.	-21.	0.	closed	
4	93.	0.	0.	closed	

Point of Impingement (m)	(m)	(m)	Stab	Concentration (ug/m3)	Wind Conditions Direction	Speed (m/s)	Height (m)
0.	28.	2.	C	3.7850	90.0	5.000	2.0
			D	7.4933	90.0	5.000	2.0
-78.	0.	0.	C	1.2680	180.0	5.000	.0
			D	3.5685	180.0	5.000	.0
0.	-21.	0.	C	5.7127	-90.0	5.000	.0
			D	10.917	-90.0	5.000	.0
93.	0.	0.	C	.95807	.0	5.000	.0
			D	2.7784	.0	5.000	.0

CONCENTRATION AT POINTS
VERSION 2.00

Date: February 14, 1995

Title: ethylbenzene

Virtual Sources

Number	Height	Emission Rate	Width	Length	Angle	X	Y
	m	gm/s	m	m	deg	m	m
1	2.5	.125E-01	10.0	5.0	90.0	0.	0.

Points of impingement

No	x (m)	y (m)	z (m)	type	Description
1	0.	28.	2.	closed	
2	-78.	0.	0.	closed	
3	0.	-21.	0.	closed	
4	93.	0.	0.	closed	

Point of Impingement (m)	(m)	(m)	Stab	Concentration (ug/m3)	Wind Conditions Direction	Speed (m/s)	Height (m)
0.	28.	2.	C	18.925	90.0	5.000	2.0
			D	37.467	90.0	5.000	2.0
-78.	0.	0.	C	6.3402	180.0	5.000	.0
			D	17.843	180.0	5.000	.0
0.	-21.	0.	C	28.564	-90.0	5.000	.0
			D	54.583	-90.0	5.000	.0
93.	0.	0.	C	4.7904	.0	5.000	.0
			D	13.892	.0	5.000	.0

CONCENTRATION AT POINTS
VERSION 2.00

Date: February 14, 1995

Title: m,p xylenes

Virtual Sources

Number	Height m	Emission Rate gm/s	Width m	Length m	Angle deg	X m	Y m
1	2.5	.991E-01	10.0	5.0	90.0	0.	0.

Points of impingement

No	x (m)	y (m)	z (m)	type	Description
1	0.	28.	2.	closed	
2	-78.	0.	0.	closed	
3	0.	-21.	0.	closed	
4	93.	0.	0.	closed	

Point of Impingement (m)	(m)	(m)	Stab	Concentration (ug/m3)	Wind Conditions Direction	Speed (m/s)	Height (m)
0.	28.	2.	C	150.04	90.0	5.000	2.0
			D	297.03	90.0	5.000	2.0
-78.	0.	0.	C	50.265	180.0	5.000	.0
			D	141.46	180.0	5.000	.0
0.	-21.	0.	C	226.45	-90.0	5.000	.0
			D	432.74	-90.0	5.000	.0
93.	0.	0.	C	37.978	.0	5.000	.0
			D	110.13	.0	5.000	.0

CONCENTRATION AT POINTS
VERSION 2.00

Date: February 14, 1995

Title: o-xylene

Virtual Sources

Number	Height	Emission Rate	Width	Length	Angle	X	Y
	m	gm/s	m	m	deg	m	m
1	2.5	.370E-02	10.0	5.0	90.0	0.	0.

Points of impingement

No	x (m)	y (m)	z (m)	type	Description
1	0.	28.	2.	closed	
2	-78.	0.	0.	closed	
3	0.	-21.	0.	closed	
4	93.	0.	0.	closed	

Point of Impingement (m)	(m)	(m)	Stab	Concentration (ug/m3)	Wind Conditions Direction	Speed (m/s)	Height (m)
0.	28.	2.	C	5.6018	90.0	5.000	2.0
			D	11.090	90.0	5.000	2.0
-78.	0.	0.	C	1.8767	180.0	5.000	.0
			D	5.2814	180.0	5.000	.0
0.	-21.	0.	C	8.4548	-90.0	5.000	.0
			D	16.157	-90.0	5.000	.0
93.	0.	0.	C	1.4179	.0	5.000	.0
			D	4.1120	.0	5.000	.0

CONCENTRATION AT POINTS
VERSION 2.00

Date: February 14, 1995

Title: 1,3 dichlorobenzene

Virtual Sources

Number	Height	Emission Rate	Width	Length	Angle	X	Y
	m	gm/s	m	m	deg	m	m
1	2.5	.230E-02	10.0	5.0	90.0	0.	0.

Points of impingement

No	x (m)	y (m)	z (m)	type	Description
1	0.	28.	2.	closed	
2	-78.	0.	0.	closed	
3	0.	-21.	0.	closed	
4	93.	0.	0.	closed	

Point of Impingement (m)	(m)	(m)	Stab	Concentration (ug/m3)	Wind Conditions Direction	Speed (m/s)	Height (m)
0.	28.	2.	C	3.4822	90.0	5.000	2.0
			D	6.8938	90.0	5.000	2.0
-78.	0.	0.	C	1.1666	180.0	5.000	.0
			D	3.2830	180.0	5.000	.0
0.	-21.	0.	C	5.2557	-90.0	5.000	.0
			D	10.043	-90.0	5.000	.0
93.	0.	0.	C	.88143	.0	5.000	.0
			D	2.5561	.0	5.000	.0

CONCENTRATION AT POINTS
VERSION 2.00

Date: February 14, 1995

Title: 1,4 dichlorobenzene

Virtual Sources

Number	Height	Emission Rate	Width	Length	Angle	X	Y
	m	gm/s	m	m	deg	m	m
1	2.5	.990E-02	10.0	5.0	90.0	0.	0.

Points of impingement

No	x (m)	y (m)	z (m)	type	Description
1	0.	28.	2.	closed	
2	-78.	0.	0.	closed	
3	0.	-21.	0.	closed	
4	93.	0.	0.	closed	

Point of Impingement (m)	(m)	(m)	Stab	Concentration (ug/m3)	Wind Conditions Direction	Speed (m/s)	Height (m)
0.	28.	2.	C	14.989	90.0	5.000	2.0
			D	29.674	90.0	5.000	2.0
-78.	0.	0.	C	5.0214	180.0	5.000	.0
			D	14.131	180.0	5.000	.0
0.	-21.	0.	C	22.622	-90.0	5.000	.0
			D	43.230	-90.0	5.000	.0
93.	0.	0.	C	3.7940	.0	5.000	.0
			D	11.002	.0	5.000	.0

CONCENTRATION AT POINTS
VERSION 2.00

Date: February 14, 1995

Title: 1,2 dichlorobenzene

Virtual Sources

Number	Height	Emission Rate	Width	Length	Angle	X	Y
	m	gm/s	m	m	deg	m	m
1	2.5	.420E-02	10.0	5.0	90.0	0.	0.

Points of impingement

No	x (m)	y (m)	z (m)	type	Description
1	0.	28.	2.	closed	
2	-78.	0.	0.	closed	
3	0.	-21.	0.	closed	
4	93.	0.	0.	closed	

Point of Impingement (m)	(m)	(m)	Stab	Concentration (ug/m3)	Wind Conditions Direction	Speed (m/s)	Height (m)
0.	28.	2.	C	6.3588	90.0	5.000	2.0
			D	12.589	90.0	5.000	2.0
-78.	0.	0.	C	2.1303	180.0	5.000	.0
			D	5.9951	180.0	5.000	.0
0.	-21.	0.	C	9.5974	-90.0	5.000	.0
			D	18.340	-90.0	5.000	.0
93.	0.	0.	C	1.6096	.0	5.000	.0
			D	4.6676	.0	5.000	.0

CONCENTRATION AT POINTS
VERSION 2.00

Date: February 14, 1995

Title: styrene

Virtual Sources

Number	Height	Emission Rate	Width	Length	Angle	X	Y
	m	gm/s	m	m	deg	m	m
1	2.5	.275E-01	10.0	5.0	90.0	0.	0.

Points of impingement

No	x (m)	y (m)	z (m)	type	Description
1	0.	28.	2.	closed	
2	-78.	0.	0.	closed	
3	0.	-21.	0.	closed	
4	93.	0.	0.	closed	

Point of Impingement (m)	(m)	(m)	Stab	Concentration (ug/m3)	Wind Conditions Direction	Speed (m/s)	Height (m)
0.	28.	2.	C	41.635	90.0	5.000	2.0
			D	82.426	90.0	5.000	2.0
-78.	0.	0.	C	13.948	180.0	5.000	.0
			D	39.254	180.0	5.000	.0
0.	-21.	0.	C	62.840	-90.0	5.000	.0
			D	120.08	-90.0	5.000	.0
93.	0.	0.	C	10.539	.0	5.000	.0
			D	30.562	.0	5.000	.0

CONCENTRATION AT POINTS
VERSION 2.00

Date: February 14, 1995

Title: napthalene

Virtual Sources

Number	Height	Emission Rate	Width	Length	Angle	X	Y
	m	gm/s	m	m	deg	m	m
1	2.5	.600E-03	10.0	5.0	90.0	0.	0.

Points of impingement

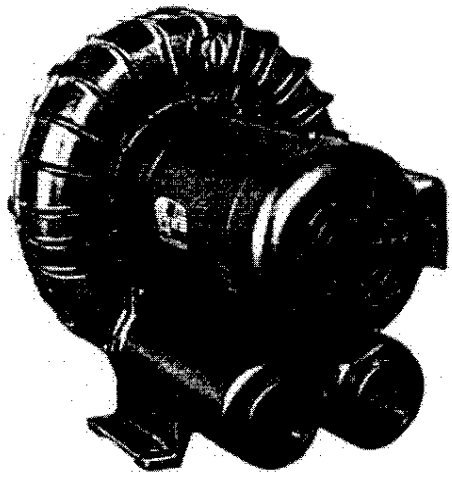
No	x (m)	y (m)	z (m)	type	Description
1	0.	28.	2.	closed	
2	-78.	0.	0.	closed	
3	0.	-21.	0.	closed	
4	93.	0.	0.	closed	

Point of Impingement (m)	(m)	(m)	Stab	Concentration (ug/m3)	Wind Conditions Direction	Speed (m/s)	Height (m)
0.	28.	2.	C	.90839	90.0	5.000	2.0
			D	1.7984	90.0	5.000	2.0
-78.	0.	0.	C	.30433	180.0	5.000	.0
			D	.85644	180.0	5.000	.0
0.	-21.	0.	C	1.3711	-90.0	5.000	.0
			D	2.6200	-90.0	5.000	.0
93.	0.	0.	C	.22994	.0	5.000	.0
			D	.66681	.0	5.000	.0

APPENDIX V

BLOWER SPECIFICATIONS

NEW



- Maximum ambient 104°F. (40°C.)
- 2850 RPM @ 50 Hz.; 3450 RPM @ 60 Hz.
- Solid line on graph indicates continuous duty performance
- See graph for minimum air flow for continuous duty
- UL recognized and CSA certified motors
- Specifications subject to change without notice
- Net weight R6P335A—150 lbs. (68 kg.)
  R6P350A—176 lbs. (80 kg.)
  R6P355M—171 lbs. (78 kg.)
- See page 21 for recommended accessories

GENERAL SPECIFICATIONS

Motor Specifications:

R6P335A

Three Phase Nominal Voltages: 208-230/460 60 Hz.; 190-220/380-415 50 Hz. • FLA @ 60 Hz. 9.7-8.8/4.4 • 3½ HP @ 60 Hz. • FLA @ 50 Hz. 8/4-3.9 • 2.5 HP @ 50 Hz. • TEFC • Class F Insulation • Automatic Restart Thermal Protection

R6P350A

Three Phase Nominal Voltages: 208-230/460 60 Hz.; 190-220/380-415 50 Hz. • FLA @ 60 Hz. 13-12/6 • 5 HP @ 60 Hz. • FLA @ 50 Hz. 13.4/7.2-6.8 • 4.8 HP @ 50 Hz. • TEFC • Class F Insulation

R6P355M

Three Phase Nominal Voltages: 208-230/460 60 Hz. • FLA @ 60 Hz. 16-15/7.5 • 5½ HP @ 60 Hz. • Open Drip Proof • Class B Insulation

Blower Limitations for Continuous Duty:

R6P335A

50 Hz. max. pressure/vacuum 50/60 in. H_2O
50 Hz. max. flow 250 cfm
60 Hz. max. pressure/vacuum 30/35 in. H_2O
60 Hz. max. flow 295 cfm

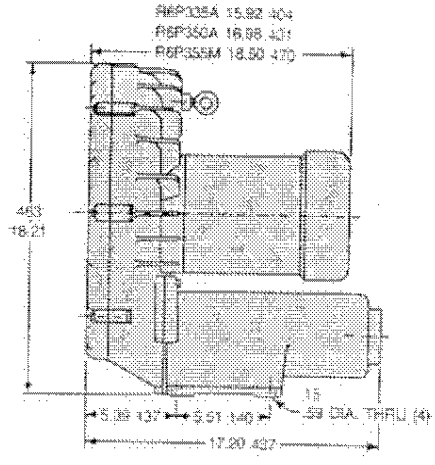
R6P350A

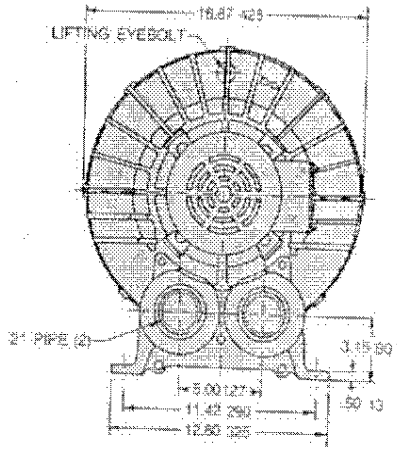
50 Hz. max. pressure/vacuum 70/70 in. H_2O
50 Hz. max. flow 250 cfm
60 Hz. max. pressure/vacuum 60/70 in. H_2O
60 Hz. max. flow 300 cfm

R6P355M

60 Hz. max. pressure/vacuum 90/80 in. H_2O
60 Hz. max. flow 300 cfm

Note: On all drawings
Metric
U.S./Imperial

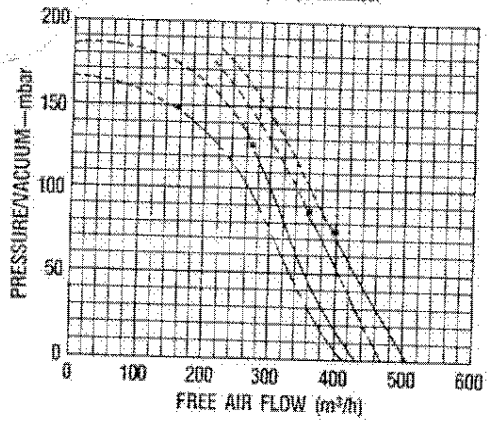




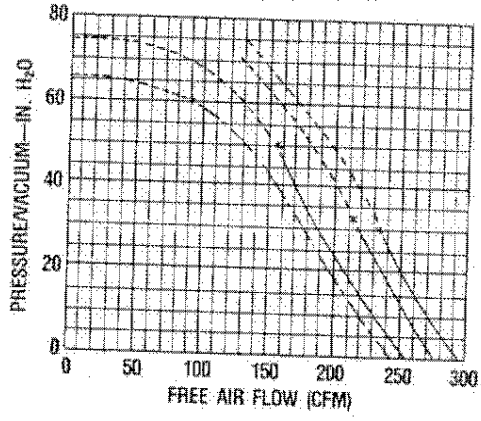
PERFORMANCE CURVES

R6P335A

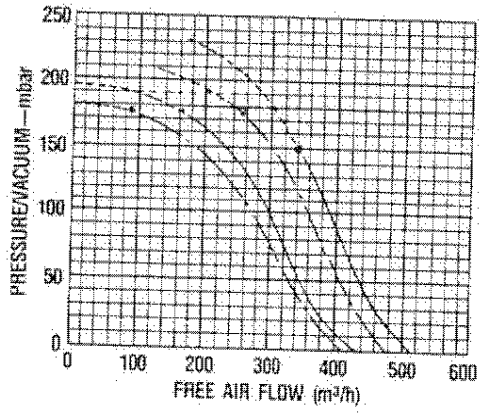
Black line on curve is for 50 cycle performance
Blue line on curve is for 60 cycle performance.

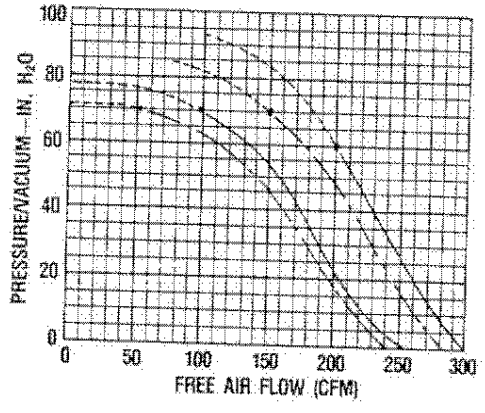


Black line on curve is for 60 cycle performance
Blue line on curve is for 50 cycle performance.

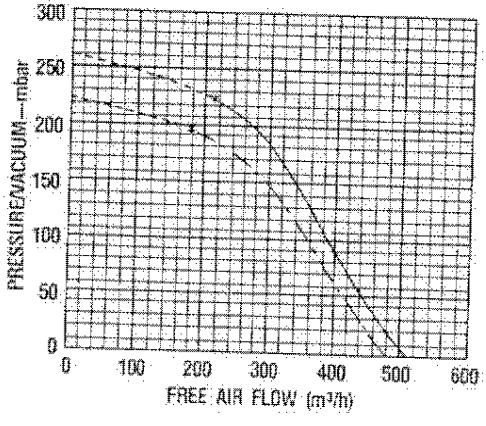


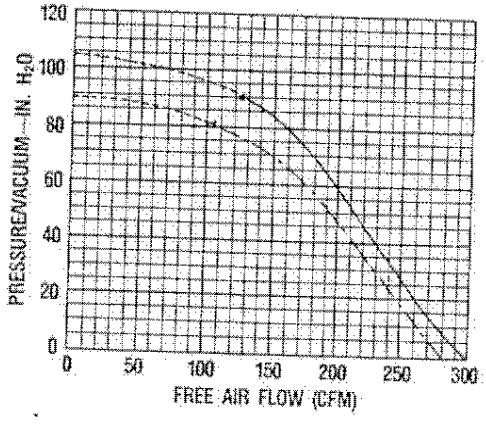
R6P350A





R6P355M





——— Pressure
— — — Vacuum
– – – – Intermittent
*Recommended maximum duty

APPENDIX VI

ARTICLES OF INCORPORATION

For Ministry Use Only
À l'usage exclusif du ministère

Ontario

Ministry of Consumer and Commercial Relations

Ministère de la Consommation et du Commerce

CERTIFICATE
This is to certify that these articles are effective on

CERTIFICAT
Ceci certifie que les présents statuts entrent en vigueur le

APRIL 17 AVRIL, 1990

Director
Companies Branch

Le Directeur
Direction des compagnies

13

Ontario Corporation Number
Numéro de la compagnie en Ontario
886829

Trans Code	Line No	Stat	Comp Type	Method Incorp.
A	0	0	A	3
18	20	28	29	30

Share	Notice Req'd	Jurisdiction
S	N	ONTARIO
31	32	33 – 47

Form 1
Business Corporations Act, 1982
Formule numéro 1 Loi de 1982 sur les compagnies

ARTICLES OF INCORPORATION
STATUTS CONSTITUTIFS

1. The name of the corporation is: *Dénomination sociale de la compagnie:*

ARCTURUS ENVIRONMENTAL LIMITED

2. The address of the registered office is: *Adresse du siège social:*

6862 KEIFFER STREET
(Street & Number or R.R. Number & if Multi-Office Building give Room No.)
(Rue et numéro ou numéro de la R.R. et, s'il s'agit d'un édifice à bureaux, numéro du bureau)

NIAGARA FALLS — L2E5K1
(Name of Municipality or Post Office) — (Postal Code)
(Nom de la municipalité ou du bureau de poste) — *(Code postal)*

CITY OF NIAGARA FALLS — in the REGIONAL MUNICIPALITY OF NIAGARA
(Name of Municipality, Geographical Township) — (County, District, Regional Municipality)
(Nom de la municipalité, du canton) — *dans le/la* *(Comté, district, municipalité régionale)*

3. Number (or minimum and maximum number) of directors is: *Nombre (ou nombres minimal et maximal) d'administrateurs:*

THE MINIMUM NUMBER OF DIRECTORS IS TWO (2) AND THE MAXIMUM NUMBER OF DIRECTORS IS FIVE (5).

4. The first director(s) is/~~are~~: *Premier(s) administrateur(s):*

First name, initials and surname *Prénom, initiales et nom de famille*	Residence address, giving street & No. or R.R. No. or municipality and postal code. *Adresse personnelle, y compris la rue et le numéro, le numéro de la R.R. ou, le nom de la municipalité et le code postal*	Resident Canadian State Yes or No *Résident Canadien Oui/Non*
RONALD F. ADAMS	100 FLANNERY LANE THOROLD, ONTARIO L2V 4V8	YES

APPENDIX VII

PERMITS

Ministry of Environment and Energy
Ontario

Application for Approval of a Waste Disposal Site

Ce formulaire est disponible en français

FOR OFFICE USE ONLY				
Application Number(s)	Client Number	Payment Received	Date	Initials
		$		

Information requested by this form is collected under the authority of the *Environmental Protection Act*, R.S.O. 1990 (EPA), Chapter E-19, (EPA) and the *Environmental Bill of Rights*, c.28, Statutes of Ontario, 1993, (EBR) and will be used to evaluate applications for approval of waste disposal sites according to the requirements of the EPA. Questions should be directed to the Approvals Branch, 250 Davisville Avenue, 3rd Floor, Toronto, Ontario, M4S 1H2, Telephone No. (416)440-3713 or 1-800-461-6290, or to your local Ministry of Environment and Energy District Office.

Instructions

1. When completing this form, please refer to the "Guide For Applying for Approval of Waste Disposal Sites", Sections 27, 30, 31 and 32, EPA (referred to as the Guide).

2. This form must be completed with respect to all the requirements of the Guide in order for it to be considered as an application for approval. INCOMPLETE APPLICATIONS WILL BE RETURNED TO THE APPLICANT OR DENIED APPROVAL.

3. A complete application for approval consists of;
   (1) a completed and signed application form;
   (2) all supporting information as requested by this form and by the Guide; and
   (3) a certified cheque or money order for the approval fee, if applicable.
   The Ministry may require additional information following a review of the complete application.

4. Two (2) copies of the application together with the supporting information must be submitted to the Ministry of Environment and Energy.
   One copy to: Director of Approvals Branch, Ministry of Environment and Energy, 250 Davisville Avenue, 3rd Floor, Toronto, Ontario, M4S 1H2

   OR

   Regional Director in the region in which the site is located/will be located

   A duplicate copy must be sent to the District Office having jurisdiction over the area in which the works will be located.

5. Information contained in this application is not considered confidential and will be made available to the public upon request. Certain information submitted as supporting information may be claimed as confidential but will be subject to the *Freedom of Information and Protection of Privacy Act* (FOIPOPA) and EBR. If you do not claim confidentiality at the time of submitting the information, the Ministry may make the information available to the public without further notice to you.

1. APPLICANT

Name (attach proof of name if applicable)		
Mr. R. B. Wallace, Coca-Cola Beverages Ltd.		
Address (include street number, concession, lot etc.)		City / Province
42 Overlea Boulevard		Toronto, Ontario
Postal Code	Telephone Number	Fax Number
M4H 1B8	416 424 6236	

Owner of Land [X] Yes [ ] No
If "No" attach name, address and concurrence of the appropriate owner.

Operator [X] Yes [ ] No
If "No" attach name, address and concurrence of the appropriate Operator.

2. CONTACT FOR TECHNICAL AND DESIGN INFORMATION

Name / Title		
Mr. A. Maddalena, Arcturus Environmental		
Address		City / Province
7900 Canadian Drive		Niagara Falls, Ontario
Postal Code	Telephone Number	Fax Number
L2E 6S5	905 357 6424	905 357 6447

1613 (11/94) Front

3. SITE LOCATION (Concession, Lot, Municipality)

500 Coventry Road, Ottawa, Ontario

Is the proposed waste site located in an area of development control as defined by the *Niagara Escarpment Planning and Development Act* (NEPDA)?

☐ Yes ☒ No (if Yes, attach copy of NEPDA permit)

4. FACILITY DESCRIPTION – Brief description of the nature of business or activity related to this site.

(a) Present land use	(b) Present official plan designation
soft drink distribution facility	BUSINESS EMPLOYMENT AREA
(c) Present zoning category	(d) Present land use of all adjoining properties to be provided on a location map.
M1-X LIGHT INDUSTRIAL	(enclosed, Appendix VI)

(e) Maximum rate at which site can receive waste per day

Municipal	Commercial	Processed Organic Waste
☐ tonnes	500* ☐ tonnes	☐ Litres
☐ cu. metres	☐ cu. metres	

If any of the following waste categories are intended to be received at the site, attach a description of each, including their source, to the Application.

Type of Waste	Tonnes	Cu. Metres	Litres
Liquid Industrial			20,000*
Non-hazardous Solid Industrial	12,000*	6,000*	
Hazardous			
Other * derived and treated onsite, not received from elsewhere			

(f) Days and hours of operation	(g) Population served
	N/A

(h) Names of all municipalities/major industries to be served by this site.

1. N/A	4.
2.	5.
3.	6.

(i) Total Area of Site 3.2 ☒ hectares or ☐ acres

Area to be Landfilled 0.25 ☒ hectares or ☐ acres

Maximum estimated site storage capacity or storage capacity (if intended for storage) 12,000 ☒ tonnes ☐ cu. metres ☐ Litres

(j) Type of facility/operation ☐ landfill ☐ transfer ☐ processing ☒ other, specify soil bioremediation

(k) List all disposal sites and site Certificate Numbers (for final disposal)

1. N/A	4.
2.	5.
3.	6.

5. TYPE OF APPLICATION

☒ New Certificate of Approval

☐ Amendment to a current Certificate of Approval

Current Certificate Number _____

Date of Issue _____

N/A = not applicable

6. PROJECT/APPLICATION DESCRIPTION – EBR Abstract (Brief description of the proposal)

The construction and use of an Engineered Bioremediation Cell (EBC) with a maximum storage capacity of 6,000 m^3, for the treatment and subsequent re-use on-site, of petroleum hydrocarbon contaminated soil (non-hazardous solid waste) and groundwater. Facilities including the EBC, vapour extraction support facilities, and a mobile groundwater treatment system, are intended for an eight month operation period, at which time the facilities will be dismantled and removed.

7. EBR REQUIREMENTS

Is this a Prescribed Instrument under EBR?	[X] Yes, Class of Instrument? II	[ ] No
If a Prescribed Instrument, is it excepted from public notification?	[X] Yes	[ ] No
If it is excepted from EBR, provide reason	[X] Emergency	[ ] Equivalent Public Participation
	[ ] EAA or Tribunal Decision	[ ] Environmentally Insignificant amendment or revocation

If exempt from public notification, documentation in support of the noted exception must be provided.

8. PUBLIC CONSULTATION/NOTIFICATION – Specify all public consultations/notification (such as public meetings, notification of First Nations etc.) that has been completed or is in the process of being completed.

N/A

9. OTHER APPROVALS/PERMITS – List all other environmental approvals/permits applied for related to this project or received under the EPA (discharges to air, waste management, sewage systems, etc.) and the Ontario Water Resources Act (OWRA) (water works, permit to take water, etc.).

Certificate of Approval (Air) - Submitted to MOEE

Permission to take water, under Section 34 of OWRA (received)

Permission to discharge to sanitary sewer - Submitted to Region of Ottawa/Carlton

10. PROJECT SCHEDULE

Estimated Date for Start of Construction	Estimated Date for Start of Operation
immediately following issue of Approval	immediately following construction

11. FEE ESTIMATE – The "cost" to used to estimate the fee includes all equipment and construction costs but does not include costs for land, engineering services and costs of facilities for which the permit or approval is applied for under other Sections of the EPA or the OWRA for which appropriate fees have or will be paid. The fee shall not be less than $50.00 or more than $100,000.00. (For more information refer to the Guide)

(1) The fee payable upon submission of an application under Section 27 or the EPA where the application relates to a waste disposal site other than a landfilling site is:

(a) 2% of the cost of the equipment and construction related to the application, less

(b) an amount equal to the proportion of the waste that is received at the site and will leave the site for recycling or reuse to the total amount of waste received at the site, calculated by weight or by volume, multiplied by the amount referred to in clause (a).

(c) where additional approvals are required under other Sections of the Act, separate fees are also required.

(2) For the purpose of clause 1 (a), recycled or reused waste does not include waste intended to be used as a dust suppressant or as a fuel or intended to be disposed of at a landfilling site or incinerator.

(3) The fee payable upon application under Section 27 of the EPA where the application relates to a landfilling site is 4 cents per cubic metre of the capacity of the landfilling site.

Estimated Fee ($50.00 minimum, $100,000.00 maximum) $ 50.00 Cheque or Money Order Attached [X] Yes [ ] No

When an application is submitted to the Ministry for review the fee must be in the form of a certified cheque or money order payable to "The Minister of Finance".

DO NOT SEND CASH

12. SUPPORTING INFORMATION CHECKLIST – This is a list of all supporting information attached to this application and is subject to the FOIPOPA and EBR.

INFORMATION	ATTACHED?	REFERENCE	CAN BE DISCLOSED
GENERAL			
Verification of Legal Name of Applicant	[X] Yes [ ] No		[X] Yes
Copy of NEPDA	[ ] Yes [ ] No	n/a	[ ] Yes
Verification of EBR Public Notification Exemption	[X] Yes [ ] No		[X] Yes
Proof of Public Notification Consultation	[ ] Yes [X] No		[ ] Yes
TECHNICAL			
Site Plan	[X] Yes [ ] No		[X] Yes
Hydrogeological Assessment	[X] Yes [ ] No		[X] Yes
Design and Operations Report	[X] Yes [ ] No		[X] Yes
Drainage Study	[X] Yes [ ] No		[X] Yes
Financial Assurance	[X] Yes [ ] No		[X] Yes
OTHER ATTACHED INFORMATION			[ ] Yes [ ] No
Air C of A Application			[X] Yes [ ] No
			[ ] Yes [ ] No
			[ ] Yes [ ] No

13. STATEMENT OF APPLICANT

I, the undersigned hereby declare that , to the best of my knowledge, the information contained herein and the information submitted in support of this application is complete and accurate in every way and that the Contact for Technical and Design Information identified in item 2 of this form is/are authorized to act on my behalf for the purpose of obtaining approval under Section 27 of the EPA for the waste disposal site identified herein.

Name	Title
Mr. R. B. Wallace, Coca Cola Beverages Ltd.	Director Environmental Operations
Signature	**Date**
original has been signed by applicant	February 22, 1995

Ontario

1-613/549-4000 1-800/267-0974 Fax: 613/548-6908

Ministry of Environment and Energy

Ministère de l'Environnement et de l'Énergie

133 Dalton Avenue
P O Box 820
Kingston ON K7L 4X8

133 avenue Dalton
C P 820
Kingston ON K7L 4X8

7 February 1995

Arcturus
29 Camelot Drive, Unit 500
NEPEAN, Ontario
K2G 5W6

Attention: Mike Grinnell

Dear Mr. Grinnell:

Re: Approval to Take Water Under Section 34 of the Ontario Water Resources Act as Requested by the Application for a Permit to Take Water dated February 3, 1995

Purpose :	Groundwater Remediation
Applicant:	Coca Cola Bottling Limited
Location :	500 Coventry Road, City of Ottawa
No. Wells:	Three (3)
Test date:	February 27, 1995 - May 30, 1995
Max. Rate:	34 Litres per minute (49,080 Litres per day) from each of the three wells
Discharge Location:	Sanitary sewers in the Regional Municipality of Ottawa-Carleton
Duration :	28 Days

This letter constitutes approval to take water under Section 34 of the Ontario Water Resources Act. Pursuant to Section 101 of the Ontario Water Resources Act, you are hereby notified that this approval is subject to the following conditions:

1) The pumping rate and period of pumping must not result in the exceedence of the total water withdrawal requested without the further written approval of the Director under the Ontario Water Resources Act (hereafter referred to as "the Director").

2) All supply wells within 300 metres of the recovery wells shall be located and monitored for water quality and static water levels prior to pumping. Water level drawdown during pumping and recovery after pumping shall also be monitored. Water level monitoring during the pumping test must follow standard pumping test protocols.

The well owners must be contacted and written permission obtained to access their well at least 10 days prior to the pumping. If the owner agrees, water level and quality sampling shall be carried out. The accessibility of the well remains the responsibility of the owner. If the owner does not agree to the testing, the owner's refusal must be recorded by the Applicant.

3) If there are no wells within 300 metres of the recovery wells then the groundwater quality must be assessed prior to the taking of water.

4) All well supply water and discharge problems associated with the testing must be reported to the Director expeditiously.

5) If the taking of water is forecast to interfere seriously, or is observed to interfere seriously with other water supplies obtained from any adequate sources that were in use prior to initial issuance of the approval for this water taking, the Applicant shall take such action as will make available to those affected a supply of water equivalent in quantity and quality to their normal takings, or shall compensate such persons for their reasonable costs of so doing, or shall reduce the rate and amount of taking so as to prevent the forecast interference or alleviate the observed interference. Pending permanent restoration of the affected supplies, the Applicant shall provide, to those affected, temporary water supplies adequate to meet their normal requirements, or shall compensate such persons for their reasonable costs of doing so. A contingency plan for alternate water supplies shall be developed prior to commencing the pumping test.

6) All water taken as authorized by this approval must be discharged to sanitary sewers as authorized by the Regional Municipality of Ottawa-Carleton.

7) A written report of this water taking must be submitted to the Director, within 60 days of completion of the testing.

8) The Director must be advised in writing of any intent to abandon the recovery wells.

9) If the recovery wells are abandoned or not used for any extended period of time, they shall be properly sealed to prevent any further groundwater contamination.

10) This Approval shall be kept available for inspection at all times during the water taking.

The water taking shall be carried out under these general conditions. The reason for the imposition of these conditions is to ensure that the water quality and quantity of all surface water, groundwater and water supplies in the area of the testing are protected.

This approval is for the temporary taking only (28 days). If the wells are put into service for an extended period of time, a Permit to Take Water will be required if the taking is in excess of 50,000 litres per day.

This approval does not release you from any legal liability or obligation and remains in force subject to all limitations, requirements and liabilities imposed by law. It shall not be construed as estopping or limiting any legal claims or rights of action that any person, including the Crown in Right of Ontario or any agency thereof, has or may have against you, your officers, employees, agents and your contractors.

You may, by written notice served upon me and the Environmental Appeal Board within 15 days after receipt of this approval, require a hearing by the Board. Section 101 of the Ontario Water Resources Act, R.S.O. 1990, C. 0.40, as amended, provides that the Notice requiring the hearing shall state:

1) The portion of each Term or Condition in the approval in respect of which the hearing is required, and;

2) The grounds on which you intend to rely at the hearing in relation to each portion appealed.

In addition to these statutory requirements, the Notice should include:

3) The name of the appellant;
4) The address of the appellant;
5) The date of the Approval;
6) The name of the Director;
7) The municipality within which the taking is located;

and the Notice should be signed and dated by the appellant.

This Notice should be served upon:

The Secretary
Environmental Appeal Board
112 St. Clair Ave. West
5th Floor
Toronto, Ontario
M4V 1N3

The Director
Section 34, O.W.R.A.
Ministry of Environment and Energy
133 Dalton Avenue, Box 820
Kingston, Ontario
K7L 4X6

If you have any questions concerning the approval or wish to request an amendment or an extension please contact Penny Sutcliffe at this office.

Yours truly,

L.W. Fitz, Director
Section 34, R.S.O. 1990
Ontario Water Resources Act
Ministry of Environment and Energy
PLS/sh

Regional Municipality of Ottawa-Carleton
800 Green Creek Drive
Gloucester, Ontario
K1J 1A6
Environmental Services Department
Water Environment Protection Division
Tel. (613) 745-7165
Fax. (613) 745-9197

Municipalité régionale d'Ottawa-Carleton
Services environnementaux
Division de la protection du milieu aquatique
800 prom. Green Creek
Services environnementaux
Division de la protection du milieu aquatique
Tél. (613) 745-7165
Télécopieur (613) 745-9197

22 February 1995
File: 31 40-94-0075-CC

Mr. Daniel Garand
Arcturus Environmental Limited
29 Camelot Drive, Unit 500
Nepean, Ontario
K2G 5W6

Dear Sir:

Re: Discharge of Treated Ground Water to the Sanitary Sewer
Coca Cola Bottling Limited - 500 Coventry Rd., City of Ottawa

The Regional Municipality of Ottawa-Carleton has performed a technical review on the information provided in your request to discharge. Permission is granted to discharge GAC treated ground water to the sanitary sewer on Coventry Road, in the City of Ottawa, provided the following conditions are satisfied:

a) The discharge components do not change significantly from what was reported in the lab analysis. These components should not exceed the limits established in the Regional Regulatory Code, Part 5.2, or any subsequent amendments.

b) The volume of discharge does not exceed 50, 000 litres per day.

c) The flow rate of the discharge does not exceed 34.7 litres per minute.

d) A weekly lab analysis be conducted on the discharge for Total Petroleum Hydrocarbons and Benzene, Ethylbenzene, Toluene, m/p-Xylene and o-Xylene. The results are to be submitted to the Region.

e) A weekly summary of the daily discharge volume be submitted to the Region.

f) The discharge is to a sewer clean-out located on the property of Coca Cola Bottling Limited, 500 Coventry Road, City of Ottawa.

g) The permission to discharge will extend to May 30, 1995.

The Region may conduct random checks on this discharge and take samples of the ground water for compliance purposes. The Sanitary Sewer Agreement regarding discharges that exceed 50, 000 litres per day will be forwarded to you shortly.

If you have any concerns or questions regarding the above, please contact me at 560-6086, extension 3219.

Sincerely,

James Arnott
Industrial Waste Inspector
Industrial Waste Section
Wastewater Collection Branch

JA:cb

c:\word\arnott\cokeperm.let

ARCTURUS

7900 Canadian Drive
Niagara Falls, Ontario, L2E 6S5
Telephone (905)357-6424
Facsimile (905)357-6447

Project No.: E 164.1
Section: 1
Date: March 14, 1996
Employee No.:

0.05 19.00

PLEASE FORWARD THE FOLLOWING PAGE(S) TO:

Name: Mr. G. Montcalm
Company: MEE - Ottawa District
Voice Phone No.:
Facsimile Phone No.: 613 521 5437

FACSIMILE SENT FROM:

Name: Mr. A. Maddalena
Number of pages including cover: 4
Hard Copy to follow: ☐ Yes ☒ No
Date Sent: Time Sent: Operator:

MESSAGE/COMMENTS:

MAR 14 '96 03:28PM ARCTURUS ENVIRONMENT 416 3576447 P.1

ARCTURUS ENVIRONMENTAL

March 14, 1996
E769.7

Ministry of the Environment and Energy
250 Davisville Avenue
Toronto, Ontario
M4S 1H2

Attention: Mr. Steven Challoner, P.Eng.
Reviewing Engineer - Approvals Branch

Re: **Monitoring Results**
Biofilter Treatment System
Coca-Cola Distribution Plant,
500 Coventry Road, Ottawa, Ontario

Dear Mr. Challoner,

As required by the June 1994 Certificate of Approval (Air) NO. 8-4089-95-006 for this site, we are reporting the necessary Schedule "A" and Schedule "B" measurements. These measurements include:

- total hydrocarbon concentration (VOC) at inlet and outlet of vapour stream
- pressure drop across filter bed for each biofilter
- temperature of filter bed for each biofilter
- moisture content of filter bed for each biofilter
- pH of filter bed for each biofilter.

As the system was operational, monitoring of discharge vapour concentrations was implemented using the FID (Flame Ionization Detection), Model EM-7000 Total Hydrocarbon Analyzer. The system was in operation for a six week period in July and August of 1995. A fire in the Vapour Extraction System shed resulted in the temporary suspension of VES operations and emissions from this system. We expect to have the VES system operational in the summer of 1996 and monitoring will resume at that time.

All FID monitoring was performed in accordance with EPA Method 25A, as specified in the site Certificate of Approval (Air). Vapour concentrations entering the biofilters were sampled between the blower outlet and the humidifier tank. Weekly FID readings are presented in Table 1.

7900 Canadian Drive, Niagara Falls, Ontario L2E 6S5 (905) 357-6424 Fax (905) 357-6447

MAR 14 '96 03:28PM ARCTURUS ENVIRONMENT 416 3576447 P.2

Table 1 Total VOC Data - all measurements are shown in ppm Hexane

Monitoring Date	Total VOC for Influent Vapour Stream (ppm)	Total VOC for Emission Vapour Stream (ppm)	Efficiency Percentage %
July 19, 1995	439	292	67
August 3, 1995	32	17	54
August 9, 1995	80	45	57
August 17, 1995	<10	<10	NA
August 29, 1995	<10	<10	NA

Those measurements required for each biofilter are shown in Table 2. Data was collected for the month of August 1995.

Table 2 Biofilter Parameters

Monitoring Interval	Biofilter	Pressure Drop (in of H_2O)	Temperature (°C)	pH	Moisture (%)
August 1995	1	4.95	37	6.1	48.4
August 1995	2	4.10	28	6.3	58

Should you require any additional information not detailed in this report, please do not hesitate to call.

Sincerely,

Mr. A. L. Maddalena, M.Sc.
Remediation Manager

RS:hll
Attachment

c.c. Mr. R. B. Wallace, Coca-Cola Beverages Ltd.
Mr. G. Montcalm, Ministry of Energy and Environment - Ottawa District

Ontario

0.05.01.ARC-02

Ministry of Environment and Energy

Ministère de l'Environnement et de l'Énergie

250 Davisville Avenue
Toronto ON M4S 1H2

250, avenue Davisville
Toronto ON M4S 1H2

MINISTRY OF ENVIRONMENT

MAY 01 1995

OTTAWA

DISTRICT OFFICER

Should Regional response not be received within two (2) weeks from the date of the attached acknowledgement letter, the application will be processed and a Director's decision rendered without Regional input.

APPROVALS BRANCH
3RD FLOOR
Tel: (416) 440-3718
Fax: (416) 440-6973

25 Apr 1995

A.L. Maddalena, M.Sc.
Remediation Manager
ARCTURUS ENVIRONMENTAL LIMITED
7900 Canadian Drive
Niagara Falls, Ontario
L2E 6S5

Dear Sirs:

We acknowledge receipt of your application for approval and fee in the amount of $600.00, on 04/20/95, for the following:

Industrial Air
500 COVENTRY ROAD (8-4050-95)
ON-SITE SOIL BIOREMEDIATION/VAP.EXTRACT.

The Ministry's reference number for your application is 8-4089-95. Please quote this number in any correspondence or enquiries regarding this application.

Applications are handled in chronological order as they are received. Your application will be processed as early as possible. Please refer to the attachment as to the anticipated completion date. Should any further information be required, you will be contacted.

A duplicate copy of your submission should also have been forwarded to your local District Office. If this has not been done, please do so as soon as possible.

Please call me at the number above should you require any further information.

Sincerely

Brad Ross
Information Officer

cc: District Manager
Ottawa District Office

24 10887

Ministry of Environment and Energy / Ministère de l'Environnement et de l'Énergie
Ontario

Acknowledgement Summary (Air)
Accusé de réception – Demande d'autorisation (Air)

Name of applicant / Nom du demandeur	Application number / Demande n°	Subject to EBR public participation requirements / Demande assujettie à la Charte des droits environnementaux en matière de participation du public
ARCTURUS ENVIRONMENTAL	8 4089 95	☐ No/Non ☑ Yes/Oui

Your application has been screened for completeness and we have determined that : / Une vérification sommaire de votre envoi révèle que :

1. ☑ **The application appears to be complete. / Votre demande semble être complète.**

2. ☐ **The application is missing the following noted ☑ information: / Vous avez omis d'inclure les renseignements ☑ suivants :**

A. General Information / Renseignements généraux — Comments attached/ Précisions ci-jointes ✓

(i)	Application form / Formulaire de demande	
(ii)	Approval fee / Droits à payer	
(iii)	Proof of legal name / Attestation de la raison sociale	
(iv)	Signature / Date / Signature et date	

B. Detailed Description of Proposal / Description détaillée du projet

(i)	Data sheets / equipment specifications/ Fiches techniques et spécifications du matériel	
(ii)	Emission information / emission table / Données et tableau sur les rejets atmosphériques	
(iii)	Mechanical / accoustical specifications for equipment / Caractéristiques mécaniques et acoustiques du matériel	
(iv)	Process flow diagram / Schéma de procédé	
(v)	Proposed noise and vibration control measures / Mesures prévues pour atténuer le bruit et les vibrations	
(vi)	Site, plot, roof and elevation plans / Plans du lieu, de la parcelle de terrain, du toit, de l'inclinaison	
(vii)	Land use zoning designation plan / Plan de zonage	
(viii)	Operating Schedule / Horaire d'exploitation	
(ix)	Distance to nearest off-site receptor / Distance jusqu' à zone réceptrice la plus proche	
(x)	Other / Autre	

C. EBR Requirements / Exigences de la Charte

(i)	Information to substantiate the exception / Renseignements à l'appui de l'exemption des exigences de la Charte	
(ii)	Although you have indicated that the proposal is not subject to the EBR, our review indicates that it is/ Vous avez indiqué que le projet est exempté des exigences de la Charte, mais notre vérification révèle que l'exemption ne s'applique pas	
(iii)	We have reviewed the supporting information and your request for an exception to the EBR requirements has been denied / Après examen des renseignements fournis, nous avons déterminé que votre projet ne peut pas être exempté des exigences de la Charte	
(iv)	Because of C(i i) and/or C(i i i) the application form is being returned so that you may modify or amend sections 6, 7 and/or 12 / Pour les raisons évoquées en C(i i) ou en C(i i i), nous vous retournons la demande pour que vous puissiez modifier les sections 6, 7 et 12	

Additional information may be required as a result of the detailed technical review. Please ensure that you indicate whether or not any of the additional information is considered as propriety./ L'examen des données techniques permettra d'établir si d'autres renseignements sont nécessaires. Veuillez nous indiquer si les reseignements supplémentaires fournis doivent rester confidentiels.

3. ☐ **The file containing your application has been closed and your application is being returned because of the above. If you wish to reapply in the future, please ensure that all required information is provided. / Pour les raisons évoquées ci-dessus, votre demande a été refusée. Si vous désirez présenter une nouvelle demande, assurez-vous de fournir tous les renseignements requis.**

Copy of Acknowledgement Summary To: / Une copie du présent accusé de réception a été transmise à :

_____ Fax / Télécopieur ( )

_____ Fax / Télécopieur ( )

Name of Review Engineer (Air)/ Nom de l'ingénieur(e) chargé(e) des autorisations (air)	Telephone/ Téléphone	Fax / Télécopieur
S J Challener	(416) 440- 7002	(416) 440-6973
Name of Review Engineer (Noise)/ Nom de l'ingénieur(e) chargé(e) des autorisations (bruit)	**Telephone/ Téléphone**	**Fax / Télécopieur**
	(416) 440-	(416) 440-6973

Please forward your inquiries or responses to the appropriate engineer as indicated above. / Veuillez faire parvenir les renseignements supplémentaires demandés à l'un ou l'autre des ingénieurs ci-dessus, selon le cas.

1308 (01/95) P 000310

KEYS: Ctrl/W Save changes and exit

TYPE:8 NUMBER:4089 YEAR:95 STATUS: 111

PROPONENT :ARCTURUS ENVIRONMENTAL LIMITED
LOCATION : 500 COVENTRY ROAD (8-4050-95)
MUNICIPALITY: OTTAWA CITY MUNICIPALITY CODE: 04460102

WORK DESCRIPTION: ON-SITE SOIL BIOREMEDIATION/VAP.EXTRACT.

COST $000: 30 REVIEW ENGINEER: SJ
SIC CODE : SUB. SIC CODE :

CONTAMINANT CODE:
CONTROL CODE :

IN DATE : 04/20/95 OUT DATE : / / CLERK : PRIORITY :

Ministry of Environment and Energy
Ontario

0-05.17.500.01

Approvals Record for Emission Inventory Update

☒ Region ☐ District

Company Name: Arcturus Environmental Ltd	Source Location: 500 Coventry Road, Ottawa
Contact: Dr. A.W. Penko - President	Telephone Number: (905) 357-6424
Nature of Business: Site remediation	

Type of Equipment for Approval	New	Modification	General Description
Combustion	☐	☐	install two (2) vapour phase biofilters to control hydrocarbon emissions from a bioremediation cell to clean contaminated soils
Process	☒	☐	
Incineration	☐	☐	

Equipment: Production ☐ or Feed ☐	Rate: Quantity/~~hour~~ 6000 tonne	Quantity/year
Specify kind of: Product ☐ or Feed ☒ gasoline contaminated soil		
Control Equipment: bio filters	Estimated Efficiency: 75%	

Part A Preliminary Assessment – Regional Office

Application Attached: ☐ Yes ☐ No	Type of Application: ☐ Simple (Complete Part B) ☐ Complex (Forward to Approvals Br.)	Significant Pollutants (g/s): ☐ SO_2 ☐ Part ☒ HC ☐ CO ☐ NO_X ☐ Other Benzene 0.0093 g/s Toluene 0.0842 g/s Xylene 0.236 g/s
Form Initiated by	Date	

Part B Approvals Branch

Application No.: 8-4089-95	Anticipated Completion Date
Application Confirmation: ☒ Approved ☐ Cancelled ☐ Denied — Conditional	
Comments	
Approved by: D.J. Challoner	Date: 95/06/22

Part C Air Resources Branch

New Source Logged	Date
Update Requested	Date
Date Completed	

Part D Installation Check – District Office

☐ Satisfactory ☐ Not operational ☐ Unsatisfactory

Comments	
Inspected by	Date

1149 (07/93)

AIR RESOURCES BRANCH

Arcturus Environmental Limited
7900 Canadian Drive
Niagara Falls, Ontario
L2E 6S5

Located at: 500 Coventry Road
Ottawa, Ontario

You have applied in accordance with Section 9 of the Environmental Protection Act for approval of:

two (2) vapour phase biofiltration units, each containing 20 cubic metres of mixed organic media, for the treatment of petroleum hydrocarbon vapours from a bioremediation cell containing a maximum of 6,000 tonnes of contaminated soil. The biofiltration units exhaust to the atmosphere at a combined maximum volumetric flow rate of 0.28 cubic metre per second, through a stack with an exit diameter of 0.12 metre, at a height of 2.5 metres above grade;

all in accordance with the Application for a Certificate of Approval (Air) and supporting information submitted by Arcturus Environmental Limited, dated February 22, 1995, signed by A.W. Panko, and additional information submitted by Arcturus Environmental Limited, dated April 11, 1995 and April 13, 1995, signed by A.L. Maddalena.

You are hereby notified that this approval is issued to you subject to the terms and conditions outlined below:

TERMS AND CONDITIONS

1. For the purpose of this Certificate of Approval:

   A. "Act" means the *Environmental Protection Act*;

   B. "Certificate" means this Certificate of Approval, including Schedule "A" and Schedule "B", issued in accordance with Section 9 of the Act;

   C. "Company" means Arcturus Environmental Limited;

   D. "Equipment" means two (2) vapour phase biofiltration units described in the Company's application, this Certificate and in the supporting documentation referred to herein, to the extent approved by this Certificate;

   E. "Ministry" means the Ontario Ministry of Environment and Energy.

MONITORING

2. The Company shall measure and record the total hydrocarbon concentration at the inlet to the Equipment and the outlet of the Equipment, in accordance with the methods and at the intervals set out in Schedule "A".

3. The Company shall measure and record the biofiltration unit maintenance parameters set out in Schedule "B", for each of the two (2) biofiltration units, at a minimum frequency of once per month.

RECORD RETENTION

4. The Company shall retain, for a minimum of two (2) years from the date of their creation, all records and information related to or resulting from the monitoring and recording activities required by this Certificate. These records shall be made available to staff of the Ministry upon request. The Company shall retain, as a minimum:

   F. all records generated from the monitoring requirements set out in Condition Nos. 2. and 3., including all calibration and maintenance records associated with the methods set out in Schedule "A"; and

   G. a tabulation and description of any maintenance operations or any bypass or upset conditions associated with the operation of the Equipment.

The reasons for the imposition of these terms and conditions are as follows:

1. Condition No. 1. is included to define the special terms that are used throughout the Certificate.

2. Condition Nos. 2. and 3. are included to require the Company to operate the Equipment in a manner which will minimize emissions to the environment and to gather information on the operation of the Equipment so that the environmental impact may be verified.

3. Condition No. 4. is included to require the Company to retain records and provide information to the Ministry so that the environmental impact and subsequent compliance with the Act, the regulations and this Certificate may be verified.

In accordance with Section 139 of the Environmental Protection Act, R.S.O. 1990, Chapter E-19, as amended, you may by written notice served upon me and the Environmental Appeal Board within 15 days after receipt of this Notice, require a hearing by the Board. Section 142 of the Environmental Protection Act, provides that the Notice requiring the hearing shall state:

1. The portions of the approval or each term or condition in the approval in respect of which the hearing is required, and;
2. The grounds on which you intend to rely at the hearing in relation to each portion appealed.

The Notice should also include:

3. The name of the appellant;
4. The address of the appellant;
5. The Certificate of Approval number;
6. The date of the Certificate of Approval;
7. The name of the Director;
8. The municipality within which the works are located;

And the Notice should be signed and dated by the appellant.

This Notice must be served upon:

The Secretary,
Environmental Appeal Board,
112 St. Clair Avenue West,
Suite 502,
Toronto, Ontario.
M4V 1N3

AND

The Director,
Section 9, *Environmental Protection Act*,
Ministry of Environment and Energy,
250 Davisville Avenue, 3rd Floor,
Toronto, Ontario.
M4S 1H2

The above noted works are approved under Section 9 of the Environmental Protection Act.

DATED AT TORONTO this 26th *day of* June, 1995.

THIS IS A TRUE COPY OF
THE ORIGINAL CERTIFICATE
SIGNED BY
P. DEANGELIS, P. ENG.

MAILED ON June 27, 1995

BY VC

SC/vc

cc:District Manager, MOEE Ottawa District Office
Mr. A. Maddalena, Project Manager

SCHEDULE "A"

This Schedule "A" forms part of Certificate of Approval (Air) Number 8-4089-95-006.

MONITORING INTERVALS

1. Once per week for the first three (3) months of Equipment operation;

2. Once per month for the following nine (9) months of Equipment operation;

3. Once every three (3) months thereafter to completion of the Equipment operation.

MONITORING METHODS

Total Hydrocarbon Concentration:

Measured in accordance with EPA Stationary Source Sampling Methods Method 25A or Method 25B.

SCHEDULE "B"

This Schedule "B" forms part of Certificate of Approval (Air) Number 8-4089-95-006.

BIOFILTRATION UNIT MAINTENANCE PARAMETERS

Parameter

pressure drop across filter bed

temperature of filter bed

moisture content of filter bed media

pH of filter bed media

METHOD 25A—DETERMINATION OF TOTAL GASEOUS ORGANIC CONCENTRATION USING A FLAME IONIZATION ANALYZER

1. *Applicability and Principle.*

1.1 *Applicability.* This method applies to the measurement of total gaseous organic concentration of vapors consisting primarily of alkanes, alkenes, and/or arenes (aromatic hydrocarbons). The concentration is expressed in terms of propane (or other appropriate organic calibration gas) or in terms of carbon.

1.2 *Principle.* A gas sample is extracted from the source through a heated sample line, if necessary, and glass fiber filter to a flame ionization analyzer (FIA). Results are reported as volume concentration equivalents of the calibration gas or as carbon equivalents.

2. *Definitions.*

2.1 *Measurement System.* The total equipment required for the determination of the gas concentration. The system consists of the following major subsystems:

2.1.1 *Sample Interface.* That portion of the system that is used for one or more of the following: sample acquisition, sample transportation, sample conditioning, or protection of the analyzer from the effects of the stack effluent.

2.1.2 *Organic Analyzer.* That portion of the system that senses organic concentration and generates an output proportional to the gas concentration.

2.2 *Span Value.* The upper limit of a gas concentration measurement range that is specified for affected source categories in the applicable part of the regulations. The span value is established in the applicable regulation and is usually 1.5 to 2.5 times the applicable emission limit. If no span value is provided, use a span value equivalent to 1.5 to 2.5 times the expected concentration. For convenience, the span value should correspond to 100 percent of the recorder scale.

2.3 *Calibration Gas.* A known concentration of a gas in an appropriate diluent gas.

2.4 *Zero Drift.* The difference in the measurement system response to a zero level calibration gas before and after a stated period of operation during which no unscheduled maintenance, repair, or adjustment took place.

2.5 *Calibration Drift.* The difference in the measurement system response to a mid-level calibration gas before and after a stated period of operation during which no unscheduled maintenance, repair or adjustment took place.

2.6 *Response Time.* The time interval from a step change in pollutant concentration at the inlet to the emission measurement system to the time at which 95 percent of the corresponding final value is reached as displayed on the recorder.

2.7 *Calibration Error.* The difference between the gas concentration indicated by the measurement system and the known concentration of the calibration gas.

3. *Apparatus.*

A schematic of an acceptable measurement system is shown in Figure 25A-1. The essential components of the measurement system are described below:

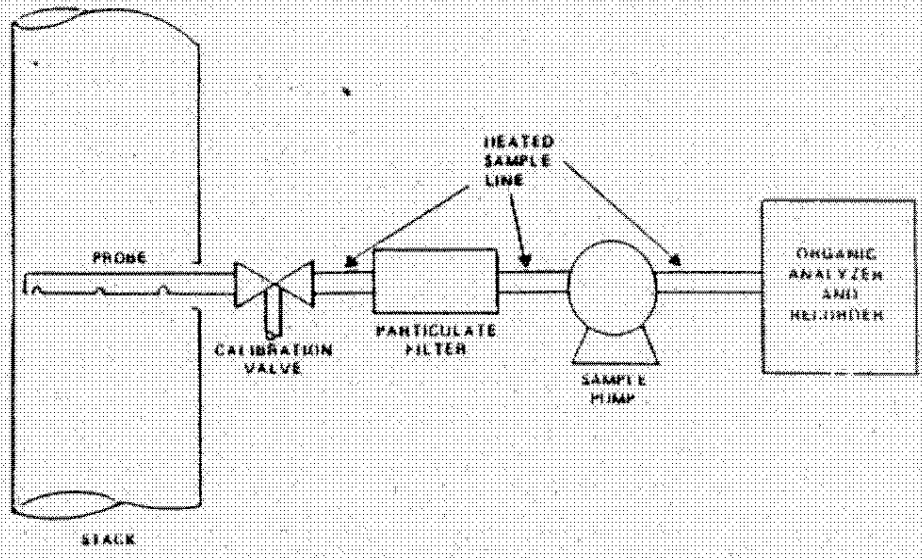


Figure 25A-1. Organic Concentration Measurement System.

3.1 *Organic Concentration Analyzer.* A flame ionization analyzer (FIA) capable of meeting or exceeding the specifications in this method.

3.2 *Sample Probe.* Stainless steel, or equivalent, three-hole rake type. Sample holes shall be 4 mm in diameter or smaller and located at 16.7, 50, and 83.3 percent of the equivalent stack diameter. Alternatively, a single opening probe may be used so that a gas sample is collected from the centrally located 10 percent area of the stack cross-section.

3.3 *Sample Line.* Stainless steel or Teflon* tubing to transport the sample gas to the analyzers. The sample line should be heated, if necessary, to prevent condensation in the line.

3.4 *Calibration Valve Assembly.* A three-way valve assembly to direct the zero and calibration gases to the analyzers is recommended. Other methods, such as quick-connect lines, to route calibration gas to the analyzers are applicable.

3.5 *Particulate Filter.* An in-stack or an out-of-stack glass fiber filter is recommended if exhaust gas particulate loading is significant. An out-of-stack filter should be heated to prevent any condensation.

3.6 *Recorder.* A strip-chart recorder, analog computer, or digital recorder for recording measurement data. The minimum data recording requirement is one measurement value per minute. *Note:* This method is often applied in highly explosive areas. Caution and care should be exercised in choice of equipment and installation.

4. *Calibration and Other Gases.*

Gases used for calibrations, fuel, and combustion air (if required) are contained in compressed gas cylinders. Preparation of calibration gases shall be done according to the procedure in Protocol No. 1, listed in Citation 2 of Bibliography. Additionally, the manufacturer of the cylinder should provide a recommended shelf life for each calibration gas cylinder over which the concentration does not change more than ±2 percent from the certified value. For calibration gas values not generally available (i.e., organics between 1 and 10 percent by volume), alternative methods for preparing calibration gas mixtures, such as dilution systems, may be used with prior approval of the Administrator.

Calibration gases usually consist of propane in air or nitrogen and are determined in terms of the span value. Organic compounds other than propane can be used following the above guidelines and making the appropriate corrections for response factor.

4.1 *Fuel.* A 40 percent H_2/60 percent He or 40 percent H_2/60 percent N_2 gas mixture is recommended to avoid an oxygen synergism effect that reportedly occurs when oxygen concentration varies significantly from a mean value.

4.2 *Zero Gas.* High purity air with less than 0.1 parts per million by volume (ppmv) of organic material (propane or carbon equivalent) or less than 0.1 percent of the span value, whichever is greater.

4.3 *Low-level Calibration Gas.* An organic calibration gas with a concentration equivalent to 25 to 35 percent of the applicable span value.

4.4 *Mid-level Calibration Gas.* An organic calibration gas with a concentration equivalent to 45 to 55 percent of the applicable span value.

4.5 *High-level Calibration Gas.* An organic calibration gas with a concentration equivalent to 80 to 90 percent of the applicable span value.

5. *Measurement System Performance Specifications.*

5.1 *Zero Drift.* Less than ±3 percent of the span value.

5.2 *Calibration Drift.* Less than ±3 percent of span value.

5.3 *Calibration Error.* Less than ±5 percent of the calibration gas value.

6. *Pretest Preparations.*

6.1 *Selection of Sampling Site.* The location of the sampling site is generally specified by the applicable regulation or purpose of the test, i.e., exhaust stack, inlet line, etc. The sample port shall be located at least 1.5 meters or 2 equivalent diameters (whichever is less) upstream of the gas discharge to the atmosphere.

6.2 *Location of Sample Probe.* Install the sample probe so that the probe is centrally located in the stack, pipe, or duct and is sealed tightly at the stack port connection.

6.3 *Measurement System Preparation.* Prior to the emission test, assemble the measurement system following the manufacturer's written instructions in preparing the sample interface and the organic analyzer. Make the system operable.

FIA equipment can be calibrated for almost any range of total organics concentrations. For high concentrations of organics (>1.0 percent by volume as propane) modifications to most commonly available analyzers are necessary. One accepted method of equipment modification is to decrease the size of the sample to the analyzer through the use of a smaller diameter sample capillary. Direct and continuous measurement of organic concentration is a necessary consideration when determining any modification design.

6.4 *Calibration Error Test.* Immediately prior to the test series, (within 2 hours of the start of the test) introduce zero gas and high-level calibration gas at the calibration valve assembly. Adjust the analyzer output to the appropriate levels, if necessary. Calculate the predicted response for the low-level and mid-level gases based on a linear response line between the zero and high-level responses. Then introduce low-level and mid-level calibration gases successively to the measurement system. Record the analyzer responses for low-level and mid-level calibration gases and determine the differences between the measurement system responses and the predicted responses. These differences must be less than 5 percent of the respective calibration gas value. If not, the measurement system is not acceptable and must be replaced or repaired prior to testing. No adjustments to the measurement system shall be conducted after the calibration and before the drift check (Section 7.3). If adjustments are necessary before the completion of the test series, perform the drift checks prior to the required adjustments and repeat the calibration following the adjustments. If multiple electronic ranges are to be used, each additional range must be checked with a mid-level calibration gas to verify the multiplication factor.

6.5 *Response Time Test.* Introduce zero gas into the measurement system at the calibration valve assembly. When the system output has stabilized, switch quickly to the high-level calibration gas. Record the time from the concentration change to the measurement system response equivalent to 95 percent of the step change. Repeat the test three times and average the results.

7. *Emission Measurement Test.*

7.1 *Organic Measurement.* Begin sampling at the start of the test period, recording time and any required process information as appropriate. In particular, note on the recording chart periods of process interruption or cyclic operation.

7.2 *Drift Determination.* Immediately following the completion of the test period and hourly during the test period, reintroduce the zero and mid-level calibration gases, one at a time, to the measurement system at the calibration valve assembly. (Make no adjustments to the measurement system until after both the zero and calibration drift checks are made.) Record the analyzer response. If the drift values exceed the specified limits, invalidate the test results preceding the check and repeat the test following corrections to the measurement system. Alternatively, recalibrate the test measurement system as in Section 6.4 and report the results using both sets of calibration data (i.e., data determined prior to the test period and data determined following the test period).

8. *Organic Concentration Calculations.*

Determine the average organic concentration in terms of ppmv as propane or other calibration gas. The average shall be determined by the integration of the output recording over the period specified in the applicable regulation.

If results are required in terms of ppmv as carbon, adjust measured concentrations using Equation 25A-1.

$$C_c = K\,C_{meas}$$

Eq. 25A-1

Where:

C_c = Organic concentration as carbon, ppmv.

C_{meas} = Organic concentration as measured, ppmv.

K = Carbon equivalent correction factor.

K = 2 for ethane.

K = 3 for propane.

K = 4 for butane.

K = Appropriate response factor for other organic calibration gases.

9. *Bibliography.*

1. Measurement of Volatile Organic Compounds—Guideline Series. U.S. Environmental Protection Agency. Research Triangle Park, N.C. Publication No. EPA-450/2-78-041. June 1978. p. 46-54.

2. Traceability Protocol for Establishing True Concentrations of Gases Used for Calibration and Audits of Continuous Source Emission Monitors (Protocol No. 1). U.S. Environmental Protection Agency. Environmental Monitoring and Support Laboratory. Research Triangle Park, N.C. June 1978.

3. Gasoline Vapor Emission Laboratory Evaluation—Part 2. U.S. Environmental Protection Agency. Office of Air Quality Planning and Standards. Research Triangle Park, N.C. EMB Report No. 75-GAS-6. August 1975.

METHOD 25B—DETERMINATION OF TOTAL GASEOUS ORGANIC CONCENTRATION USING A NONDISPERSIVE INFRARED ANALYZER

1. *Applicability and Principle.*

1.1 Applicability. This method applies to the measurement of total gaseous organic concentration of vapors consisting primarily of alkanes. (Other organic materials may be measured using the general procedure in this method, the appropriate calibration gas, and an analyzer set to the appropriate absorption band.) The concentration is expressed in terms of propane (or other appropriate organic calibration gas) or in terms of carbon.

1.2 Principle. A gas sample is extracted from the source through a heated sample line, if necessary, and glass fiber filter to a nondispersive infrared analyzer (NDIR). Results are reported as volume concentration equivalents of the calibration gas or as carbon equivalents.

2. *Definitions.*

The terms and definitions are the same as for Method 25A.

3. *Apparatus.* The apparatus are the same as for Method 25A with the exception of the following:

3.1 Organic Concentration Analyzer. A nondispersive infrared analyzer designed to measure alkane organics and capable of meeting or exceeding the specifications in this method.

4. *Calibration Gases.*

The calibration gases are the same as are required for Method 25A, Section 4. No fuel gas is required for an NDIR.

5. *Measurement System Performance Specifications.*

5.1 Zero Drift. Less than ±3 percent of the span value.

5.2 Calibration Drift. Less than ±3 percent of the span value.

5.3 *Calibration Error.* Less than ±5 percent of the calibration gas valve.

6. *Pretest Preparations.*

6.1 Selection of Sampling Site. Same as in Method 25A, Section 6.1.

6.2 Location of Sampling Probe. Same as in Method 25A, Section 6.2.

6.3 Measurement System Preparation. Prior to the emission test, assemble the measurement system following the manufacturer's written instructions in preparing the sample interface and the organic analyzer. Make the system operable.

6.4 Calibration Error Test. Same as in Method 25A, Section 6.4.

6.5 Response Time Test Procedure. Same as in Method 25A, Section 6.4.

7. *Emission Measurement Test Procedure.*

Proceed with the emission measurement immediately upon satisfactory completion of the calibration.

7.1 Organic Measurement. Same as in Method 25A, Section 7.1.

7.2 Drift Determination. Same as in Method 25A, Section 7.2.

8. *Organic Concentration Calculations.*

The calculations are the same as in Method 25A, Section 8.

9. *Bibliography.*

The bibliography is the same as in Method 25A.

Ministry of Environment and Energy
Ministère de l'Environnement et de l'Énergie
Ontario

Ottawa

CERTIFICATE OF APPROVAL
A I R
NUMBER 8-4089-95-006

MINISTRY OF ENVIRONMENT
JUL 06 1995
OTTAWA

Arcturus Environmental Limited
7900 Canadian Drive
Niagara Falls, Ontario
L2E 6S5

0.05.01.500.02

Located at: 500 Coventry Road
Ottawa, Ontario

You have applied in accordance with Section 9 of the Environmental Protection Act for approval of:

two (2) vapour phase biofiltration units, each containing 20 cubic metres of mixed organic media, for the treatment of petroleum hydrocarbon vapours from a bioremediation cell containing a maximum of 6,000 tonnes of contaminated soil. The biofiltration units exhaust to the atmosphere at a combined maximum volumetric flow rate of 0.28 cubic metre per second, through a stack with an exit diameter of 0.12 metre, at a height of 2.5 metres above grade;

all in accordance with the Application for a Certificate of Approval (Air) and supporting information submitted by Arcturus Environmental Limited, dated February 22, 1995, signed by A.W. Panko, and additional information submitted by Arcturus Environmental Limited, dated April 11, 1995 and April 13, 1995, signed by A.L. Maddalena.

You are hereby notified that this approval is issued to you subject to the terms and conditions outlined below:

TERMS AND CONDITIONS

1. For the purpose of this Certificate of Approval:

   A. "Act" means the *Environmental Protection Act*;

   B. "Certificate" means this Certificate of Approval, including Schedule "A" and Schedule "B", issued in accordance with Section 9 of the Act;

   C. "Company" means Arcturus Environmental Limited;

   D. "Equipment" means two (2) vapour phase biofiltration units described in the Company's application, this Certificate and in the supporting documentation referred to herein, to the extent approved by this Certificate;

   E. "Ministry" means the Ontario Ministry of Environment and Energy.

MONITORING

2. The Company shall measure and record the total hydrocarbon concentration at the inlet to the Equipment and the outlet of the Equipment, in accordance with the methods and at the intervals set out in Schedule "A".

3. The Company shall measure and record the biofiltration unit maintenance parameters set out in Schedule "B", for each of the two (2) biofiltration units, at a minimum frequency of once per month.

RECORD RETENTION

4. The Company shall retain, for a minimum of two (2) years from the date of their creation, all records and information related to or resulting from the monitoring and recording activities required by this Certificate. These records shall be made available to staff of the Ministry upon request. The Company shall retain, as a minimum:

   F. all records generated from the monitoring requirements set out in Condition Nos. 2. and 3., including all calibration and maintenance records associated with the methods set out in Schedule "A"; and

   G. a tabulation and description of any maintenance operations or any bypass or upset conditions associated with the operation of the Equipment.

The reasons for the imposition of these terms and conditions are as follows:

1. Condition No. 1. is included to define the special terms that are used throughout the Certificate.

2. Condition Nos. 2. and 3. are included to require the Company to operate the Equipment in a manner which will minimize emissions to the environment and to gather information on the operation of the Equipment so that the environmental impact may be verified.

3. Condition No. 4. is included to require the Company to retain records and provide information to the Ministry so that the environmental impact and subsequent compliance with the Act, the regulations and this Certificate may be verified.

In accordance with Section 139 of the Environmental Protection Act, R.S.O. 1990, Chapter E-19, as amended, you may by written notice served upon me and the Environmental Appeal Board within 15 days after receipt of this Notice, require a hearing by the Board. Section 142 of the Environmental Protection Act, provides that the Notice requiring the hearing shall state:

1. The portions of the approval or each term or condition in the approval in respect of which the hearing is required, and;
2. The grounds on which you intend to rely at the hearing in relation to each portion appealed.

The Notice should also include:

3. The name of the appellant;
4. The address of the appellant;
5. The Certificate of Approval number;
6. The date of the Certificate of Approval;
7. The name of the Director;
8. The municipality within which the works are located;

And the Notice should be signed and dated by the appellant.

This Notice must be served upon:

The Secretary,
Environmental Appeal Board,
112 St. Clair Avenue West,
Suite 502,
Toronto, Ontario.
M4V 1N3

AND

The Director,
Section 9, *Environmental Protection Act*,
Ministry of Environment and Energy,
250 Davisville Avenue, 3rd Floor,
Toronto, Ontario.
M4S 1H2

The above noted works are approved under Section 9 of the Environmental Protection Act.

DATED AT TORONTO this 26th *day of* June, 1995.

THIS IS A TRUE COPY OF
THE ORIGINAL CERTIFICATE
SIGNED BY
P. DEANGELIS, P. ENG.

MAILED ON June 27, 1995

BY VC

SC/vc

cc:District Manager, MOEE Ottawa District Office
Mr. A. Maddalena, Project Manager

SCHEDULE "A"

This Schedule "A" forms part of Certificate of Approval (Air) Number 8-4089-95-006.

MONITORING INTERVALS

1. Once per week for the first three (3) months of Equipment operation;

2. Once per month for the following nine (9) months of Equipment operation;

3. Once every three (3) months thereafter to completion of the Equipment operation.

MONITORING METHODS

Total Hydrocarbon Concentration:

Measured in accordance with EPA Stationary Source Sampling Methods Method 25A or Method 25B.

SCHEDULE "B"

This Schedule "B" forms part of Certificate of Approval (Air) Number 8-4089-95-006.

BIOFILTRATION UNIT MAINTENANCE PARAMETERS

Parameter

pressure drop across filter bed

temperature of filter bed

moisture content of filter bed media

pH of filter bed media

METHOD 25A—DETERMINATION OF TOTAL GASEOUS ORGANIC CONCENTRATION USING A FLAME IONIZATION ANALYZER

1. *Applicability and Principle.*

1.1 *Applicability.* This method applies to the measurement of total gaseous organic concentration of vapors consisting primarily of alkanes, alkenes, and/or arenes (aromatic hydrocarbons). The concentration is expressed in terms of propane (or other appropriate organic calibration gas) or in terms of carbon.

1.2 *Principle.* A gas sample is extracted from the source through a heated sample line, if necessary, and glass fiber filter to a flame ionization analyzer (FIA). Results are reported as volume concentration equivalents of the calibration gas or as carbon equivalents.

2. *Definitions.*

2.1 *Measurement System.* The total equipment required for the determination of the gas concentration. The system consists of the following major subsystems:

2.1.1 *Sample Interface.* That portion of the system that is used for one or more of the following: sample acquisition, sample transportation, sample conditioning, or protection of the analyzer from the effects of the stack effluent.

2.1.2 *Organic Analyzer.* That portion of the system that senses organic concentration and generates an output proportional to the gas concentration.

2.2 *Span Value.* The upper limit of a gas concentration measurement range that is specified for affected source categories in the applicable part of the regulations. The span value is established in the applicable regulation and is usually 1.5 to 2.5 times the applicable emission limit. If no span value is provided, use a span value equivalent to 1.5 to 2.5 times the expected concentration. For convenience, the span value should correspond to 100 percent of the recorder scale.

2.3 *Calibration Gas.* A known concentration of a gas in an appropriate diluent gas.

2.4 *Zero Drift.* The difference in the measurement system response to a zero level calibration gas before and after a stated period of operation during which no unscheduled maintenance, repair, or adjustment took place.

2.5 *Calibration Drift.* The difference in the measurement system response to a mid-level calibration gas before and after a stated period of operation during which no unscheduled maintenance, repair or adjustment took place.

2.6 *Response Time.* The time interval from a step change in pollutant concentration at the inlet to the emission measurement system to the time at which 95 percent of the corresponding final value is reached as displayed on the recorder.

2.7 *Calibration Error.* The difference between the gas concentration indicated by the measurement system and the known concentration of the calibration gas.

3. *Apparatus.*

A schematic of an acceptable measurement system is shown in Figure 25A-1. The essential components of the measurement system are described below:

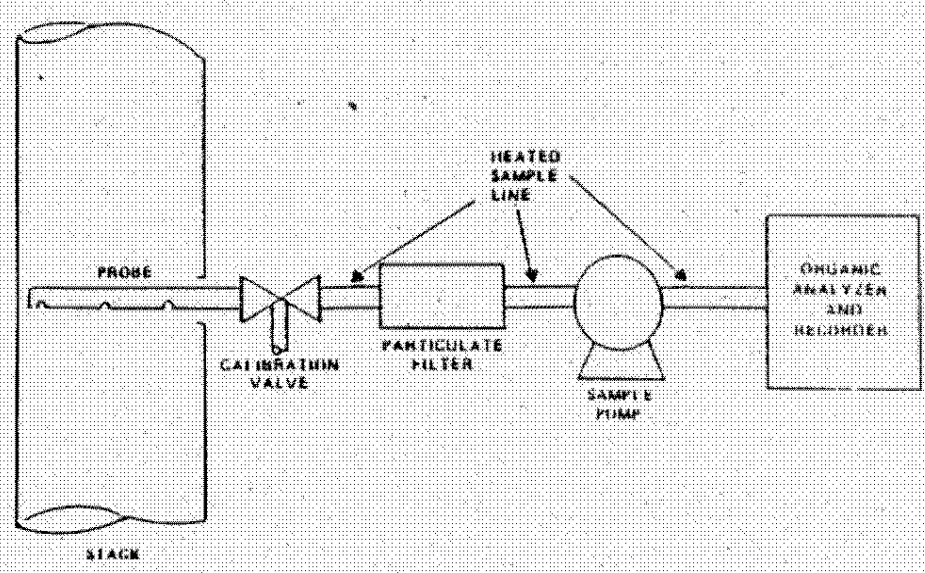


Figure 25A-1. Organic Concentration Measurement System.

3.1 *Organic Concentration Analyzer.* A flame ionization analyzer (FIA) capable of meeting or exceeding the specifications in this method.

3.2 *Sample Probe.* Stainless steel, or equivalent, three-hole rake type. Sample holes shall be 4 mm in diameter or smaller and located at 16.7, 50, and 83.3 percent of the equivalent stack diameter. Alternatively, a single opening probe may be used so that a gas sample is collected from the centrally located 10 percent area of the stack cross-section.

3.3 *Sample Line.* Stainless steel or Teflon* tubing to transport the sample gas to the analyzers. The sample line should be heated, if necessary, to prevent condensation in the line.

3.4 *Calibration Valve Assembly.* A three-way valve assembly to direct the zero and calibration gases to the analyzers is recommended. Other methods, such as quick-connect lines, to route calibration gas to the analyzers are applicable.

3.5 *Particulate Filter.* An in-stack or an out-of-stack glass fiber filter is recommended if exhaust gas particulate loading is significant. An out-of-stack filter should be heated to prevent any condensation.

3.6 *Recorder.* A strip-chart recorder, analog computer, or digital recorder for recording measurement data. The minimum data recording requirement is one measurement value per minute. Note: This method is often applied in highly explosive areas. Caution and care should be exercised in choice of equipment and installation.

4. *Calibration and Other Gases.*

Gases used for calibrations, fuel, and combustion air (if required) are contained in compressed gas cylinders. Preparation of calibration gases shall be done according to the procedure in Protocol No. 1, listed in Citation 2 of Bibliography. Additionally, the manufacturer of the cylinder should provide a recommended shelf life for each calibration gas cylinder over which the concentration does not change more than ±2 percent from the certified value. For calibration gas values not generally available (i.e., organics between 1 and 10 percent by volume), alternative methods for preparing calibration gas mixtures, such as dilution systems, may be used with prior approval of the Administrator.

Calibration gases usually consist of propane in air or nitrogen and are determined in terms of the span value. Organic compounds other than propane can be used following the above guidelines and making the appropriate corrections for response factor.

4.1 *Fuel.* A 40 percent H_2, 60 percent He or 40 percent H_2/60 percent N_2 gas mixture is recommended to avoid an oxygen synergism effect that reportedly occurs when oxygen concentration varies significantly from a mean value.

4.2 *Zero Gas.* High purity air with less than 0.1 parts per million by volume (ppmv) of organic material (propane or carbon equivalent) or less than 0.1 percent of the span value, whichever is greater.

4.3 *Low-level Calibration Gas.* An organic calibration gas with a concentration equivalent to 25 to 35 percent of the applicable span value.

4.4 *Mid-level Calibration Gas.* An organic calibration gas with a concentration equivalent to 45 to 55 percent of the applicable span value.

4.5 *High-level Calibration Gas.* An organic calibration gas with a concentration equivalent to 80 to 90 percent of the applicable span value.

5. *Measurement System Performance Specifications.*

5.1 *Zero Drift.* Less than ±3 percent of the span value.

5.2 *Calibration Drift.* Less than ±3 percent of span value.

5.3 Calibration Error. Less than ±5 percent of the calibration gas value.

6. Pretest Preparations.

6.1 Selection of Sampling Site. The location of the sampling site is generally specified by the applicable regulation or purpose of the test; i.e., exhaust stack, inlet line, etc. The sample port shall be located at least 1.5 meters or 2 equivalent diameters (whichever is less) upstream of the gas discharge to the atmosphere.

6.2 Location of Sample Probe. Install the sample probe so that the probe is centrally located in the stack, pipe, or duct and is sealed tightly at the stack port connection.

6.3 Measurement System Preparation. Prior to the emission test, assemble the measurement system following the manufacturer's written instructions in preparing the sample interface and the organic analyzer. Make the system operable.

FIA equipment can be calibrated for almost any range of total organics concentrations. For high concentrations of organics (>1.0 percent by volume as propane) modifications to most commonly available analyzers are necessary. One accepted method of equipment modification is to decrease the size of the sample to the analyzer through the use of a smaller diameter sample capillary. Direct and continuous measurement of organic concentration is a necessary consideration when determining any modification design.

6.4 Calibration Error Test. Immediately prior to the test series, (within 2 hours of the start of the test) introduce zero gas and high-level calibration gas at the calibration valve assembly. Adjust the analyzer output to the appropriate levels, if necessary. Calculate the predicted response for the low-level and mid-level gases based on a linear response line between the zero and high-level responses. Then introduce low-level and mid-level calibration gases successively to the measurement system. Record the analyzer responses for low-level and mid-level calibration gases and determine the differences between the measurement system responses and the predicted responses. These differences must be less than 5 percent of the respective calibration gas value. If not, the measurement system is not acceptable and must be replaced or repaired prior to testing. No adjustments to the measurement system shall be conducted after the calibration and before the drift check (Section 7.3). If adjustments are necessary before the completion of the test series, perform the drift checks prior to the required adjustments and repeat the calibration following the adjustments. If multiple electronic ranges are to be used, each additional range must be checked with a mid-level calibration gas to verify the multiplication factor.

6.5 Response Time Test. Introduce zero gas into the measurement system at the calibration valve assembly. When the system output has stabilized, switch quickly to the high-level calibration gas. Record the time from the concentration change to the measurement system response equivalent to 95 percent of the step change. Repeat the test three times and average the results.

7. Emission Measurement Test.

7.1 Organic Measurement. Begin sampling at the start of the test period, recording time and any required process information as appropriate. In particular, note on the recording chart periods of process interruption or cyclic operation.

7.2 Drift Determination. Immediately following the completion of the test period and hourly during the test period, reintroduce the zero and mid-level calibration gases, one at a time, to the measurement system at the calibration valve assembly. (Make no adjustments to the measurement system until after both the zero and calibration drift checks are made.) Record the analyzer response. If the drift values exceed the specified limits, invalidate the test results preceding the check and repeat the test following corrections to the measurement system. Alternatively, recalibrate the test measurement system as in Section 6.4 and report the results using both sets of calibration data (i.e., data determined prior to the test period and data determined following the test period).

8. Organic Concentration Calculations.

Determine the average organic concentration in terms of ppmv as propane or other calibration gas. The average shall be determined by the integration of the output recording over the period specified in the applicable regulation.

If results are required in terms of ppmv as carbon, adjust measured concentrations using Equation 25A-1.

$$C_c = K\,C_{ma}$$

Eq. 25A-1

Where:

C_c = Organic concentration as carbon, ppmv.

C_{ma} = Organic concentration as measured, ppmv.

K = Carbon equivalent correction factor.

K = 2 for ethane.

K = 3 for propane.

K = 4 for butane.

K = Appropriate response factor for other organic calibration gases.

9. Bibliography.

1. Measurement of Volatile Organic Compounds—Guideline Series. U.S. Environmental Protection Agency, Research Triangle Park, N.C. Publication No. EPA-450/2-78-041, June 1978, p. 46-54.

2. Traceability Protocol for Establishing True Concentrations of Gases Used for Calibration and Audits of Continuous Source Emission Monitors (Protocol No. 1). U.S. Environmental Protection Agency, Environmental Monitoring and Support Laboratory, Research Triangle Park, N.C. June 1978.

3. Gasoline Vapor Emission Laboratory Evaluation—Part 2. U.S. Environmental Protection Agency, Office of Air Quality Planning and Standards, Research Triangle Park, N.C. EMB Report No. 75-GAS-6, August 1975.

METHOD 25B—DETERMINATION OF TOTAL GASEOUS ORGANIC CONCENTRATION USING A NONDISPERSIVE INFRARED ANALYZER

1. *Applicability and Principle.*

1.1 Applicability. This method applies to the measurement of total gaseous organic concentration of vapors consisting primarily of alkanes. (Other organic materials may be measured using the general procedure in this method, the appropriate calibration gas, and an analyzer set to the appropriate absorption band.) The concentration is expressed in terms of propane (or other appropriate organic calibration gas) or in terms of carbon.

1.2 Principle. A gas sample is extracted from the source through a heated sample line, if necessary, and glass fiber filter to a nondispersive infrared analyzer (NDIR). Results are reported as volume concentration equivalents of the calibration gas or as carbon equivalents.

2. *Definitions.*

The terms and definitions are the same as for Method 25A.

3. *Apparatus.* The apparatus are the same as for Method 25A with the exception of the following:

3.1 Organic Concentration Analyzer. A nondispersive infrared analyzer designed to measure alkane organics and capable of meeting or exceeding the specifications in this method.

4. *Calibration Gases.*

The calibration gases are the same as are required for Method 25A, Section 4. No fuel gas is required for an NDIR.

5. *Measurement System Performance Specifications.*

5.1 Zero Drift. Less than ±3 percent of the span value.

5.2 Calibration Drift. Less than ±3 percent of the span value.

5.3 Calibration Error. Less than ±5 percent of the calibration gas value.

6. *Pretest Preparations.*

6.1 Selection of Sampling Site. Same as in Method 25A, Section 6.1.

6.2 Location of Sampling Probe. Same as in Method 25A, Section 6.2.

6.3 Measurement System Preparation. Prior to the emission test, assemble the measurement system following the manufacturer's written instructions in preparing the sample interface and the organic analyzer. Make the system operable.

6.4 Calibration Error Test. Same as in Method 25A, Section 6.4.

6.5 Response Time Test Procedure. Same as in Method 25A, Section 6.4.

7. *Emission Measurement Test Procedure.*

Proceed with the emission measurement immediately upon satisfactory completion of the calibration.

7.1 Organic Measurement. Same as in Method 25A, Section 7.1.

7.2 Drift Determination. Same as in Method 25A, Section 7.2.

8. *Organic Concentration Calculations.*

The calculations are the same as in Method 25A, Section 8.

9. *Bibliography.*

The bibliography is the same as in Method 25A.

ENGINEERING ASSESSMENT

Applicant	:	Arcturus Environmental Ltd.
Application No.	:	8-4089-95
Municipality	:	Ottawa
Date Received	:	April 20, 1995
Prepared By	:	S.J. Challoner
Date	:	June 22, 1995

PROPOSAL

Application is made for the installation of two (2) vapour phase biofiltration units, each containing 20 cubic metres of mixed organic media, for the treatment of petroleum hydrocarbon vapours from a bioremediation cell containing a maximum of 6,000 tonnes of contaminated soil. The biofiltration units exhaust to the atmosphere at a combined maximum volumetric flow rate of 0.28 cubic metre per second, through a stack with an exit diameter of 0.12 metre, at a height of 2.5 metres above grade.

PROCESS

The Company is proposing to establish a 6,000 tonne capacity soil remediation facility to reclaim on-site soils contaminated by motor fuels. Its design is based on similar 4,000 tonne and 10,000 tonne facilities established at Petro-Canada refineries in Montreal and Mississauga respectively.

Soils contaminated with gasoline hydrocarbons are placed in an aerated treatment cells for biological degradation. Vapours exhausted from the cells are humidified prior to entering the biofilters where hydrocarbons are adsorbed and metabolized by bacteria in the media.

Data available for the Montreal facility indicates an overall hydrocarbon removal efficiency of 66%. The proposed treatment facility is designed with a larger soil to biofilter media ratio (150 tonne/m^3) than the Montreal site (100 tonne/m^3) as hydrocarbon concentrations in the soils are 3 to 10 times lower than the Montreal site. However, the biofilter vapour residence time is over three times higher, at 141 seconds verses 34 seconds for Montreal, due to a lower vapour flowrate. This modification was identified as critical to improving removal efficiency.

EMISSIONS

The Company has provided maximum BTEX concentrations in the soils excavated from the site. These values were adopted as soil vapour concentrations and to accommodate uncertainties associated with this approach, maximum reported concentrations were adjusted by a factor of 3 for conservative estimates.

Given the improved biofilter residence time and lower inlet hydrocarbon concentrations for the proposed system, a biofilter removal efficiency of 75% was assumed.

Emission rates and maximum property line concentrations from virtual source modelling of the biofilters are:

Contaminant	Emission Rate (g/s)	Max Prty Line Conc (ug/m^3)	Limit ug/m^3
benzene	0.0093	45.8	48*
toluene	0.0842	415.1	2000
ethylbenzene	0.0495	244.0	4000
xylenes	0.2357	1162.0	2300

The maximum property line concentration occurs at the Company's fence line adjacent to a traffic thoroughfare. A stack exit velocity of 25.0 m/s should adequately disperse the exhaust plume. Surrounding land use is general commercial and light industrial.

DISTRICT OFFICE

There have been no comments received from the Ottawa District Office regarding the approval of this application.

EBR NOTIFICATION

This proposal is considered to be an exception to EBR public notification requirements as equivalent public notification had been completed previously (see attached).

RECOMMENDATIONS

This application is recommended for a conditional Certificate of Approval stipulating:

a) standard remediation site effluent monitoring requirements;
b) biofilter physical condition monitoring requirements.

* proposed ASL.

EXCEPTION FROM EBR:

APPLICATION NUMBER/ DATE RECEIVED	8-4089-95 April 20, 1995
APPLICANT	Arcturus Environmental Ltd.
LOCATION	Mobile, with initial siting at 500 Coventry Road, Ottawa.
PROPOSAL	Ex-situ vapour extraction from petroleum hydrocarbon contaminated soils in soil piles, complete with biofiltration for off-gas treatment.
RATIONALE FOR EXCEPTION FROM EBR	Exception for equivalent public participation is recommended. This application was initially submitted as file no. 8-4050-95 and posted on the EBR registry with a March 10 to April 9 comment period. On April 6, closure was initiated due to lack of required information. An RDF for the closure was prepared but not posted on the registry in place of the RPF. No comments were received during the comment period. This application is to re-activate the proposal, complete with required supporting information.
REVIEW ENGINEER/DATE	S.J. Challoner April 25, 1995
AGREED (SUPERVISOR/DATE)	April 25/95

Ministry of Environment and Energy
Ontario

Approvals Record for Emission Inventory Update

☒ Region ☐☐ District

Company Name: Arcturus Environmental Ltd	Source Location: 500 Coventry Road, Ottawa
Contact: Dr. A.W. Panko President	Telephone Number: (905) 357-6424
Nature of Business: site remediation	

Type of Equipment for Approval

	New	Modification
Combustion	☐	☐
Process	☒	☐
Incineration	☐	☐

General Description: install two (2) vapour phase biofilters to control hydrocarbon emissions from a bioremediation cell to clean contaminated soils

Equipment: Production ☐ or Feed ☒	Rate: Quantity/~~hour~~ 6000 tonne	Quantity/year
Specify kind of: Product ☐ or Feed ☒ gasoline contaminated soil		
Control Equipment: Biofilters	Estimated Efficiency: 75%	

Part A Preliminary Assessment – Regional Office

Application Attached: ☐ Yes ☐ No	Type of Application: ☐ Simple (Complete Part B) ☐ Complex (Forward to Approvals Br.)	Significant Pollutants (g/s): ☐ SO_2 ☐ Part ☒ HC ☐ CO ☐ NO_x ☐ Other benzene 0.0093 g/s toluene 0.0842 g/s xylene 0.236 g/s
Form Initiated by:	Date:	

Part B Approvals Branch

Application No.: 8-4089-95	Anticipated Completion Date:
Application Confirmation: ☒ Approved ☐ Cancelled ☐ Denied conditional	
Comments:	
Approved by: S. J Challoner	Date: 95/06/22

Part C Air Resources Branch

New Source Logged:	Date:
Update Requested:	Date:
Date Completed:	

Part D Installation Check – District Office

☐ Satisfactory	☐ Not operational	☐ Unsatisfactory
Comments:		
Inspected by:	Date:	

1149 (07/93)

REGION

Ministry of Environment
and Energy
P.O. Box 820
Kingston, Ontario
K7L 4X6
613/549-4000 or 1-800/267-0974
Fax: 613/548-6908

Ministère de l'Environnement
et de l'Énergie
C.P. 820
Kingston (Ontario)
K7L 4X6
613/549-4000 ou 1-800/267-0974
Fax: 613/548-6908

0.05.17.00.01

24 November 1995

MINISTRY OF ENVIRONMENT
& ENERGY
NOV 27 1995
OTTAWA

Coca-Cola Bottling Ltd.
42 Overlea Blvd.
TORONTO, Ontario
M4H 1B8

Attention: R.B. Wallace
Director Environmental Operations

Dear Mr. Wallace:

Re: **Provisional Certificate of Approval No. A710060**

Please find enclosed Provisional Certificate of Approval No. **A710060** which is issued to **Coca-Cola Bottling Ltd.** by the Ministry of Environment and Energy for the operation of a Waste Disposal Site (Processing) to remediate soil and groundwater contaminated with petroleum hydrocarbons located at 500 Coventry Road in the City of Ottawa, Ontario.

It is recommended that you review this Certificate in detail, so that the terms and conditions by which this site may be operated are fully understood. Failure to operate this site according to the terms and conditions listed on the Certificate will be considered a violation of the Environmental Protection Act. This site may be inspected by Ministry of Environment and Energy staff.

The reasons for the terms and conditions are in the Certificate, as well as, the procedures to be followed should you wish to appeal any of the terms and conditions.

Presently, there are no specific requirements for groundwater monitoring in the Certificate. This is with the understanding that site operations shall be conducted in accordance with the supporting documentation submitted for this Certificate and that approval to discharge the treated groundwater into the sanitary sewer system has been given by the Regional Municipality of Ottawa-Carleton.

Please note that site operations must also be conducted in accordance with your Certificate of Approval (Air) No. 8-4089-95-006 and in accordance with your Permit to Take Water.

If you have any questions regarding the Certificate please contact Kim Lendvay, Approvals Evaluator at (613) 549-4000. If you have any questions with regard to day to day site operations, please contact Greg Montcalm, Environmental Officer at our Ottawa District Office at (613) 521-3450.

Yours truly,

Brian R. Ward
Regional Director
Eastern Region
KL/km
Enclosure
cc: Approvals Branch
- Environmental Monitoring and Reporting Branch
- Ottawa District Office, B. Dunn/G. Montcalm
- Finance and Administration Branch, R. Chong
- Arcturus Environmental Limited, 7900 Canadian Drive, Niagara Falls, Ontario L2E 6S5, Attn: A.L. Maddalena

Approvals Evaluation

RE: **Coca-Cola Bottling Ltd.**
Provisional Certificate of Approval No. A710060

- R.B. Wallace
  Director Environmental Operations

Description of Proposal:

Coca-Cola Bottling Ltd. has applied for the certification of a waste processing site for the on-site ex-situ remediation of on-site soils and groundwater both contaminated with petroleum hydrocarbons. No waste shall be received from off-site with the exception of approximately 3500 tonnes which was located adjacent to the site and had been contaminated due to off-site migration. This processing site is located on at 500 Coventry Road in the City of Ottawa, Ontario and has already been operational for the past two months.

The contaminated soil was excavated and transferred into a treatment area onto a liner and covered with a tarp. All processing (remediation of soils) will occur within the treatment area.

Clean soil which was excavated from the area of the site where the treatment cell is located has already been used to backfill the excavation.

The maximum amount of soil to be processed is 12,000 tonnes or 6,000 cubic metres. At the end of the remediation, after verification sampling confirms that the processed soil meets Ministry criteria, the liner of the treatment cell will be punctured to provide drainage and the processed soil will remain in the excavation made for the treatment cell.

Contaminated groundwater will be pumped out of the excavation and the treatment area and into the sanitary sewer system as approval has been granted by the Regional Municipality of Ottawa-Carleton.

Financial assurance in the amount of $49,313.00 dollars has been provided to the Ministry. The District Office has agreed with this amount being sufficient considering the types and quantities of waste to be managed.

A Certificate of Approval (Air) No. 8-4089-95-006 has been issued for this site.

Results of Public Consultation:

Documentation is provided in the application package to verify that public consultation was carried out in the form of a notice sent to adjacent property owners on April 3, 1995. No comments were received.

Results of MOEE Review:

A District Office Report, dated March 3, 1995, was submitted by the Ottawa District Office stating no objection to approval of the application.

Due to the nature of the proposal it was circulated to the Groundwater Unit for comments. Comments dated June 13, 1995, were received requesting additional information. Upon receipt of the requested information dated July 18 and 21, 1995, it was circulated to groundwater for comment. Comments were received on August 14, 1995, indicating that all items of concern have been addressed.

Results of External Review:

Comments supporting the application have been received from both the Regional Municipality of Ottawa-Carleton dated July 4, 1995 and from the City of Ottawa dated July 17, 1995.

Results of EBR:

The 30 day comment period on the EBR Registry was from March 30, 1995 to April 29, 1995. During this time period no comments were received.

Special Considerations:

Any items of concern have been addressed through conditions of approval on the Certificate.

Recommendation:

Coca-Cola Bottling Ltd.'s application is technically complete and is satisfactory to the Ottawa District Office and the Regional Approvals Unit, as well as, to the Regional Municipality of Ottawa-Carleton and the City of Ottawa. Any and all items of concern have been included in the supporting documentation or as conditions of approval in the Certificate. I therefore recommend that this Certificate be issued to **Coca-Cola Bottling Ltd.** for the continued operation of a waste processing site for the on-site remediation of on-site soil and groundwater both contaminated with petroleum hydrocarbons.

K. Lendvay — 95/11/23
Reviewer — date

Paul P. Moore — 23.11.95
Supervisor, Environmental Approvals — date

[signature] — 95.11.23
Regional Director — date

Attachment

cc: Ottawa District Office, B. Dunn/G. Montcalm
- K. Lendvay/R.F. EA-06-02/**A710060**
- Approvals Branch
- Binder

Ministry of Environment and Energy
Ministère de l'Environnement et de l'Énergie
Ontario

PROVISIONAL CERTIFICATE OF APPROVAL FOR A WASTE DISPOSAL SITE

CERTIFICAT D'AUTORISATION PROVISOIRE DE DÉCHARGE

Provisional Certificate Number A710060
Certificat provisoire no.

Under the Environmental Protection Act and Regulations, and subject to the limitations thereof, this Provisional Certificate of Approval is issued to:
Aux termes de la Loi sur la protection de l'environnement et des règlements et sous réserve des restrictions qui y sont stipulées, le présent certificat provisoire d'autorisation est délivré à:

Coca-Cola Bottling Ltd.
42 Overlea Blvd.
Toronto, Ontario
M4H 1B8

for the use and operation of a 3.2 hectare Waste Disposal Site (Processing) for the ex-situ remediation of on-site soil contaminated with petroleum hydrocarbons,

all in accordance with the plans and specifications as listed in Schedule "A" which is attached and forms part of this Certificate except as specified in the Terms and Conditions of this Certificate,

Located at: 500 Coventry Road
City of Ottawa, Ontario

which includes the use of the site for the transfer and processing of the following categories of waste only:

a) non-hazardous solid waste limited to on-site soil contaminated with petroleum hydrocarbons; and
b) groundwater contaminated with petroleum hydrocarbons.

(Note: Use of the site for additional categories of waste requires a new application and amendments to this Certificate)

and subject to the following Definitions and Conditions:

Definitions:

1. For the purposes of this Provisional Certificate of Approval:

"Act" means the Environmental Protection Act, R.S.O. 1990, c. E-19 as amended;

"BTEX" means benzene, toluene, ethylbenzene, xylene;

"Certificate" means this entire Provisional Certificate of Approval for a Waste Disposal Site (Processing) No. **A710060**, including its schedules, if any, issued in accordance with Section 27, Part V of the Environmental Protection Act;

"contaminated groundwater" means petroleum hydrocarbon contaminated groundwater to be pumped out of the excavation during excavation and out of the treatment area during processing;

"contaminated soil" means petroleum hydrocarbon contaminated soil to be excavated from this site for on-site processing;

"Director" means the Regional Director of the Eastern Region of the Ministry of Environment and Energy;

"District Manager" means the District Manager of the Ottawa District Office, Eastern Region of the Ministry of Environment and Energy;

"treatment area" means the engineered bioremediation cell;

"Ministry" means the Ontario Ministry of Environment and Energy, Province of Ontario;

"Owner/Operator" means **Coca-Cola Bottling Ltd.**, and its officers, employees, agents or contractors;

"processed soil" means soil that has undergone remediation for the purpose of removing petroleum hydrocarbon contaminants in accordance with Level II Interim Soil Remediation Criteria for Petroleum Contamination specified in the document "Interim Guidelines for the Assessment and Management of Petroleum Contaminated Sites in Ontario", August 1993;

"Residual waste" means waste resulting from the on-site operations and which is directed, directly or indirectly, for final disposal, at a Ministry of Environment and Energy approved site in Ontario or a site licensed or certified by an equivalent governmental agency to accept such waste;

"site" means the area being approved under this Certificate, located at 500 Coventry Road in the City of Ottawa, Ontario; and

"TPH" means Total Petroleum Hydrocarbons.

General Conditions:

2. The Owner/Operator shall ensure a copy of this Certificate, in its entirety and including any future Notices of Amendment, shall be retained on-site until the remediation is completed.

Spills:

3. The Owner/Operator shall immediately report any spill which occurs at this site directly to the Ministry's Spills Action Centre at 1-800-268-6060 and to the local municipality. In addition, the Owner/Operator shall record the spill in the log book referred to in Condition 19 below.

Hours of Operation:

4. (1) The excavation of the contaminated soil and placement of the remediated soil may occur at this site between the hours of 7:00 am and 6:00 pm, Monday through Friday.

   (2) The processing of the contaminated soil, once placed in the treatment area may occur twenty-four (24) hours per day.

Site Operations:

5. (1) The Owner/Operator shall ensure that the quantity of waste stored in the treatment area at this site does not exceed the maximum site storage capacity of twelve-thousand (12,000) tonnes or (6,000 cubic metres) of contaminated soil.

(2) The Owner/Operator shall not store contaminated groundwater on-site but shall transfer it directly into the sanitary sewer system, if prior approval has been received from the Regional Municipality of Ottawa-Carleton.

(3) If there is excess water/sediment slurry from the excavation, the contaminated groundwater may be temporarily stored in a four-hundred (400) litre settling tank prior to treatment and discharge into the sanitary sewer.

6. (1) Further to the limitations specified in other terms and conditions of this Certificate, under no circumstances shall the Owner/Operator accept any waste (as defined in Ontario Regulation 347, R.R.O. 1990) from off-site except those which were impacted by spills/leaks generated from on-site.

(2) The Owner/Operator shall ensure no inoculants or other additives are added to the contaminated soil, except for the addition of nutrients as detailed in the supporting documentation listed in Schedule "A".

(3) The Owner/Operator shall not conduct excavation operations during any period in which precipitation could result in a danger to the health and safety of any person or cause an adverse effect to the natural environment.

(4) Prior to commencement of excavation, the Owner/Operator shall prepare the treatment area as detailed in the supporting documentation.

(5) The Owner/Operator shall ensure that all remediation of contaminated soil in the treatment area occurs on an impermeable liner for the collection and containment of the leachate.

(6) The Owner/Operator shall ensure that all contaminated soil is contained in the treatment area during processing.

(7) The Owner/Operator shall ensure the contaminated soil in the treatment area is covered at all times during the remediation process except during required mixing, nutrient addition and sampling.

(8) To prevent recontamination of soils, the Owner/Operator shall ensure that provisions are made to stockpile the processed soil at an elevation above the highest level of seasonal shallow groundwater table.

Site Security:

7. (1) The Owner/Operator shall ensure this site is maintained in a secure manner with a fence and lockable gate(s) such that unauthorized persons cannot enter this site.

(2) The excavation area shall be secured and marked in a fashion so as to prevent entry/injury and restrict access to authorized personnel only.

8. The Owner/Operator shall ensure that a sign is posted at the entrance to this site, identifying the Owner/Operator's name, the Certificate number, an emergency telephone number and the nature of work being conducted.

Nuisance Control:

9. (1) The Owner/Operator shall ensure this site is operated in a manner which minimizes the impacts of odour, dust, litter, noise and traffic on the natural environment and the public.

(2) The Owner/Operator shall ensure that waste is stored in a safe and secure manner and that waste is properly handled and contained so as not to pose any threat to the public, site personnel or the natural environment.

Wastewater Management:

10. (1) The Owner/Operator shall manage all discharges from this site in accordance with appropriate Municipal, Provincial and/or Federal legislation, Regulation and By-laws.

(2) The Owner/Operator shall ensure that an above-ground storage tank is available should the leachate from the treatment cell, after treatment, not meet the Regional Municipality of Ottawa-Carleton's sewer-use by-law.

(3) The Owner/Operator shall ensure the above-ground storage tank, which may be used to store contaminated groundwater, is maintained in good condition to prevent leakage; is examined during regular inspection and maintenance to ensure there are no leaks, and is immediately removed from service should a leak be found.

Waste Disposal:

11. (1) The Owner/Operator shall ensure any residual waste transported off-site for final disposal, does not exceed two-hundred (200) tonnes on any day. Residual waste shall only be disposed of at a site for which a Provisional Certificate of Approval has been issued by the Ministry of Environment and Energy or an equivalent governmental agency of appropriate jurisdiction.

(2) The Company must ensure that all waste generated at this site is disposed in accordance with Ontario Regulation 347, R.R.O. 1990.

(3) The Owner/Operator shall ensure that only waste haulers approved by the Ministry are used to transport waste from this site.

Soil Sampling Program:

12. (1) The Owner/Operator shall ensure contaminated soil is sampled and analyzed in accordance with the "Interim Guidelines for the Assessment and Management of Petroleum Contaminated Sites in Ontario", August 1993, or its latest amendment, and in accordance with the sampling techniques, analysis and frequency as detailed in the supporting documentation listed in Schedule "A" which includes the following:

a) pre-remediation to establish background concentrations of BTEX and TPH in the soil to be excavated and the groundwater to be pumped-out;
b) on a monthly basis during the processing; and
c) at the end of the processing in accordance with Condition 16 below.

(2) The Owner/Operator shall not mix or dilute the processed soil with any other soils prior to sampling.

Monthly Soil Sampling:

13. In addition to the sampling required by Certificate of Approval (Air) No. 8-4089-95-006, the Owner/Operator shall ensure that on a monthly basis, representative samples of the contaminated soil in the treatment area are taken and analyzed for the following parameters and in accordance with sampling techniques, analysis and frequency as detailed in the supporting documentation listed in Schedule "A":

a)	oxygen;	b)	temperature;
c)	moisture content;	d)	BTEX;
e)	TPH;	f)	nutrients;
g)	pH; and	h)	hydrocarbon utilizing bacteria.

Progress Reports:

14. (1) To monitor the progress of the remediation, at four (4) month intervals, commencing upon placement of the soils into the treatment area, the Owner/Operator shall submit a progress report to the District Manager.

(2) The progress report required by Condition 14(1) above shall include the analyses of one representative soil sample taken from the treatment area for BTEX and TPH in accordance with the supporting documentation listed in Schedule "A" and the current progress report shall always include the pre-treatment results and the previous progress report(s) results.

15. If the remediation is not completed within the eight (8) month time frame proposed in the application, the Owner/Operator shall submit a status report to the District Manager within two (2) weeks detailing the following:

a) background concentration of the contaminants in the soil and groundwater prior to processing;
b) current concentration of the contaminants in the soil and groundwater;

c) suggested reason for delay in completion of remediation;
d) anticipated completion date of remediation;
e) total quantity of contaminated soil currently undergoing remediation; and
f) total volume of contaminated groundwater pumped out to-date.

Verification Soil Sampling:

16. (1) The Owner/Operator shall ensure that upon completion of the remediation, all processed soil meets the cleanup criteria as outlined in the Ministry's document entitled "Interim Guidelines for the Assessment and Management of Contaminated Sites in Ontario" dated 1993, and in accordance with the supporting documentation listed in Schedule "A". If the processed soil does not meet this criteria it shall be managed as a waste in accordance with the requirements of the Environmental Protection Act, and shall only be disposed of at a Ministry of Environment and Energy approved site or at a site approved to accept such waste by an equivalent jurisdiction.

(2) The Owner/Operator shall ensure that the soil excavated for this remediation remains on-site after the remediation is completed.

Site Inspection/Maintenance:

17. The Owner/Operator shall ensure this site is inspected in accordance with the application for this Certificate. The Owner/Operator shall correct any deficiencies which these inspections reveal and shall maintain a written record of the inspections and any maintenance conducted as a result of these inspections, as follows:

a) name and title of attendant conducting inspection/maintenance;

b) time and date of the inspection/maintenance;
c) list of all storage areas, containment structures, etc. inspected and any deficiencies or discharges observed;
d) a brief description of any maintenance procedures conducted; and
e) any remedial action taken to prevent future occurrences.

Contingency Plan:

18. (1) Within thirty (30) days of issuance of this Certificate, the Owner/Operator shall notify the local Fire Department, in writing, of the existence and operations at this site.

(2) Within thirty (30) days of issuance of this Certificate, the Owner/Operator shall ensure a copy of the contingency plan for this site is located on-site at all times and is available for inspection by Provincial Officer(s), emergency response personnel and the local Fire Department.

(3) Within thirty (30) days of any amendment to the contingency plan, the Owner/Operator shall update the contingency plan.

(4) The Owner/Operator shall ensure staff are trained in the operation and maintenance of the specific equipment which they operate at this site and in emergency response procedures.

19. A log book shall be maintained at this site of all spills or leaks which occur at this site. The log book must include the type and amount of material spilled, a description of how the material was cleaned up and stored, and the date and location of final disposal.

20. The Owner/Operator shall maintain on-site a site plan identifying the location of the treatment area, the excavation pit and other areas specific to the remediation. The Owner/Operator shall ensure the diagram is a true representation of the waste stored on-site and make the diagram available for inspection upon request by emergency response personnel and/or Provincial Officer(s).

On-Site Record Keeping:

21. The Owner/Operator shall maintain on-site, a written record of all waste processed and transferred at this site. This record shall be in the form of a log (all measurements shall be recorded in consistent metric units of measurement) and the log shall include the following:

    a) date and quantity of contaminated soil excavated at this site and transferred into the treatment area for processing;
    b) date and volume of contaminated groundwater pumped out, treated and discharged off-site via the sanitary sewers; and
    c) date, quantity and disposal destination of any residual waste transferred from this site.

22. The Owner/Operator shall retain for a minimum of two (2) years from the date of their creation, or longer if requested in writing by the Director, all records and information related to or resulting from the activities approved under this Certificate.

Final Report:

23. Within thirty (30) days of the completion of the remediation at this site, which is estimated to be approximately eight (8) months after the issuance of this Certificate, the Owner/Operator shall submit to the District Manager a final report which shall cover the entire duration of the project and include the following:

    a) the total amount of soil processed;
    b) the final volume of the contaminated groundwater pumped out, treated and discharged off-site via the sanitary sewers;
    c) a descriptive summary describing any unapproved waste excavated at this site during the remediation including quantity, type, origin and disposal destination;
    d) a summary of the analyses of the contaminated soil and groundwater before, during and at the end of the remediation;

e) an evaluation of the effectiveness of the remediation including confirmation that the contaminants have been reduced to the Ministry's remediation criteria;
f) recommendations for any future monitoring;
g) a summary of any residual waste transferred off-site for final disposal and the disposal destination; and
h) total duration of the remediation operation.

Financial Assurance:

24. (1) The Owner/Operator shall ensure that the financial assurance provided to the Director is in the amount of forty-nine thousand, three-hundred and thirteen ($49,313.00). This financial assurance shall be in the form of a fund, bond or irrevocable letter of credit satisfactory to the Director. This assurance shall be available to the Director for remedial measures at this site as well as ensuring proper closure should this site be abandoned. The amount of financial assurance is subject to review at any time by the Director and may be amended at his discretion. If any financial assurance is scheduled to expire or notice is received, indicating financial assurance will not be renewed, and satisfactory methods have not been made to replace the financial assurance at least sixty (60) days before the financial assurance terminates, the Owner/Operator shall forthwith replace the financial assurance with cash.

(2) Upon receipt of the written confirmation of site cleanup required by Condition 25 below and upon subsequent revocation of this Certificate, the Ministry shall return the financial assurance to the Owner/Operator.

Expiry:

25. (1) After submission of the written confirmation required by Condition 23 part (e) above, the Owner/Operator shall arrange for an inspection of this site with the District Manager.

(2) If the inspection referred to in Condition 25(1) above is satisfactory to the Ministry, the Owner/Operator will receive written confirmation from the Ministry that this site has been cleaned-up in accordance with the submitted plan, and the Owner/Operator may then present this Certificate for revocation to the Director.

26. The obligations imposed by the terms and conditions of this Certificate of Approval are obligations of due diligence.

SCHEDULE "A"

*This Schedule "A" forms part of Certificate No. **A710060**.*

1. Application form for a Certificate of Approval for a Waste Disposal Site (Processing) dated February 23, 1995 and the supporting documentation submitted on February 28, 1995.

2. Letter dated April 5, 1995, to K. Lendvay, Ministry of Environment and Energy, from A.L. Maddalena, Arcturus Environmental, RE: Supporting documentation i.e. Articles of incorporation; financial assurance; liability insurance; adjacent property notification.

3. Letter dated April 19, 1995, to K. Lendvay, Ministry of Environment and Energy, from A.L. Maddalena, Arcturus Environmental, RE: Articles of incorporation.

4. Letter dated July 18, 1995, to K. Lendvay, Ministry of Environment and Energy, from A.L. Maddalena, Arcturus Environmental, RE: Supplementary information i.e. laboratory analytical results for soil samples.

5. Letter dated July 21, 1995, to K. Lendvay, Ministry of Environment and Energy, from A.L. Maddalena, Arcturus Environmental, RE: Supplementary information i.e. proposed sampling program for groundwater.

6. Facsimile dated November 17, 1995, to K. Lendvay, Ministry of Environment and Energy, from P. Hubley, Arcturus, RE: Certificate of Approval (Air) No. 8-4089-95-006; and oxygen and temperature monitoring.

7. Facsimile dated November 17, 1995, to K. Lendvay, Ministry of Environment and Energy, from P. Hubley, Arcturus, RE: Excavated Soil.

8. Financial assurance in the form of a Letter of Credit dated November 20, 1995, in the amount of forty-nine thousand, three-hundred and thirteen dollars ($49,313.00) provided to K. Lendvay, Ministry of Environment and Energy, on November 21, 1995.

You are hereby notified that Certificate No. A710060 has been issued to you subject to the Conditions outlined therein.

This Notice forms part of Certificate No. A710060.

The reasons for the imposition of these conditions are as follows:

1. The reason for Condition 1 is to simplify the wording of the subsequent conditions and define the specific meaning of terms as used in this Notice and the Certificate.

2. The reason for Condition 2 is to provide easy access to the Certificate and any future Notices of Amendment and their Terms, Conditions and operating requirements to operators and personnel working at this site, as well as, to Ministry staff during site inspections or in emergency situations.

3. The reason for Condition 3 is to ensure incidents of spills are reported to the Ministry pursuant to Section 15 of the Environmental Protection Act, to minimize the impact of a spill or upset to the natural environment and to ensure public health and safety and environmental protection.

4. The reason for Condition 4 is to ensure that this site will not be operated at hours during which such operation could cause discomfort to any person.

5. The reason for Condition 5 is to ensure the quantities and types of waste processed and transferred at this site are in accordance with that approved under this Certificate.

6. The reason for Conditions 6 and 9 is to minimize and/or prevent nuisance or adverse environmental effects from occurring and to ensure the site is operated in accordance with the application and supporting information submitted for this Certificate.

7. The reason for Condition 7 is to minimize the risk of vandalism at this site and to ensure this site is only operated in the presence of an attendant to ensure waste is properly managed in accordance with the application and supporting information submitted for this Certificate.

8. The reason for Condition 8 to ensure the Owner/Operator's name, Certificate number, the hours of operation and an emergency telephone number are available in the event of an emergency situation at this site.

9. The reason for Condition 10 is to minimize the risk of contamination of the natural environment and to minimize the egress of contaminants for this purpose.

10. The reason for Condition 11 is to ensure that all residual waste generated from this site is transported and disposed of in an environmentally acceptable manner in accordance with legislation governing the handling of waste.

11. The reason for Conditions 12, 13, 14, 15, 16, 21, 22 and 23 is to ensure that all aspects of waste processing and transfer at this site are clearly identified, recorded and controlled, to allow the Ministry and the Owner/Operator to review and assess the operations at this site.

12. The reason for Conditions 17 is to ensure the Owner/Operator conducts adequate inspections of this site and to ensure this site is operated and maintained appropriately and in accordance with the application made for this Certificate and the supporting documentation submitted therewith, and not in any manner which the Director has not been asked to consider.

13. The reason for Conditions 18, 19 and 20 is to ensure the Owner/Operator, the Ministry and the local Fire Department are familiar with this site's operations and its associated hazards in the event of an emergency situation and to ensure each have accessibility to the emergency response plan to minimize the time in assessing an emergency incident.

14. The reason for Condition 24 is that financial assurance is necessary to ensure funds are available from the Owner/Operator to remediate this site, to remove and dispose of any processed or unprocessed waste and any residual waste relating to the operations carried out at this site in the event the Owner/Operator is unable or unwilling to do this work and to ensure that this site will be closed in an environmentally acceptable manner. The financial assurance can also be utilized by the Ministry to bring this site into compliance with this Certificate if the Owner/Operator is unable or unwilling to do so. The use and operation of this site without this Condition would not be in the public interest.

15. The reason for Condition 25 is to ensure this site is remediated in accordance with Ministry standards and protects the health and safety of the public and the natural environment.

16. The reason for Condition 26 is required to clarify that the terms and conditions of this Certificate impose a standard of due diligence and not absolute liability.

In accordance with Section 139 of the Environmental Protection Act, R.S.O. 1990, Chapter E-19, you may by written notice served upon me, the Environmental Appeal Board and the Environmental Commissioner, Environmental Bill of Rights, S.O. 1993, Chapter 28, within 15 days after receipt of this Notice, require a hearing by the Board. The Environmental Commissioner will place notice of your appeal on the Environmental Registry. Section 142 of the Environmental Protection Act, as amended provides that the Notice requiring a hearing shall state:

1. **The portions of the approval or each Term or Condition in the approval in respect of which the hearing is required, and;**
2. **The grounds on which you intend to rely at the hearing in relation to each portion appealed.**

In addition to these legal requirements, the Notice should also include:

3. **The name of the appellant;**
4. **The address of the appellant;**
5. **The Certificate of Approval number;**
6. **The date of the Certificate of Approval;**
7. **The name of the Director;**
8. **The municipality within which the Waste Disposal Site is located;**

And the Notice should be signed and dated by the appellant.

PROVISIONAL CERTIFICATE OF APPROVAL FOR A WASTE DISPOSAL SITE

CERTIFICAT D'AUTORISATION PROVISOIRE DE DÉCHARGE

Provisional Certificate Number A710060
Certificat provisoire no.

This Notice must be served upon:

The Secretary,
Environmental Appeal Board,
112 St. Clair Avenue West,
Suite 502,
Toronto, Ontario
M4V 1N3

AND

B.R. Ward
Director, Section 39
Environmental Protection Act,
Ministry of Environment and Energy
133 Dalton Avenue
P.O. Box 820
Kingston, Ontario
K7L 4X6

AND

The Environmental Commissioner
1075 Bay Street
Suite 605
6th Floor
Toronto, Ontario
M5S 2W5

This instrument is subject to Section 38 of the Environmental Bill of Rights, that allows residents of Ontario to seek leave to appeal the decision on this instrument. Residents of Ontario may seek to appeal for 15 days from the date this decision is placed on the Environmental Registry. By accessing the Environmental Registry, you can determine when the leave to appeal period ends.

This Certificate of Approval No. A710060 is issued at Kingston this 23 day of November, 1995.

THIS IS A TRUE COPY OF THE ORIGINAL CERTIFICATE SIGNED BY B. R. WARD

AND MAILED ON: 95/11/24.

BY: K. Lindsay

Ministry of Environment and Energy
2435 Holly Lane
Ottawa ON K1V 7P2
Tel (613) 521-3450
Fax (613) 521-5437

Ministère de l'Environnement et de l'Énergie
2435 Holly Lane
Ottawa ON K1V 7P2
Tél (613) 521-3450
Téléc (613) 521-5437

Ontario

October 28, 1996

Coca-Cola Beverages Limited
42 Overlea Boulevard
Toronto, Ontario
M4H 1B8

Attention: Mr. R.B. Wallace, Environmental Operations

Dear Mr. Wallace,

RE: Site Remedial Activities
500 Coventry Road, Ottawa, Ontario
MOEE Provisional C of A #A710060

We are in receipt of the final report dated October 1996 outlining the measures taken to remediate the above site. We accept the findings in the report that conclude that the site meets the MOEE (1993) Level II criteria. The project, involving bioremediation, highlights your company's commitment to waste reduction and you are to be commended for the leadership in this regards.

Our inspection on October 18, 1996 verified that the project is now complete. We have requested that the Certificate of Approval #A710060 be revoked and the associated financial assurance be returned to you.

Please contact Mr. Montcalm, Senior Environmental Officer, if you require any further information in this matter.

Yours truly,

Steve Burns

C.C.: Barry Burns, Approvals Engineer, Eastern Region (MOEE)

2-05-01-200-02 Ottawa D.O.

Ministry of Environment
and Energy
P.O. Box 820
Kingston, Ontario
K7L 4X6
613/549-4000 or 1-800/267-0974
Fax: 613/548-6908

Ministère de l'Environnement
et de l'Énergie
C.P. 820
Kingston (Ontario)
K7L 4X6
613/549-4000 ou 1-800/267-0974
Fax: 613/548-6908

M E M O R A N D U M

22 November 1995

TO: Richard Chong
Team Leader, Revenue
Finance and Administration Branch

FROM: Kim Lendvay
Approvals Evaluator
Environmental Approvals and Plan Review
Technical Support Section
Eastern Region

S1 OC OT CO 250

RE: Financial Assurance for Coca-Cola Bottling Ltd.
Provisional Certificate of Approval No. A710060

Please find enclosed financial assurance in the form of a Letter of Credit (LC) #T-369385 in the amount of forty-nine thousand, three-hundred and thirteen dollars ($49,313) for Provisional Certificate of Approval No. **A710060**. This Certificate will be issued to **Coca-Cola Bottling Ltd.** which is located at 500 Coventry Road in the City of Ottawa, Ontario.

I have reviewed the LC and have determined the wording to be in accordance with that required by the Ministry.

Please confirm, in writing, your receipt of the enclosed LC and its acceptability to the Ministry.

Should you have any questions, please contact me at (613) 549-4000.

K. Lendvay

Kim Lendvay
KL/sh
Enclosure
cc: Ottawa District Office, B. Dunn/G. Montcalm

Canadian Imperial Bank of Commerce
Banque Canadienne Impériale de Commerce
CIBC

CANADIAN IMPERIAL BANK OF COMMERCE
25 KING STREET WEST
TRADE FINANCE CENTRE
COMMERCE COURT NORTH 16th
TORONTO, ONTARIO
M5L 1A2

MINISTRY OF
ENVIRONMENT & ENERGY
KINGSTON - ONTARIO
REGIONAL OFFICE

CABLE ADDRESS
"CANBANK"

ADRESSE TÉLÉGRAPHIQUE
"CANBANK"

NOVEMBER 20, 1995

TO:
MINISTER OF ENVIRONMENT AND ENERGY
ENVIRONMENTAL APPROVAL & PLAN
REVIEW, EASTERN REGION, 133 DALTON
AVENUE, KINGSTON, ONTARIO K7L 4X6

ATTN: MS.KIM A. LENDVAY

COPY

PLEASE FIND ENCLOSED OUR ORIGINAL STANDBY LETTER OF CREDIT NO. T-369385.

KINDLY ACKNOWLEDGE RECEIPT ON THE ATTACHED COPY OF THIS LETTER AND RETURN TO US.

YOURS TRULY,

PRO. MANAGER

ENCL.

T-369385- -002-S2-01-01-01

ORIGINAL

CIBC

TRADE FINANCE CENTRE
NOVEMBER 20, 1995

PLACE AND DATE OF ISSUE / LIEU D'ÉMISSION ET DATE

2195C BIL 95/03

LETTER OF CREDIT NO.: T-369385
APPLICANT REFERENCE NO.: I.O. #70004320

********** DIRECT **********

APPLICANT:
COCA COLA BOTTLING LTD.
42 OVERLEA BOULEVARD
TORONTO, ONTARIO
M4H 1B0

BENEFICIARY:
MINISTER OF ENVIRONMENT AND ENERGY
133 DALTON AVENUE
KINGSTON, ONTARIO
K7L 4X6

AMOUNT: CAD49,313.00
(FORTY NINE THOUSAND THREE HUNDRED THIRTEEN AND 00/100 CANADIAN DOLLARS)

DATE OF EXPIRY: NOVEMBER 18, 1996

WE HEREBY AUTHORIZE HER MAJESTY THE QUEEN IN RIGHT OF ONTARIO AS REPRESENTED BY THE MINISTER OF ENVIRONMENT & ENERGY, 133 DALTON AVENUE, KINGSTON, ONTARIO K7L 4X6 TO DRAW ON US FOR ACCOUNT OF THE ABOVE-MENTIONED APPLICANT UP TO THE ABOVE AGGREGATE AMOUNT OF LAWFUL MONEY OF CANADA AVAILABLE BY DEMAND.

PURSUANT TO THE REQUEST OF THE APPLICANT, WE, CANADIAN IMPERIAL BANK OF COMMERCE, HEREBY ESTABLISH AND GIVE TO YOU AN IRREVOCABLE LETTER OF CREDIT IN YOUR FAVOUR WHICH MAY BE DRAWN ON BY YOU AT ANY TIME AND FROM TIME TO TIME UPON WRITTEN DEMAND FOR PAYMENT MADE UPON US BY YOU WHICH DEMAND WE SHALL HONOUR WITHOUT ENQUIRING WHETHER YOU HAVE A RIGHT AS BETWEEN YOURSELVES AND THE SAID APPLICANT TO MAKE SUCH DEMAND AND WITHOUT RECOGNIZING ANY CLAIM OF THE SAID APPLICANT.

THIS IRREVOCABLE LETTER OF CREDIT WILL CONTINUE UP TO THE 18TH DAY OF NOVEMBER, 1996 AND WILL BE AUTOMATICALLY RENEWED FOR ONE YEAR ON THE SAME TERMS AND CONDITIONS (INCLUDING THIS ONE FOR RENEWAL) UNLESS WE GIVE YOU AT LEAST SIXTY (60) DAYS WRITTEN NOTICE THAT IT WILL NOT BE SO RENEWED AND YOU MAY CALL FOR PAYMENT ON THE FULL AMOUNT OUTSTANDING UNDER THIS IRREVOCABLE LETTER OF CREDIT AT ANY TIME PRIOR TO THAT DATE SHOULD THIS IRREVOCABLE LETTER OF CREDIT NOT BE RENEWED.

PARTIAL DRAWINGS ARE PERMITTED.

ANY PAYMENT MADE HEREUNDER SHALL BE IN FAVOUR OF THE MINISTER OF FINANCE OF ONTARIO.

THE AMOUNT SECURED BY THIS IRREVOCABLE LETTER OF CREDIT MAY BE REDUCED FROM TIME TO TIME BY WRITTEN NOTICE TO US FROM YOU.

-CONTINUED-

T-369385- -001-L1-01-04-01

000359

ORIGINAL

CIBC

TRADE FINANCE CENTRE
NOVEMBER 20, 1995

PLACE AND DATE OF ISSUE / LIEU D'ÉMISSION ET DATE

2106C BIL 95/03

THIS PAGE FORMS AN INTEGRAL PART OF OUR LETTER OF CREDIT NO. T-369385

APPLICANT REFERENCE NO.: I.D. #70004320

ANY NOTICE UNDER THE PREVIOUS PARAGRAPH OR ANY DEMAND HEREUNDER MAY BE MADE BY YOU OR THE ASSISTANT DEPUTY MINISTER, OPERATIONS DIVISION; THE ASSISTANT DEPUTY MINISTER, CORPORATE MANAGEMENT DIVISION OR SUCH OTHER DIRECTOR AS YOU FROM TIME TO TIME AUTHORIZE IN WRITING TO US.

YOUR CLAIM UNDER THIS IRREVOCABLE LETTER OF CREDIT MUST BE IN WRITING ADDRESSED TO CANADIAN IMPERIAL BANK OF COMMERCE, TRADE FINANCE CENTRE, COMMERCE COURT NORTH, 16TH FLOOR, 25 KING STREET WEST, TORONTO, ONTARIO, M5L 1A2 QUOTING OUR IRREVOCABLE LETTER OF CREDIT NUMBER T-369385 DATED NOVEMBER 20, 1995 AND SHALL BE ACCOMPANIED BY A WRITTEN STATEMENT THAT THE MONIES ARE REQUIRED IN CONNECTION WITH PROVISIONAL CERTIFICATE OF APPROVAL NUMBER A710060.

WE HEREBY AGREE WITH YOU THAT DEMANDS MADE IN COMPLIANCE WITH THE TERMS OF THIS LETTER OF CREDIT SHALL BE DULY HONOURED UPON PRESENTATION AT OUR COUNTERS MENTIONED ABOVE.

FOR CANADIAN IMPERIAL BANK OF COMMERCE

COUNTER SIGNATURE

AUTHORIZED SIGNATURE

T-369385- -001-L1-01-04-01

000360

51 OL OT CO 250
500 CONVENT ROAD

Ministry of the Environment
Environmental Assessment and
Approvals Branch
Floor 12A
2 St Clair Ave W
Toronto ON M4V 1L5
Fax: (416)314-8452
Telephone: (416) 326-2398

Ministère de l'Environnement
Direction des évaluations et des autorisations environnementales
Étage 12A
2 av St Clair O
Toronto ON M4V 1L5
Télécopieur : (416)314-8452
Téléphone: (416) 326-2398

Ontario

MINISTRY OF ENVIRONMENT
SEP - 1 2005
OTTAWA

August 25, 2005

Coca-Cola Beverages Limited
42 Overlea Boulevard
Toronto, Ontario
M4H 1B8

Dear Sir/Madam:

Re: Financial Assurance for Certificate of Approval : Waste Disposal Sites No. A710060 - Revoked

Please find attached notice of revocation dated October 28, 1996 which is self explanatory.

In view of the above, we are requesting our Business and Fiscal Planning Branch to return expired Canadian Imperial Bank of Commerce Letter of Credit No. SBGT701499 (Previously T-369385), for CAD$49,313.00 to you at the above address. We are also enclosing a copy of letter dated July 14, 2005 from the Canadian Imperial Bank of Commerce notifying our Ministry that the aforementioned Letter of Credit will expire on November 18, 2001 and will not be renewed.

If you have any questions regarding the above, please contact Tino Bove at the above phone number.

Yours truly,

Ian Parrott, P.Eng.
Director
Section 39, Environmental Protection Act

c: District Manager, MOE Ottawa
Richard Brown, MOE, Business and Fiscal Planning Branch

Ministry of Environment and Energy
2435 Holly Lane
Ottawa ON K1V 7P2
Tel (613) 521-3450
Fax (613) 521-5437

Ministère de l'Environnement et de l'Énergie
2435 Holly Lane
Ottawa ON K1V 7P2
Tél (613) 521-3450
Téléc (613) 521-5437

Ontario

NOV - 4 1996

LEGAL DEPT.

c.c. SAR
D. MacDonald

October 28, 1996

Coca-Cola Beverages Limited
42 Overlea Boulevard
Toronto, Ontario
M4H 1B8

Attention: Mr. R.B. Wallace, Environmental Operations

Dear Mr. Wallace,

RE: Site Remedial Activities
500 Coventry Road, Ottawa, Ontario
MOEE Provisional C of A #A710060

We are in receipt of the final report dated October 1996 outlining the measures taken to remediate the above site. We accept the findings in the report that conclude that the site meets the MOEE (1993) Level II criteria. The project, involving bioremediation, highlights your company's commitment to waste reduction and you are to be commended for the leadership in this regards.

Our inspection on October 18, 1996 verified that the project is now complete. We have requested that the Certificate of Approval #A710060 be revoked and the associated financial assurance be returned to you.

Please contact Mr. Montcalm, Senior Environmental Officer, if you require any further information in this matter.

Yours truly,

Steve Burns

C.C.: Barry Burns, Approvals Engineer, Eastern Region (MOEE)

CIBC

Trade Finance Centre

Notice of Cancellation

14 July, 2005 **Registered Mail**

To: Minister of Environment and Energy
133 Dalton Avenue
Kingston, Ontario
K7L 4X6

Dear Sir / Madam:

Re: Our standby letter of credit No: SBGT701499 (Previously T-369385)
For CAD49,313.00
For account of: Coca Cola Bottling Ltd

This letter of credit will now expire at our counters at Trade Finance Centre, 25 King Street West, Commerce Court North 16th floor, Toronto, Ontario, M5L 1A2 on November 18, 2001and will not be renewed for a further period. However, as November 18, 2001 is not a business day, drawing, if any, must be received by us on or before November 19, 2001, being the next business day our office is open.

For any inquiries, please contact the undersigned at **Phone:** (416)-980-2253, **Fax:** (416)-930-3330.

For Canadian Imperial Bank of Commerce

Authorized Signature

CC:
C.I.B.C
World Markets
Toronto, Ont
Attn: Ricky Degrys
Fax #416-980-5855

Heeringa, Michael (ENE)

From: Heeringa, Michael (ENE)
Sent: Friday, July 15, 2005 9:20 AM
To: Bove, Tino (ENE)
Subject: RE: CofA A710060 - Coca Cola Bottling Co.

Tino:

I've reviewed our files here and have determined the following:

The Site was reported to have been remediated to Level II standards in 1995 under COA A710060.
The District concurred and recommended revocation of the COA in October 1996 however I don't have a revocation COA on file here, nor can I find a record in IDS. I couldn't locate the original COA is on IDS either. The District was advised (in 2001) by the Kingston Regional Office that the LC was due to expire on November 19, 2001. I have no record of any follow-up by the District in 2001. It is possible that the COA is still valid.

A Record of Site Condition for the Site was filed and acknowledged by the Ottawa District in 2003 under the 1996 Clean-up Guidelines. The RSC notes additional remediation was completed after 1996, documented in August 2001. I don't have any info as to whether the COA was used for this remediation. Regardless, the LC was in place during this period. The RSC was filed for 500 Coventry Road by 1339895 Ontario Limited, not Coca-Cola.

I don't expect the COA has been use since 2001 but may be still valid at this time.

Mike Heeringa
Senior Environmental Officer
Ottawa District
(613) 521-3450 x 232

-----Original Message-----
From: Bove, Tino (ENE)
Sent: Thursday, July 14, 2005 3:50 PM
To: Heeringa, Michael (ENE)
Subject: CofA A710060 - Coca Cola Bottling Co.

Hello Michael,

I am currently following up on and ensuring controls around non-compliance regarding financial assurance. Through examination of CofA's not in compliance with their FA condition, I noticed that CofA # A710060 – Coca Cola Bottling Co. located at 500 Coventry Road in Ottawa does not have valid FA. I am wondering if the site is still operating and if FA is still required. If so I will request the outstanding amount from the proponent. Any help you could provide would be much appreciated.

Thank you,

Tino Bove
FA Program Financial Analyst
Ministry of the Environment
2 St. Clair Avenue West
tel: 416-326-2398
fax: 416-314-8452

Project Information

Financial Assurance Information

Financial Assurance required?	☑		
Financial Assurance amount specified?	☑	Amount specified	$40,313.00
Change from the orginal amount of Financial Assurance?	☐	New amount	$0.00
Date Financial Assurance required by C of A			
Date Financial Assurance received by MOE	1995/11/21		
Is there an automatic renewal provision?	☑		

Financial Assurance Type

Letter of Credit	☑		
Letter of Guarantee	☐		
Bond	☐		
Cheque	☐		
Other	☐	Description	
Renewal Notice?	☐		
Change in Financial Assurance Type?	☐	New Financial Assurance Type	

Issuer of Financial Assurance Instrument

Bank Name	CANADIAN IMPERIAL BANK OF COMMERCE
Bond Company's Name	
Other Provider	
Change in Provider	☐
Name of New Provider	
Financial Assurance Instrument Number	T-369385
Change in Financial Assurance Instrument Number	☐
New Instrument Number	
Termination Date Provided?	☑
Termination Date	1996/11/18

TELE-COPIER COVER SHEET

Ministry of the Environment
Eastern Region
133 Dalton Avenue, P.O. Box 820
Kingston, Ontario
K7L 4X6

TELE-COPIER NO.: (613) 548-6908
TELEPHONE NO.: (613) 549-4000

DATE: 05/18/01 FAX #: [Ottawa]

TO: DAN HARRISON

FROM: KAREN PATTINSON

NO. OF PAGES, INCLUDING THIS SHEET: 2

If you did not receive the number of pages specified, or if you have trouble reading the copy, please call 613-549-4000 for assistance.

****

DAN:

PLEASE FIND A CANCELLATION NOTICE PERTAINING TO FINANCIAL ASSURANCE REFERING TO COFA # A 710060

THIS IS A NON-SOLID PROCESSING SITE OPERATING AT 500 CONVENTRY RD.

I DO NOT HAVE THIS INFORMATION ON MY FINANCIAL DATABASE, SO HOPEFULLY YOU HAVE A TRACKING SYSTEM.

549-4000 x 2648

KAREN PATTINSON
RECORDS

CIBC

Trade Finance Centre

Notice of Cancellation

10 April, 2001 **Registered Mail**

To: Minister of Environment and Energy
133 Dalton Avenue
Kingston, Ontario
K7L 4X6

Dear Sir / Madam:

Re: Our standby letter of credit No: SBGT701499 (Previously T-369385)
For CAD49,313.00
For account of: Coca Cola Bottling Ltd

This letter of credit will now expire at our counters at Trade Finance Centre, 25 King Street West, Commerce Court North 16th floor, Toronto, Ontario, M5L 1A2 on November 18, 2001and will not be renewed for a further period. However, as November 18, 2001 is not a business day, drawing, if any, must be received by us on or before November 19, 2001, being the next business day our office is open.

For any inquiries, please contact the undersigned at **Phone:** (416)-980-2253, **Fax:** (416)-980-3830.

For Canadian Imperial Bank of Commerce

Authorized Signature

CC:
C.I.B.C
World Markets
Toronto, Ont
Attn: Ricky Degrys
Fax #416-980-5855

MINISTRY OF THE ENVIRONMENT
APR 17 2001
KINGSTON - ONTARIO
REGIONAL OFFICE

Ministry of Environment and Energy

2435 Holly Lane
Ottawa ON K1V 7P2
Tel (613) 521-3450
Fax (613) 521-5437

Ministère de l'Environnement et de l'Énergie

2435 Holly Lane
Ottawa ON K1V 7P2
Tél (613) 521-3450
Télec (613) 521-5437

Ontario

October 25, 1996

M E M O R A N D U M

TO Barry Burns
Approvals Engineer
Eastern Region

FROM Steve Burns
District Manager

RE: **Certificate of Approval A710060**

Ottawa District staff are requesting that the above noted Certificate of Approval for a waste processing site issued to Coca-Cola Bottling Ltd, 42 Avonlea Blvd, Toronto, Ontario M4H 1B8 be revoked and the associated financial assurance be returned to the site owner. The site was established to allow soil generated by the clean-up of an on-site underground storage tank to be treated by exsitu bioremediation. This project is now complete.

The District is in receipt of a report required by the C of A confirming that the waste on site has been successfully treated. As required under the C of A a site inspection was conducted on October 18, 1996 to verify that waste is no longer present on site. At that time the site owners confirmed that waste would no longer be processed on site.

A property transaction is conditional upon the remediation of this site and we ask that this revocation be dealt with as soon as practicable.

Please contact Mr. Montcalm, Senior Environmental Officer, if you require any further information in this matter.

Steve Burns

ARCTURUS
ENVIRONMENTAL
A division of Lentor Pacific Environmental Technologies Inc.

GM

0.05/7.500.01

July 26, 1996

Ontario Ministry of the Environment and Energy
Southeastern Region
133 Dalton Avenue
Kingston, Ontario
K7L 4X8

MINISTRY OF ENVIRONMENT
& ENERGY
AUG - 9 1996
OTTAWA

Attention: **Mr. Brian Ward, Regional Director**

Subject: **Ongoing Remedial Activities**
500 Coventry Road, Ottawa, Ontario
MOEE Provisional CofA # A710060

Dear Mr. Bishop,

This letter updates the status of ongoing site remedial activities conducted at the Coca-Cola distribution facility located at 500 Coventry Road, Ottawa as required by the Ontario Ministry of the Environment and Energy (MOEE) Provisional Certificate of Approval (C of A) Number A710060.

Our initial update on site remedial activities was originally reported to the MOEE in correspondence dated March 27, 1996. This letter covers the period from March to July 1996, as an extension from the previous correspondence.

Current Site Conditions

The site layout is shown in Figure 1.

EBC Soil

A total of approximately 10,000 tonnes of petroleum-hydrocarbon impacted soil is currently contained within the EBC, including approximately 6700 tonnes from on-site excavation and approximately 3300 tonnes previously stockpiled on site.

Arcturus has collected soil samples within the EBC, on March 25, April 24, May 17, and June 25, 1996. Collected samples were submitted to Paracel Laboratories Ltd. of Ottawa, Ont. for analysis of benzene, toluene, ethylbenzene, xylenes (BTEX) and total petroleum hydrocarbons (TPH) in the gas/diesel range. Soil sample locations are shown on Figure 1, while analytical results for soil samples are compared to site soil remedial criteria in Table 1.

Offices in Vancouver, Edmonton, Niagara Falls, Ottawa, Thunder Bay, Sudbury and Toronto
29 Camelot Drive, Suite 500, Nepean, Ontario K2G 5W6 Tel: (613) 727-0216 Fax: (613) 727-1806

Analytical results indicate that less than 1000 m^3 (2000 tonnes) of soil in the EBC marginally exceeds Ontario Ministry of the Environment and Energy (MOEE) Interim (1993) Level II Guidelines for benzene and xylenes.

Site Groundwater

As stated in our previous correspondence, on-site groundwater was effectively remediated in 1995 using Arcturus's portable granular activated carbon (GAC) pump and treat unit, and meets applicable site remedial criteria.

The system has been monitored in accordance with the agreement to discharge between Arcturus and the RMOC, and the results reported to the RMOC. Discharge volume is recorded and samples collected from the following locations i) before treatment and ii) after treatment prior to discharge to the regional sanitary sewer system. To date, the system has operated without incident. Analytical data for collected system samples is included in Table 2.

The groundwater treatment system remained on-site until July 13, 1996 to facilitate the dewatering of remaining soil within the EBC. Once the EBC was completely dewatered, the treatment system was removed from the site in anticipation of site decommissioning activities. Collected analytical data indicated that water remaining in the vicinity of the EBC was well below both site and RMOC criteria for BTEX and TPH.

Remaining Site Remedial Activities

Based on recent analytical data for soils, less than 2000 tonnes of soil within the EBC marginally exceeds site remedial soil criteria. Additional soil verification samples will be collected on the week of July 29, 1996. The expected date of completion of site remediation/site closure activities is September 30, 1996, as described in previous correspondence.

I trust that this satisfies your current requirements. Should you have any questions or comments, please call.

Sincerely,

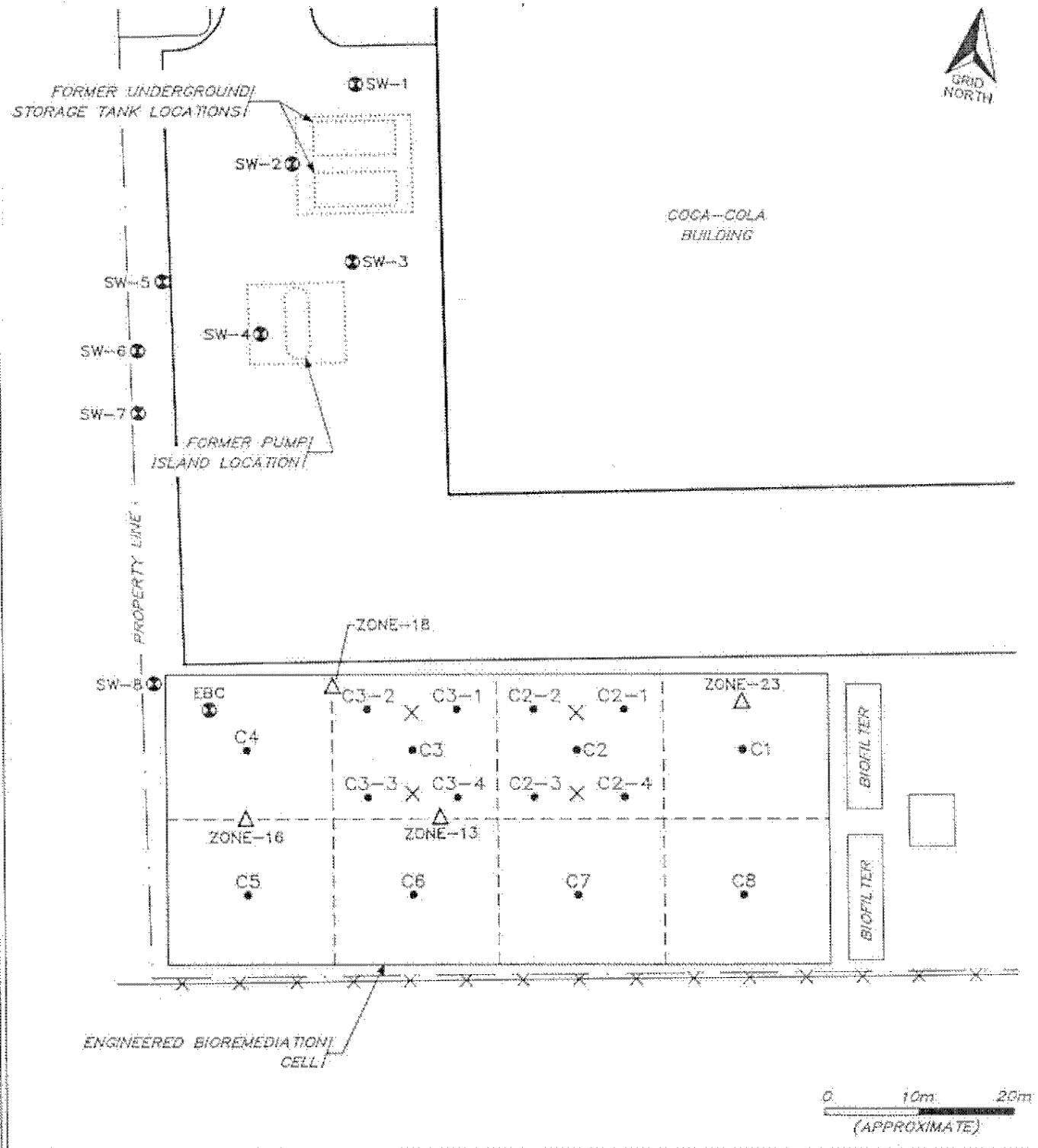
Mike Grinnell, B.A.Sc., P.Eng.
Project Engineer

for Paul Hubley, M.Sc.
Project Coordinator

SMG/smg

attachment

cc. Mr. R.B. Wallace, Coca-Cola Beverages Ltd.
cc. Mr. G.F. Montcalm, MOEE Southeastern Region, Ottawa



LEGEND

C4 • SOIL SAMPLE(OCTOBER 1995)
ZONE 13 △ SOIL SAMPLE(JUNE 1996)
C2-1 • SOIL SUBSAMPLE(MAY 1996)
X COMPOSITE SAMPLE(EBC-COMP) (MAR./APR. 1996)
SW-1 SUMP WELL

SOIL SAMPLING & SUMP WELL LOCATIONS
500 COVENTRY ROAD
OTTAWA, ONTARIO

CLIENT: Coca-Cola

ARCTURUS ENVIRONMENTAL

DATE JULY 1996		PROJECT No. E769.B	DRAWING No. FIGURE 1
DRWN TD	CHK'D PJH	SCALE AS SHOWN	

TABLE 1: COMPARISON OF CHEMICAL ANALYTICAL DATA FOR BTEX AND TPH IN SOIL TO ONTARIO MINISTRY OF ENVIRONMENT AND ENERGY (MOEE) INTERIM (1993) GUIDELINES, EX-SITU BIOREMEDIATION CELL, COCA COLA BOTTLING LTD., 500 COVENTRY ROAD. ALL DATA IN mg/kg.

PROJECT E769.8

	MOEE INTERIM SOIL REMEDIATION CRITERIA FOR PETROLEUM CONTAMINATION (mg/kg)			PARAMETER				
				BENZENE	ETHYLBENZENE	TOLUENE	TOTAL XYLENES	TPH (GAS DIESEL)
LEVEL I				0.05	0.5	1	1	100
LEVEL II				0.5	5	10	5	1000
LEVEL III				2	100	100	50	5000
SAMPLE ID	SAMPLE DESCRIPTION	COMBUSTIBLE VAPOURS (%LEL)	DATE SAMPLED					
EBC-COMP	0 - 1.0 m, silty till	N.M.	25 Mar 1996	1.21	1.99	0.375	4.87	200
EBC-COMP	0 - 1.0 m, silty till	N.M.	24 Apr 1996	0.075	0.162	0.039	0.482	<0.2
C2-1	0 - 0.8 m, moist silty sand	N.M.	17 May 1996	0.480	3.250	0.528	13.920	900
C2-2	0 - 1.2 m, saturated silt	N.M.	17 May 1996	<0.038	0.104	<0.038	0.059	320
C2-3	0 - 2.1 m, saturated silty sand	N.M.	17 May 1996	0.203	1.040	0.089	2.674	340
C2-4	0 - 2.1 m, saturated silty clay with gravel	N.M.	17 May 1996	0.241	2.200	0.238	7.930	880
C3-1	0 - 1.5 m, saturated silty clay	N.M.	17 May 1996	0.782	2.620	4.610	16.060	440
C3-2	0 - 1.2 m, saturated silty clay	N.M.	17 May 1996	<0.038	0.194	<0.038	0.271	120
C3-3	0 - 1.4 m, saturated silty clay	N.M.	17 May 1996	0.204	1.130	0.154	6.17	160
C3-4	0 - 2.0 m, moist silty sand	N.M.	17 May 1996	0.514	2.020	0.548	7.99	840
Zone 13	1.2 - 1.9 m, silty till	15% LEL	25 June, 1996	0.262	1.050	1.020	4.500	230
Zone 16	1.2 - 1.9 m, silty till	5% LEL	25 June, 1996	0.757	0.966	2.280	5.750	130
Zone 18	1.2 - 1.9 m, silty till	20% LEL	25 June, 1996	<0.038	0.673	0.286	3.090	1300
Zone 23	1.2 - 1.9 m, silty till	10% LEL	25 June, 1996	0.308	1.090	0.709	3.970	420

Verified by: SMC

BOLD : INDICATES PARAMETER CONCENTRATION EXCEEDS THE MOEE LEVEL II CRITERIA

N.M. : INDICATES THAT CVC's NOT MEASURED

N.A. : INICATES THAT PARTICULAR PARAMETER NOT ANALYZED FOR INDIVIDUAL SAMPLE SUBMITTED

SOIL SAMPLE LOCATIONS SHOWN ON FIGURE 2

DSM141: [illegible]

TABLE 2: COMPARISON OF CHEMICAL ANALYTICAL DATA FOR BTEX AND TPH IN GROUNDWATER VERIFICATION SAMPLES COLLECTED DURING MONITORING OF THE GRABULAR ACTIVATED CARBON (GAC) TREATMENT SYSTEM TO REGIONAL MUNICIPALITY OF OTTAWA-CARLETON (RMOC) INTERIM SEWER DISCHARGE CRITERIA. ALL DATA IS IN mg/L OR ppm.

PROJECT E769

		PARAMETER				
		BENZENE	ETHYLBENZENE	TOLUENE	TOTAL XYLENES	TPH*
RMOC INTERIM SEWER DISCHARGE CRITERIA		0.1	0.1	0.1	0.1	0.5
SAMPLE ID	DATE SAMPLED					
SAMPLE COLLECTED PRIOR TO TREATMENT						
E769.7.1-IN-04/24/96	01 Mar. 1195	0.0100	0.0120	0.0130	0.0500	<0.2
E769.7.1-IN-05/31/96	08 Mar. 1995	0.0023	<0.0005	<0.0005	<0.0015	0.4000
E769.8.1-IN-06/25/96	15 Mar. 1995	<0.0005	<0.0005	<0.0005	<0.0015	<0.2
DISCHARGE TO SEWER (AFTER TREATMENT)						
E769.7.1-OUT-04/24/96	20 Feb. 1995	<0.0005	<0.0005	<0.0005	<0.0005	<0.2
E769.7.1-OUT-05/31/95	01 Mar. 1995	<0.0005	<0.0005	<0.0005	<0.0005	<0.2
E769.8.1-OUT-06/25/95	06 Mar. 1995	<0.0005	<0.0005	<0.0005	<0.0005	<0.2

Verified By: SMG

NOTE: SYSTEM RESTARTED ON APRIL 12, 1996 AFTER BEING SHUTDOWN ON JANUARY 19, 1996
TPH* = TOTAL PETROLEUM HYDROCARBONS (GASOLINE/DIESEL FUEL RANGE)

C:\AIC\PUPIB\CCACOLA\ETP\ESAMT\TAB.VER

0.05.17.COC.

19 June 1996

MINISTRY OF ENVIRONMENT
& ENERGY
JUN 20 1996
OTTAWA

Arcturus Environmental
29 Camelot Drive, Suite 500
NEPEAN, Ontario
K2G 5W6

Attention: Mr. Mike Grinnell
Project Engineer

Dear Mr. Grinnell:

Re: Amendment Request to Coca-Cola Remediation Site
Provisional Certificate of Approval #A710060

This will acknowledge our receipt of your letter and report of March 27, 1996 and subsequent correspondence of May 22, 1996.

The information seems to be in compliance with Condition 15 of the Certificate which states:

15. If the remediation is not completed within the eight (8) month time frame.....

This condition only requires that you submit a status report and a reason for the delay. Your report under the section entitled "Remaining Site Remedial Activities" gives reason for the delay.

The Certificate has no expiration date, per se, apart from the suggested length of time noted in Condition 15. An amendment to the Certificate is not required to extend the remediation work to August 31, 1996.

Yours truly,

J.R. Mulder
Sr. Approvals and Planning Officer
Environmental Approvals and Plan Review
Technical Support Section
Eastern Region
JRM/sh
bcc: G. Montcalm
- J. Mulder/Regional File A710060

ARCTURUS
ENVIRONMENTAL
A division of Coast Pacific Environmental Technologies Inc.

MINISTRY OF ENVIRONMENT
& ENERGY
NOV 25 1996
OTTAWA

November 21, 1996
E769.8

Ontario Ministry of the Environment and Energy
Eastern Region
2435 Holly Lane
Ottawa, Ontario
K1V 7P2

Attention: **Mr. Greg Montcalm, Environmental Officer**

Subject: **Site Remedial Activities**
500 Coventry Road, Ottawa, Ontario
MOEE Provisional CofA #A710060

Dear Mr. Montcalm,

This letter is to inform you that all groundwater recovery and monitoring wells installed on the 500 Coventry Road property during remedial activities undertaken have now been abandoned. The abandonment occurred on November 12, and proceeded in accordance with applicable MOEE regulations.

The well abandonment marks the final step in site remedial activities completed by Coca-Cola at the 500 Coventry Road Property. We look forward to receiving a letter of sign-off shortly, and to the final revoking of CofA #A710060.

I trust that this satisfies your requirements. Please call me at 727-0216 should you have any questions or concerns.

Sincerely,

Mike Grinnell, B.A.Sc., P.Eng.
Project Engineer

SMG:smg

cc Bob Wallace, Coca-Cola Beverages Ltd.

Offices in Vancouver, Edmonton, Niagara Falls, Ottawa, Thunder Bay, Sudbury and Toronto
29 Comelot Drive, Suite 500, Nepean, Ontario K2G 5W6 Tel: (613) 727-0716 Fax: (613) 727-1806

Ministry of Environment and Energy

2435 Holly Lane
Ottawa ON K1V 7P2
Tel (613) 521-3450
Fax (613) 521-5437

Ministère de l'Environnement et de l'Énergie

2435 Holly Lane
Ottawa ON K1V 7P2
Tél (613) 521-3450
Téléc (613) 521-5437

Ontario

October 25, 1996

M E M O R A N D U M

TO Barry Burns
Approvals Engineer
Eastern Region

FROM Steve Burns
District Manager

RE: **Certificate of Approval A710060**

Ottawa District staff are requesting that the above noted Certificate of Approval for a waste processing site issued to Coca-Cola Bottling Ltd, 42 Avonlea Blvd, Toronto, Ontario M4H 1B8 be revoked and the associated financial assurance be returned to the site owner. The site was established to allow soil generated by the clean-up of an on-site underground storage tank to be treated by exsitu bioremediation. This project is now complete.

The District is in receipt of a report required by the C of A confirming that the waste on site has been successfully treated. As required under the C of A a site inspection was conducted on October 18, 1996 to verify that waste is no longer present on site. At that time the site owners confirmed that waste would no longer be processed on site.

A property transaction is conditional upon the remediation of this site and we ask that this revocation be dealt with as soon as practicable.

Please contact Mr. Montcalm, Senior Environmental Officer, if you require any further information in this matter.

Steve Burns

PROCESSING SITE INSPECTION

Status closed
(open/closed)

Operator Coca-Cola Beverages Limited

Location 500 Coventry Road, Ottawa Ontario

Certificate of Approval A710060
(or exemption criteria)

Site Capacity Limit 10,000T

Service Area on site

Personnel Interviewed R. B. Wallace & Mike Grinell

PROCESS

Materials Handled Soil excavated from petroleum impacted area associated with underground storage tanks

Processes used Bioremediation in Engineered Bioremediation Cell
(operation description)

Storage areas on site
(indoor/outdoor, location, contained)

Present On-site Tonnage 10,000T Daily compliance N/A

Method of calculation Volume
(mass balance, estimation)

Residual tonnage N/A % of total N/A
daily or monthly average

Disposal site used N/A

Markets used N/A

draft August 1995

SITE CONDITIONS

Appearance (litter, pests noise, dust) Cell covered with crushed stone
no problems associated

Signage entrance, on site fenced.

OPERATIONS

Operations Plan Report dated Feb 27, 1995 by Arctures

Emergency Plan in report

Contingency Plan in report

Training Plan in report

RECORDS

Amount Processed by Type log kept

Processing Problems none

Annual Report Complete final report Sept 30, 1996

Date submitted Sept 30, 1996

Comments recommend revocation of C of A and return financial assurance.

INSPECTOR [illegible] DATE Oct 22/96

draft August 1995

Greg
0-05-17 [illegible]

ARCTURUS
ENVIRONMENTAL

March 27, 1996

Ontario Ministry of the Environment and Energy
Southeastern Region
133 Dalton Avenue
Kingston, Ontario
K7L 4X8

MINISTRY OF ENVIRONMENT
& ENERGY
APR - 1 1996
OTTAWA

Attention: **Mr. John Bishop, District Manager**

Subject: **Ongoing Remedial Activities**
500 Coventry Road, Ottawa, Ontario
MOEE Provisional CofA # A710060

Dear Mr. Bishop,

This letter updates the status of ongoing site remedial activities conducted at the Coca-Cola distribution facility located at 500 Coventry Road, Ottawa as required by the Ontario Ministry of the Environment and Energy (MOEE) Provisional Certificate of Approval (C of A) Number A710060. This letter is also a request to amend the current C of A, by extending the date of completion until August 31, 1996.

The following topics are summarised:

- initial environmental site assessment (ESA)/remedial activities (previously completed); and,
- existing soil conditions within the on-site *ex-situ* engineered bioremediation cell (EBC) constructed to treat petroleum-hydrocarbon impacted soils.

Initial Site Assessment/Site Remedial Activities

Arcturus Environmental (Arcturus) was on site in August, October and, November 1994 to complete site assessment activities in order to determine the location and extent of petroleum hydrocarbon impacted soil and groundwater. A site sensitivity analysis (SSA) was conducted in accordance with the *Interim Guidelines for the Assessment and Management of Petroleum Contaminated Sites in Ontario* (MOEE, August 1993). Based upon the results of the SSA, the site sensitivity is Moderate, and therefore MOEE Interim (1993) Level II soil remedial criteria apply.

29 Camelot Drive, Suite 500, Nepean, Ontario K2G 5W6 (613) 727-0216 Fax (613) 727-1806
Niagara Falls Toronto Montréal Ottawa Thunder Bay Sudbury Niagara Falls, N.Y.

Based on the results of the ESA, approximately 6700 tonnes of soil exceeded Level II remedial criteria. The majority (6600 tonnes) of soil was located in the vicinity of the former fuel distribution facilities located to the west of the warehouse building (Figure 1). The remaining (100 tonnes) soil was located in the vicinity of a former waste oil tank, located to the east of the warehouse building. Initial analytical data from soil samples collected during site assessment activities are presented in Table 1. A detailed summary of initial site assessment activities conducted on Coca-Cola property was reported in *Coca-Cola Beverages Ltd., Site Assessment and Evaluation of Remedial Alternatives, 500 Coventry Road, Ottawa, Ontario* (Arcturus, December 1994).

On-site, ex-situ bioremediation was selected as the method of remediation for petroleum hydrocarbon impacted soils. Pumping and treatment with granular activated carbon (GAC) was selected as the method of remediation for impacted groundwater within the source zone. Detailed site remedial activities were reported in our July 21, 1995 correspondence.

Current Site Conditions

The site layout is shown in Figure 1.

EBC Soil

A total of approximately 10,000 tonnes of petroleum-hydrocarbon impacted soil is currently contained within the EBC, including approximately 6700 tonnes from on-site excavation and approximately 3300 tonnes previously stockpiled on site. Initial analytical data for BTEX and TPH which are representative of soil loaded within the EBC are shown on Table 1.

Arcturus has collected soil samples within the EBC, on October 2, October 10, and December 21, 1995, and on January 19 and February 28, 1996. Collected Samples were submitted to Paracel Laboratories Ltd. of Ottawa, Ont. for analysis of benzene, toluene, ethylbenzene, xylenes (BTEX) and total petroleum hydrocarbons (TPH) in the gas/diesel range. Soil sample locations within the EBC are shown on Figure 2. Analytical results for soil samples are compared to site soil remedial criteria in Table 2.

Analytical results indicate that approximately 1250 m^3 (2500 tonnes) of soil in the EBC marginally exceeds Ontario Ministry of the Environment and Energy (MOEE) Interim (1993) Level II Guidelines for benzene and xylenes.

In addition, two representative soil samples were collected in October 1995 and submitted to BIOREM Technologies Inc of Waterloo Ont. Total bacteria (colony forming units or CFU) and hydrocarbon utilizing bacteria (HUB) data from the submitted samples indicate that favourable conditions for ongoing bioremediation exist in soil within the EBC. A copy of analytical results from Biorem is attached.

EBC Biofilters

Various measurements recorded during system operation (vapour concentration in and out of the biofilters, temperature and moisture content of biomass in the biofilters etc.) are included in Table 3.

In addition, a single representative sample was collected from each of the biofilters in October 1995 and submitted to BIOREM Technologies Inc of Waterloo Ont. Total bacteria (colony forming units or CFU) and hydrocarbon utilizing bacteria (HUB) data from the submitted samples indicate that favourable conditions for ongoing bioremediation exist in the remaining biomass within each biofilter located on-site. A copy of analytical results from Biorem is attached.

Site Groundwater

Groundwater is pumped and treated on site using a GAC treatment system. Treated groundwater is discharged into Regional Municipality of Ottawa-Carleton (RMOC) storm sewers. Analytical data for on-site groundwater sampling events conducted in May, July and October 1995 are included in Tables 4, 5 and 6. Groundwater sample locations are shown on Figure 1. The results show that petroleum-hydrocarbon concentrations in groundwater are steadily decreasing, and currently meet applicable site remedial criteria.

The groundwater treatment system operated from April 7, 1995 to January 19, 1996, at which time the system was shut off. In all, a total of 1,869,980 litres of groundwater (approximately 6296 litres per day) was treated and discharged by the system.

The system has been monitored in accordance with the agreement to discharge between Arcturus and the RMOC, and the results reported to the RMOC. Discharge volume is recorded and samples collected from the following locations i) before treatment and ii) after treatment prior to discharge to the regional sanitary sewer system. To date, the system has operated without incident. Analytical data for collected system samples is included in Table 7.

Remaining Site Remedial Activities

As stated previously, approximately 1250 tonnes of soil within the EBC requires further treatment to meet site remedial soil criteria. Initial expectations were for on-site soil bioremediation to occur during warm weather months (April to October) in 1995. However, operation of the system into the warm weather months of 1996 is required to meet site remedial criteria.

The expected date of completion of site remedial activities is now August 31, 1996. Therefore, Arcturus requests an extension/modification to the 8 month treatment time outlined in MOEE CofA Number A710060, to allow for on-going bioremediation of soil until August 31, 1996. Site closure proceedings, as required by MOEE CofA Number A710060 will be conducted between September 1 and 30, 1996.

I trust that this satisfies your current requirements, therefore, please review our request to continue operation of the on-site, ex-situ EBC soil treatment system until August 31, 1996 and respond (in writing) at your earliest convenience. Should you have any questions or comments, please call.

Sincerely,

Mike Grinnell

Mike Grinnell, B.A.Sc., P.Eng.
Project Engineer

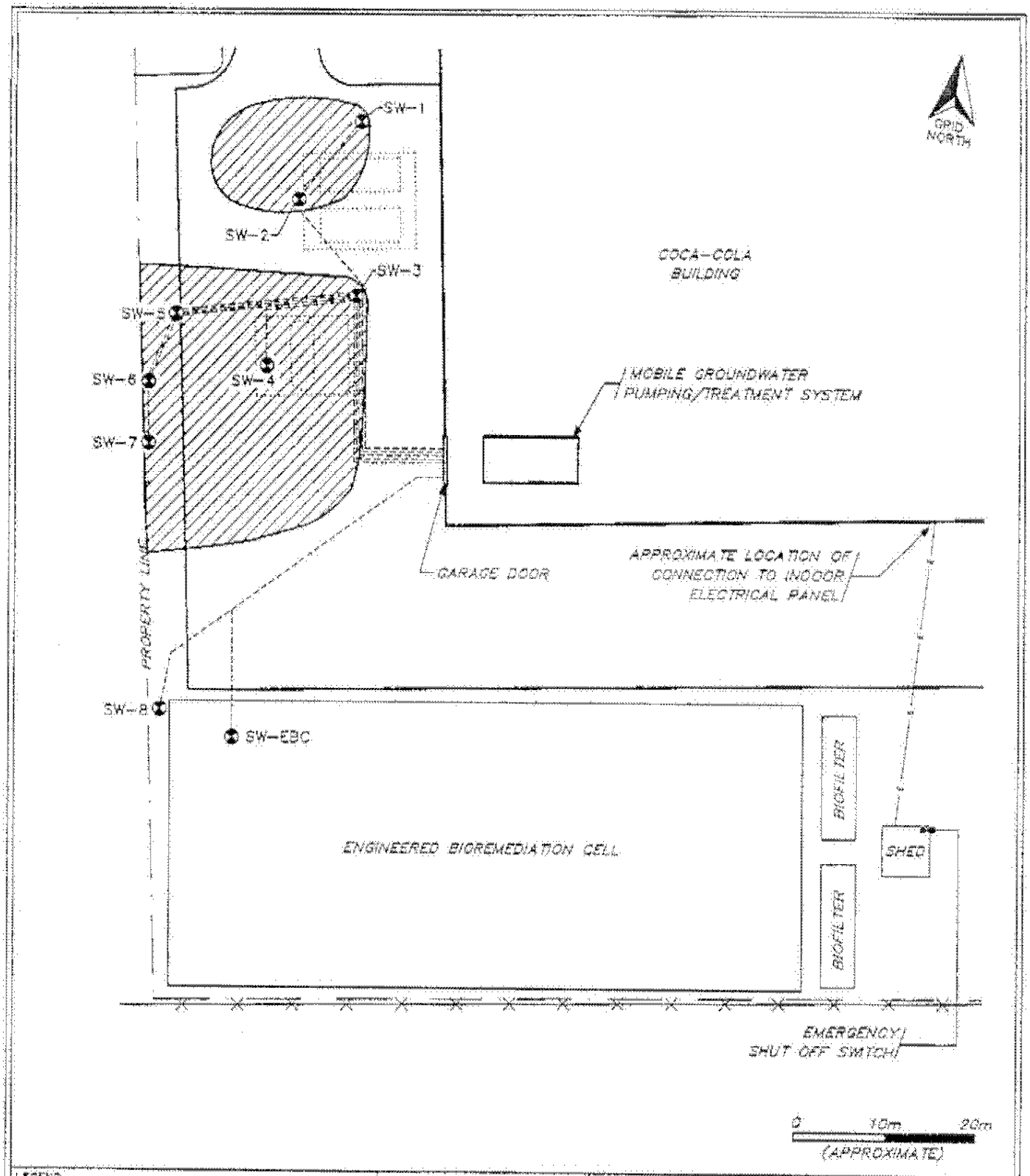
Don Plenderleith

for Paul Hubley, M.Sc.
Project Coordinator

SMG/smg

attachment

cc. Mr. R.B. Wallace, Coca-Cola Beverages Ltd.
cc. Mr. G.F. Montcalm, MOEE Southeastern Region, Ottawa



LEGEND

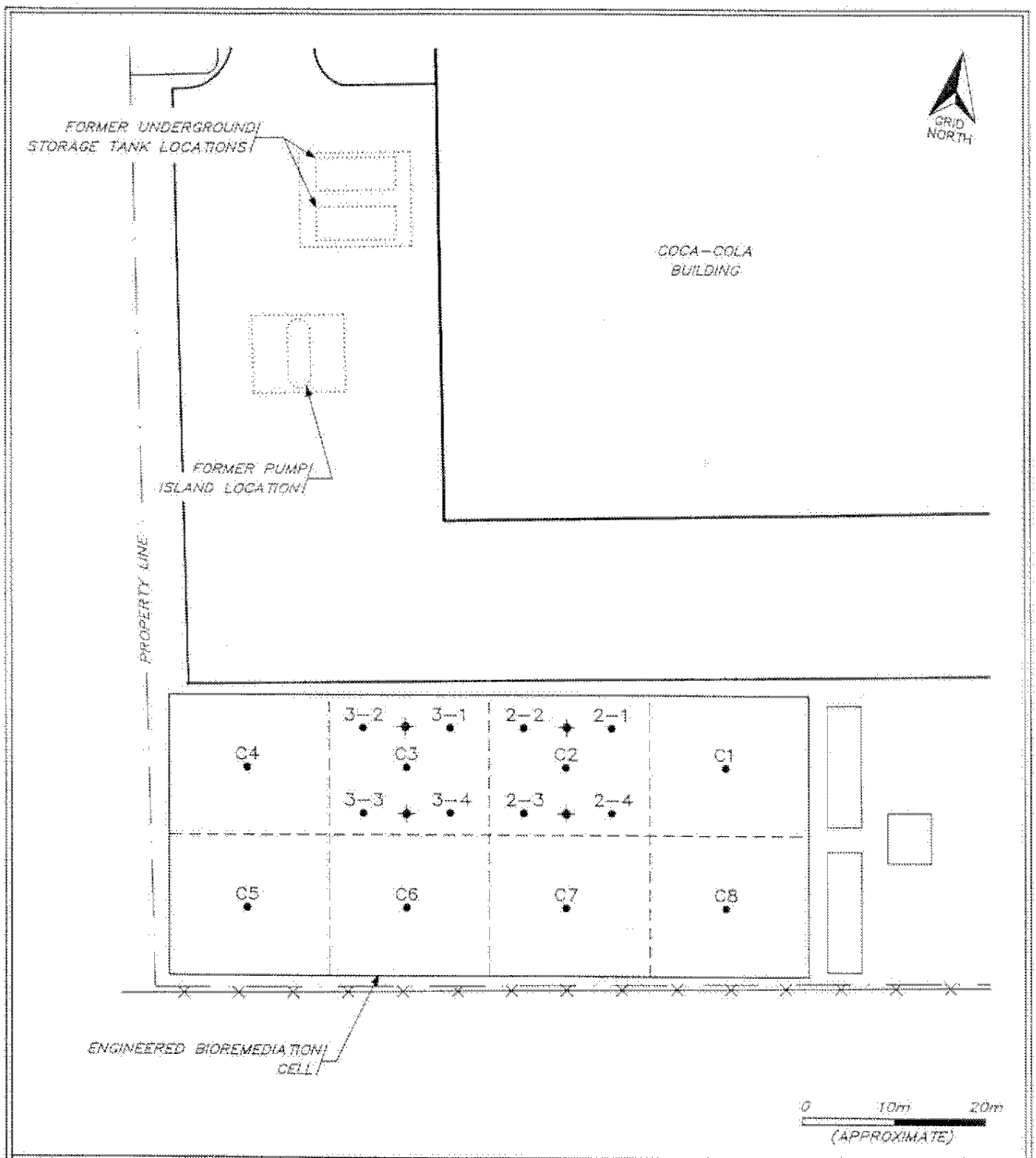
- AREAS OF EXCAVATION
- SW-5 SUMP WELL
- APPROXIMATE LOCATION OF BURIED WATER/ELECTRICAL LINES
- APPROXIMATE LOCATION OF BURIED ELECTRICAL LINE

EBC & SUMP WELL LOCATIONS
500 COVENTRY ROAD
OTTAWA, ONTARIO

CLIENT: Coca-Cola

ARCTURUS

DATE MARCH 1998		PROJECT No. E759.7	DRAWING No. FIGURE 1
DRWN TD	CHK'D PJH	SCALE AS SHOWN	



LEGEND

C4 • COMPOSITE SOIL SAMPLE LOCATION, OCTOBER 2, 1995

2-1 • COMPOSITE SOIL SUBSAMPLE LOCATION, OCTOBER 10, 1995

✦ EBC COMPOSITE SOIL SAMPLE LOCATION, DECEMBER 1995

EBC SOIL SAMPLING LOCATIONS
500 COVENTRY ROAD
OTTAWA, ONTARIO

CLIENT: Coca-Cola

ARCTURUS

DATE MARCH 1996		PROJECT No. E769.7	DRAWING No. FIGURE 2
DRWN TD/MJF	CHK'D PJH	SCALE AS SHOWN	

TABLE 1: COMPARISON OF CHEMICAL ANALYTICAL DATA FOR BTEX AND TPH IN SOIL TO ONTARIO MINISTRY OF THE ENVIRONMENT AND ENERGY (MOEE) INTERIM GUIDELINES, COCA COLA BOTTLING LTD., 500 COVENTRY ROAD. ALL DATA IN mg/kg OR PPM.

PROJECT E769.2

MOEE INTERIM SOIL REMEDIATION CRITERIA FOR PETROLEUM CONTAMINATION (mg/kg)				PARAMETER					
				BENZENE	ETHYLBENZENE	TOLUENE	TOTAL XYLENES	TPH*	TPH+
LEVEL I				0.05	0.5	1	1	100	1000
LEVEL II				0.5	5	10	5	1000	5000
LEVEL III				2	100	100	50	5000	5000
SAMPLE ID	SAMPLE DESCRIPTION	COMBUSTIBLE VAPOURS (%LEL)	DATE SAMPLED						
	Borehole Investigation								
BH102 SS-4	1.5 to 2.1 m, silty sand	5	1 Nov. 1994	0.120	<0.038	0.130	0.054	<20	<500
BH102 SS-4	2.1 to 2.7 m, silty clay till	7	1 Nov. 1994	0.210	0.352	1.125	1.790	80	<500
BH103 SS-3	1.5 to 2.1 m, silty sand till	3.7	1 Nov. 1994	<0.038	<0.038	<0.038	<0.076	<20	<500
BH104 SS-4	2.4 to 3.0 m, silty clay till	77	1 Nov. 1994	0.425	0.463	1.32	2.917	60	<500
BH105 SS-3	1.8 to 2.4 m, silty clay till	53	2 Nov. 1994	**6.53**	10.2	29.2	**53.2**	1320	<500
BH108 SS-2	1.2 to 1.8 m, silty sand	3	2 Nov. 1994	0.074	0.112	<0.038	0.447	20	<500
BH110 SS-3	1.5 to 2.1 m, silty sand gravel till	28	2 Nov. 1994	**6.82**	3.97	19.2	17.56	160	<500
BH111 SS-2	0.9 to 1.5 m, silty sand	>100	2 Nov. 1994	**12.900**	50.9	>92.1	**242.9**	2100	<500
BH111 SS-6	3.3 to 3.9 m, silty clay till	20	2 Nov. 1994	0.862	1.820	6.530	10.590	200	<500
BH112 SS-4	2.1 to 2.7 m, silty clay till	>100	2 Nov. 1994	**8.79**	14.2	50.8	**69.9**	1100	<500
BH112 SS-5	2.7 to 3.3 m, silty clay till	5	2 Nov. 1994	0.343	0.38	1.83	2.35	100	<500
BH113 SS-4	2.1 to 2.7 m, silty clay till	30	2 Nov. 1994	**>4.35**	8.35	35.6	**61.4**	1700	<500
BH113 SS-6	3.3 to 3.9 m, silty clay till	12	2 Nov. 1994	0.391	0.785	3.67	7.8	140	<500
BH114 SS-3	1.5 to 2.1 m, silty sand gravel till	85	4 Nov. 1994	0.178	1.27	0.115	2.247	200	<500
RB-3 SS-3	1.5 to 2.1 m, silty sand gravel till	>100	8 Nov. 1994	**5.13**	4.93	21	25.81	220	<500
RB-3 SS-6	3.8 to 4.4 m, silty clay till	2.9	8 Nov. 1994	0.103	<0.038	0.221	0.065	40	<500
RB-4 SS-3	1.5 to 2.1 m, silty sand gravel till	38	9 Nov. 1994	**2.31**	5.97	14.2	33.3	740	<500
RB-4 SS-6	3.8 to 4.3 m, silty clay till	0.6	9 Nov. 1994	<0.038	<0.038	<0.038	<0.076	80	<500
	Test Pitting program								
TP-9 SS-4	2.1 m, silty clay till	30	18 Oct. 1994	**6.4**	1.9	12	8.6	40	<500
TP-12 SS-1	0.6 m, sand	10	18 Oct. 1994	<0.038	<0.038	<0.038	<0.076	<20	<500
TP-13 SS-2	1.2 m, sand	35	18 Oct. 1994	0.083	0.18	0.35	0.6	<20	<500
TP-16 SS-3	2.1 m, silty clay till	10	18 Oct. 1994	0.83	0.27	1	1.05	100	<500

BOLD : INDICATES PARAMETER CONCENTRATION EXCEEDS THE MOEE LEVEL III CRITERIA

BOLD : INDICATES PARAMETER CONCENTRATION IS BETWEEN THE MOEE LEVEL II AND LEVEL III CRITERIA

BOLD : INDICATES PARAMETER CONCENTRATION IS BETWEEN THE MOEE LEVEL I AND LEVEL II CRITERIA

*TPH (TOTAL PETROLEUM HYDROCARBONS) GAS DIESEL RANGE

+TPH (TOTAL PETROLEUM HYDROCARBONS) HEAVY OILS RANGE

Verified by:

000388

TABLE 2: COMPARISON OF CHEMICAL ANALYTICAL DATA FOR BTEX AND TPH IN SOIL TO ONTARIO MINISTRY OF ENVIRONMENT AND ENERGY (MOEE) INTERIM (1993) GUIDELINES, EX-SITU BIOREMEDIATION CELL, COCA COLA BOTTLING LTD., 500 COVENTRY ROAD. ALL DATA IN mg/kg.

PROJECT E769.7

MOEE INTERIM SOIL REMEDIATION CRITERIA FOR PETROLEUM CONTAMINATION (mg/kg)				PARAMETER					
				BENZENE	ETHYLBENZENE	TOLUENE	TOTAL XYLENES	TPH (GAS DIESEL)	TPH (HEAVY OIL)
LEVEL I				0.05	0.5	1	1	100	1000
LEVEL II				0.5	5	10	5	1000	5000
LEVEL III				2	100	100	50	5000	5000
SAMPLE ID	SAMPLE DESCRIPTION	COMBUSTIBLE VAPOURS (%LEL)	DATE SAMPLED						
	Initial Cell Verification Samples								
COMP 1	0 - 1 m, fine silty sand	6	02 October 1995	0.315	1.040	0.533	0.945	240	<500
COMP 2	0 - 1.5 m, fine silty sand	4	02 October 1995	**0.990**	3.910	1.220	**14.620**	400	<500
COMP 3	0 - 1.5 m, fine silty sand	11	02 October 1995	0.393	2.960	0.773	**19.620**	640	<500
COMP 4	0 - 1.2 m, fine sand	0.4	02 October 1995	<0.038	<0.038	<0.038	<0.038	<20	<500
COMP 5	0 - 1.2 m, fine sand/silty sand	1.4	02 October 1995	0.054	0.048	<0.038	0.093	<20	<500
COMP 6	0 - 1.5 m, fine silty sand	3.2	02 October 1995	<0.038	0.207	<0.038	0.047	80	<500
COMP 7	0 - 1.1 m, fine silty sand	5.1	02 October 1995	0.085	0.357	<0.038	0.178	100	<500
COMP 8	0 - 1.0 m, fine silty sand	8	02 October 1995	0.309	0.310	0.296	0.622	80	<500
	Subsequent Verification Samples								
2-1	0 - 1.0 m, fine silty sand	N.M.	10 October 1995	**0.803**	1.120	0.103	0.980	120	N.A.
2-2	0 - 1.0 m, fine silty sand	N.M.	10 October 1995	**0.837**	1.610	1.01	**6.34**	120	N.A.
2-3	0 - 1.5 m, fine sand	N.M.	10 October 1995	**0.873**	2.620	0.647	**7.310**	340	N.A.
2-4	0 - 1.3 m, fine sand	N.M.	10 October 1995	**0.817**	2.760	0.564	**9.300**	420	N.A.
3-1	0 - 1.0 m, fine silty sand	N.M.	10 October 1995	**1.000**	1.410	1.560	**6.830**	120	N.A.
3-2	0 - 1.0 m, fine silty sand	N.M.	10 October 1995	0.174	0.679	0.557	2.093	100	N.A.
3-3	0 - 1.3 m, fine silty sand	N.M.	10 October 1995	0.238	2.590	0.096	**8.389**	300	N.A.
3-4	0 - 1.5 m, fine sand	N.M.	10 October 1995	0.265	0.968	0.341	3.54	180	N.A.
EBC-COMP	0 - 1.5 m, fine silty sand	7.0	21 December 1995	0.42	2.5	0.35	4.889	360	N.A.
EBC-COMP	0 - 1.0 m, fine silty sand	5.0	19 January 1996	0.166	0.154	0.071	0.417	140	N.A.
EBC-COMP	0 - 1.0 m, fine silty sand	N.M.	28 February 1996	0.067	0.326	0.065	0.202	80	N.A.

Verified by:

BOLD : INDICATES PARAMETER CONCENTRATION EXCEEDS THE MOEE LEVEL II CRITERIA

N.M. : INDICATES THAT CVC's NOT MEASURED

N.A. : INDICATES THAT PARTICULAR PARAMETER NOT ANALYZED FOR INDIVIDUAL SAMPLE SUBMITTED

SOIL SAMPLE LOCATIONS SHOWN ON FIGURE 2

TABLE 3: EBC DATA, COCA-COLA BOTTLING LTD., 500 COVENTRY ROAD, OTTAWA, ONTARIO

Total VOC's in ppm
NOTE FID MEASURES IN C1 (total response including methane)
response factor for hexane is 6.1

DATE	in C1	out C1	in C6	out C6	comments
July 19	72	48	439.2	292.8	
Aug 3	5.2	2.8	31.72	17.08	
Aug 9	13.1	7.5	79.91	45.75	
Aug 16	14.5	31	88.45	189.1	
Aug 17	0.2	0	1.22	0	FID
Aug 17			0	0	Gastech (methane elimination on)
Aug 17			30	175	Gastech (methane elimination off)
Aug 29			5	10	Gastech methane elimination switch on
aug 29			10	40	Gastech methane elimination switch OFF

Biofilter #1 Measurements

DATE	sampling point	Pressure in h2o	Change in Pressure in h2o	Velocity ft/s	Flow cu. m/s
July 19	in	5.5	0.43	2600	3.614402
	out	0.55	0.3	600	0.834093
Aug 30	in	5.1	0.63	3100	4.30948
	out	1.1	0.75	3450	4.796034

Biofilter #2 Measurements

DATE	sampling point	Pressure in h2o	Change in Pressure in h2o	Velocity ft/s	Flow cu. m/s
July 19	in	4.6	0.3	2300	3.197356
	out	0.5	0.15	1500	2.085232
Aug 30	in	5.7	0.73	3400	4.726526
	out	0.55	0.46	2700	3.753418

Stack Measurements

DATE	sampling point	Pressure in h2o	Change in Pressure in h2o	Velocity ft/s	Flow cu. m/s
July 19	out	0.48	0.18	1600	2.224248
Aug 30	out	0.25	0.05	1500	2.085232

Biofilter Measurements

DATE	Biofilter sampled	Temperature (celcius)	pH	% Moisture
Aug 28	1	37.0	6.1	48.4
Aug 28	2	28.0	6.3	58.0

TABLE 4: COMPARISON OF CHEMICAL ANALYTICAL DATA FOR BTEX AND TPH IN GROUNDWATER SAMPLES (MAY 1995) TO ONTARIO MINISTRY OF THE ENVIRONMENT AND ENERGY (MOEE) PROPOSED (1994) GUIDELINES FOR THE CLEANUP OF CONTAMINATED SITES IN ONTARIO FOR INDUSTRIAL/COMMERCIAL LAND USE IN A NON-POTABLE GROUNDWATER SITUATION. ALL DATA IN mg/L.

PROJECT E769.7

			PARAMETER				
			BENZENE	ETHYLBENZENE	TOLUENE	TOTAL XYLENES	TPH*
MOEE PROPOSED (1994) CLEAN-UP CRITERIA			1.9	28	5.9	5.6	50
SAMPLE ID	SAMPLE DESCRIPTION	DATE SAMPLED					
	Groundwater Verification Samples						
SW-1		24 May 1995	0.0016	0.0097	<0.001	0.067	0.6
SW-3		24 May 1995	0.009	0.014	0.0017	0.295	15.0
SW-4		24 May 1995	<0.0005	<0.0005	<0.001	<0.001	<0.2
SW-5		24 May 1995	0.02	<0.0005	0.028	0.085	1.0
SW-6		24 May 1995	<0.0005	0.0061	0.0167	**8.652**	**240**
SW-7		24 May 1995	0.0043	0.052	<0.001	0.035	1.2
RW-9		24 May 1995	<0.0005	<0.0005	<0.001	<0.001	<0.2
RW-10		24 May 1995	<0.0005	0.0007	<0.001	<0.001	<0.2
BLANK		NA	<0.0005	<0.0005	0.001	<0.001	-

NA - not available

Verified By:

BOLD EXCEEDS MOEE (1994) CRITERIA

C:\ARCTURUS\DOCAD\LAUDIT\ FOWSUM.XLS

TABLE 5: COMPARISON OF CHEMICAL ANALYTICAL DATA FOR BTEX AND TPH IN GROUNDWATER SAMPLES (JULY 1995) TO ONTARIO MINISTRY OF THE ENVIRONMENT AND ENERGY (MOEE) PROPOSED (1994) GUIDELINES FOR THE CLEANUP OF CONTAMINATED SITES IN ONTARIO FOR INDUSTRIAL/COMMERCIAL LAND USE IN A NON-POTABLE GROUNDWATER SITUATION. ALL DATA IN mg/L.

PROJECT E769.7

			PARAMETER				
			BENZENE	ETHYLBENZENE	TOLUENE	TOTAL XYLENES	TPH*
MOEE PROPOSED (1994) CLEAN-UP CRITERIA			1.9	28	5.9	5.6	50
SAMPLE ID	SAMPLE DESCRIPTION	DATE SAMPLED					
	Groundwater Verification Samples						
SW-1		14 July 1995	0.0021	0.0069	<0.001	0.0220	0.6000
SW-2		14 July 1995	0.0081	0.0021	0.0035	0.0126	<0.2000
SW-3		14 July 1995	0.0016	0.0020	<0.001	0.0086	0.4000
SW-4		14 July 1995	<0.0005	<0.0005	<0.001	<0.0005	<0.2000
SW-5		14 July 1995	0.0150	<0.0005	0.0114	0.2352	0.6000
SW-6		14 July 1995	0.0033	0.0270	0.0240	0.2570	1.6000
SW-7		14 July 1995	0.0570	0.0046	0.0017	0.0440	0.4000
SW-8		14 July 1995	<0.0005	<0.0005	<0.001	<0.0005	<0.2000
QA/QC 1	Duplicate of SW-6	14 July 1995	0.0260	0.2740	0.1760	2.4940	34.0000

Verified By:

BOLD EXCEEDS MOEE (1994) CRITERIA

NOTE: Although outside normal error ranges, TPH results for QA/QC 1 were confirmed by the laboratory.

TABLE 6: COMPARISON OF CHEMICAL ANALYTICAL DATA FOR BTEX AND TPH IN GROUNDWATER SAMPLES (OCTOBER 1995) TO ONTARIO MINISTRY OF THE ENVIRONMENT AND ENERGY (MOEE) PROPOSED (1994) GUIDELINES FOR THE CLEANUP OF CONTAMINATED SITES IN ONTARIO FOR INDUSTRIAL/COMMERCIAL LAND USE IN A NON-POTABLE GROUNDWATER SITUATION. ALL DATA IN mg/L.

PROJECT E769.7

			PARAMETER				
			BENZENE	ETHYLBENZENE	TOLUENE	TOTAL XYLENES	TPH*
MOEE PROPOSED (1994) CLEAN-UP CRITERIA			1.9	28	5.9	5.6	50
SAMPLE ID	SAMPLE DESCRIPTION	DATE SAMPLED					
	Groundwater Verification Samples						
SW-5		02 October 1995	0.0101	<0.0005	<0.001	0.0017	<0.2000
SW-6		02 October 1995	0.2468	0.0305	0.0140	0.5515	2.6000
SW-7		02 October 1995	0.0230	0.0013	<0.001	0.0088	<0.2000
SW-8		02 October 1995	<0.0005	<0.0005	<0.001	<0.0005	<0.2000
QAQC 1	Duplicate sample of SW-6	02 October 1995	0.3237	0.1186	0.0184	0.5241	3.0000

Verified By:

BOLD	EXCEEDS MOEE (1994) CRITERIA

000393

TABLE 7: COMPARISON OF CHEMICAL ANALYTICAL DATA FOR BTEX AND TPH IN GROUNDWATER VERIFICATION SAMPLES COLLECTED DURING MONITORING OF THE GRABULAR ACTIVATED CARBON (GAC) TREATMENT SYSTEM TO REGIONAL MUNICIPALITY OF OTTAWA-CARLETON (RMOC) INTERIM SEWER DISCHARGE CRITERIA. ALL DATA IS IN mg/L OR ppm.

PROJECT E769

		PARAMETER					
		BENZENE	ETHYLBENZENE	TOLUENE	TOTAL XYLENES	TPH*	TPH+
RMOC INTERIM SEWER DISCHARGE CRITERIA		0.1	0.1	0.1	0.1	0.5	0.5
SAMPLE ID	DATE SAMPLED						
DISCHARGE TO SEWER (AFTER TREATMENT							
E769.6.2-OUT-02/21/95	20 Feb. 1995	<0.0005	<0.0005	<0.0005	<0.0005	<0.2	<10
E769.6.2-OUT-03/01/95	01 Mar. 1995	<0.0005	<0.0005	<0.0005	<0.0005	<0.2	<10
E769.6.2-OUT-03/08/95	08 Mar. 1995	<0.0005	<0.0005	<0.0005	<0.0005	<0.2	<10
E769.6.2-OUT-03/15/95	15 Mar. 1995	<0.0005	<0.0005	<0.0005	<0.0005	<0.2	<10
E769.6.2-OUT-03/29/95	29 Mar. 1995	<0.0005	<0.0005	<0.0005	<0.0005	<0.2	<10
E769.6.2-OUT-04/12/95	12 Apr. 1995	<0.0005	<0.0005	<0.0005	<0.0005	<0.2	<10
E769.6.2-OUT-04/19/95	19 Apr. 1995	<0.0005	<0.0005	<0.0005	<0.0005	<0.2	<10
E769.6.2-OUT-04/25/95	25 Apr. 1995	<0.0005	<0.0005	<0.0005	<0.0005	<0.2	<10
E769.6.2-OUT-05/03/95	03 May 1995	<0.0005	<0.0005	0.0033	<0.0005	<0.2	<10
E769.6.2-OUT-05/10/95	10 May 1995	<0.0005	<0.0005	<0.0005	<0.0005	<0.2	<10
E769.6.2-OUT-05/16/95	16 May 1995	<0.0005	<0.0005	<0.0005	<0.0005	<0.2	<10
E769.6.2-OUT-05/24/95	24 May 1995	<0.0005	<0.0005	<0.0005	<0.0005	<0.2	<10
E769.6.2-OUT-05/31/95	31 May 1995	<0.0005	<0.0005	<0.0005	<0.0005	<0.2	<10
E769.6.2-OUT-06/21/95	21 June 1995	<0.0005	<0.0005	<0.0005	<0.0005	<0.2	<10
E769.6.2-OUT-07/27/95	27 July 1995	<0.0005	<0.0005	<0.0005	<0.0005	<0.2	<10
E769.6.2-OUT-08/25/95	25 Aug. 1995	<0.0005	<0.0005	<0.0005	<0.0005	<0.2	<10
E769.7.1-OUT-09/27/95	27 Sep. 1995	<0.0005	<0.0005	<0.0005	<0.0005	0.6	<10
A125.2	11 Oct. 1995					<0.2	
E769.7.1-OUT-11/21/95	11 Nov. 1995	0.0066	<0.0005	0.0029	0.0018	<0.2	<10
E769.7.1-OUT-12/18/95	18 Dec. 1995	<0.0005	<0.0005	<0.0005	<0.0005	<0.2	<10

Verified By:

NOTE: DATA PRIOR TO 04/12/95 COLLECTED DURING INITIAL SITE GROUNDWATER CAPTURE SYSTEM MONITORING/SAMPLING OCCURED WEEKLY FROM FEB 22 TO MAY 30, 1995. EFFECTIVE MAY 30, 1995 SYSTEM MONITORING/SAMPLING REDUCED TO MONTHLY SAMPLE A125.2 COLLECTED TO VERIFY THAT SEPTEMBER 27, 1995 TPH RESULT DUE TO LABORATORY ERROR.

TABLE 7: COMPARISON OF CHEMICAL ANALYTICAL DATA FOR BTEX AND TPH IN GROUNDWATER VERIFICATION SAMPLES COLLECTED DURING MONITORING OF THE GRABULAR ACTIVATED CARBON (GAC) TREATMENT SYSTEM TO REGIONAL MUNICIPALITY OF OTTAWA-CARLETON (RMOC) INTERIM SEWER DISCHARGE CRITERIA. ALL DATA IS IN mg/L OR ppm.

PROJECT E769

		PARAMETER					
		BENZENE	ETHYLBENZENE	TOLUENE	TOTAL XYLENES	TPH*	TPH+
RMOC INTERIM SEWER DISCHARGE CRITERIA		0.1	0.1	0.1	0.1	0.5	0.5
SAMPLE ID	DATE SAMPLED						
SAMPLE COLLECTED PRIOR TO TREATMENT							
E769.6.2-IN-03/08/95	01 Mar. 1195	4.3600	1.5000	14.5000	8.9900	42.0000	<10
E769.6.2-IN-03/08/95	08 Mar. 1995	3.6200	0.9170	9.1300	5.6900	38.0000	<10
E769.6.2-IN-03/15/95	15 Mar. 1995	0.6310	0.8990	2.8000	8.5400	32.0000	<10
E769.6.2-IN-03/29/95	29 Mar. 1995	0.4570	0.0730	1.3000	1.1840	5.6000	<10
E769.6.2-IN-04/12/95	12 Apr. 1995	0.5990	0.4200	3.0400	3.4700	16.0000	<10
E769.6.2-IN-04/19/95	19 Apr. 1995	0.1050	<0.0005	0.1990	0.8400	4.6000	<10
E769.6.2-IN-04/25/95	25 Apr. 1995	<0.0005	<0.0005	<0.0005	<0.0005	<0.2	<10
E769.6.2-IN-05/03/95	03 May 1995	0.1290	0.0240	0.3830	0.4620	3.2000	<10
E769.6.2-IN-05/10/95	10 May 1995	0.0250	0.0045	0.0150	0.1350	1.6000	<10
E769.6.2-IN-05/16/95	16 May 1995	<0.0005	<0.0005	<0.0005	<0.0005	0.2000	<10
E769.6.2-IN-05/24/95	24 May 1995	0.0029	0.0071	<0.0005	0.1470	1.8000	<10
E769.6.2-IN-05/31/95	31 May 1995	<0.0005	<0.0005	<0.0005	0.3251	1.4000	<10
E769.6.2-IN-06/21/95	21 June 1995	0.0012	<0.0005	<0.0005	0.0771	0.3000	<10
E769.6.2-IN-07/27/95	27 July 1995	<0.0005	<0.0005	<0.0005	0.0950	0.4000	<10
E769.6.2-IN-08/25/95	25 Aug. 1995	<0.0005	<0.0005	<0.0005	<0.0005	<0.2	<10
E769.7.1-IN-09/27/95	27 Sep. 1995	<0.0005	<0.0005	<0.0005	<0.0005	0.5	<10
E769.7.1-IN-11/21/95	11 Nov. 1995	0.0160	0.0007	0.0039	0.0043	<0.2	<10
E769.7.1-IN-12/13/95	13 Dec. 1995	<0.0005	<0.0005	<0.0005	<0.0005	<0.2	<10

Verified By:

NOTE: DATA PRIOR TO 04/12/95 COLLECTED DURING INITIAL SITE GROUNDWATER CAPTURE SYSTEM MONITORING/SAMPLING OCCURED WEEKLY FROM FEB 22 TO MAY 30, 1995. EFFECTIVE MAY 30, 1995 SYSTEM MONITORING/SAMPLING REDUCED TO MONTHLY

000395

AUG 1 8 1995

OTTAWA

M E M O R A N D U M 14 August 1995

TO: Kim Lendvay
Approvals Evaluator
Environmental Approvals and Plan Review
Technical Support Section
Eastern Region

FROM: F. Crossley
Hydrogeologist
Water Resources Unit
Technical Support Section
Eastern Region

RE: Supplemental Information, Coca-Cola Beverages
500 Coventry Road, Ottawa, A710060

Having reviewed the above noted supplementary information report dated July, 1995 by Arcturus Environmental, I offer the following comments. The supplementary information was provided to address my concerns outlined in a memorandum dated 13 June 1995.

I indicated that the extent of the petroleum hydrocarbon contamination, both soil and groundwater, should be determined. Arcturus provide tables 1 and 2 which summarize the benzene, toluene, ethyl benzene and zylenes (BTEX) and total petroleum hydrocarbons (TPH) concentrations in the soils encountered during borehole and test pitting program. This information provides a delineation in the extent of the soil contamination based on the clean up criteria (level 2). The soil contamination is both on and off property. Groundwater results were not provided. Therefore the extent of the groundwater contamination is unknown.

I stated that verification and compliance sampling (soils) as outlined in the guideline 'Petroleum Contaminated Sites in Ontario' (MOEE, 1993) is required. It appears Arcturus relate this statement to the soils in the bioremediation system. These soils have to be monitored to determine compliance before they can be reused. The consultants proposed monitoring for the ex-situ bioremediation cell is acceptable. However the statement referred to the soils to be left in the ground. A verification and compliance monitoring program report will be required to determine the effectiveness of the soil cleanup.

I indicated that a monitoring program should be provided to determine the effectiveness of the bioremediation and groundwater pump and treat system. The monitoring program for the bioremediation system is discussed above and is acceptable.

Arcturus state that upon completion of the soil removal, approximately six monitoring wells will be installed. The monitoring wells are to be sampled for BTEX and TPH at a frequency of about four to six weeks. The monitoring well network should be installed to determine the extent of the contamination, both horizontal and vertical, and the zone of capture of the system.

Arcturus state that the cleanup criteria for groundwater is the proposed guideline for the 'Clean Up of Sites in Ontario' (MOEE, 1994). This document is not sanctioned at this time, however, if the consultants provide supporting documentation, it will be considered. If it is acceptable to this Ministry, the consultants will have to approach the offsite property owners and the Municipality for their concurrence. If it is acceptable to the offsite property owners and the municipality, the Regional Director should be advised and a determination should be made if the proposal is acceptable.

Frank Crossley
/cw
cc: Greg Montcalme/George Clark
- File GW 07-02, City of Ottawa
- FC TMS 26125

ARCTURUS ENVIRONMENTAL

July 21, 1995
E769.6

Ontario Ministry of the Environment and Energy
Southeastern Region
133 Dalton Avenue
Kingston, Ontario
K7L 4X8

Attention: Ms. Kim Lendvay, Approvals Evaluator

Re: Supplementary Information
500 Coventry Road, Ottawa, Ontario
MOEE File # A710060 - Application for Certificate of Approval

Dear Ms. Lendvay:

This letter provides further information requested by Mr. Frank Crossley (Ministry of Environment and Energy (MOEE) Water Resources Unit), and represents the remaining available information required for the Application for Certificate of Approval (MOEE File #A710060). Included are the results of a delineation program (on-site and off-site), a proposed sampling program for groundwater, and a proposed sampling program for soil in the engineered bioremediation cell (EBC). All correspondence relating to the off-site delineation program has been previously reported to Mr. Greg Montcalm of the MOEE (Ottawa District).

The sampling and monitoring programs proposed here will be implemented pending your approval.

DELINEATION PROGRAM

An extensive delineation program has been conducted to address petroleum hydrocarbon contamination at this site, and off-site properties. All correspondence relating to on-site and off-site petroleum hydrocarbon impact to soil and groundwater has been forwarded and discussed on a regular basis with the local (Ottawa) branch of the MOEE.

Delineation activities involved borehole drilling and a test pitting program, in locations shown in Figure 1. Soil samples collected during the delineation program were submitted for laboratory analysis of benzene, toluene, ethylbenzene and xylenes (BTEX) and total petroleum hydrocarbons (TPH) (gas/diesel and heavy oil fractions). Analytical results are provided in Table 1 and Table 2.

As shown in Tables 1 and 2, several soil samples exceeded relevant remedial criteria. We expect that soil and groundwater exceeding relevant criteria will continue to be addressed with the local MOEE until completion of the project.

PROPOSED SAMPLING PROGRAMS

Monitoring programs have been developed to ensure efficient operation of the EBC and groundwater pumping/granular activated carbon (GAC) treatment system. A description of proposed monitoring programs is provided below.

EBC Monitoring Program

Soil sampling in the EBC was described briefly in the "Detailed Remediation Strategy", included as Appendix II of the Application.

In summary, monitoring of soil in the EBC will include the following:

- monthly collection of composite soil samples from the EBC (estimated time for treatment is approximately six warm weather months), for a total of 6 samples for analysis;
- each soil sample will be a composite of 6 representative subsamples; each subsample will consist of soil obtained at depths between 0.5 m and 2.5 m, or to the base of the EBC;
- each composite soil sample will be submitted for chemical analysis of BTEX and TPH;
- analytical results will be compared to MOEE (1993) Level II;
- a final report will be submitted to the MOEE, and will include verification sampling of soil sampled in the EBC, based on the Environment Canada document *Guidelines On The Ex-Situ Bioremediation of Petroleum Hydrocarbon Contaminated Soils on Federal Crown Land* (June, 1993).

Groundwater Sampling Program

Groundwater sampling will be conducted in approximately 6 monitoring wells installed during the excavation phase, and analyzed for BTEX and TPH. Sampling will be conducted following excavation of source soils, then approximately every 4 to 6 weeks until groundwater meets MOEE **Proposed Guidelines for the Cleanup of Contaminated Sites in Ontario** (July, 1994) criteria in a non-potable groundwater situation.

Once groundwater meets relevant criteria, the groundwater pumping/treatment system will be shut down for a period of three weeks to allow re-equilibration with the surrounding water table. Following this three week period, monitoring wells will be re-sampled and results will be compared with relevant criteria. If groundwater remedial criteria are acheived at this time, then groundwater remediation in this area will be considered completed.

Please review this information at your earliest convenience. Confirmatory data for on-site soil and groundwater will be provided upon completion of remedial activities. If requested, confirmatory soil and groundwater data will also be provided for the adjacent property.

I trust that this satisfies your current requirements, however, please do not hesitate to call should you have any questions or comments.

Sincerely,

Mr. Paul J. Hubley, M.Sc.
Project Coordinator

PJH/hll
Attachment

cc: Mr. R.B. Wallace, Coca-Cola Beverages Ltd. (w/a)
Mr. G. Montcalm, MOEE Ottawa (w/a)

TABLE 1: COMPARISON OF CHEMICAL ANALYTICAL DATA FOR BTEX AND TPH IN SOIL TO ONTARIO MINISTRY OF THE ENVIRONMENT AND ENERGY (MOEE) INTERIM GUIDELINES, COCA COLA BOTTLING LTD., 500 COVENTRY ROAD. ALL DATA IN mg/kg OR PPM.

PROJECT E769.2

MOEE INTERIM SOIL REMEDIATION CRITERIA FOR PETROLEUM CONTAMINATION (mg/kg)				PARAMETER					
				BENZENE	ETHYLBENZENE	TOLUENE	TOTAL XYLENES	TPH*	TPH+
LEVEL I				0.05	0.5	1	1	100	1000
LEVEL II				0.5	5	10	5	1000	5000
LEVEL III				2	100	100	50	5000	5000
SAMPLE ID	SAMPLE DESCRIPTION	COMBUSTIBLE VAPOURS (%LEL)	DATE SAMPLED						
	Borehole Investigation								
BH102 SS-3	1.5 to 2.1 m, silty sand	5	1 Nov. 1994	0.120	<0.036	0.130	0.054	<20	<500
BH102 SS-4	2.1 to 2.7 m, silty clay till	7	1 Nov. 1994	0.210	0.352	1.125	1.700	80	<500
BH103 SS-3	1.5 to 2.1 m, silty sand till	3.7	1 Nov. 1994	<0.036	<0.036	<0.036	<0.078	<20	<500
BH104 SS-4	2.4 to 3.0 m, silty clay till	77	1 Nov. 1994	0.425	0.483	1.32	2.917	60	<500
BH105 SS-3	1.8 to 2.4 m, silty clay till	53	2 Nov. 1994	**6.53**	10.2	29.2	**53.2**	1320	<500
BH106 SS-2	1.2 to 1.8 m, silty sand	3	2 Nov. 1994	0.074	0.112	<0.036	0.447	20	<500
BH110 SS-3	1.5 to 2.1 m, silty sand gravel till	85	2 Nov. 1994	**6.92**	3.87	19.2	17.56	160	<500
BH111 SS-2	0.9 to 1.5 m, silty sand	> 100	2 Nov. 1994	**12.900**	50.9	>92.1	**242.9**	2100	<500
BH111 SS-6	3.3 to 3.9 m, silty clay till	20	2 Nov. 1994	0.862	1.820	8.530	10.590	200	<500
BH112 SS-4	2.1 to 2.7 m, silty clay till	> 100	2 Nov. 1994	**8.79**	14.2	50.8	**69.9**	1100	<500
BH112 SS-5	2.7to 3.3 m, silty clay till	5	2 Nov. 1994	0.343	0.36	1.83	2.35	100	<500
BH113 SS-4	2.1 to 2.7 m, silty clay till	30	2 Nov. 1994	**>4.35**	8.35	35.6	**61.4**	1700	<500
BH113 SS-6	3.3 to 3.9 m, silty clay till	12	2 Nov. 1994	0.381	0.795	3.87	7.8	140	<500
BH114 SS-3	1.5 to 2.1 m, silty sand gravel till	65	4 Nov. 1994	0.178	1.27	0.116	2.247	200	<500
RB-3 SS-3	1.5 to 2.1 m, silty sand gravel till	> 100	8 Nov. 1994	**5.13**	4.93	21	25.61	220	<500
RB-3 SS-6	3.9 to 4.4 m, silty clay till	2.9	8 Nov. 1994	0.103	<0.036	0.221	0.065	40	<500
RB-4 SS-3	1.5 to 2.1 m, silty sand gravel till	35	9 Nov. 1994	**2.31**	5.97	14.2	33.3	740	<500
RB-4 SS-6	3.8 to 4.3 m, silty clay till	0.6	9 Nov. 1994	<0.036	<0.036	<0.036	<0.078	60	<500
	Test Pitting program								
TP-9 SS-4	2.1 m, silty clay till	30	18 Oct. 1994	**6.4**	1.9	12	8.8	40	<500
TP-12 SS-1	0.6 m, sand	10	18 Oct. 1994	<0.036	<0.036	<0.036	<0.078	<20	<500
TP-13 SS-2	1.2 m, sand	35	18 Oct. 1994	0.083	0.18	0.35	0.8	<20	<500
TP-16 SS-3	2.1 m, silty clay till	10	18 Oct. 1994	0.83	0.27	1	1.05	100	<500

SOLID : INDICATES PARAMETER CONCENTRATION EXCEEDS THE MOEE LEVEL III CRITERIA

BOLD : INDICATED PARAMETER CONCENTRATION IS BETWEEN THE MOEE LEVEL II AND LEVEL III CRITERIA

BOLD : INDICATED PARAMETER CONCENTRATION IS BETWEEN THE MOEE LEVEL I AND LEVEL II CRITERIA

*TPH (TOTAL PETROLEUM HYDROCARBONS) GAS DIESEL RANGE

+TPH (TOTAL PETROLEUM HYDROCARBONS) HEAVY OILS RANGE

Verified by:

000401

TABLE 2: COMPARISON OF CHEMICAL ANALYTICAL DATA FOR BTEX AND TPH IN SOIL TO CANADIAN COUNCIL OF MINISTERS OF THE ENVIRONMENT (CCME) INTERIM GUIDELINES, PWGSC, 440 COVENTRY ROAD. ALL DATA IN mg/kg OR PPM.

PROJECT E769.2

	CCME INTERIM SOIL REMEDIATION CRITERIA FOR PETROLEUM CONTAMINATION (mg/kg)			PARAMETER					
				BENZENE	ETHYLBENZENE	TOLUENE	TOTAL XYLENES	TPH*	TPH+
AGRICULTURAL				0.05	0.1	0.1	0.1		
RESIDENTIAL/PARKLAND				0.5	5	3	5		
COMMERCIAL/INDUSTRIAL				5	50	30	50		
SAMPLE ID	SAMPLE DESCRIPTION	COMBUSTIBLE VAPOURS (%LEL)	DATE SAMPLED						
	Borehole Investigation								
BH201 SS-2	0.9 to 1.5 m, silty sand gravel fill	15	4 Nov. 1994	0.265	0.414	2.09	3.179	60	<500
BH203 SS-3	1.5 to 2.1 m, silty sand gravel fill	18	4 Nov. 1994	2.9	7.96	26.1	39.2	400	<500
RB-1 SS-5	3.0 to 3.3 m, silty clay till	<0.1	8 Nov. 1994	<0.038	<0.038	<0.038	<0.076	60	<500
RB-2 SS-5	3.0 to 3.3 m, silty clay till	<0.1	8 Nov. 1994	<0.038	<0.038	<0.038	<0.076	60	<500
	Test Pitting Program								
TEST PIT E SS-1	Fill from below pipe	0.2	7 Nov. 1994	<0.038	<0.038	<0.038	<0.076	<20	<500
TEST PIT H SS-1	Fill from below pipe	0.6	7 Nov. 1994	<0.038	<0.038	<0.038	<0.076	<20	<500
TEST PIT I SS-1	Moist fill below pipe	3.7	7 Nov. 1994	<0.038	<0.038	<0.038	0.12	<20	<500
TEST PIT K SS-1	Moist fill, silty clay till below pipe	0.7	7 Nov. 1994	<0.038	<0.038	0.042	0.062	40	<500
TEST PIT M SS-1	Black sand fill below pipe	8.0	7 Nov. 1994	0.042	0.488	0.102	1.864	340	<500
TEST PIT O SS-2	gravel fill, 0.3 m, SE corner	5.0	7 Nov. 1994	<0.038	<0.038	<0.038	0.362	620	<500
TEST PIT P SS-1	saturated silty sand gravel by pipe	7.0	7 Nov. 1994	0.082	0.275	0.82	8.31	130	<500
TEST PIT Q SS-1	silty sand, 0.6 m	2.0	7 Nov. 1994	<0.038	<0.038	<0.038	<0.076	<20	<500
TEST PIT S SS-3	native silty sand, 1.0 m	4.0	7 Nov. 1994	<0.038	<0.038	0.041	0.222	30	<500
TEST PIT T SS-2	sand fill, 0.2 m, west wall	8.0	7 Nov. 1994	<0.038	<0.038	0.047	0.059	<20	<500
TEST PIT V SS-1	stained backfill below pipe	3.0	7 Nov. 1994	<0.038	<0.038	<0.038	0.135	60	<500
TEST PIT W SS-1	stained granular fill surrounding pipe	10.0	7 Nov. 1994	<0.038	<0.038	<0.038	0.401	340	<500
TEST PIT W1 SS-1	0.6 m, native silty sand	1.0	7 Nov. 1994	<0.038	<0.038	<0.038	<0.076	<20	<500
TEST PIT Z SS-1	0.4 m, native silty sand	1.0	7 Nov. 1994	<0.038	<0.038	<0.038	<0.076	<20	<500
TEST PIT A1 SS-1	native grey silty sand below pipe	1.4	7 Nov. 1994	<0.038	<0.038	<0.038	<0.076	<20	<500
TEST PIT A2 SS-1	0.6 m, native silty sand	0.4	7 Nov. 1994	<0.038	<0.038	<0.038	<0.076	<20	<500
TP-2	0.3 m, sampled by Raven Beck	?	3 Nov. 1994	3.97	17.2	48.3	88.2	1100	<500
TP-6	2.9 m, sampled by Raven Beck	?	3 Nov. 1994	0.655	12.4	31.7	119.6	1200	<500

BOLD : INDICATES PARAMETER CONCENTRATION EXCEEDS CCME COMMERCIAL/INDUSTRIAL CRITERIA

BOLD : INDICATES PARAMETER CONCENTRATION IS BETWEEN CCME RESIDENTIAL/PARKLAND AND COMMERCIAL/INDUSTRIAL CRITERIA

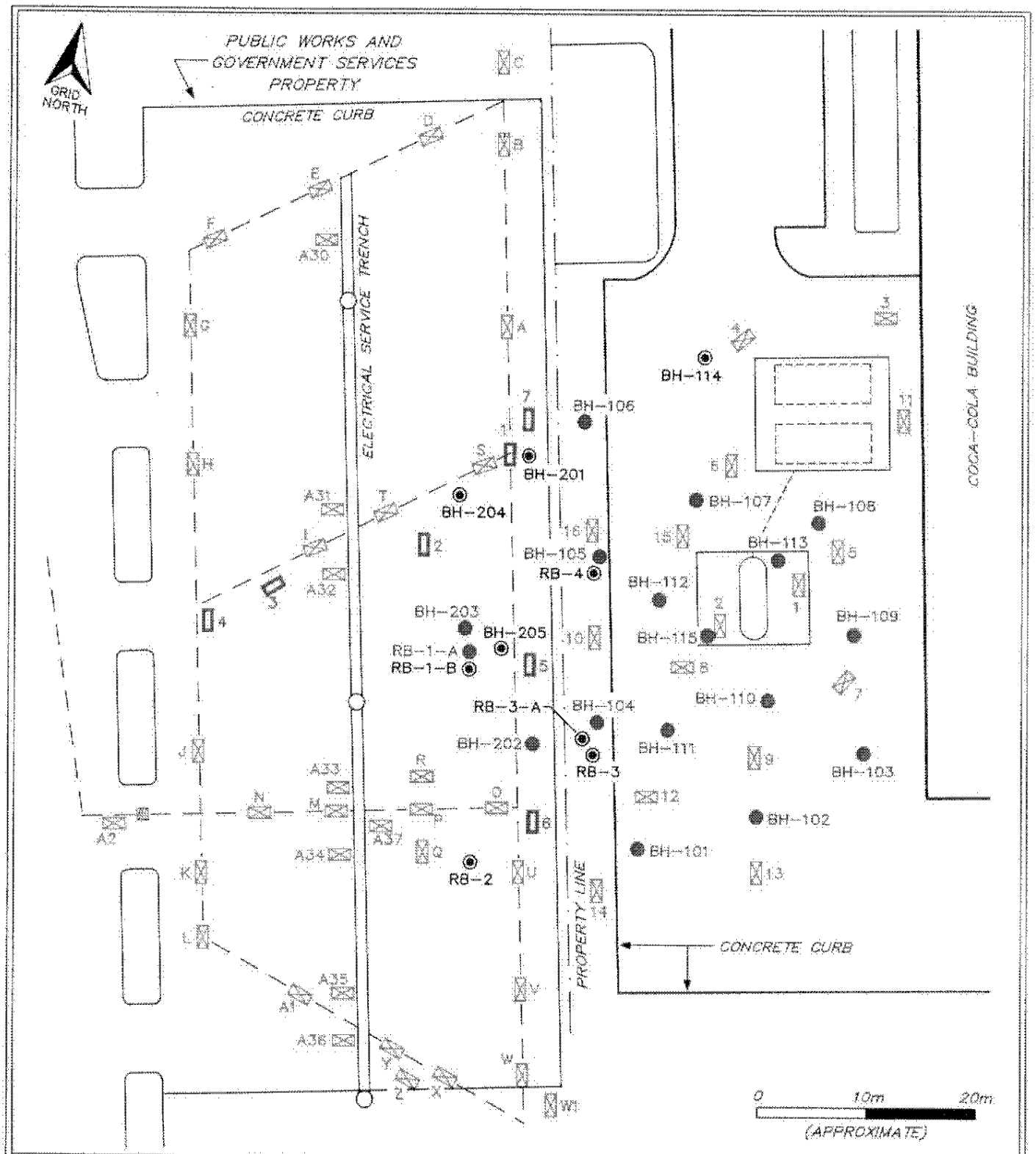
BOLD : INDICATES PARAMETER CONCENTRATION IS BETWEEN CCME AGRICULTURAL AND RESIDENTIAL/PARKLAND CRITERIA

*TPH (TOTAL PETROLEUM HYDROCARBONS) GAS DIESEL RANGE

+TPH (TOTAL PETROLEUM HYDROCARBONS) HEAVY OILS RANGE

Verified by:

000402



LEGEND

- ARCTURUS TEST PIT
- RAVEN BECK TEST PIT
- ARCTURUS BOREHOLE
- ARCTURUS MONITORING WELL
- DRAINAGE LINE
- CATCH BASIN

BOREHOLE AND TEST PIT LOCATIONS

CLIENT: Coca-Cola

ARCTURUS

DATE JULY 1995		PROJECT No. E769.6	DRAWING No. FIGURE 1
DRWN TD	CHK'D SMG	SCALE AS SHOWN	

0.05.17.ARC.01

Regional Municipality of Ottawa-Carleton
Ottawa-Carleton Centre, Cartier Square
111 Lisgar Street, 5th Floor
Ottawa, Ontario K2P 2L7
Environmental Services Department

Tel. (613) 560-2050
Fax. (613) 560-6071

Municipalité régionale d'Ottawa-Carleton
Centre Ottawa-Carleton, Place Cartier
111, rue Lisgar, 5ieme etage
Ottawa, Ontario K2P 2L7
Services environnementaux

Tél. (613) 560-2050
Télécopieur (613) 560-6071

4 July 1995

Your File: A710060
Our File: 31 07-95-0063-B

MINISTRY OF ENVIRONMENT
JUL 10 1995
OTTAWA

Ms. K. Lendvay
Ministry of the Environment and Energy
Street
City
Postal Code

Dear Ms. Lendvay:

RE: Coca-Cola Beverages Ltd. Application for a C of A - 500 Coventry Rd

In response to your original request of 23 March 1995, Planning and Environment Committee of the Regional Municipality of Ottawa-Carleton (R.M.O.C.) as authorized by Regional Council has reviewed the application of Coca-Cola Beverages Ltd for a Waste Disposal site located iat 500 Coventry Rd in the City of Ottawa and decline to object to this application on the understanding that the Certificate of Approval issued by the Ministry of the Environment and Energy will be in accordance with the information provided to the R.M.O.C..

Attached for your information is a copy of the report which includes comments to the Ministry and a copy of the Committee Disposition.

Should you have any questions, please do not hesitate to contact the undersigned.

Yours truly

G. Vincelli
Manager
Approvals Branch

cc: A. Maddalena, Arcturus Environmental
J. Hall, Solid Waste Division
R. Dunn, MOEE

attach

DISPOSITION OF REPORTS TO PLANNING AND ENVIRONMENT COMMITTEE

27 JUNE 1995

NOTE: Underlining indicates a new or amended recommendation.

CONFIRMATION OF MINUTES

That the Planning and Environment Committee confirm the Minutes of the meeting of 13 June 1995.

CARRIED

ENVIRONMENTAL SERVICES ITEMS

1. Application for a Certificate of Approval for a Waste Disposal Site (Processing) by Coca Cola Beverage Ltd. - 500 Coventry Road

1. **That the Planning and Environment Committee on behalf of and acting in its delegated authority from Regional Council, decline to object to the application for a Certificate of Approval by Coca-Cola Beverages Ltd with respect to its Engineered Bioremediation Cell Facility located at 500 Coventry Road, in the City of Ottawa, provided that the Certificate of Approval issued by the Ministry of the Environment and Energy (MOEE) is in accordance with the written information provided to the Regional Municipality of Ottawa-Carleton.**

2. **That the Planning and Environment Committee confirm that recommendation number one of this report is contingent upon the support for the facility of the local municipality in which it is located.**

3. **That the Planning and Environment Committee recommend and Council grant a consent to Coca-Cola Beverages Ltd for the operation of the Engineered Bioremediation Cell Facility at 500 Coventry Road, Ottawa, Ontario on the following conditions:**

   a) **that Coca-Cola Beverages Ltd. is issued a Certificate of Approval (C of A) from the Ministry of Environment and Energy (MOEE) for the construction and operation of this facility,**

   b) **that the facility is constructed and operated in accordance with the C of A, and,**

   c) **that the consent shall terminate immediately on the revocation of the C of A, or, on completion of the operation of the facility, or, on cessation of the operation of the facility, whichever first occurs.**

CARRIED

REGIONAL MUNICIPA... ..Y OF OTTAWA-CARLETON | REPORT

MUNICIPALITÉ RÉGIONALE D'OTTAWA-CARLETON | RAPPORT

Our File/N/Réf. 31 07-95-0063B

DATE	18 May 1995
TO/DEST.	Coordinator Planning and Environment Committee
FROM/EXP.	Director, Solid Waste Division Environmental Services Department
SUBJECT/OBJET	500 Coventry Road - Coca Cola Beverage Ltd Application for a Certificate of Approval for a Waste Disposal Site (Processing)

DEPARTMENTAL RECOMMENDATIONS

1. **That the Planning and Environment Committee on behalf of and acting in its delegated authority from Regional Council, decline to object to the application for a Certificate of Approval by Coca-Cola Beverages Ltd with respect to its Engineered Bioremediation Cell Facility located at 500 Coventry Road, in the City of Ottawa, provided that the Certificate of Approval issued by the Ministry of the Environment and Energy (MOEE) is in accordance with the written information provided to the Regional Municipality of Ottawa-Carleton.**

2. **That the Planning and Environment Committee confirm that recommendation number one of this report is contingent upon the support for the facility of the local municipality in which it is located.**

3. **That the Planning and Environment Committee recommend and Council grant a consent to Coca-Cola Beverages Ltd for the operation of the Engineered Bioremediation Cell Facility at 500 Coventry Road, Ottawa, Ontario on the following conditions:**

   - **that Coca-Cola Beverages Ltd. is issued a Certificate of Approval (C of A) from the Ministry of Environment and Energy (MOEE) for the construction and operation of this facility,**

   - **that the facility is constructed and operated in accordance with the C of A, and,**

   - **that the consent shall terminate immediately on the revocation of the C of A, or, on completion of the operation of the facility, or, on cessation of the operation of the facility, whichever first occurs.**

INTRODUCTION

Coca-Cola Beverages Ltd has recently applied to the Ministry of the Environment and Energy for a Certificate of Approval to operate a Engineered Bioremediation Cell Facility in the City of Ottawa. The Ministry, as part of their review, have requested comments from the Region.

The facility will be used for the on-site bioremediation of on-site soil contaminated with petroleum hydrocarbons.

DISCUSSION

Attached for the Committee's review is a checklist describing the Engineered Bioremediation Cell Facility site. It is important to note that staff have not completed a technical review of the application but have reviewed the application in accordance with those issues within the jurisdiction of the Regional Municipality of Ottawa-Carleton and comment as follows:

- A Sanitary Sewer Agreement with the Region is required prior to discharging the effluent from the works to the sanitary sewer system.

PUBLIC CONSULTATION

Since public consultation forms part of the Ministry of the Environment and Energy's (MOEE) Certificate of Approval process, no public consultation was carried out. In addition, as a requirement of the Province of Ontario's Environmental Bill of Rights, the Minister is required to provide notice of proposals for instruments in the Environmental Registry for public review.

FINANCIAL IMPLICATIONS

This is a private sector facility and therefore there is no financial impact on the Region as a result of this report.

P. McNally, P.Eng.

Description of Works: The construction and use of an Engineered Bioremediation Cell (EBC) with a maximum storage of 6,000 cu. meters for the treatment and subsequent re-use on-site of petroleum hydrocarbon soil (non-hazardous solid waste) and groundwater. Facilities including the EBC, vapour extraction support facilities and a mobile groundwater treatment system are intended for an 8 month operation period at which time the facilities will be dismantled and removed.

Facility Owner/Operator: Coca-Cola Beverages Ltd

Property Owner: Coca-Cola Beverages Ltd

Applicant: Arcturus Environmental

Contact Person: Mr. A.L. Maddalena

Legal Description: Concession R.P.

Municipal Address of Facility: 500 Coventry Road

Road Access: Coventry Road

Regional Councillor: Mr. J. Legendre

CIRCULATION

___ Municipality	City of Ottawa	Contact S. Costello
___ R.M.O.C. Health		A. Raven
___ R.M.O.C. Planning		N. Brereton
___ R.M.O.C. Transportation		J. Dowling
___ R.M.O.C. E.S.D. Solid Waste		J. Hall
___ R.M.O.C. E.S.D. Industrial Waste		H. Ryan
___ R.M.O.C. E.S.D. Surface Water Quality		F. Petti

COMMENTS

Regional O.P.		Extensive Employment Area	_x_ Conforming ___ Non-conforming
Municipal O.P.		Business Employment Area	_x_ Conforming ___ Non-conforming
Zoning	Present	M1-x (1.0) (49)	_x_ Conforming ___ Non-conforming
	Proposed		
Site Plan Status		___ Required ___ Approved ___ Pending	_x_ Not Required
Municipal Consent		___ Granted ___ Not Granted _x_ Pending	Date:

Additional Comments:

RMOC Transportation - no objection
RMOC Health - no objection
RMOC Planning - no objection
RMOC Solid Waste - no objection
RMOC Industrial Waste - comments in report

BEST COPIES AVAILABLE

SEND TO: Greg Montcalme
Ottawa D.O.

0.05.11.COC.

FROM: Kim Lendway DEPT. Approvals DATE 95/03/23

SUBJECT: Coca-Cola Beverages Ltd.

These documents are the District's copies, please do not return them to me.

You told me you already have a copy of the application package. Therefore, please do the District review and return the D.O. Report to me completed by April 23, 1995.

Thanx,
Kim Lendway

REPLY

REPLY FROM

REPLY DATE

Ministry of the Environment
and Energy
P.O. Box 820
Kingston, Ontario
K7L 4X6
613/549-4000 or 1-800/267-0974
Fax: 613/548-6908

Ministère de l'Environnement
et de l'Énergie
C.P. 820
Kingston (Ontario)
K7L 4X6
613/549-4000 où 1-800/267-0974
Fax: 613/548-6908

23 March 1995

Coca-Cola Beverages Ltd.
42 Overlea Boulevard
TORONTO, Ontario
M4H 1B8

Attention: R.B. Wallace, Director
Environmental Operations

Dear Mr. Wallace:

Re: COCA-COLA BEVERAGES LTD.'S APPLICATION
FOR A CERTIFICATE OF APPROVAL
FOR A WASTE DISPOSAL SITE (PROCESSING)
FILE NO. A710060

The Eastern Region of the Ministry of Environment and Energy received on February 28, 1995, **Coca-Cola Beverages Ltd.**'s application dated February 23, 1995, for a Certificate of Approval for a Waste Disposal Site (Processing). A fee in the amount of $50 has been received.

As part of the Approvals Process, the Ministry has contacted the Regional Municipality of Ottawa-Carleton and the City of Ottawa to request comments with regard to your application. Please contact the these agencies directly with respect to their comments on your application. Your application cannot be considered complete until all public/municipal consultation has been completed and appropriate comments have been received from the municipality.

A preliminary review of your application has been completed and it has been determined that the information itemized below is lacking. To assist you in providing the itemized information, I have enclosed the checklist used when reviewing applications with the corresponding section numbers.

A. A complete copy of the application package as submitted, along with the additional information requested in this letter, must be provided to both the Ministry's Ottawa District Office and to the Regional Municipality of Ottawa-Carleton. Since I have received only one copy, please submit two additional copies to me, as soon as possible, and I will in turn forward them to the appropriate agencies.

A.3 Appendix IV of your application states the inclusion of Corporations Information however, these documents were not included. Please provide a photocopy of your Corporation Information.

A.11 Details with regard to your estimate of financial assurance was not included with your application. Please provide a detailed estimate, along with a quotation(s), including the analysis, transportation and disposal cost of all the contaminated soil (assuming maximum site capacity) and contaminated ground water, as well as, general site cleanup. To assist you with this calculation, I have enclosed a copy of "Procedures for Estimating the Amount of Financial Assurance for Specific Regulatory Activities".

A.12 Appendix IV of your application states the inclusion of Financial Liability Insurance however, these documents were not included. Please provide a photocopy of your liability insurance.

A.13 Public consultation is an essential requirement of the approvals process. This section requires the notification of all adjacent property owners. Please provide a copy of the notice sent to the owners along with a list of the names and addresses of the owners it was sent to.

In addition to this local notification procedure, your proposal will be registered on the Environmental Bill of Rights (EBR) electronic registry for the minimum comment period of thirty (30) days. The new application form ensures that you are provided with an opportunity to indicate which of the supporting information is to be considered as proprietary and not subject to public viewing and to prepare a description of the proposal that will be put on the Registry. General information on the EBR is available from the Environmental Commissioner's Office (416) 325-3377 or the Ministry of Environment and Energy EBR Office (416) 440-5042.

Prior to submitting the above information, please ensure all of the areas itemized have been addressed. Please note that additional supporting documentation may be requested after a detailed technical review is conducted.

The Ministry encourages pre-submission consultation to assist proponents in submitting a complete application to us. A complete application results in significantly reduced turn-around time for receiving a certificate of approval.

Applications are handled in a chronological order. Your application is my responsibility. If you have any questions or concerns with respect to the above, please contact me at (613) 549-4000.

Please refer to File No. **A710060** in all related correspondence.

Yours truly,

Kim Lendvay
Approvals Evaluator
Environmental Approvals and Plan Review
Eastern Region
KL/km
Enclosure
cc: Arcturus Environmental, Attn: Al Maddalena, 7900 Canadian Drive, Niagara Falls, Ontario L2E 6S5
- Ottawa District Office, B. Dunn/G. Montcalm

ARCTURUS
ENVIRONMENTAL

April 5, 1995
E769.6

Ontario Ministry of the Environment and Energy
P.O. Box 820
Kingston, Ontario
K7L 4X6

Attention: Ms. Kim Lendvay
Approvals Evaluator

MINISTRY OF ENVIRONMENT
APR 05 1995
OTTAWA

Re: Supplementary Information
Application for Certificate of Approval
For Waste Disposal Site (Processing)
File No. A710060
Coca-Cola Distribution Plant,
500 Coventry Road, Ottawa, Ontario

Dear Ms. Lendvay:

Thank-you for your prompt response to our application and for forwarding copies of the application form to both the City of Ottawa and the Region of Ottawa-Carleton. We are currently in contact with them regarding our application.

As requested, we are providing supplementary information to aid your ministry in the review of our application. Each of the issues in your letter dated March 23, 1995 is addressed below:

A. Although you received only one copy of the application, a second copy was also submitted to the MOEE Local District Office in Ottawa. As requested, we will forward the additional information to all parties involved as required. We have also sent a complete application with supplementary information to the Region of Ottawa-Carleton.

A.3 Attached are the Articles of Incorporation required for completion of our application.

A.11 Details of Financial Assurance for this remediation project are presented in the attached Table 1.

A.12 Details of our company's Financial Liability Insurance are attached.

A.13 Notification of adjacent property owners has been on-going, beginning with Public Works Canada. As remediation of the Coca-cola property affects the adjacent Public Works property, Public Works, Environment Canada and local MOEE representatives have been an integral part of remediation plan development. We have attached all correspondence between these parties.

7900 Canadian Drive, Niagara Falls, Ontario L2E 6S5 (905) 357-6424 Fax (905) 357-6447
Niagara Falls Toronto Montréal Ottawa Thunder Bay Sudbury Niagara Falls, N.Y.

In addition, we have attached a list of all adjacent property owners with copies of letters sent, requesting comments regarding the proposed remediation.

We would appreciate your review of our application and supplementary information at your earliest convenience. Thank you for your cooperation. If you have any questions regarding our submission, please do not hesitate to call.

Sincerely,

Mr. A. L. Maddalena, M.Sc.
Remediation Manager

ALM:llh
Attachment

cc: Mr. R. Wallace, Coca-Cola Beverages Ltd., w/a
Mr. P. McNally, Region of Ottawa-Carleton, w/a
Ms. S. Costello, City of Ottawa, w/a
Mr. G. Montcalm, MOEE District Office, Ottawa w/a

Page 415

is withheld pursuant to section

est retenue en vertu de l'article

22

of the Freedom of Information and Protection of Privacy Act

de la Freedom of Information and Protection of Privacy Act

Table 1 Cost Estimate for Site Remediation - Financial Assurance
Coca-Cola Beverages Ltd., 500 Coventry Road, Ottawa, Ontario
Project Number E769.0

Task #	Task Description	Supplier	Unit Cost	Total Cost
1	Approvals & Permits	Arcturus		$6,000
2	Groundwater Pumping	Arcturus		$28,088
	Mobile Pumping/Treatment		$11,000	
	granular for 8 sumps	Piper Sand & Grav.	$10,000	
	pipe for 8 sumps	Canada Pipe	$3,450	
	pumps for 8 sumps	Grundfos	$2,300	
3	Construction Contractor	General Waste Transport		$96,000
4	Vapour Extraction System	Arcturus		$52,222
	2 Biofilters		$20,000	
	2 - 5 hp Blowers		$10,000	
	Oil/water separator		$2,900	
	pumps, piping, fittings, wiring		$8,500	
	tanks (product, water)		$2,000	
	air/water separators/humidifiers		$3,000	
	trailer		$1,725	
	power connection		$1,610	
5	Engineered Bioremediation Cell			$22,969
	HDPE 30 mil Liner 40x80m	In-line Plastics	$10,400	
	HDPE 20 mil cover 40x80m	In-Line Plastics	$8,600	
	Fertilizer/Nutrients		$2,875	
6	Construction Supervision			$94,675
	Engineering Fees	Arcturus	$78,000	
	Engineering Equipment Rental	Arcturus	$7,475	
	Disbursments (travel,accom. etc)	Arcturus	$9,200	
7	Monitoring Program (6 months)			$46,380
	Engineering Fees	Arcturus	$17,400	
	Power Consumption		$10,695	
	Laboratory Soil and Groundwater Analyses (BTEX, TPH, O&G)	Paracel Lab.	$9,660	
	Confirmatory Soil Sampling		$5,750	
	Field Supplies		$1,495	
	Other Disbursements		$1,380	
8	Site Closure	Arcturus		$44,830
	Construction Contractor	TBA	$18,630	
	Engineering Fees	Arcturus	$17,000	
	Laboratory Analyses	Paracel Lab.	$3,450	
	Remediation Report	Arcturus	$3,450	
	Miscellaneous Disbursements		$2,300	
9	Paving & Landscaping	TBA		$70,000
10	Contingency	TBA		$25,000
				==========
		Grand Total		$486,163

CERTIFICATE OF INSURANCE

DATE(YY/MM/DD) 95/03/01

AGENT/BROKER
Verge Insurance Brokers Ltd.

66 St. Paul Street
St. Catharines, ON L2R 6W2

CODE SUB-CODE

INSURED
Arcturus Diversified Holdings
Gary Janssen, B.A.
7900 Canadian Drive
Niagara Falls, ON L2E 6S5

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW

COMPANIES AFFORDING COVERAGE

COMPANY LETTER A Zurich Insurance Company

COMPANY LETTER B

COMPANY LETTER C

COMPANY LETTER D

COMPANY LETTER E

COVERAGES

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE AND ARE IN FORCE AT THIS DATE.

CO LTR	TYPE OF INSURANCE	POLICY NUMBER	POLICY EXPIRATION DATE (YY/MM/DD)	LIMITS OF LIABILITY	
A	[X] COMMERCIAL GENERAL LIABILITY	8365175	95/04/01	AGGREGATE LIMIT	5000000
	[X] OCCURENCE [ ] CLAIMS MADE			EACH OCCURRENCE LIMIT	5000000
				PERSONAL INJURY LIMIT	5000000
A	[X] PRODUCTS AND/OR COMPLETED OPERATIONS [X] INCLUDED [ ] EXCLUDED	AS ABOVE		TENANTS LEGAL LIABILITY (ANY ONE PREMISE)	500000
A	[X] EMPLOYERS LIABILITY [X] INCLUDED [ ] EXCLUDED	AS ABOVE		MEDICAL EXPENSE (ANY ONE PERSON)	10000
	[ ]				
	[ ]				
A	[X] ALL OWNED VEHICLES	AF9903384	95/04/01	INCLUSIVE LIMIT	5000000
	[ ] ALL LEASED VEHICLES			OR	
A	[X] STANDARD NON-OWNED POLICY	81365175	95/04/01	EACH PERSON	
	[ ] SPECIFIC VEHICLES ONLY			EACH OCCURRENCE	
	[ ]			EACH ACCIDENT	
	[ ]				
	[ ] UMBRELLA FORM			INCLUSIVE LIMIT	
	[ ] OTHER THAN UMBRELLA FORM			EACH OCCURRENCE	
				RETAINED LIMIT EACH OCCURRENCE	

DESCRIPTION OF OPERATIONS/LOCATIONS/VEHICLES
All operations usual to the business of the Insured.

Coca-Cola Bottling Ltd. is added as an additional insured but only with respect to liability arising out of the insured's operation

CERTIFICATE HOLDER
Coca-Cola Bottling Ltd.

7 Champagne Avenue
Downsview, ON M3T 2C5

CANCELLATION
SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, THE ISSUING COMPANY WILL ENDEAVOR TO MAIL 30 DAYS WRITTEN NOTICE TO THE CERTIFICATE HOLDER NAMED TO THE LEFT, BUT FAILURE TO MAIL SUCH NOTICE SHALL IMPOSE NO OBLIGATION OR LIABILITY OF ANY KIND UPON THE COMPANY, ITS AGENTS OR REPRESENTATIVES.

AUTHORIZED REPRESENTATIVE VERGE INSURANCE BROKERS LTD
Terri Neal

RAVEN BECK ENVIRONMENTAL LTD.

7500 WOODBINE AVENUE
SUITE 201
MARKHAM, ONTARIO L3R 1A8

TELEPHONE (905) 513-9400
FAX (905) 513-9405

265 CARLING AVENUE
SUITE 208
OTTAWA, ONTARIO K1S 2E1

TELEPHONE (613) 232-2525
FAX (613) 232-7149

REF: 95-205

January 30, 1995

Mr. Danny Garand
Arcturus Environmental
29 Camelot Dr., Suite 500
Nepean, Ontario
K2G 5W6

Dear Mr. Garand:

RE: PERFORMANCE OF INTERIM PUMPING COCA-COLA AND PWGSC PROPERTIES 500 AND 440 COVENTRY ROAD, OTTAWA

We have reviewed the available monitoring data for December 1994 and January 1995 for recovery wells and monitoring wells installed on either side of the HDPE membrane. These data include water level elevations, free product thickness, combustible vapours and groundwater analytical results. These data show that contamination as free petroleum product has been detected in RW-8 on the PWGSC side of the membrane and that dissolved petroleum contamination has also been detected in RW-6, 7 and 8. As indicated in our letter of January 12, 1995 these data indicate that the HPDE membrane has failed to contain petroleum hydrocarbons on Coca-Cola property and that petroleum hydrocarbons from Coca-Cola property have in all likelihood migrated onto PWGSC from the Coca-Cola property.

In response to these occurrences Arcturus on behalf of Coca-Cola implemented:

- interim pumping of recovery wells on Coca-Cola property on January 12, 19 and 24, 1995
- increased frequency of site monitoring
- skimming of free product in RW-8 on the PWGSC side of the membrane
- installation and monitoring of four supplementary monitoring wells between the five existing recovery wells (RW-1 to RW-5).

The data that have been obtained from monitoring in the period January 12 to 30, 1995 show that interim pumping of recovery wells on the Coca-Cola side of the membrane has not been effective in providing hydraulic containment of contaminated groundwater on the Coca-Cola property. The data also suggest that increasing the frequency of interim pumping as conducted in January 1995 would not guarantee reliable achievement of hydraulic containment and therefore elimination of migration of petroleum hydrocarbon contamination onto PWGSC property.

Given the above and recognizing that time is of the essence in mitigating future cleanup costs on PWGSC property, we recommend that Arcturus/Coca-Cola immediately undertake more active and effective remedial measures at this site. We recommend that Arcturus/Coca-Cola implement as soon as possible the proposed excavation and treatment/disposal remedial action plan that was scheduled for the spring of 1995.

Finally, as you are aware we installed three groundwater monitoring wells on PWGSC property downgradient of identified petroleum contamination on the PWGSC side of the membrane. We will forward these results to you as they are received.

If you have any questions regarding this letter please call.

Yours very truly,

K.G. Raven, M.Sc., P.Eng.
Principal, Ottawa

cc Suzie Lemyre, PWGSC
Paul McCarthy, PWGSC
Steve Waxman, PWGSC
Ron Nobes, Environment Canada

RAVEN BECK ENVIRONMENTAL LTD.

7500 WOODBINE AVENUE
SUITE 201
MARKHAM, ONTARIO L3R 1A8

TELEPHONE (905) 513-9400
FAX (905) 513-9405

265 CARLING AVENUE
SUITE 208
OTTAWA, ONTARIO K1S 2E1

TELEPHONE (613) 232-2525
FAX (613) 232-7149

REF: 95-205

February 2, 1995

Mr. Danny Garand
Arcturus Environmental
29 Camelot Dr., Suite 500
Nepean, Ontario
K2G 5W6

RECEIVED FEB 2 4 1995

Dear Mr. Garand:

RE: GROUNDWATER SAMPLING OF MONITORING WELLS ON PWGSC PROPERTY DOWNGRADIENT OF HDPE MEMBRANE - 440 COVENTRY ROAD, OTTAWA

Further to our letter of January 30, 1995, to you regarding performance of interim pumping on the Coca-Cola side of HDPE membrane, this letter outlines the results of groundwater sampling and analysis of monitoring wells installed on PWGSC property.

As you are aware, our firm on behalf of PWGSC installed three groundwater monitoring wells on PWGSC property on January 24, 1995. These wells were placed downgradient of the HDPE barrier and recovery wells RW - 7, 8 and 9 located on the PWGSC side of the membrane. The three wells were installed within the clean sand that was used as backfill to the excavation that was completed by Arcturus/Coca-Cola in late November, early December 1994. The location of these wells is shown on the attached figure.

The groundwater samples were collected in appropriate sample bottles on January 25, 1995, using dedicated "Waterra" hand pumps following purging of three well volumes. The analytical results provided by Paracel Laboratories Ltd. of Ottawa (analytical report appended) are as follows:

Parameter	Units	BH-1	BH-2	BH-3
TPH	mg/L	< 0.2	26.0	1.6
benzene	µg/L	86	13,200	305
toluene	µg/L	116	19,100	256
ethyl benzene	µg/L	3	516	6
m/p xylene	µg/L	17	3290	173
oxylene	µg/L	12	2420	181

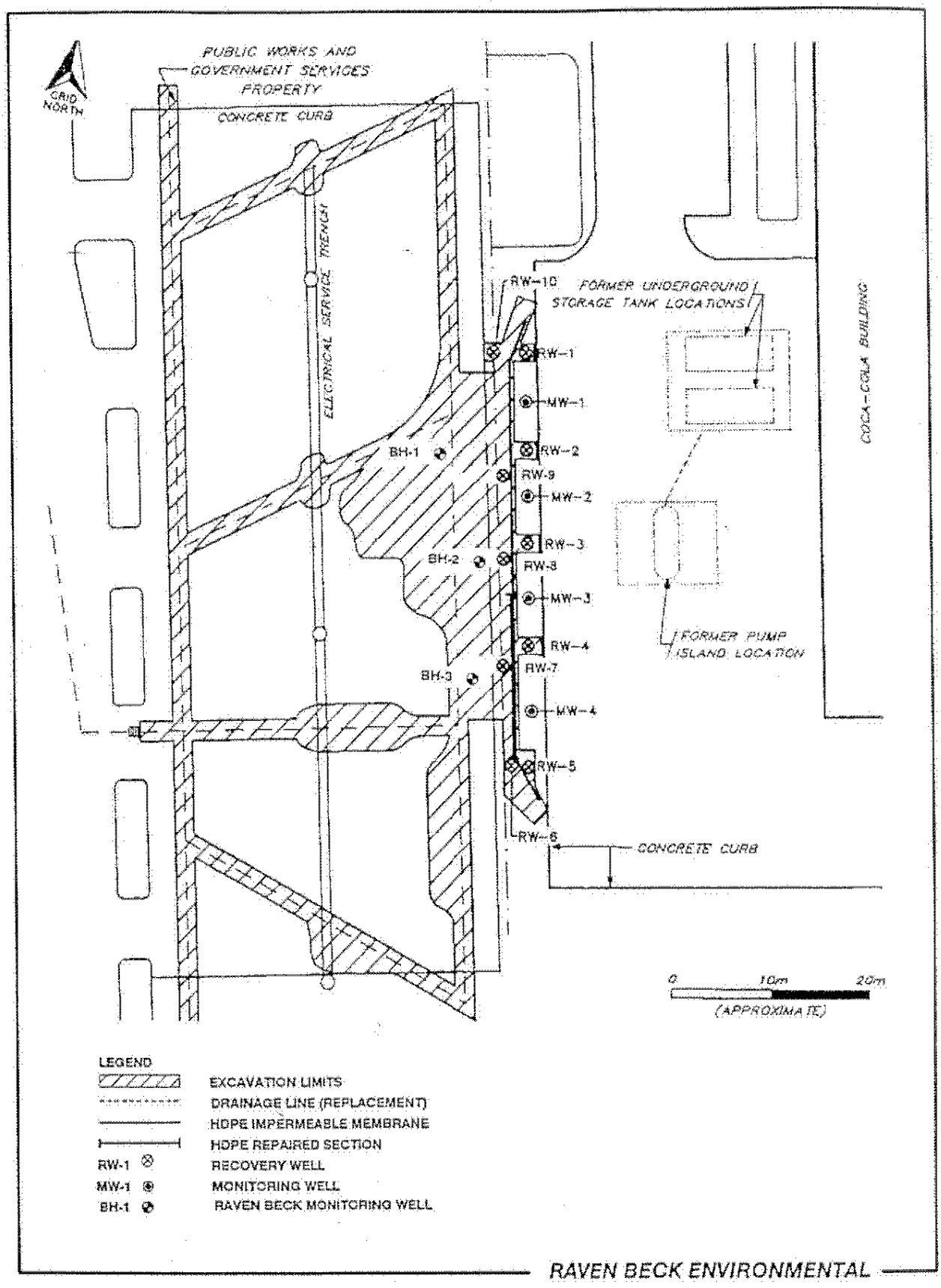
. . . 2

Based on this first sampling round we conclude that soil and groundwater on PWGSC property has been recontaminated by migration of petroleum hydrocarbons from Coca-Cola property. Subject to any future findings, we consider Coca-Cola responsible for cleanup of this contaminated soil and groundwater. Please indicate to us in writing how Arcturus/Coca-Cola intend on addressing this issue of recontaminated soil and groundwater on PWGSC property.

Yours very truly,

K.G. Raven, M.Sc., P.Eng.
Principal, Ottawa

cc Suzie Lemyre, PWGSC
Paul McCarthy, PWGSC
Steve Waxman, PWGSC
Ron Nobes, Environment Canada



Locations of Monitoring Wells and Recovery Wells (after Arcturus)

ARCTURUS
ENVIRONMENTAL

February 8, 1995

Raven Beck Environmental Ltd.
265 Carling Avenue, Suite 208
Ottawa, Ontario
K1S 2E1

Attention: **Mr. K. G. Raven, M.Sc., P.Eng.**

Subject: **Remediation Action Plan, Coca-Cola Property, 500 Coventry Road, Ottawa**

Dear Mr. Raven,

This letter is in response to your correspondence dated January 30 and February 2, 1995, and our telephone conversation today.

As you are aware, Arcturus/Coca-Cola are in the process of implementing the proposed excavation and treatment remedial action plan. The excavation segment of the remedial action plan, initially scheduled for the Spring of 1995, has been shifted to address concerns regarding the effectiveness of the impermeable membrane. The planned progression of activities are as follows: attainment of hydraulic control; excavation of the source; and, evaluation of downgradient conditions.

The excavation phase of the remedial action plan, estimated to have a duration period of four to six weeks, consists of the following main tasks:

1) Groundwater pumping and treatment
2) Procurement and delivery of supplies
3) Contractor selection
4) Preparation of treatment cell
5) Excavation of impacted soil and loading of cell

Concurrent with those tasks will be completion of the certificates of approval for operation of the treatment cell. A proposed schedule of the excavation phase activities is attached. The treatment phase will be commence upon receipt of the necessary approvals.

OTM 141 E769.5\CORRRESP\CLEANUP.RB

29 Camelot Drive, Suite 500, Nepean, Ontario K2G 5W6 (613) 727-0216 Fax (613) 727-1806
Niagara Falls Toronto Montréal Ottawa Thunder Bay Sudbury Niagara Falls, N.Y.

EXCAVATION PHASE - SITE ACTIVITIES

Groundwater Pumping and Treatment

Groundwater pumping systems will initially be installed in three wells (RW-3, RW-4, RW-5) on the upgradient side of the impermeable barrier. Existing monitoring wells and recovery wells will be monitored to determine if hydraulic control is established. Pumping may be expanded to additional wells, as required, in order to attain hydraulic control.

A groundwater treatment unit will be installed at the site and treated groundwater will be discharged to the sanitary sewer line. Permit applications for water discharge have been completed and sent to the appropriate agencies for processing. Approvals are anticipated within 5 - 7 working days. During the interim period between now and receipt of the permit to discharge, the following is proposed:

- Increase the frequency of site monitoring visits to three visits per week.
- Use a vacuum truck during each visit, if required, to pump water from recovery wells on the Coke side of the barrier to maintain a hydraulic gradient. Liquid phase hydrocarbons in recovery wells on the PWGSC side of the barrier will be removed, if present.
- Continue to sample wells to monitor groundwater chemistry as per our current sampling program.

The pumping systems will remain active throughout the soil excavation phase. During this phase, groundwater samples will be collected from selected wells to monitor hydrochemical conditions. Based on the hydrochemical results, the pumping systems may remain active after the soil excavation phase.

Excavation of Impacted Soil

The treatment cell area will be constructed prior to beginning excavation of the impacted soil. Start-up of the cell construction is dependant on the delivery of the high density polyethylene membrane. The membrane has been ordered and the delivery period is 10 - 14 working days. Construction of the treatment cell is estimated to have a duration of one week.

The impacted soil on the Coca-Cola property will be excavated and placed in the cell for future treatment. An appropriate number of soil samples will be collected from the completed

excavation for verification analyses. The excavation will be backfilled with clean fill. This segment of field work is expected to have a duration period of two to three weeks.

Once the source of contamination has been removed and loaded into the treatment cell, subsurface conditions on the PWGSC property will be re-evaluated.

I trust this information is complete. Please do not hesitate to contact me should you have any questions.

Sincerely,

Daniel Garand

Daniel Garand, B.Sc.
Project Manager, National Capital Region

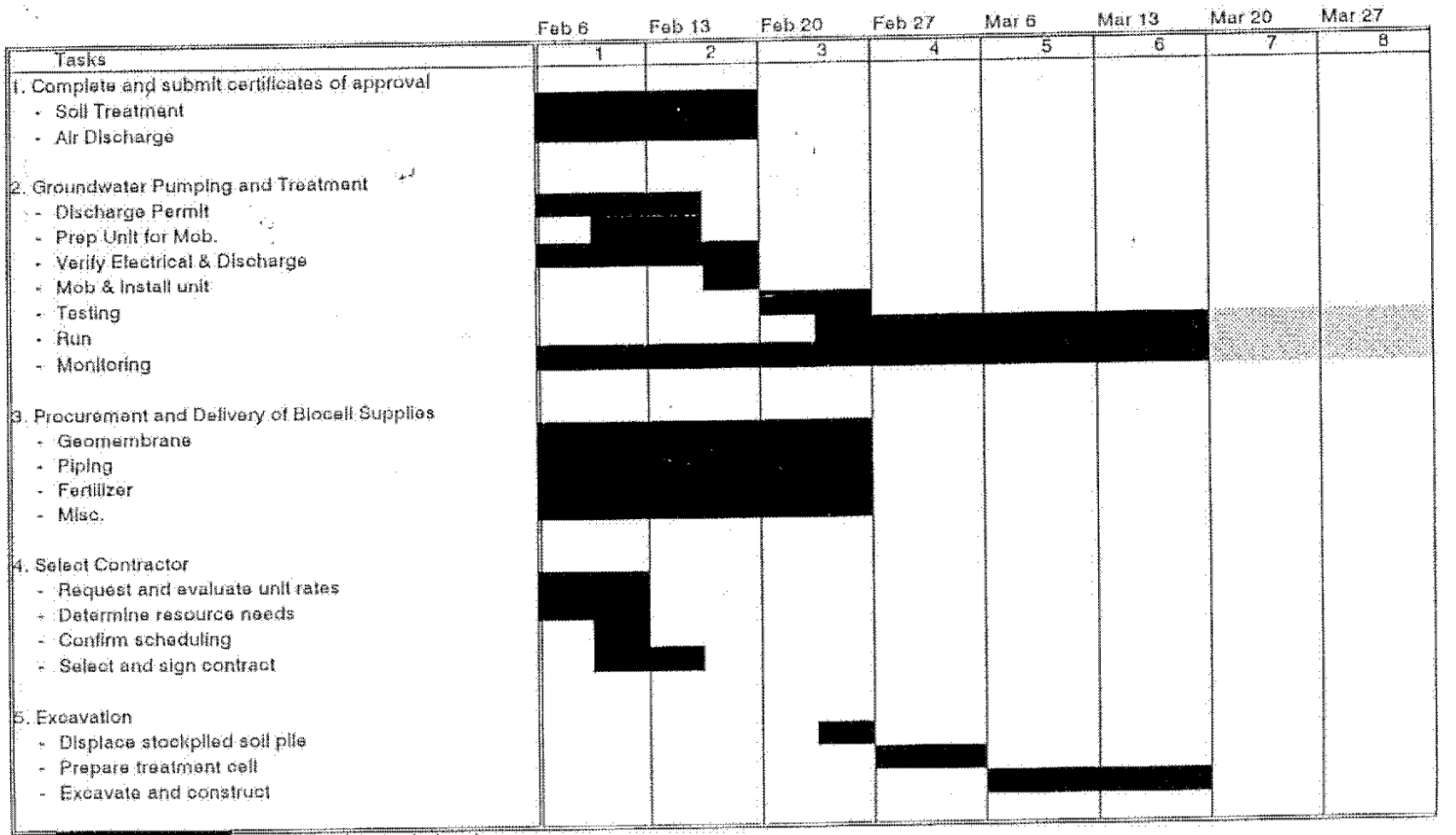
Attachment
DJG/dg

c.c. Mr. R.B. Wallace, Coca-Cola Beverages Ltd.
Mr. M.J. Osborne, Arcturus Environmental Ltd.

OTM 141 E769.5\CORRRESP\CLEANUP.RB

Proposed Schedule

Remediation Activities - Coca-Cola Bottling
500 Coventry Road, Ottawa, On



Denotes activity/task duration
Denotes possible extension of activity/task

000426

ARCTURUS
ENVIRONMENTAL

February 22, 1995

Raven Beck Environmental Ltd.
265 Carling Avenue, Suite 208
Ottawa, Ontario
K1S 2E1

Attention: **Mr. K. G. Raven, M.Sc., P.Eng.**

Subject: **Change in Remediation Action Plan Proposed Schedule, Coca-Cola Property, 500 Coventry Road, Ottawa**

Dear Mr. Raven,

This letter is to inform you that proposed schedule for the start-up of field activities included in our correspondence dated February 8, 1995 has been postponed by a period of approximately one week. This postponement is attributed to:

- time requirements associated with the contractor tendering process, and
- delays in processing the sewer discharge permit

A revised schedule of field activities is attached. This delay in start-up should not have an impact on the duration of the field activities. Arcturus/Coca-Cola are aware of the urgency for implementing the proposed excavation and treatment remedial action plan, and would like to assure Raven Beck and PWGSC that every attempt is being made to expedite the commencement of field activities.

I trust this information is complete. Please do not hesitate to contact me should you have any questions.

Sincerely,

Daniel Garand

Daniel Garand, B.Sc.
Project Manager, National Capital Region

Attachment

DJG:dg

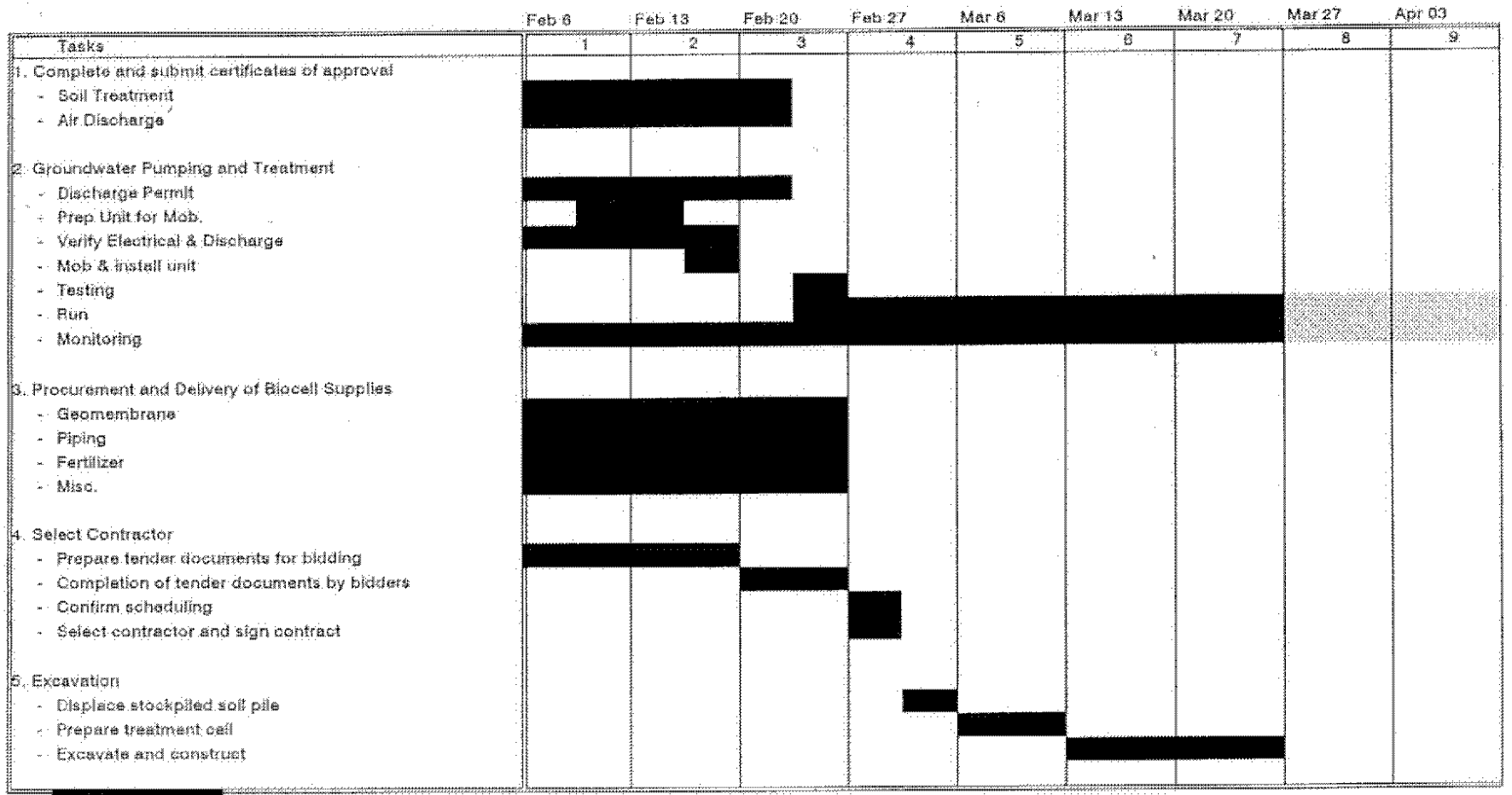
c.c. Mr. R.B. Wallace, Coca-Cola Beverages Ltd.

OTM 141 E789.6\CORRRESP\DELAY.RB

29 Camelot Drive, Suite 500, Nepean, Ontario K2G 5W6 (613) 727-0216 Fax (613) 727-1806

Proposed Schedule - Remediation Activities

Groundwater pumping/treatment and excavation of impacted soil/EBC loading
Coca-Cola Bottling, 500 Coventry Road, Ottawa, Ontario



000428

MINUTES OF MEETING

DATE: March 15, 1995, 14:00 - 15:00

SUBJECT: Meeting to update on progress of RAP field activities on CCB property (500 Coventry Road), review Raven Beck borehole program soil and groundwater analytical results on PWGSC property (440 Coventry Road) and discuss field guidelines for excavation activities along the CCB/PWGSC property line. Project E 769.6

ATTENDEES: Coca Cola Beverages Ltd. (CCB) - Bob Wallace
PWGSC - Paul McCarthy, Suzie Lemyre
Raven Beck Environmental Ltd.- Rob Timlin
Arcturus Environmental Ltd. - Daniel Garand, Al Maddalena

PLACE: PWGSC, 440 Coventry Rd., Ottawa.

---

1. Arcturus (D. Garand) began by reviewing RAP field activities on the CCB property. Treatment cell area has been excavated, 30 ml impermeable HDPE liner (40 m X 80 m) has been installed along the base of the treatment cell area to prevent any contamination leaching into the ground. Soil loading has began and piping networks (air and water) are being installed. Collected porewater in the cell will be treated with granular activated carbon and discharged to the on-site sanitary sewer.

   Groundwater pumping/treatment system, implemented on February 22, 1995, has been functioning on a continual basis since that date.

   Approximately 350 m^3 of impacted soil was excavated from the former tank nest area. The excavation was backfilled with clean material removed during excavation of the treatment cell. Two sumps were installed into the excavation backfill.

   Arcturus will begin excavation of main impacted soil plume tomorrow; excavation will proceed from east to west toward the property boundary. Site remediation on the CCB property is intended to meet MOEE Level II soil cleanup criteria. Excavation of impacted soil and backfilling with clean material will occur concurrently. Sump wells will be installed in the backfill material to permit groundwater pumping on the CCB property.

   Arcturus recommends that a Raven Beck representative be present when the excavation at the property boundary is reached. R. Timlin agreed to be on-site. Arcturus will provide a 24 hour advance notification as to when the excavation is expected to reach the property boundary.

2. The constructed cell will remain inactive until all required approvals are received. The soil treatment process will begin upon receipt of the approvals, and is expected to have a duration of five to six months. Once the soil has met appropriate remedial criteria, the cover will be removed, and the basal liner will be punctured to allow for natural drainage.

3. Raven Beck (R. Timlin) presented results of the borehole program conducted on the PWGSC property. Groundwater analytical results for parameters tested have shown a continuous decrease in concentration during the test period (25 Jan - 06 Mar, 1995). Soil analytical results marginally exceed remediation criteria in BH-8. It was agreed that the continuous pumping of groundwater on the CCB property was successfully remedying conditions on the PWGSC property. It was recognized that the soil conditions have not yet met remediation criteria, however based on groundwater analytical trends, additional groundwater pumping on the CCB property should effectively resolve this concern.

4. Arcturus/CCB recommended that field guidelines be agreed upon in advance of the excavation process, in order to expedite activities and minimize delays when the excavation reaches the property boundary.

   Based on the Raven Beck borehole program, R. Timlin suggested: that combustible vapour measurements may not be appropriate to define extent of excavation; and, sand backfill exhibiting hydrocarbon staining or sheen should be removed.

   It was stated that the remediation criteria on the CCB property is MOEE Level II and CCME Agriculture on the PWGSC property. It was recognized that due to the differences in criteria, the more stringent Agriculture criteria on the PWGSC property may not be maintained in the future.

   In view of the positive results attained since groundwater pumping/treatment, it was proposed that another round of groundwater samples be completed

from the wells on PWGSC property and submitted for rush analyses. It was agreed that clean-up of the PWGSC property would be considered acceptable if each of the following conditions are met:

a) this round of groundwater analytical results indicate the decrease in BTEX concentration trend persists

b) granular sand backfill that had product (area around RW-6, RW-7, and RW-8) on the CCB property between the impermeable membrane and the property line is removed

c) groundwater pumping from the newly installed sumps on the CCB property continued at least until the end of April 1995.

5. It was agreed that the following information be provided to PWGSC:

a) MOEE Certificate of Approval (Soil Processing)
b) MOEE Certificate of Approval (Air)
c) Confirmation that soil remediation criteria are met on the CCB property.

6. CCB agreed that monitoring of groundwater conditions in wells to be installed downgradient of the biocell, on PWGSC property be continued until the soil remediation criteria on CCB property are met. PWGSC is to forward proposed monitoring well installation and soil/groundwater monitoring/testing program to CCB prior to performing the work. CCB will review the proposed monitoring well installation and soil/groundwater monitoring/testing program for approval; if accepted, CCB will assume financial responsibility for the program.

ARCTURUS
ENVIRONMENTAL

April 3, 1995
E769.6

St. Laurent Shopping Centre
Attn: Mr. J. Haché, Property Manager
P.O. Box 199
1200 St. Laurent Boulevard
Ottawa, Ontario
K1K 3B8

Re: Cleanup of Coca-Cola Distribution Plant
500 Coventry Road
Ottawa, Ontario

Dear Resident:

Plans have recently been developed by Coca-Cola Beverages Ltd. to conduct a clean up at this Distribution facility.

In order to bring this site into environmental compliance, a site cleanup has been proposed by Arcturus Environmental Limited of Niagara Falls, Ontario, on behalf of Coca-Cola. This cleanup will involve the excavation, removal, and on-site treatment of soils containing gasoline contamination. Treatment of these soils would be conducted within a covered, and controlled engineered containment cell. Part of this cleanup involves extraction of vapours from the soil and treatment of these vapours through a biofilter treatment system. The biofilters to be used on this site have already been used successfully by Arcturus in Quebec. Test results for the air discharge from this biofilter system meet Ontario Ministry of the Environment and Energy guidelines.

As a result, this cleanup will not cause any adverse impacts to air, water, soil or sewer systems, and as such, no adverse impacts to neighbouring residents are anticipated.

Coca-Cola Beverages Ltd. E769.6

7900 Canadian Drive, Niagara Falls, Ontario L2E 6S5 (905) 357-6424 Fax (905) 357-6447

Niagara Falls Toronto Montréal Ottawa Thunder Bay Sudbury Niagara Falls, N.Y.

Excavation activities have already been conducted, however operation of the vapour extraction treatment system will not be initiated until approval is obtained by the Ontario Ministry of the Environment.

This cleanup proposal has been presented to the MOEE. Although the cleanup proposal involves proven technology and has been shown to be environmentally sound, as part of the normal approval process, it is necessary to inform all neighbouring residents of the proposed plan and ask to direct any concerns in writing to the local Ottawa District Office of the MOEE at 2435 Holly Lane, Ottawa, Ontario, K1V 7P2 within the next 30 days.

Thank you for your cooperation.

Sincerely,

Al Maddalena
Project Manager, Arcturus Environmental Limited

ALM:hll

ARCTURUS
ENVIRONMENTAL

April 3, 1995
E769.6

Bell Canada
Access Network Provision
Attn: Mr. Wayne Wood
P.O. Box 8239
469 Coventry Rd.
Ottawa, Ontario
K1G 3J4

Re: Cleanup of Coca-Cola Distribution Plant
500 Coventry Road
Ottawa, Ontario

Dear Resident:

Plans have recently been developed by Coca-Cola Beverages Ltd. to conduct a clean up at this Distribution facility.

In order to bring this site into environmental compliance, a site cleanup has been proposed by Arcturus Environmental Limited of Niagara Falls, Ontario, on behalf of Coca-Cola. This cleanup will involve the excavation, removal, and on-site treatment of soils containing gasoline contamination. Treatment of these soils would be conducted within a covered, and controlled engineered containment cell. Part of this cleanup involves extraction of vapours from the soil and treatment of these vapours through a biofilter treatment system. The biofilters to be used on this site have already been used successfully by Arcturus in Quebec. Test results for the air discharge from this biofilter system meet Ontario Ministry of the Environment and Energy guidelines.

As a result, this cleanup will not cause any adverse impacts to air, water, soil or sewer systems, and as such, no adverse impacts to neighbouring residents are anticipated.

Coca-Cola Beverages Ltd. E769.6

7900 Canadian Drive, Niagara Falls, Ontario L2E 6S5 (905) 357-6424 Fax (905) 357-6447
Niagara Falls Toronto Montréal Ottawa Thunder Bay Sudbury Niagara Falls, N.Y.

Project E769.6
Coca-Cola Beverages Ltd.

LIST OF ADJOINING PROPERTY OCCUPANTS/OWNERS

WEST - PWGSC

PUBLIC WORKS CANADA
Attn: Mr. Paul McCarthy
Property Manager
District 4-8
Administration Building
440 Coventry Road
K1A 0M3

Tel (613) 991-4671
Fax (613) 991-1218

SOUTH - QUEENSWAY

Ontario Ministry of Transportation
Attn: Mr. W.J. Griffith
Corridor Management Officer
P.O. Box 9530 Terminal
530 Tremblay Road
Ottawa, Ontario
K1G 0E4

Tel (613) 745-6841 ext. 239
Fax (613) 748-5297

NORTH - BELL CANADA

469 Coventry Rd - Owned by Bell, Contact Mr. Wayne Wood (613) 742-5747
525 Coventry Rd - Leased by Bell (613) 742-5861

Forward information for both properties to the attention of Mr. Wood at the address mentioned below. He indicated to me that he would distribute the info for the 525 Coventry Rd. site to the appropriate individual(s).

Bell Canada
Access Network Provision
Attn: Mr. Wayne Wood
P.O. Box 8239
469 Coventry Rd.
Ottawa, Ontario
K1G 3J4

EAST - ST. LAURENT SHOPPING CENTRE (1200 ST. LAURENT) AND 1400 ST LAURENT

Both properties are apparently managed by:

St. Laurent Shopping Centre
Attn: Mr. J. Haché, Property Manager
P.O. Box 199
1200 St. Laurent Boulevard
Ottawa, Ontario
K1K 3B8

Tel (613) 745-6850
Fax (613) 745-1272

Excavation activities have already been conducted, however operation of the vapour extraction treatment system will not be initiated until approval is obtained by the Ontario Ministry of the Environment.

This cleanup proposal has been presented to the MOEE. Although the cleanup proposal involves proven technology and has been shown to be environmentally sound, as part of the normal approval process, it is necessary to inform all neighbouring residents of the proposed plan and ask to direct any concerns in writing to the local Ottawa District Office of the MOEE at 2435 Holly Lane, Ottawa, Ontario, K1V 7P2 within the next 30 days.

Thank you for your cooperation.

Sincerely,

Al Maddalena
Project Manager, Arcturus Environmental Limited

ALM:hll

Coca-Cola Beverages Ltd. E769.6

Excavation activities have already been conducted, however operation of the vapour extraction treatment system will not be initiated until approval is obtained by the Ontario Ministry of the Environment.

This cleanup proposal has been presented to the MOEE. Although the cleanup proposal involves proven technology and has been shown to be environmentally sound, as part of the normal approval process, it is necessary to inform all neighbouring residents of the proposed plan and ask to direct any concerns in writing to the local Ottawa District Office of the MOEE at 2435 Holly Lane, Ottawa, Ontario, K1V 7P2 within the next 30 days.

Thank you for your cooperation.

Sincerely,

Al Maddalena
Project Manager, Arcturus Environmental Limited

ALM:hll

ARCTURUS
ENVIRONMENTAL

April 3, 1995
E769.6

Public Works Canada
Attn: Mr. Paul McCarthy
Property Manager
District 4-8
Administration Building
440 Coventry Road
K1A 0M3

Re: Cleanup of Coca-Cola Distribution Plant
500 Coventry Road
Ottawa, Ontario

Dear Resident:

Plans have recently been developed by Coca-Cola Beverages Ltd. to conduct a clean up at this Distribution facility.

In order to bring this site into environmental compliance, a site cleanup has been proposed by Arcturus Environmental Limited of Niagara Falls, Ontario, on behalf of Coca-Cola. This cleanup will involve the excavation, removal, and on-site treatment of soils containing gasoline contamination. Treatment of these soils would be conducted within a covered, and controlled engineered containment cell. Part of this cleanup involves extraction of vapours from the soil and treatment of these vapours through a biofilter treatment system. The biofilters to be used on this site have already been used successfully by Arcturus in Quebec. Test results for the air discharge from this biofilter system meet Ontario Ministry of the Environment and Energy guidelines.

As a result, this cleanup will not cause any adverse impacts to air, water, soil or sewer systems, and as such, no adverse impacts to neighbouring residents are anticipated.

7900 Canadian Drive, Niagara Falls, Ontario L2E 6S5 (905) 357-6424 Fax (905) 357-6447
Niagara Falls Toronto Montréal Ottawa Thunder Bay Sudbury Niagara Falls, N.Y.

ARCTURUS
ENVIRONMENTAL

April 3, 1995
E769.6

Ontario Ministry of Transportation
Attn: Mr. W.J. Griffith
Corridor Management Officer
P.O. Box 9530 Terminal
530 Tremblay Road
Ottawa, Ontario
K1G 0E4

Re: Cleanup of Coca-Cola Distribution Plant
500 Coventry Road
Ottawa, Ontario

Dear Resident:

Plans have recently been developed by Coca-Cola Beverages Ltd. to conduct a clean up at this Distribution facility.

In order to bring this site into environmental compliance, a site cleanup has been proposed by Arcturus Environmental Limited of Niagara Falls, Ontario, on behalf of Coca-Cola. This cleanup will involve the excavation, removal, and on-site treatment of soils containing gasoline contamination. Treatment of these soils would be conducted within a covered, and controlled engineered containment cell. Part of this cleanup involves extraction of vapours from the soil and treatment of these vapours through a biofilter treatment system. The biofilters to be used on this site have already been used successfully by Arcturus in Quebec. Test results for the air discharge from this biofilter system meet Ontario Ministry of the Environment and Energy guidelines.

As a result, this cleanup will not cause any adverse impacts to air, water, soil or sewer systems, and as such, no adverse impacts to neighbouring residents are anticipated.

Coca-Cola Beverages Ltd. E769.6

7900 Canadian Drive, Niagara Falls, Ontario L2E 6S5 (905) 357-6424 Fax (905) 357-6447
Niagara Falls Toronto Montréal Ottawa Thunder Bay Sudbury Niagara Falls, N.Y.

Excavation activities have already been conducted, however operation of the vapour extraction treatment system will not be initiated until approval is obtained by the Ontario Ministry of the Environment.

This cleanup proposal has been presented to the MOEE. Although the cleanup proposal involves proven technology and has been shown to be environmentally sound, as part of the normal approval process, it is necessary to inform all neighbouring residents of the proposed plan and ask to direct any concerns in writing to the local Ottawa District Office of the MOEE at 2435 Holly Lane, Ottawa, Ontario, K1V 7P2 within the next 30 days.

Thank you for your cooperation.

Sincerely,

Al Maddalena
Project Manager, Arcturus Environmental Limited

ALM:hll

Coca-Cola Beverages Ltd. E769.6

Ministry of Environment and Energy
Ontario

Application for Approval of a Waste Disposal Site

Ce formulaire est disponible en français

FOR OFFICE USE ONLY				
Application Number(s)	Client Number	Payment Received	Date	Initials
		$		

Information requested by this form is collected under the authority of the *Environmental Protection Act*, R.S.O. 1990 (EPA), Chapter E-19, (EPA) and the *Environmental Bill of Rights*, c.28, Statutes of Ontario, 1993, (EBR) and will be used to evaluate applications for approval of waste disposal sites according to the requirements of the EPA. Questions should be directed to the Approvals Branch, 250 Davisville Avenue, 3rd Floor, Toronto, Ontario, M4S 1H2, Telephone No. (416)440-3713 or 1-800-461-6290, or to your local Ministry of Environment and Energy District Office.

Instructions

1. When completing this form, please refer to the "Guide For Applying for Approval of Waste Disposal Sites", Sections 27, 30, 31 and 32, EPA (referred to as the Guide).

2. This form must be completed with respect to all the requirements of the Guide in order for it to be considered as an application for approval. INCOMPLETE APPLICATIONS WILL BE RETURNED TO THE APPLICANT OR DENIED APPROVAL.

3. A complete application for approval consists of;
   (1) a completed and signed application form;
   (2) all supporting information as requested by this form and by the Guide; and
   (3) a certified cheque or money order for the approval fee, if applicable.
   The Ministry may require additional information following a review of the complete application.

4. Two (2) copies of the application together with the supporting information must be submitted to the Ministry of Environment and Energy,
   One copy to: Director of Approvals Branch, Ministry of Environment and Energy.
   250 Davisville Avenue, 3rd Floor, Toronto, Ontario, M4S 1H2

   OR

   Regional Director in the region in which the site is located/will be located

   A duplicate copy must be sent to the District Office having jurisdiction over the area in which the works will be located.

5. Information contained in this application is not considered confidential and will be made available to the public upon request. Certain information submitted as supporting information may be claimed as confidential but will be subject to the *Freedom of Information and Protection of Privacy Act* (FOIPOPA) and EBR. If you do not claim confidentiality at the time of submitting the information, the Ministry may make the information available to the public without further notice to you.

1. APPLICANT

Name (attach proof of name if applicable)
Mr. R. B. Wallace, Coca-Cola Beverages Ltd.

Address (include street number, concession, lot etc.)	City / Province
42 Overlea Boulevard	Toronto, Ontario

Postal Code	Telephone Number	Fax Number
M4H 1B8	416 424 6236	

Owner of Land [X] Yes [ ] No
If "No" attach name, address and concurrence of the appropriate owner.

Operator [X] Yes [ ] No
If "No" attach name, address and concurrence of the appropriate Operator.

2. CONTACT FOR TECHNICAL AND DESIGN INFORMATION

Name / Title
Mr. A. Maddalena, Arcturus Environmental

Address	City / Province
7900 Canadian Drive	Niagara Falls, Ontario

Postal Code	Telephone Number	Fax Number
L2E 6S5	905 357 6424	905 357 6447

1613 (11/94) Front

3. SITE LOCATION (Concession, Lot, Municipality)

500 Coventry Road, Ottawa, Ontario

Is the proposed waste site located in an area of development control as defined by the *Niagara Escarpment Planning and Development Act* (NEPDA)?

☐ Yes ☒ No (if Yes, attach copy of NEPDA permit)

4. FACILITY DESCRIPTION – Brief description of the nature of business or activity related to this site.

(a) Present land use soft drink distribution facility	(b) Present official plan designation BUSINESS EMPLOYMENT AREA
(c) Present zoning category M1-X LIGHT INDUSTRIAL	(d) Present land use of all adjoining properties to be provided on a location map. (enclosed, Appendix VI)

(e) Maximum rate at which site can receive waste per day

Municipal	Commercial	Processed Organic Waste
☐ tonnes ☐ cu. metres	500* ☐ tonnes ☐ cu. metres	☐ Litres

If any of the following waste categories are intended to be received at the site, attach a description of each, including their source, to the Application.

Type of Waste	Tonnes	Cu. Metres	Litres
Liquid Industrial			20,000*
Non-hazardous Solid Industrial	12,000*	6,000*	
Hazardous			
Other * derived and treated onsite, not received from elsewhere			

(f) Days and hours of operation	(g) Population served N/A

(h) Names of all municipalities/major industries to be served by this site.

1. N/A	4.
2.	5.
3.	6.

(i) Total Area of Site 3.2 ☒ hectares or ☐ acres Area to be Landfilled 0.25 ☒ hectares or ☐ acres	Maximum estimated site storage capacity or storage capacity (if intended for storage). 12,000 ☒ tonnes ☐ cu. metres ☐ Litres

(j) Type of facility/operation ☐ landfill ☐ transfer ☐ processing ☒ other, specify soil bioremediation

(k) List all disposal sites and site Certificate Numbers (for final disposal)

1. N/A	4.
2.	5.
3.	6.

5. TYPE OF APPLICATION

☒ New Certificate of Approval

☐ Amendment to a current Certificate of Approval

Current Certificate Number _____

Date of Issue _____

N/A - not applicable

6. PROJECT/APPLICATION DESCRIPTION – EBR Abstract (Brief description of the proposal)

The construction and use of an Engineered Bioremediation Cell (EBC) with a maximum storage capacity of 6,000 m^3, for the treatment and subsequent re-use on-site, of petroleum hydrocarbon contaminated soil (non-hazardous solid waste) and groundwater. Facilities including the EBC, vapour extraction support facilities, and a mobile groundwater treatment system, are intended for an eight month operation period, at which time the facilities will be dismantled and removed.

7. EBR REQUIREMENTS

Is this a Prescribed Instrument under EBR?	[X] Yes, Class of Instrument? II	[ ] No
If a Prescribed Instrument, is it excepted from public notification?	[X] Yes	[ ] No
If it is excepted from EBR, provide reason	[X] Emergency	[ ] Equivalent Public Participation
	[ ] EAA or Tribunal Decision	[ ] Environmentally Insignificant amendment or revocation

If exempt from public notification, documentation in support of the noted exception must be provided.

8. PUBLIC CONSULTATION/NOTIFICATION – Specify all public consultations/notification (such as public meetings, notification of First Nations etc.) that has been completed or is in the process of being completed.

N/A

9. OTHER APPROVALS/PERMITS – List all other environmental approvals/permits applied for related to this project or received under the EPA (discharges to air, waste management, sewage systems, etc.) and the Ontario Water Resources Act (OWRA) (water works, permit to take water, etc.).

Certificate of Approval (Air) - Submitted to MOEE

Permission to take water, under Section 34 of OWRA (received)

Permission to discharge to sanitary sewer - Submitted to Region of Ottawa/Carlton

10. PROJECT SCHEDULE

Estimated Date for Start of Construction	Estimated Date for Start of Operation
immediately following issue of Approval	immediately following construction

11. FEE ESTIMATE – The "cost" to used to estimate the fee includes all equipment and construction costs but does not include costs for land, engineering services and costs of facilities for which the permit or approval is applied for under other Sections of the EPA or the OWRA for which appropriate fees have or will be paid. The fee shall not be less than $50.00 or more than $100,000.00. (For more information refer to the Guide)

(1) The fee payable upon submission of an application under Section 27 or the EPA where the application relates to a waste disposal site other than a landfilling site is

(a) 2% of the cost of the equipment and construction related to the application, less

(b) an amount equal to the proportion of the waste that is received at the site and will leave the site for recycling or reuse to the total amount of waste received at the site, calculated by weight or by volume, multiplied by the amount referred to in clause (a).

(c) where additional approvals are required under other Sections of the Act, separate fees are also required.

(2) For the purpose of clause 1 (a), recycled or reused waste does not include waste intended to be used as a dust suppressant or as a fuel or intended to be disposed of at a landfilling site or incinerator.

(3) The fee payable upon application under Section 27 of the EPA where the application relates to a landfilling site is 4 cents per cubic metre of the capacity of the landfilling site.

Estimated Fee ($50.00 minimum, $100,000.00 maximum) $ 50.00 Cheque or Money Order Attached [X] Yes [ ] No

When an application is submitted to the Ministry for review the fee must be in the form of a certified cheque or money order payable to "The Minister of Finance".

DO NOT SEND CASH

12. SUPPORTING INFORMATION CHECKLIST – This is a list of all supporting information attached to this application and is subject to the FOIPOPA and EBR.

INFORMATION	ATTACHED?	REFERENCE	CAN BE DISCLOSED
GENERAL			
Verification of Legal Name of Applicant	[X] Yes [ ] No		[X] Yes
Copy of NEPDA	[ ] Yes [ ] No	n/a	[ ] Yes
Verification of EBR Public Notification Exemption	[X] Yes [ ] No		[X] Yes
Proof of Public Notification Consultation	[ ] Yes [X] No		[ ] Yes
TECHNICAL			
Site Plan	[X] Yes [ ] No		[X] Yes
Hydrogeological Assessment	[X] Yes [ ] No		[X] Yes
Design and Operations Report	[X] Yes [ ] No		[X] Yes
Drainage Study	[X] Yes [ ] No		[X] Yes
Financial Assurance	[X] Yes [ ] No		[X] Yes
OTHER ATTACHED INFORMATION			[ ] Yes [ ] No
Air C of A Application			[X] Yes [ ] No
			[ ] Yes [ ] No
			[ ] Yes [ ] No

13. STATEMENT OF APPLICANT

I, the undersigned hereby declare that , to the best of my knowledge, the information contained herein and the information submitted in support of this application is complete and accurate in every way and that the Contact for Technical and Design Information identified in Item 2 of this form is/are authorized to act on my behalf for the purpose of obtaining approval under Section 27 of the EPA for the waste disposal site identified herein.

Name R.B. WALLACE	Title DIRECTOR ENVIRONMENTAL OPERATIONS
Signature	Date 02/23/1995

Ministry of the Environment
and Energy
P.O. Box 820
Kingston, Ontario
K7L 4X6
613/549-4000 or 1-800/267-0974
Fax: 613/548-6908

Ministère de l'Environnement
et de l'Énergie
C.P. 820
Kingston (Ontario)
K7L 4X6
613/549-4000 où 1-800/267-0974
Fax: 613/548-6908

23 March 1995

City of Ottawa
111 Sussex Drive
OTTAWA, Ontario
K1N 5A1

Attention: Clerk

Dear Sir or Madam:

Re: COCA-COLA BEVERAGES LTD.'S APPLICATION
FOR A CERTIFICATE OF APPROVAL
FOR A WASTE DISPOSAL SITE (PROCESSING)
FILE: A710060

The Eastern Region of the Ministry of Environment and Energy has received on February 28, 1995, an application dated February 23, 1995, from **Coca-Cola Beverages Ltd.** requesting the certification of a Waste Disposal Site (Processing) to be located at 500 Coventry Road in the City of Ottawa.

The company has requested approval for the on-site bioremediation of on-site soil contaminated with petroleum hydrocarbons. We have enclosed a copy of the proponent's application for your information. Should you require additional detail with regard to this application, we suggest you contact the applicant directly at (905) 357-6424.

This application will be reviewed by this office. The Ministry would appreciate your comments on this application, especially with regard to but not necessarily limited to: concerns of local residents, zoning, traffic, fire/spill contingency, land-use planning, and local concerns and by-laws. We request your response with respect to this application within thirty (30) days from the date of this letter. We will appreciate any preliminary comments you may have to offer us during the course of your application review process.

Please refer to **File: A710060** in all related correspondence.

As you may be aware, the Director has discretion under Section 32, Part V of the Environmental Protection Act to hold a public hearing regarding applications for waste disposal facilities. If you wish to request a public hearing you may do so along with written reasons for such a request.

Should you have any questions or concerns regarding the above, please contact me at (613) 549-4000.

Yours truly,

Kim Lendvay
Approvals Evaluator
Environmental Approvals and Planning
Eastern Region
KL/km
Enclosure
cc: Ottawa District Office, B. Dunn/G. Montcalm
- Regional Municipality of Ottawa-Carleton, Attn: Clerk, Cartier Square, 111 Lisgar Street, Ottawa, Ontario K2P 2L7
- Arcturus Environmental, Attn: Al Maddalena, 7900 Canadian Drive, Niagara Falls, Ontario L2E 6S5
- Coca-Cola Beverages Ltd., Attn: R.B. Wallace, 42 Overlea Boulevard, Toronto, Ontario M4H 1B8

Ministry of the Environment
and Energy
P.O. Box 820
Kingston, Ontario
K7L 4X6
613/549-4000 or 1-800/267-0974
Fax: 613/548-6908

Ministère de l'Environnement
et de l'Énergie
C.P. 820
Kingston (Ontario)
K7L 4X6
613/549-4000 où 1-800/267-0974
Fax: 613/548-6908

23 March 1995

Regional Municipality of Ottawa-Carleton
Cartier Square
111 Lisgar Street
OTTAWA, Ontario
K2P 2L7

Attention: Clerk

Dear Sir or Madam:

Re: COCA-COLA BEVERAGES LTD.'S APPLICATION
FOR A CERTIFICATE OF APPROVAL
FOR A WASTE DISPOSAL SITE (PROCESSING)
FILE: A710060

The Eastern Region of the Ministry of Environment and Energy has received on February 28, 1995, an application dated February 23, 1995, from **Coca-Cola Beverages Ltd.** requesting the certification of a Waste Disposal Site (Processing) to be located at 500 Coventry Road in the City of Ottawa, Ontario.

The company has requested approval for the on-site bioremediation of on-site soil contaminated with petroleum hydrocarbons. We have enclosed a copy of the proponent's application for your information. Should you require additional detail with regard to this application, we suggest you contact the applicant directly at (905) 357-6424.

This application will be reviewed by this office. The Ministry would appreciate your comments on this application. We request your response with respect to this application within thirty (30) days from the date of this letter. We will appreciate any preliminary comments you may have to offer us during the course of your application review process.

Please refer to **File: A710060** in all related correspondence.

As you may be aware, the Director has discretion under Section 32, Part V of the Environmental Protection Act to hold a public hearing regarding applications for waste disposal facilities. If you wish to request a public hearing you may do so along with written reasons for such a request.

Should you have any questions or concerns with regard to the above, please contact me at (613) 549-4000.

Yours truly,

Kim Lendvay
Approvals Evaluator
Environmental Approvals and Planning
Eastern Region
KL/km
Enclosure
cc: Ottawa District Office, B. Dunn/G. Montcalm
- Arcturus Environmental, Attn: Al Maddalena, 7900 Canadian Drive, Niagara Falls, Ontario L2E 6S5
- Coca-Cola Beverages Ltd., Attn: R.B. Wallace, 42 Overlea Boulevard, Toronto, Ontario M4H 1B8
- City of Ottawa, Attn: Clerk, 111 Sussex Drive, Ottawa, Ontario K1N 5A1

ARCTURUS ENVIRONMENTAL

March 3, 1995
E769.6

Ontario Ministry of the Environment and Energy
2435 Holly Lane
Ottawa, Ontario
K1V 7P2

Attention: Mr. G. Montcalm,
Senior Environmental Officer

Re: Application for Emergency Certificate of Approval (Waste Disposal Site)
Coca-Cola Distribution Plant,
500 Coventry Road, Ottawa, Ontario

Dear Mr. Montcalm:

As described in our letter dated February 27, 1995 and faxed to you on this date, Arcturus has requested emergency approval to begin construction of an on-site EBC and conduct excavation of contaminated soils at this site as soon as possible to avoid further spread of contamination off-site.

The completed application for C of A Waste Disposal Site was sent out March 1, 1995 and the application for C of A Air was sent out on Friday, February 27, 1995. It is understood that these applications are under review.

Although, it appears the approvals process will require more time than originally anticipated, we understand that we have your support, and as such, we plan to go ahead with construction as detailed in our work plan in the interests of protecting the environment and preventing further off-site impact.

It is understood, that full approval would not be obtained until the MOEE has fully reviewed both applications (for C of A Waste Disposal Site and Air) and has issued the appropriate approval notice for each.

7900 Canadian Drive, Niagara Falls, Ontario L2E 6S5 (905) 357-6424 Fax (905) 357-6447
Niagara Falls Toronto
MAR 03 '95 05:07PM ARCTURUS ENVIRONMENT 416 3576447 p.2

Construction will begin Monday, March 6, 1995. You are welcome to visit the site at any time to inspect construction operations.

If you have any questions, I can be reached on our cell phone on-site at 905-988-8667.

Thank you for your cooperation.

Sincerely,

Mr. A. L. Maddalena, M.Sc.
Remediation Manager

ALM:hll

c.c. Mr. R. B. Wallace, Coca-Cola Beverages Ltd.

ARCTURUS
7900 Canadian Drive
Niagara Falls, Ontario, L2E 6S5
Telephone (905)357-6424
Facsimile (905)357-6447

Project No.: E769.6
Section: 1
Date: Feb 27/95
Employee No.:

PLEASE FORWARD THE FOLLOWING PAGE(S) TO:

Name: Mr. G. Montcalm
Company: MoEE
Voice Phone No.:
Facsimile Phone No.: 613-521-5437

FACSIMILE SENT FROM:

Name: Al Maddalena
Number of pages including cover: 3
Hard Copy to follow: [ ] Yes [X] No
Date Sent: Time Sent: Operator:

MESSAGE/COMMENTS:

Could you please review our application and work plan and respond in writing as soon as possible. We have tentatively scheduled commencement of construction for March 2, 1995, pending your emergency approval. Thank you for your cooperation.

If you have any questions regarding our submission, please do not hesitate to call.

Sincerely,

Mr. A. L. Maddalena, M.Sc.
Remediation Manager

ALM:hil

c.c. Mr. R. B. Wallace, Coca-Cola Beverages Ltd.

ARCTURUS
ENVIRONMENTAL

February 27, 1995
E769.6

Ontario Ministry of the Environment and Energy
2435 Holly Lane
Ottawa, Ontario
K1V 7P2

Attention: Mr. G. Montcalm,
Senior Environmental Officer

Re: **Application for Emergency Certificate of Approval (Waste Disposal Site)**
Coca-Cola Distribution Plant,
500 Coventry Road, Ottawa, Ontario

Dear Mr. Montcalm:

Arcturus is requesting emergency approval to initiate remediation of this site. As part of the approvals process, you will be receiving a completed application for a Certificate of Approval (C of A) (Waste Disposal Site). This application has been made for an emergency exemption under EBR Requirements, Section 7. As you have discussed with Mr. D. Garand of Arcturus, off-site migration of a petroleum hydrocarbon contaminant plume has occurred at this site. In order to obtain immediate care and control of the plume, we are requesting emergency approval to excavate source contaminated soils from the subsurface and place these soils in a controlled engineered bioremediation cell (EBC) for treatment.

An emergency approval is necessary for us to begin construction as soon as possible and avoid further spread of contamination off-site. After contaminated source soils are removed from the subsurface, they will be covered in the EBC and await MOEE approvals before commencement of treatment. It is understood, that full approval would not be obtained until the MOEE has fully reviewed both applications (for C of A Waste Disposal Site and Air) and has issued the appropriate approval notice for each.

The completed application for C of A Waste Disposal Site is being sent out today, and the application for C of A Air was sent out on Friday, February 27, 1995.

7900 Canadian Drive, Niagara Falls, Ontario L2E 6S5 (905) 357-6424 Fax (905) 357-6447
Niagara Falls Toronto Mc
FEB 27 '95 02:49PM ARCTURUS ENVIRONMENT 416 3576447 P.3

APPLICATION FOR
CERTIFICATE OF APPROVAL (PROCESSING)
500 COVENTRY ROAD
OTTAWA, ONTARIO

FEBRUARY 1995

E769.6

ARCTURUS ENVIRONMENTAL LIMITED
7900 Canadian Drive
Niagara Falls, Ontario, L2E 6S5
Phone (905) 357-6424 Fax (905) 357-6447

ARCTURUS
ENVIRONMENTAL

February 22, 1995
E769.6

Ontario Ministry of the Environment and Energy
133 Dalton Street
Kingston, Ontario
K7L 4X6

Attention: Director - Eastern Region

Re: **Application for Certificate of Approval (Waste Disposal Site)**
Bioremediation Project
Coca-Cola Distribution Plant,
500 Coventry Road, Ottawa, Ontario

Dear Sir/Madame:

Arcturus Environmental has been hired by Coca-Cola Beverages Ltd. to conduct on-site remediation of petroleum contaminated soil at their distribution facility at this location. Part of the remediation involves construction of an Engineered Bioremediation Cell (EBC) to treat petroleum hydrocarbon contaminated soil, and a groundwater pumping/GAC treatment system for groundwater treatment.

Attached is the completed Application for a Certificate of Approval (Waste Disposal Site) for the proposed bioremediation strategy, and all related documentation. Included with the copy of the Application sent to the Regional Office (Kingston) is a certified check for $50 payable to the Treasurer of Ontario, for the required fee payment.

The proposed remedial strategy includes the use of vapour extraction and biofilter treatment of hydrocarbon vapours derived from the soil, and discharge of treated air to the environment. A separate Application for a Certificate of Approval (Air) for the proposed biofilter treatment system has been forwarded to the Approvals Branch (Toronto, Ontario). A copy of the application form for the Air C of A has been included as Appendix III.

INTRODUCTION

Arcturus Environmental Limited is currently under contract to Coca-Cola Beverages Limited to conduct soil/groundwater remediation program at a presently active soft drink distribution facility located at 500 Coventry Road in Ottawa, Ontario.

Previous work by Arcturus at this site has confirmed that approximately 6,600 tonnes of soil exceeds applicable MOEE soil remediation criteria (Appendix I).

A remediation plan has been designed for this site such that soil and groundwater treatment is conducted on-site with no release of contaminants to the air or nearby properties, and no soil disposal off-site. A detailed remediation strategy, including design and construction details, has been included in Appendix II.

PRE-APPLICATION CONSULTATION

Consultation with Mr. Greg Montcalm (Senior Environmental Officer) of the Ottawa District Office has been initiated by Arcturus on behalf of Coca-Cola Beverages Limited. This involved a verbal presentation of the remediation proposal and discussions regarding the Approvals process, in addition to discussions regarding the request for an emergency Certificate of Approval.

ENVIRONMENTAL BILL OF RIGHTS (EBR) EXEMPTION

In December, 1994, Arcturus Environmental Limited conducted a soil and hydrogeological investigation at this site. At this time it was determined that petroleum hydrocarbons were present in subsurface soil and groundwater. Due to the high permeability of subsurface soils, and the presence of volatile petroleum hydrocarbons, a potential impact to adjacent property to the west was evident. The results of the site investigation have been included as Appendix I.

Soil excavation and groundwater pumping has been conducted to remove impacted soil and groundwater, however the need now exists to remove and treat "source" soils. The proposed remedial strategy is designed to remove petroleum hydrocarbon contaminated "source" soils, and also withdraw and treat groundwater to reduce and remove petroleum hydrocarbons at site boundaries and beyond. A detailed remedial strategy is included as Appendix II.

Based on present conditions, an exemption of the EBR is requested, according to Section 7, Part 1 (Emergency) of the Application Guide. As discussed between Mr. G. Montcalm of the MOEE (Ottawa District Office) and Mr. D. Garand of Arcturus, the request for an emergency C of A is based on the necessity to minimize potential exposure to petroleum hydrocarbon contaminated soil currently stockpiled on-site, and to eliminate further impact by removing "source" soils.

PROPOSED SCHEDULE

Due to the nature of the situation, operations will commence immediately following receipt of the emergency Certificate of Approval.

In summary, it is proposed that:

- an Engineered Bioremediation Cell (EBC) will be constructed on-site, by excavating clean soil and temporarily stockpiling on-site

- petroleum hydrocarbon contaminated soil and groundwater from the zone of contamination will be excavated, and placed into the EBC for bioremediation

- during excavation, sump wells will be installed to pump groundwater during, and following, excavation; groundwater will be pumped through a mobile granular activated carbon (GAC) treatment system

- following excavation and removal of petroleum hydrocarbon contaminated soil, the excavation will be backfilled with clean soil previously stockpiled on-site during EBC construction, and suitably compacted

- a vapour extraction system (VES) will be installed to remove hydrocarbon vapours from soil within the EBC

- a biofilter treatment system will be connected to the VES to bioremediate hydrocarbon vapours removed using the VES

- monitoring of the biofilter treatment system will be conducted according to required MOEE protocol, specified by the MOEE Air Approvals Branch; a separate Application for Certificate of Approval (Air) has been forwarded to the Approvals Branch for review, and an abbreviated version is included in Appendix III

- once soil within the EBC has met appropriate remedial criteria, the cover will be removed, and the basal liner punctured to allow for natural drainage

- appropriate soil remedial criteria for this site are MOEE (1993) *Interim Guidelines for the Assessment and Management of Petroleum Contaminated Sites in Ontario* Level II (MODERATE).

All the requirements listed in the form entitled "Application Requirements for a Certificate of Approval for a Waste Disposal Site (Processing and Transfer)" have been addressed below. Also included is the completed form entitled "Application for Approval of a Waste Disposal Site" (November, 1994).

PART I APPLICATION REQUIREMENTS FOR A CERTIFICATE OF APPROVAL FOR A WASTE DISPOSAL SITE (PROCESSING AND TRANSFER)

A. GENERAL REQUIREMENTS

1) APPLICATION FORM

The Certificate of Approval (C of A) application form 1613(11/94) for a Waste Disposal Site has been included for review.

2) APPLICATION FEE

As this remediation proposal involves treatment and then re-use of contaminated soil and groundwater on-site, we request that the minimum fee ($50) is applied for Application Fee in accordance with the Recycling, Re-use, and Reduction (3Rs) program of the MOEE (as stated in Fees Estimate Part II, Section 11, Approvals Guide).

3) CORPORATIONS INFORMATION

A true and certified copy of an Initial Notice or Notice of Change (Form 1, 2 or 3 filed under O. Regulation 189, RSO) under the Corporations Information Act) for Arcturus Environmental Limited has been included (Appendix IV). Further information is available upon request.

4) OPERATING PLANS

Enclosed (Appendix II) is a detailed work plan for the proposed remediation of petroleum hydrocarbon contaminated soil at the above site.

5) CONSTRUCTION DRAWINGS

All required construction drawings including a vicinity map and site plan have been included in Appendix II.

6) TOTAL RESIDUAL WASTE STREAM

It has been estimated that up to 6,000 m^3 (12,000 T) of soil in total will have to be excavated and treated. No waste stream will be discharged into the surrounding environment.

Treated groundwater will be discharged to the local sanitary sewer system. Approval has been granted by the Region of Ottawa-Carlton to discharge treated water into the local sanitary sewer system (Appendix V).

An Approval to Take Water Under Section 34 of the Ontario Water Resources Act, issued by the MOEE, has been granted in the event that large quantities of groundwater are to be treated; MOEE approval has been included in Appendix V.

7) SITE FENCING AND OVERALL SECURITY

During excavation, the areas of activity will be surrounded by construction fencing to ensure open excavation areas are secure. Any fencing taken down to allow daily construction activities will be replaced at the end of each day.

8) TOPOGRAPHY AND LAND USE

A land use map, official plan designations, and zoning of the site and surrounding lands is included in Appendix VI. The adjacent properties generally support commercial and light industrial land uses.

9) APPROVALS (MUNICIPAL)

An approval has been granted by the Region of Ottawa-Carlton to discharge treated water to the sanitary sewer for the duration of the project (Appendix V).

10) STORM WATER MANAGEMENT

No storm water management system is required as there is no proposed discharge to any surface waters. The EBC is a self-contained system, with water collected from inside the treatment area being pumped back onto the soil pile or pumped to the sanitary sewer following GAC treatment.

11) FINANCIAL ASSURANCE AND LIABILITY INSURANCE

Details regarding financial liability insurance are in Appendix IV.

12) SITE RESTORATION

Site restoration plans are described in the Detailed Remediation Strategy included in Appendix II.

B. OPERATIONS AND MANAGEMENT

1) MOVEMENT OF WASTE

A detailed description of the movement of wastes into the EBC, in addition to design and construction schematics, is provided in Appendix II. Water and soil is to be treated on-site, with no removal of soil to a landfill.

Dewatering of excavations may be required during remediation activities. Groundwater treatment would be conducted using the portable groundwater pumping/GAC treatment unit described in Appendix II.

2) WASTE TO BE RECEIVED/STORAGE CAPACITY

No waste from off-site is to be received at this facility. It is estimated that 500 T/day of soil will be excavated and moved into the EBC over a 12 day period. The total maximum storage capacity of the EBC is approximately 6000 m^3 (12,000 T).

3) STORAGE TIME

Once excavation and construction activities have been completed, an estimated 6 to 8 warm weather months will be required to fully remediate the soil in the EBC. Soil will be manipulated/monitored monthly.

4) WASTE SCREENING PROCEDURES

Arcturus will supervise the excavation and removal of the soils in the area of contamination. During the excavation, the soils will be evaluated in the field and sorted, based on the degree of petroleum hydrocarbon contamination, using a Gastechtor™ Model 1238 Hydrocarbon Vapour Monitor calibrated to hexane, visual observations and chemical analyses. Contaminated soils will be transported to the EBC for treatment. Further details are described in Appendix II.

5) LABELLING

Labels in the form of signs at the EBC and treatment support facilities will be maintained for the duration of remediation activities at this site. No drums of waste will be used to store materials on-site, and as such, no further labelling is anticipated.

6) VEHICLE ROUTES

Vehicle route movement will be limited to the southern and western portions of the site where the remediation works will be performed between the EBC, the zone of contamination, and the temporary clean fill storage area.

No appreciable off-site movement of vehicles is anticipated as all wastes are presently on-site and will all remain there.

7) TYPE/QUANTITY OF WASTE

Approximately 12,000 T of soil contaminated with gasoline will be treated on-site. Approximately 22,500 L (5000 gal) of contaminated groundwater, pumped from the area of excavation and the EBC, will be discharged to the sanitary sewer following GAC treatment.

8) PROCESS PARAMETERS

The process parameters to be monitored include BTEX and TPH. Monitoring procedures for the EBC are described in Appendix II. Interim Guidelines for the Remediation of Petroleum Contaminated Sites in Ontario will be applied as remedial protocol. The list of monitoring parameters was derived from these guidelines. The site sensitivity assessment for this site according to these guidelines is Level II (MODERATE).

9) RECORD KEEPING

Daily records will be kept to monitor on-site activities such as confirmatory soil analyses, construction of EBC and tonnages of both clean and contaminated soil moved. Daily movement of contaminated and clean soil loads is monitored from its' origin to destination on-site. This ensures contaminated soil is kept separate from clean soil. These records will be compiled at the end of remediation activities and used for reporting purposes.

After excavation/backfilling is complete, the bioremediation of soil in the EBC requires monthly monitoring.

10) FACILITY MAINTENANCE, INSPECTION AND STAFF TRAINING

Arcturus staff would visit the site monthly to conduct monitoring and general inspection of the facility. Details of monthly monitoring are described in Appendix II. Routine maintenance of the EBC system will be conducted as part of Arcturus' regular monthly monitoring program.

11) CONTINGENCY PLANS

In the event of a major rainfall, site personnel on-site will be contacted to inspect water accumulation in the EBC. If water accumulation is excessive, a vacuum truck will be used as required.

All trucks hauling contaminated soil will have sealed tailgates so that contaminated soil is not spilled during transport.

All buried utilities are clearly marked on the ground surface before excavation activities are begun. This will ensure that underground services are not severed.

12) EMERGENCY RESPONSE PLANS

A Health and Safety Plan, including emergency response plans, has been developed specifically for this site, and is included in Appendix II.

13) PROPOSED HOURS OF OPERATION

The proposed daily hours of operation for excavation and construction activities will be from 7:00 am to 6:00 pm over a period of approximately 12 days. Activities are expected to begin immediately following issuance of this emergency Certificate of Approval.

14) CONTAMINANT DISCHARGE TO THE AIR

There will be no direct discharges of contaminants to the air other than possibly noise of construction equipment and a small amount of dust. Noise to neighbouring properties is not expected to be excessive, as a minimum of construction equipment is to be used on-site (i.e., 1 excavator, 2 trucks for only 12 days. Dust emissions are not anticipated; however, appropriate roadways will be sprayed with water as required.

Periodic air monitoring using carbon tubes and vapour analyzers are performed as part of the remediation activities to ensure Ministry of Labour (MOL) exposure levels of hydrocarbon vapours are not exceeded. The monitoring program is subject to MOEE approval, and is described briefly in Appendix III.

C. ADDITIONAL REQUIREMENTS

1) DESIGN DETAILS

Details of the EBC construction are provided in Appendix II.

A schematic representation of the EBC is presented in Figure III, Appendix II.

2) STORAGE TANK SPECIFICATIONS

As the groundwater pumping/GAC treatment system is a continuous process stream, no storage tanks are necessary.

3) WASTE SEGREGATION

Some separation of clean soils from hydrocarbon contaminated soils may be necessary during excavation. During the excavation, the soils will be evaluated in the field and sorted, based on the degree of petroleum hydrocarbon contamination, using a Gastechtor™ Model 1238 Hydrocarbon Vapour Monitor calibrated to hexane, visual observations and chemical analyses. Contaminated soils will be transported to the EBC for treatment. Further details are described in Appendix II.

4) PIPING LAYOUT

Figures 3 and 4 in Appendix II are schematics of the EBC showing the proposed pumping, piping and sprinkler system.

5) BERM DESIGN AND CAPACITY

Guidelines for Environmental Protection Measures at a Chemical Storage Facility exclude petroleum products from the definition of chemical products. However, these guidelines were used as a basis for the berm design and capacity of the system proposed here.

Detailed designs and calculations of the storage capacity of the EBC are given to show it has been engineered to function as a safe and efficient remediation system (Appendix II).

Details of the berms and base of the storage area are provided with the calculations that show the design and capacity of the EBC. The material lining the base and berms of the EBC is an impermeable 30 mil High Density Polyethylene sheet with continuously welded seams. This liner is more than adequate for use in the storage and treatment of petroleum hydrocarbon contaminated soil.

STATEMENT

To the best of our knowledge at the time of application, the information provided is complete, with respect to this guideline, and is accurate.

If you have any questions or comments regarding this report, please do not hesitate to call.

Sincerely,

Mr. Al Maddalena, M.Sc.
Project Manager

PJH:jac
Attachment

cc: Mr. R. B. Wallace, Coca-Cola Beverages (w/a)
Mr. G. Montcalm, MOEE District Office, Ottawa, Ontario

Ministry of Environment and Energy
Ontario

Application for Approval of a Waste Disposal Site

Ce formulaire est disponible en français

FOR OFFICE USE ONLY				
Application Number(s)	Client Number	Payment Received	Date	Initials
		$		

Information requested by this form is collected under the authority of the *Environmental Protection Act*, R.S.O. 1990 (EPA), Chapter E-19, (EPA) and the *Environmental Bill of Rights*, c.28, Statutes of Ontario, 1993, (EBR) and will be used to evaluate applications for approval of waste disposal sites according to the requirements of the EPA. Questions should be directed to the Approvals Branch, 250 Davisville Avenue, 3rd Floor, Toronto, Ontario, M4S 1H2, Telephone No. (416)440-3713 or 1-800-461-6290, or to your local Ministry of Environment and Energy District Office.

Instructions

1. When completing this form, please refer to the "Guide For Applying for Approval of Waste Disposal Sites", Sections 27, 30, 31 and 32, EPA (referred to as the Guide).

2. This form must be completed with respect to all the requirements of the Guide in order for it to be considered as an application for approval. INCOMPLETE APPLICATIONS WILL BE RETURNED TO THE APPLICANT OR DENIED APPROVAL.

3. A complete application for approval consists of;
   (1) a completed and signed application form;
   (2) all supporting information as requested by this form and by the Guide; and
   (3) a certified cheque or money order for the approval fee, if applicable.
   The Ministry may require additional information following a review of the complete application.

4. Two (2) copies of the application together with the supporting information must be submitted to the Ministry of Environment and Energy.
   One copy to: Director of Approvals Branch, Ministry of Environment and Energy, 250 Davisville Avenue, 3rd Floor, Toronto, Ontario, M4S 1H2

   OR

   Regional Director in the region in which the site is located/will be located

A duplicate copy must be sent to the District Office having jurisdiction over the area in which the works will be located.

5. Information contained in this application is not considered confidential and will be made available to the public upon request. Certain information submitted as supporting information may be claimed as confidential but will be subject to the *Freedom of Information and Protection of Privacy Act* (FOIPOPA) and EBR. If you do not claim confidentiality at the time of submitting the information, the Ministry may make the information available to the public without further notice to you.

1. APPLICANT

Name (attach proof of name if applicable)
Mr. R. B. Wallace, Coca-Cola Beverages Ltd.

Address (include street number, concession, lot etc.)	City / Province
42 Overlea Boulevard	Toronto, Ontario

Postal Code	Telephone Number	Fax Number
M4H 1B8	416 424 6236	

Owner of Land [X] Yes [ ] No
If "No" attach name, address and concurrence of the appropriate owner.

Operator [X] Yes [ ] No
If "No" attach name, address and concurrence of the appropriate Operator.

2. CONTACT FOR TECHNICAL AND DESIGN INFORMATION

Name / Title
Mr. A. Maddalena, Arcturus Environmental

Address	City / Province
7900 Canadian Drive	Niagara Falls, Ontario

Postal Code	Telephone Number	Fax Number
L2E 6S5	905 357 6424	905 357 6447

1613 (11/94) Front

3. SITE LOCATION (Concession, Lot, Municipality)

500 Coventry Road, Ottawa, Ontario

Is the proposed waste site located in an area of development control as defined by the *Niagara Escarpment Planning and Development Act* (NEPDA)?

☐ Yes ☒ No (If Yes, attach copy of NEPDA permit)

4. FACILITY DESCRIPTION – Brief description of the nature of business or activity related to this site:

(a) Present land use: soft drink distribution facility

(b) Present official plan designation: BUSINESS EMPLOYMENT AREA

(c) Present zoning category: M1-X LIGHT INDUSTRIAL

(d) Present land use of all adjoining properties to be provided on a location map. (enclosed, Appendix VI)

(e) Maximum rate at which site can receive waste per day

Municipal	Commercial	Processed Organic Waste
☐ tonnes	500* ☐ tonnes	☐ Litres
☐ cu. metres	☐ cu. metres	

If any of the following waste categories are intended to be received at the site, attach a description of each, including their source, to the Application.

Type of Waste	Tonnes	Cu. Metres	Litres
Liquid Industrial			20,000*
Non-hazardous Solid Industrial	12,000*	6,000*	
Hazardous			
Other * derived and treated onsite, not received from elsewhere			

(f) Days and hours of operation:

(g) Population served: N/A

(h) Names of all municipalities/major industries to be served by this site:

1. N/A	4.
2.	5.
3.	6.

(i) Total Area of Site: 3.2 ☒ hectares or ☐ acres

Area to be Landfilled: 0.25 ☒ hectares or ☐ acres

Maximum estimated site storage capacity or storage capacity (if intended for storage): 12,000 ☒ tonnes ☐ cu. metres ☐ Litres

(j) Type of facility/operation: ☐ landfill ☐ transfer ☐ processing ☑ other, specify soil bioremediation

(k) List all disposal sites and site Certificate Numbers (for final disposal)

1. N/A	4.
2.	5.
3.	6.

5. TYPE OF APPLICATION

☒ New Certificate of Approval

☐ Amendment to a current Certificate of Approval

Current Certificate Number:

Date of Issue:

N/A = not applicable

6. PROJECT/APPLICATION DESCRIPTION – EBR Abstract (Brief description of the proposal)

The construction and use of an Engineered Bioremediation Cell (EBC) with a maximum storage capacity of 6,000 m^3, for the treatment and subsequent re-use on-site, of petroleum hydrocarbon contaminated soil (non-hazardous solid waste) and groundwater. Facilities including the EBC, vapour extraction support facilities, and a mobile groundwater treatment system, are intended for an eight month operation period, at which time the facilities will be dismantled and removed.

7. EBR REQUIREMENTS

Is this a Prescribed Instrument under EBR?	[X] Yes, Class of Instrument? II	[ ] No
If a Prescribed Instrument, is it excepted from public notification?	[X] Yes	[ ] No
If it is excepted from EBR, provide reason	[X] Emergency	[ ] Equivalent Public Participation
	[ ] EAA or Tribunal Decision	[ ] Environmentally Insignificant amendment or revocation

If exempt from public notification, documentation in support of the noted exception must be provided.

8. PUBLIC CONSULTATION/NOTIFICATION – Specify all public consultations/notification (such as public meetings, notification of First Nations etc.) that has been completed or is in the process of being completed.

N/A

9. OTHER APPROVALS/PERMITS – List all other environmental approvals/permits applied for related to this project or received under the EPA (discharges to air, waste management, sewage systems, etc.) and the Ontario Water Resources Act (OWRA) (water works, permit to take water, etc.).

Certificate of Approval (Air) - Submitted to MOEE

Permission to take water, under Section 34 of OWRA (received)

Permission to discharge to sanitary sewer - Submitted to Region of Ottawa/Carlton

10. PROJECT SCHEDULE

Estimated Date for Start of Construction	Estimated Date for Start of Operation
immediately following issue of Approval	immediately following construction

11. FEE ESTIMATE – The "cost" to used to estimate the fee includes all equipment and construction costs but does not include costs for land, engineering services and costs of facilities for which the permit or approval is applied for under other Sections of the EPA or the OWRA for which appropriate fees have or will be paid. The fee shall not be less than $50.00 or more than $100,000.00. (For more information refer to the Guide)

(1) The fee payable upon submission of an application under Section 27 or the EPA where the application relates to a waste disposal site other than a landfilling site is:

(a) 2% of the cost of the equipment and construction related to the application, less

(b) an amount equal to the proportion of the waste that is received at the site and will leave the site for recycling or reuse to the total amount of waste received at the site, calculated by weight or by volume, multiplied by the amount referred to in clause (a).

(c) where additional approvals are required under other Sections of the Act, separate fees are also required.

(2) For the purpose of clause 1 (a), recycled or reused waste does not include waste intended to be used as a dust suppressant or as a fuel or intended to be disposed of at a landfilling site or incinerator.

(3) The fee payable upon application under Section 27 of the EPA where the application relates to a landfilling site is 4 cents per cubic metre of the capacity of the landfilling site.

Estimated Fee ($50.00 minimum; $100,000.00 maximum) $ 50.00 Cheque or Money Order Attached [X] Yes [ ] No

When an application is submitted to the Ministry for review the fee must be in the form of a certified cheque or money order payable to "The Minister of Finance".

DO NOT SEND CASH

12. SUPPORTING INFORMATION CHECKLIST – This is a list of all supporting information attached to this application and is subject to the FOIPOPA and EBR.

INFORMATION	ATTACHED?	REFERENCE	CAN BE DISCLOSED
GENERAL			
Verification of Legal Name of Applicant	[X] Yes [ ] No		[X] Yes
Copy of NEPDA	[ ] Yes [ ] No	n/a	[ ] Yes
Verification of EBR Public Notification Exemption	[X] Yes [ ] No		[X] Yes
Proof of Public Notification Consultation	[ ] Yes [X] No		[ ] Yes
TECHNICAL			
Site Plan	[X] Yes [ ] No		[X] Yes
Hydrogeological Assessment	[X] Yes [ ] No		[X] Yes
Design and Operations Report	[X] Yes [ ] No		[X] Yes
Drainage Study	[X] Yes [ ] No		[X] Yes
Financial Assurance	[X] Yes [ ] No		[X] Yes
OTHER ATTACHED INFORMATION			[ ] Yes [ ] No
Air C of A Application			[X] Yes [ ] No
			[ ] Yes [ ] No
			[ ] Yes [ ] No

13. STATEMENT OF APPLICANT

I, the undersigned hereby declare that, to the best of my knowledge, the information contained herein and the information submitted in support of this application is complete and accurate in every way and that the Contact for Technical and Design Information identified in item 2 of this form is/are authorized to act on my behalf for the purpose of obtaining approval under Section 27 of the EPA for the waste disposal site identified herein.

Name	Title
R. B. WALLACE	DIRECTOR ENVIRONMENTAL OPERATIONS
Signature	**Date**
[signature]	02/23/1995

APPENDICES

APPENDIX I	SITE ASSESSMENT AND EVALUATION OF REMEDIATION ALTERNATIVES (includes Recommended Remediation Strategy)
APPENDIX II	DETAILED REMEDIATION STRATEGY (includes design and capacity drawings/calculations)
APPENDIX III	AIR CERTIFICATE OF APPROVAL APPLICATION
APPENDIX IV	CORPORATIONS INFORMATION, FINANCIAL LIABILITY INSURANCE, LETTER OF AUTHORIZATION
APPENDIX V	PERMIT TO TAKE WATER
APPENDIX VI	LAND USE, OFFICIAL PLAN AND ZONING MAP

APPENDIX I
SITE ASSESSMENT AND EVALUATION OF REMEDIATION ALTERNATIVES
(includes Recommended Remediation Strategy)

DRAFT

COCA-COLA BEVERAGES LTD.

SITE ASSESSMENT AND EVALUATION OF REMEDIATION ALTERNATIVES

500 COVENTRY ROAD, OTTAWA, ONTARIO

EXECUTIVE SUMMARY

In October and November 1994, Arcturus was on-site at the Coca-Cola distribution facility at 500 Coventry Road in Ottawa, to supervise the decommissioning of two underground fuel storage tanks, and to conduct a comprehensive assessment of subsurface conditions, with respect to petroleum-hydrocarbon impact.

The results of the assessment indicate that approximately 6,600 tonnes of soil on the Coca-Cola property have been impacted to a degree which exceeds the currently applicable remediation criteria established by the Ministry of the Environment and Energy.

Using the results of the assessment as a basis, Arcturus conducted a cursory review of alternative approaches to remediate the petroleum-hydrocarbon impacted soil. On the basis primarily of cost, giving due consideration to timing and space constraints, and technical effectiveness, it is our recommendation that on-site ex-situ bioremediation be selected as the preferred approach.

It is recommended that the application process for required Certificates of Approval be initiated immediately, so that construction of the remedial works can begin in the beginning of April 1995. If this schedule is achieved, it is anticipated that remediation of the soil will be complete, and the site restored, no later than the end of October 1995.

TABLE OF CONTENTS

EXECUTIVE SUMMARY i

1.0 INTRODUCTION 1

2.0 SITE ASSESSMENT 1
- 2.1 UNDERGROUND FACILITY REMOVAL 1
- 2.2 TEST PITTING PROGRAM 3
- 2.3 BOREHOLE INSTALLATION 3

3.0 SITE CONDITIONS 5
- 3.1 SITE SENSITIVITY ANALYSIS 5
- 3.2 STRATIGRAPHY 6
- 3.3 SOIL CHEMICAL ANALYTICAL RESULTS 6
- 3.4 REMEDIATION REQUIREMENTS 8

4.0 PREFERRED REMEDIATION APPROACH 8
- 4.1 PROCESS 8
- 4.2 PERMITTING REQUIREMENTS 10
- 4.3 SCHEDULING 10

LIST OF FIGURES

Figure 1 General Site Layout
Figure 2 Borehole and Test Pit Locations
Figure 3 Approximate Extent of Petroleum Hydrocarbon Impact
Figure 4 Schematic of Remediation System Process Flow
Figure 5 Location of Remediation Facilities

LIST OF APPENDICES

Appendix I Test Pit Logs
Appendix II Borehole Logs
Appendix III Site Sensitivity Analysis

1.0 INTRODUCTION

Arcturus Environmental Limited was retained by Coca-Cola Beverages Ltd. to manage the decommissioning of two underground fuel storage tanks, and removal of petroleum-hydrocarbon impacted soil, in accordance with the requirements of the Gasoline Handling Act, at the distribution facility located at 500 Coventry Road, in Ottawa.

However, during the excavation and removal of the tanks, it became apparent that the quantity of impacted soil requiring remediation was significant. Therefore, a comprehensive site assessment was undertaken prior to removal of any soil, in order to facilitate determination of the most cost-effective remediation approach.

The site assessment indicated that, in addition to the impacted soil on Coca-Cola property, migration of petroleum hydrocarbons had occurred off-site, onto the adjoining property to the west. The delineation of the off-site impacts, and subsequent remediation, which is now complete, will be described in detail under separate cover.

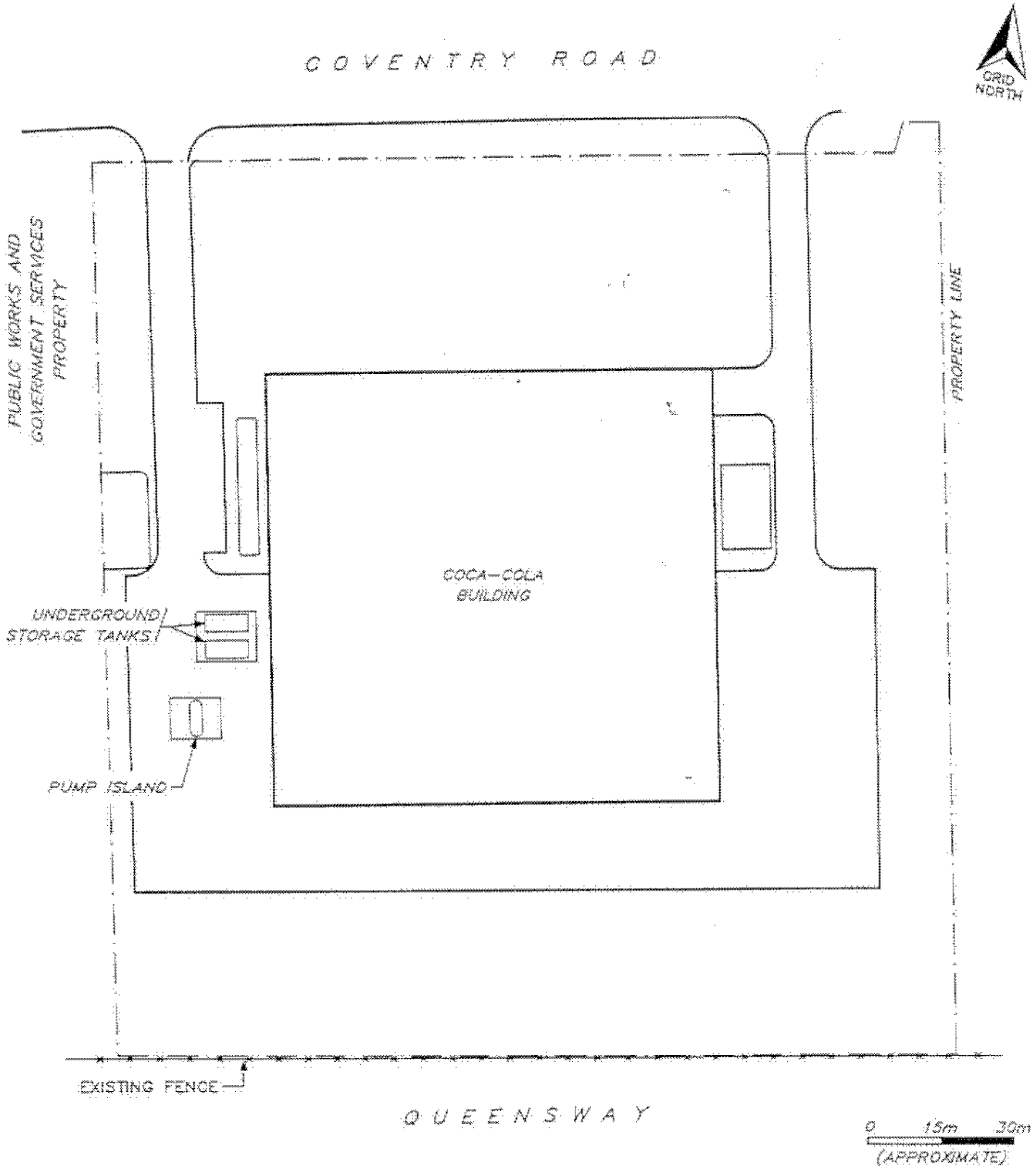
This report presents a brief description of the on-site assessment, a summary of current site conditions, a comparative review of remediation alternatives, and a discussion of the preferred approach to remediation of the site.

2.0 SITE ASSESSMENT

2.1 UNDERGROUND FACILITY REMOVAL

On October 15, 1994, two fibreglass-reinforced plastic (FRP) 22,700-L underground storage tanks were removed from the site, by PetroGat Inc., under subcontract to Arcturus. The tanks appeared in good condition at the time of removal. At the same time, associated pumps, distribution and vent lines were also removed.

The general site layout, prior to removal of facilities, is shown in Figure 1.



LEGEND

GENERAL SITE LAYOUT

500 COVENTRY ROAD
OTTAWA, ONTARIO

CLIENT

DATE NOVEMBER 1994		PROJECT No. E769.2	DRAWING No. FIGURE 1
DRWN TD	CHK'D SMG	SCALE AS SHOWN	

2.2 TEST PITTING PROGRAM

During removal of the pump island and distribution lines, it became apparent from visual and olfactory observation that there might be significant subsurface petroleum hydrocarbon impact. Therefore, prior to removal of any soil from the site, a test pitting program was conducted to delineate the extent of the impact, and to determine the volume of soil requiring remediation.

On October 15 and 16, 1994, sixteen test pits were excavated around the tank nest and pump island, to an average depth of approximately 3.3 m. The locations of the test pits are shown on Figure 2.

During excavation, soil samples were collected from the walls of the test pits at regular depth intervals. The samples were logged according to visual and textural observations by Arcturus' field technician. In addition, combustible soil vapour concentrations (CVC's) were measured, using a Gastechtor™ Hydrocarbon Surveyor, calibrated to hexane, and set for methane elimination.

Stratigraphic logs of the test pits, including CVC data, are included as Appendix I.

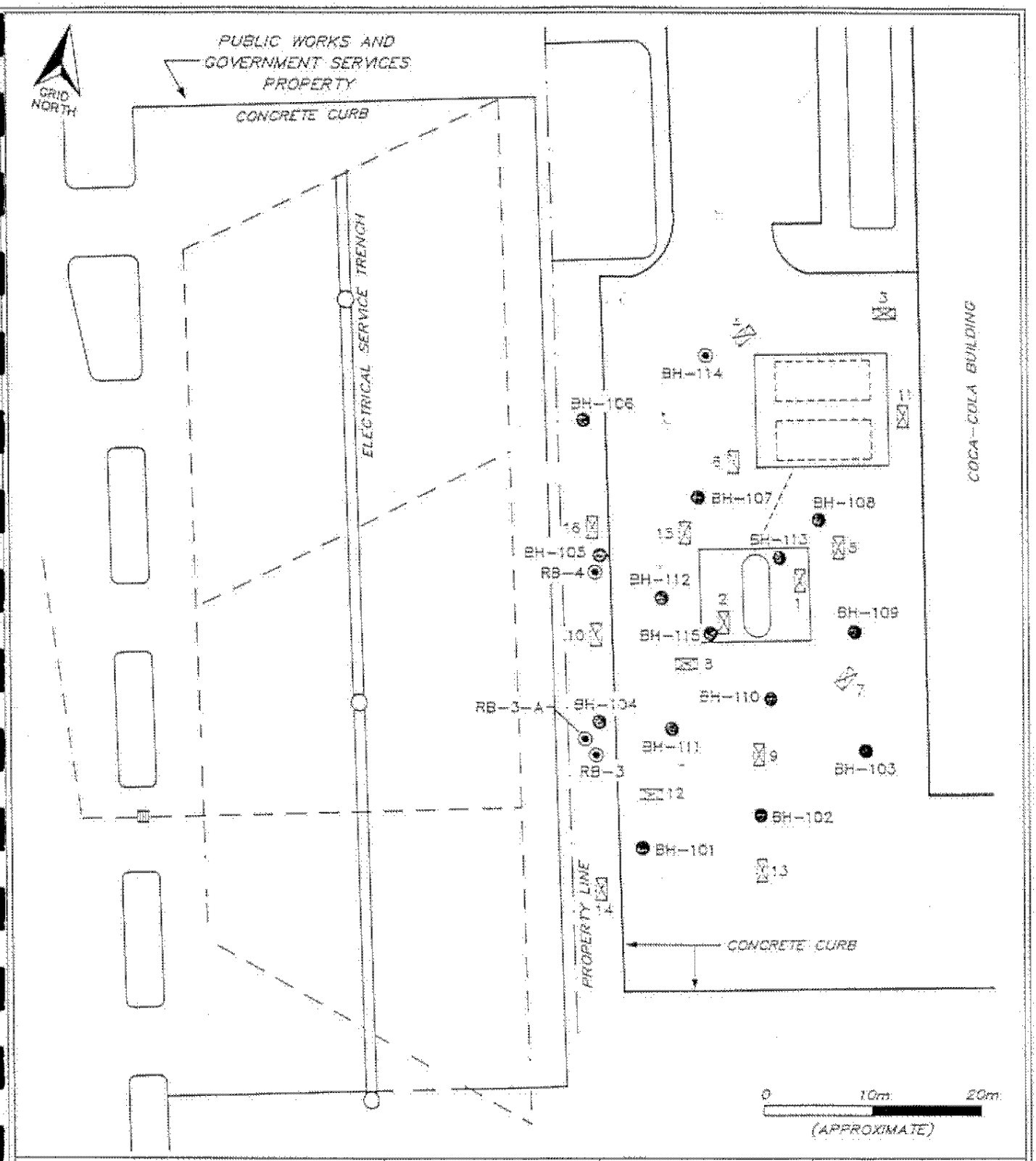
Four soil samples were selected for laboratory analyses of benzene, toluene, ethylbenzene, xylenes (BTEX), and total petroleum hydrocarbons (TPH). Two samples were chosen from each of the two stratigraphic layers encountered in the test-pits.

The samples were selected on the basis of CVC's measured in the field, to provide a preliminary indication of the relationship between actual residual concentrations of petroleum-related constituents in the soil, and the field measurements.

2.3 BOREHOLE INSTALLATION

Following consultation with Coca-Cola, it was decided that additional information was required to accurately delineate the horizontal and vertical distribution of the petroleum-hydrocarbon impact in the soil.

On November 1 to 4, 1994, fifteen boreholes were advanced to an average depth of approximately 4 m, using a track-mounted drill rig, equipped with hollow-stem augers. The locations of the boreholes are shown on Figure 2.



LEGEND

- ARCTURUS TEST PIT
- ARCTURUS BOREHOLE
- ARCTURUS MONITORING WELL
- DRAINAGE LINE
- CATCH BASIN

BOREHOLE AND TEST PIT LOCATIONS

CLIENT: Coca-Cola

ARCTURUS

DATE NOVEMBER 1994		PROJECT No. E769.2	DRAWING No. FIGURE 2
DRWN TD	CHK'D SWG	SCALE AS SHOWN	

During drilling, soil samples were collected at regular intervals using a 50 mm diameter split-spoon sampler. Each sample was logged and monitored for CVC, as above. Graphic borehole logs, including CVC data, are included in Appendix II.

Two of the boreholes (BH-114 and BH-115) were equipped with monitoring wells, constructed of 50 mm diameter, schedule 40, PVC pipe. The wells are screened from the bottom of the borehole to within one meter of ground surface. The are completed flush with grade, in steel, lockable, protective casings. Construction details are illustrated on the borehole logs.

On November 9, three additional boreholes (RB-3, 3A, and 4) were installed on Coca-Cola property, at the request of the environmental consultant acting on behalf of the adjacent property owner. These boreholes were also equipped with monitoring wells.

A total of eighteen soil samples from the drilling program were selected for laboratory analyses of BTEX and TPH. Again, the samples were selected to represent a wide cross-section of the CVC's measured in each of the two stratigraphic layers encountered during drilling.

3.0 SITE CONDITIONS

3.1 SITE SENSITIVITY

A site sensitivity analysis was conducted in accordance with the *Interim Guidelines for the Assessment and Management of Petroleum Contaminated Sites in Ontario* (Ministry of Environment and Energy, August 1993). The analysis indicates that the sensitivity of this site is MODERATE, and therefore, the Interim Level II soil remediation criteria are appropriate.

The site sensitivity flow chart, and key decision rationale, are included as Appendix III.

3.2 STRATIGRAPHY

Based on observations made during excavation of the test pits, and installation of the boreholes, the stratigraphy of the site can be generalized as follows:

• 0 - 1.2 mbg*	sand and gravel fill beneath asphalt
• 1.2 - 2.4 mbg	grey to brown, damp to wet, compact, silty sand gravel till, with trace to some clay
• 2.4 - 4.0 mbg	grey to black, moist to wet, stiff to very stiff, silty clay till, with trace to some sand and cobbles

* mbg - metres below grade

Underlying the clay till, at an average depth of approximately 4 m, is grey to black shale bedrock.

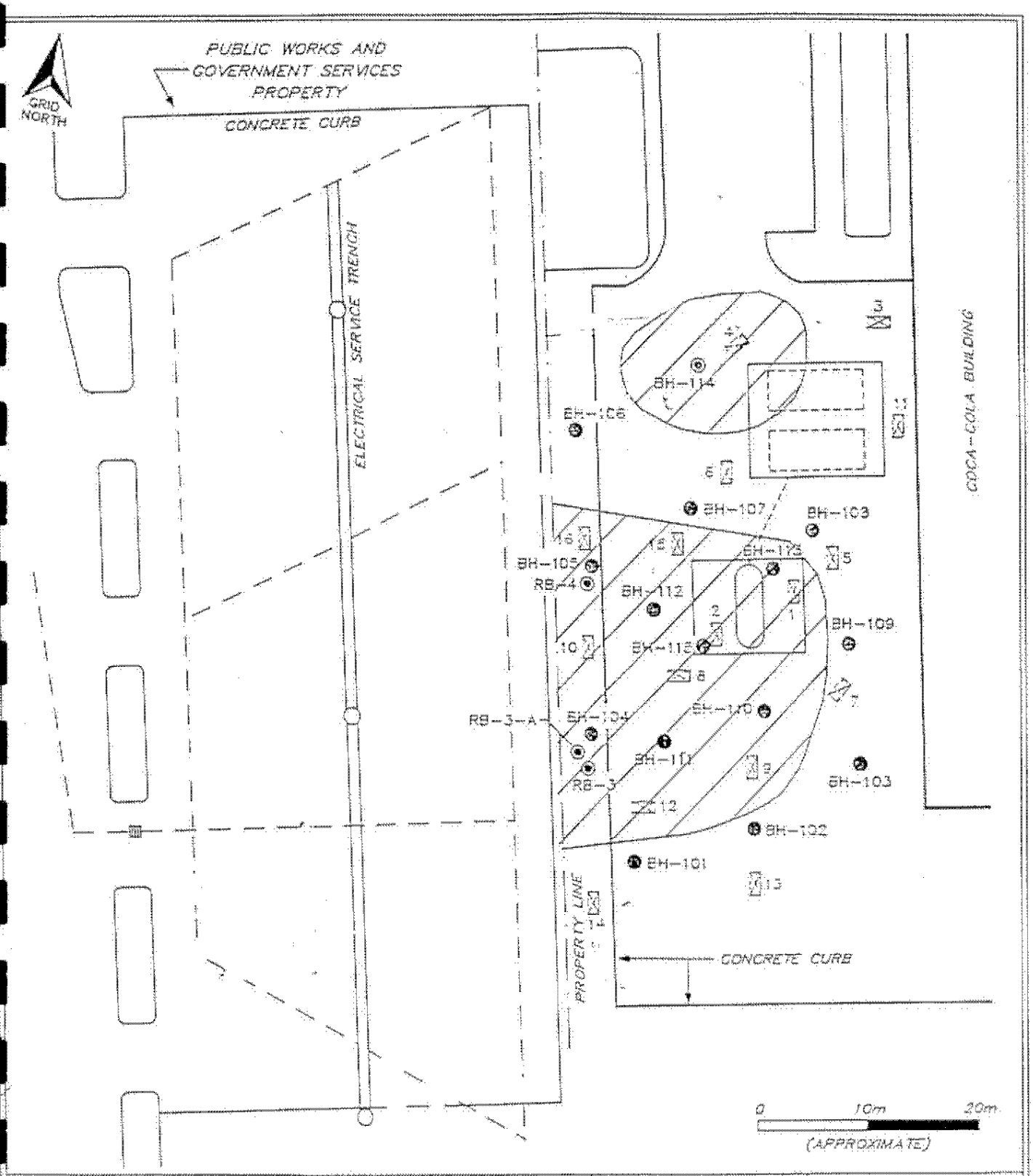
Groundwater was generally observed at depths between 1.5 to 2.5 mbg, in the relatively permeable silty sand till. It is likely that this reflects perched conditions on top of the less permeable clay till unit.

3.4 SOIL CHEMICAL ANALYTICAL RESULTS

The results of the laboratory analyses of soil samples from both the test pits and the boreholes are presented in Table 1. Of the 22 samples submitted, 11 contained concentrations of one or more parameters exceeding the Interim Level II criteria.

Twelve of the samples analyzed were collected from the silty clay till unit. Of these, seven samples, exhibiting CVC's ranging from 10% to >100% of the lower explosive limit (LEL), exceeded the Level II criteria. Four of the samples which did not exceed the criteria had CVC's of 7% LEL or less, while the fifth was anomalous with a CVC of 77% LEL.

While there is no direct correlation between CVC and the actual residual concentrations of BTEX and TPH in soil, CVC's are frequently used in the field to guide remedial excavations. Based on the data obtained at this site, it appears that a maximum CVC of 5% in the clay till would be a reasonable objective to ensure compliance with the Level II criteria.



LEGEND

- ARCTURUS TEST PIT
- ARCTURUS BOREHOLE
- ARCTURUS MONITORING WELL
- DRAINAGE LINE
- CATCH BASIN

APPROXIMATE EXTENT OF PETROLEUM HYDROCARBON IMPACT

CLIENT: Coca-Cola

ARCTURUS

DATE NOVEMBER 1994	PROJECT No. E769.2	DRAWING No. FIGURE 3
DRWN TD/CSH CHK'D SMG	SCALE AS SHOWN	

Six of the ten samples analyzed from the silty sand unit met the Level II criteria, with CVC's ranging from 3% to 85% LEL. The four samples which exceeded the criteria had CVC's ranging from 25% to >100% LEL. This data suggests that a higher field objective (15-20% LEL) could be used to achieve compliance with the Level II criteria in the sand unit.

3.5 REMEDIATION REQUIREMENTS

The results of the test pitting and borehole programs indicate a plume of petroleum-hydrocarbon impact in soil, originating at the former pump island, and migrating west and southwest to the property line. The approximate extent of the plume is shown on Figure 3. The depth of petroleum-hydrocarbon impact varies over this area, but averages approximately 3.9 m.

In addition, an estimated area of approximately 100 m^2, located northwest of the former tank nest, appears, on the basis of elevated CVC's, to have been moderately impacted. The average depth of impact in this area is approximately 3.5 m.

In total, it is estimated that approximately 3,300 m^3, or 6,600 tonnes (assuming an average density of 2 tonnes/m3), of soil will require remediation. Of this, 5,000 tonnes are from the silty sand till, and the remaining 1,600 tonnes are from the underlying silty clay till.

4.0 PREFERRED REMEDIATION APPROACH

On the basis primarily of cost, and in consideration of available space, timing, and technical effectiveness, Arcturus recommends that on-site, ex-situ bioremediation be adopted by Coca-Cola as the preferred approach to remediation of the petroleum-impacted soil at the Ottawa facility.

4.1 PROCESS

The bioremediation process flow is schematically illustrated on Figure 4. Arcturus proposes to build an engineered bioremediation cell in the southwest corner of the Coca-Cola property. The dimensions of the cell will be approximately 30 m by 70 m, and it will be excavated to a depth of approximately 2 m below grade.

The cell will be lined with 30 mil high density polyethylene (HDPE) membrane, and it will be graded to one corner, where a sump will be installed to collect water which drains from the soil. A network of drainage tile will be laid in a granular base on the membrane to enhance the collection of water.

Above the drainage tile, at the surface of the granular material, a network of perforated airline will be installed. The impacted soil is placed on top of the airlines, and covered with a 20 mil HDPE membrane to prevent fugitive emission of volatile organics.

Air System

In order to optimize the oxygen content in the soil pile, and to further mitigate fugitive emission, the system is operated under vacuum. Air is pulled through the pile, using a 5 Hp blower. To protect the blower, the air stream is dehumidified before it passes the blower. The separated water is added to the water storage tank for recirculation.

Downstream of the blower, the air is rehumidified, prior to passage through a volatile organic biofilter, and discharge to the atmosphere.

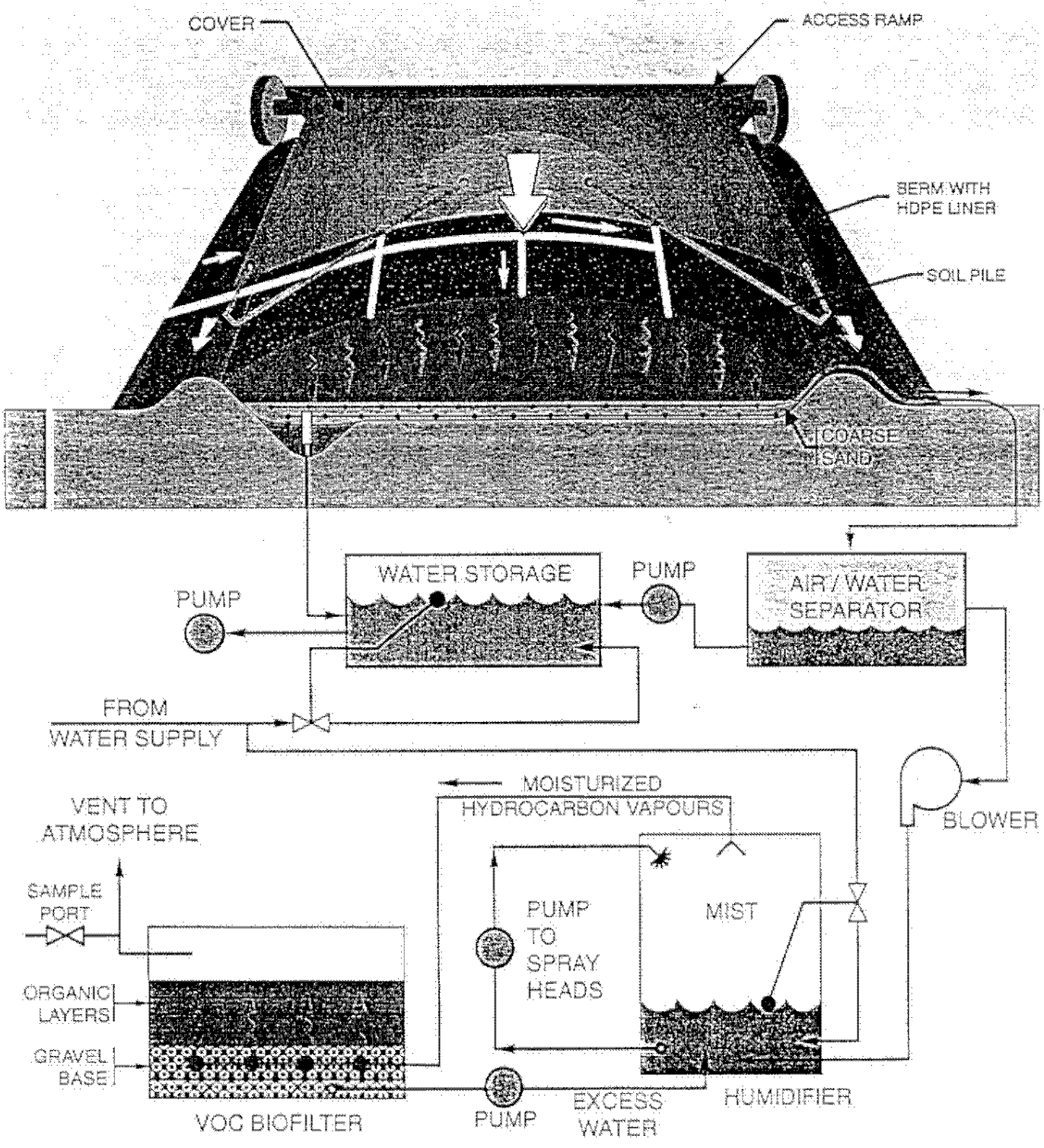
During operation, the biofilter exhaust is monitored on a routine basis to ensure that emissions are in compliance with relevant regulations. In addition, temperature and oxygen and carbon dioxide concentrations are monitored in the soil pile, to provide an indication of the biological activity.

Implementation

Arcturus proposes to excavate and construct the cell in the location shown on Figure 5. The clean soil, comprising primarily silty sand, will be temporarily stockpiled adjacent to the cell, while the impacted soil is excavated and placed in the cell. The clean stockpile will then be used to replace the impacted soil in the excavation, to allow continued use of the traffic area.

The treatment system will be housed in a trailer beside the cell, and the biofilter will be placed behind the trailer, as shown on Figure 5.

Once the monitoring indicates that the bioremediation is complete, the treated soil will be excavated from the cell, and the liner and piping will be removed for disposal. The treated soil will then be replaced in the former cell, and compacted for paving.

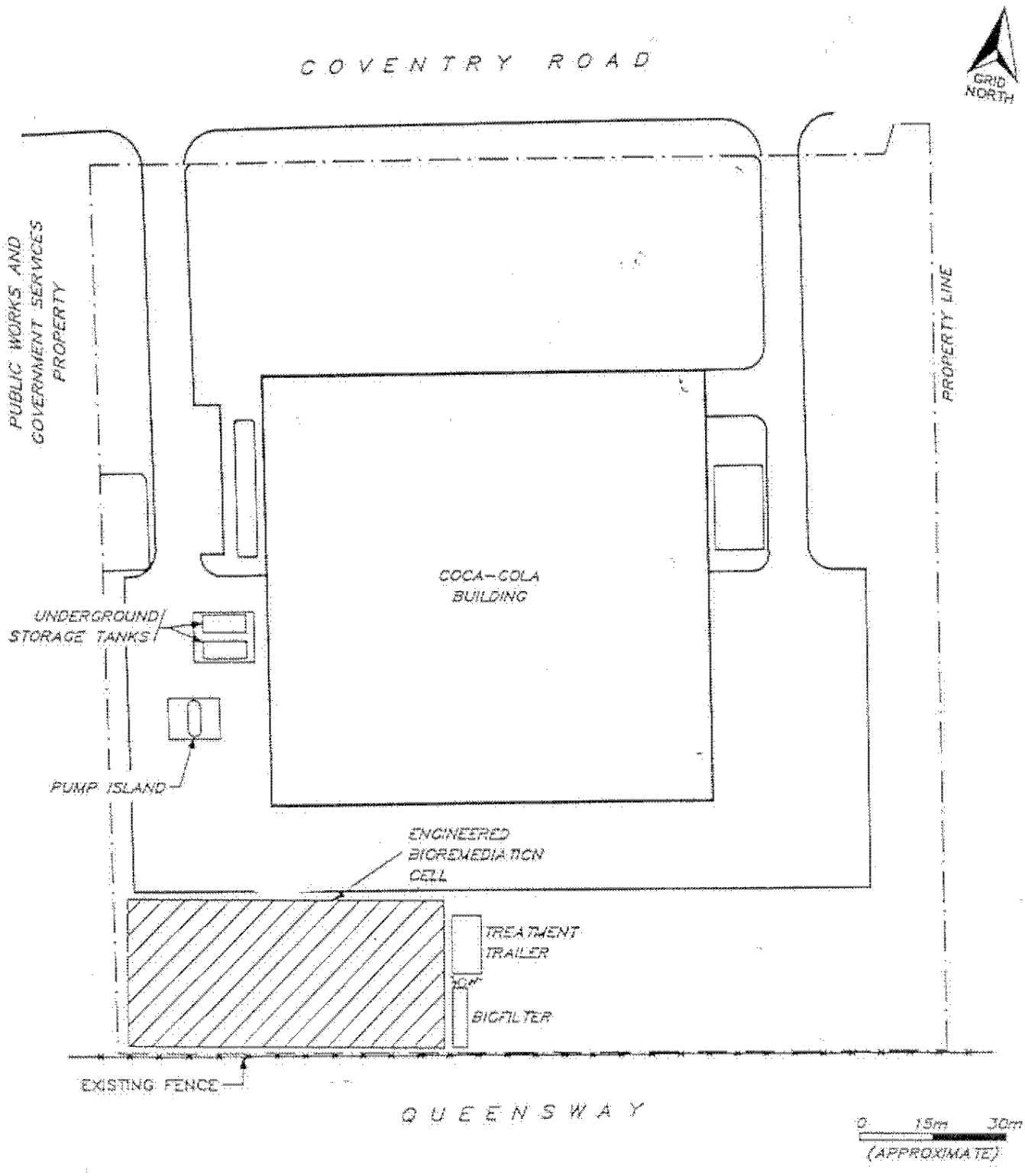


SCHEMATIC OF REMEDIATION SYSTEM PROCESS FLOW

ARCTURUS

DRAWING No.

FIGURE 4



LEGEND

GENERAL SITE LAYOUT 500 COVENTRY ROAD OTTAWA, ONTARIO	CLIENT		
DATE NOVEMBER 1994	PROJECT No. E769.2		DRAWING No.
DRWN TD	CHK'D SMG	SCALE AS SHOWN	FIGURE 5

4.2 PERMITTING REQUIREMENTS

The following approvals will be required prior to construction and operation of the bioremediation cell:

- Certificate of Approval (Air) from the Ministry of the Environment and Energy (MOEE)

- Certificate of Approval (EPA Section V - Waste Processing Facility) from the MOEE

The application for the latter Certificate of Approval will be circulated for comment by the MOEE to the local Municipality, neighbours, and other interested parties. It is our experience, however, that other than creating a time lag, this process is not overly restrictive.

4.3 SCHEDULING

In order to take advantage of a full season of warm weather for treatment of the impacted soil, we propose to commence construction of the bioremediation cell at the beginning of April. It is anticipated that construction of the cell will take three days.

Immediately upon completion of the cell, the impacted soil will be excavated and placed, and the stockpiled spoil from the cell will be backfilled into the traffic area. This task is anticipated to take four days, for a total construction period of one week.

If the work is scheduled to begin on a Monday, and alternate employee parking can be arranged for one week (to provide room for soil stockpiling), then the traffic area should only be disrupted over one Thursday, Friday, and possibly a Monday.

We have budgeted for a full six months of operation of the biocell. However, we anticipate that sufficient remediation will be realized in a significantly shorter timeframe, because of the nature of the contaminants.

Closure of the cell is anticipated to take five days, during which time alternate employee parking arrangements may also be required.

TEST PITTING PROGRAM (continued)

SAMPLE ID	DEPTH (m)	STRATIGRAPHY	COMBUSTIBLE SOIL VAPOURS (%LEL)
TP8, SS-1	0.6	Sand and gravel fill	>100
TP8, SS-2	1.5	Sand and gravel fill	>100
TP8, SS-3	2.4	Silty sand gravel till with trace clay	>100
TP8, SS-4	3.0	Silty sand gravel till with trace clay	>100
TP8, SS-5	3.45	Silty sand gravel till with trace clay	>100
TP8, SS-6	3.75	Silty sand gravel till with trace clay	>100
TP9, SS-1	0.6	Sand fill	>100
TP9, SS-2	1.2	Silty sand with gravel	>100
TP9, SS-3	2.1	Silty clay with sand and cobbles	>100
TP9, SS-4	2.7	Silty clay with sand and cobbles	30
TP9, SS-5	3.3	Silty clay with sand and cobbles	1.0
TP10, SS-1	0.6	Sand fill	>100
TP10, SS-2	1.5	Silty sand with gravel	>100
TP10, SS-3	2.4	Silty clay with sand and gravel	7
TP10, SS-4	3.0	Silty clay with sand and gravel	40
TP10, SS-5	3.6	Silty clay with sand and gravel	2.3
TP11, SS-1	1.2	Sand and gravel fill	0.6
TP11, SS-2	2.1	Sand and gravel fill	0.8
TP11, SS-3	2.7	Silty clay with sand and cobbles	0.6
TP12, SS-1	0.6	Sand fill	10
TP12, SS-2	1.2	Sand fill	90
TP12, SS-3	1.8	Silty clay with sand and cobbles	10
TP12, SS-4	2.4	Silty clay with sand and cobbles	100
TP12, SS-5	3.0	Silty clay with sand and cobbles	20
TP12, SS-6	3.6	Silty clay with sand and cobbles	2.3

APPENDIX I
TEST PIT LOGS

TEST PITTING PROGRAM

SAMPLE ID	DEPTH (m)	STRATIGRAPHY	COMBUSTIBLE SOIL VAPOURS (% LEL)
TP1, SS-1	0.9	Sand fill	>100
TP1, SS-2	1.5	Silty clay with trace sand and boulders	6
TP1, SS-3	2.1	Silty clay with trace sand and boulders	7
TP1, SS-4	3.0	Silty clay with trace sand and boulders	12
TP1, SS-5	3.6	Silty clay with trace sand and boulders	6
TP2, SS-1	1.2	Silty sand with gravel	>100
TP2, SS-2	2.1	Silty sand with trace clay and gravel	>100
TP2, SS-3	3.0	Silty sand with trace clay and gravel	55
TP2, SS-4	3.6	Silty clay with trace sand and cobbles	58
TP3, SS-1	0.9	Sand fill	0.6
TP3, SS-2	1.8	Sand fill	0.4
TP4, SS-1	0.45	Sand fill	98
TP4, SS-2	1.2	Silty sand with gravel and cobbles	90
TP4, SS-3	2.4	Silty clay with gravel and cobbles	90
TP4, SS-4	3.0	Silty clay with gravel and cobbles	7
TP5, SS-1	0.6	Sand fill	0.6
TP5, SS-2	1.8	Silty clay with some sand and gravel	0.4
TP5, SS-3	2.7	Silty clay with gravel and boulders	0.2
TP5, SS-4	3.6	Silty clay with gravel and boulders	<0.1
TP6, SS-1	0.6	Sand fill	1.0
TP6, SS-2	1.8	Silty sand with trace clay	0.4
TP6, SS-3	2.7	Silty sand with trace clay	0.2
TP6, SS-4	3.3	Silty sand with trace clay	0.6
TP7, SS-1	1.05	Sand fill	>100
TP7, SS-2	2.4	Silty sand with gravel and cobbles	70

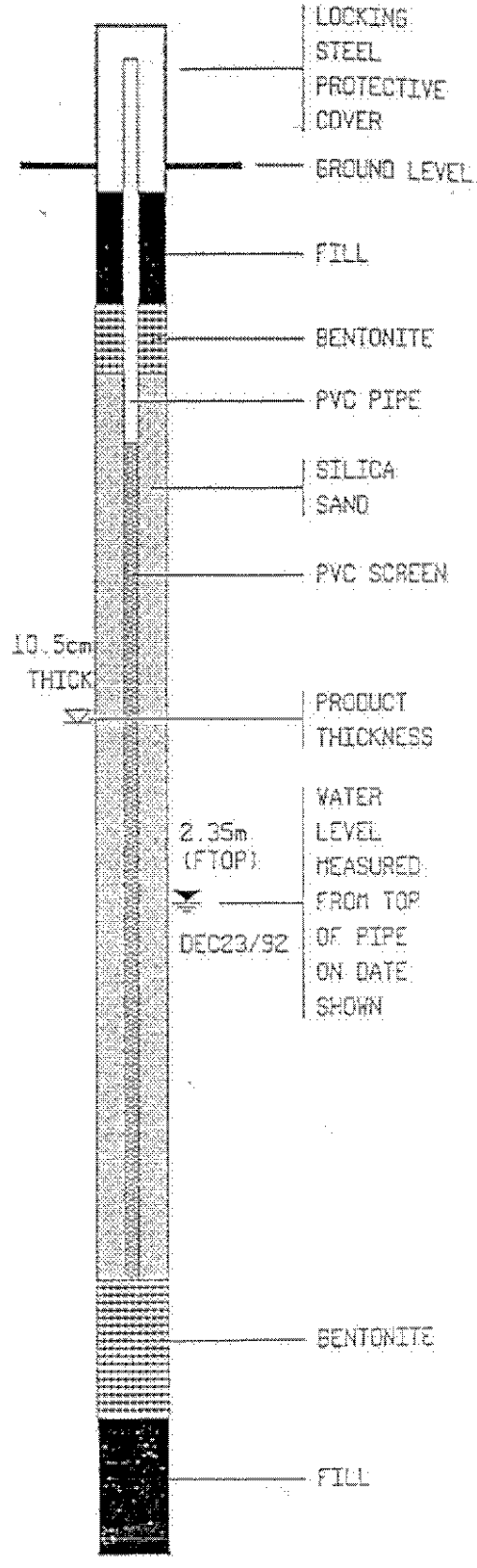
TEST PITTING PROGRAM (continued)

SAMPLE ID	DEPTH (m)	STRATIGRAPHY	COMBUSTIBLE SOIL VAPOURS (%LEL)
TP13, SS-1	0.6	Sand fill	1.4
TP13, SS-2	1.2	Sand fill	35
TP13, SS-3	2.1	Silty clay with sand and cobbles	0.6
TP13, SS-4	3.0	Silty clay with sand and cobbles	2.0
TP13, SS-5	3.6	Silty clay with sand and cobbles	0.6
TP14, SS-1	0.6	Sand fill	0.5
TP14, SS-2	1.2	Sand fill	1.6
TP14, SS-3	2.1	Silty sand with trace clay	0.4
TP14, SS-4	3.0	Silty clay with sand and cobbles	<0.1
TP14, SS-5	3.3	Silty clay with sand and cobbles	<0.1
TP15, SS-1	0.6	Sand fill	35
TP15, SS-2	1.2	Sand fill	>100
TP15, SS-3	2.1	Silty clay with sand and cobbles	15
TP15, SS-4	3.0	Silty clay with sand and cobbles	2.1
TP15, SS-5	3.6	Silty clay with sand and cobbles	0.8
TP16, SS-1	0.6	Sand fill	0.6
TP16, SS-2	1.5	Sand fill	95
TP16, SS-3	2.1	Silty clay with cobbles	10
TP16, SS-4	3.0	Silty clay with cobbles	0.6
TP16, SS-5	3.6	Silty clay with cobbles	0.4

APPENDIX II
BOREHOLE LOGS

BOREHOLE LOG LEGEND

FILL PATTERN	LITHOLOGY DESCRIPTION
	CLAY
	SILT
	TILL
	TOPSOIL
	ASPHALT
	FILL
	LIMESTONE
	SAND
	GRANITE
	SHALE
	CONCRETE
	GRAVEL
	SAND AND GRAVEL
	SILTY GRAVEL
	SILTY CLAY OR CLAYEY SILT
	SILTY CLAY WITH SAND
	SANDY CLAY OR CLAYEY SAND
	CLAYEY SHALE
	SANDY SILT OR SILTY SAND



WATER LEVEL OBSERVED FOLLOWING COMPLETION OF DRILLING

SYMBOLS AND TERMS

SOIL DESCRIPTION

Behavioural properties, such as structure and strength, take precedence over particle gradation in describing soils. Terminology describing soil structure are as follows:

Desiccated	-	having visible signs of weathering by oxidation of clay minerals, shrinkage cracks, etc.
Fissured	-	having cracks, and hence a blocky structure.
Varved	-	composed of regular alternating layers of silt and clay.
Stratified	-	composed of alternating layers of different soil types, e.g. silt and sand or silt and clay.
Well-Graded	-	having wide range in grain sizes and substantial amounts of all intermediate particle sizes (see Grain Size Distribution).
Uniformly-Graded	-	predominantly of one grain size (see Grain Size Distribution).

The standard terminology to describe the strength of cohesionless soils is the relative density, usually inferred from the results of the Standard Penetration Test (SPT) 'N' value. The SPT N value is the number of blows of a 63.5 kg hammer, falling 760 mm, required to drive a 51 mm outside diameter split spoon sampler 300 mm into the soil after an initial penetration of 150 mm.

Compactness Condition	'N' Value (SPT)	Relative Density %
Extremely Loose	WH*	<15
Very Loose	<5	<15
Loose	5-10	15-35
Compact	10-30	35-65
Dense	30-50	65-85
Very Dense	>50	>85

*WH = weight of hammer. No blows are required to drive the split spoon sampler. The weight of the hammer alone is sufficient.

The standard terminology to describe the strength of cohesive soils is the consistency, which is based on the undisturbed undrained shear strength as measured by in situ or laboratory vane tests, penetrometer tests, unconfined compression tests, or occasionally by Standard Penetration Tests.

Consistency	Undrained Shear Strength (kPa) (C_u)	'N' Value (SPT)
Very Soft	<12	<2
Soft	12-25	2-4
Firm	25-50	4-8
Stiff	50-100	8-15
Very Stiff	100-200	15-30
Hard	>200	>30

ROCK DESCRIPTION

The structural description of the bedrock mass is based on the Rock Quality Designation (RQD).

The RQD classification is based on a modified core recovery percentage in which all pieces of sound core over 100 mm long are counted as recovery. The smaller pieces are considered to be a result of closely-spaced discontinuities (resulting from shearing, jointing, faulting, or weathering) in the rock mass and are not counted. RQD is ideally determined from NXL (50 mm) size core. However, it can be used on smaller core sizes, such as BXL (36 mm), if the bulk of the fractures caused by drilling stresses (called "mechanical breaks") are easily distinguishable from the normal in-situ fractures.

RQD %	ROCK QUALITY
90-100	Excellent, intact, very sound
75-90	Good, massive, moderately jointed or sound
50-75	Fair, blocky and seamy or blocky, severely fractured
25-50	Poor, shattered and very seamy or blocky, severely fractured
0-25	Very poor, crushed, very severely fractured

WEATHERING STATE OF ROCK

Fresh:	no visible sign of weathering
Faintly weathered:	weathering limited to the surface of major discontinuities
Slightly weathered:	penetrative weathering developed on open discontinuity surfaces but only slight weathering of rock material
Moderately weathered:	weathering extends throughout the rock mass but the rock material is not friable
Highly weathered:	weathering extends throughout rock mass and the rock material is partly friable
Completely weathered:	rock is wholly decomposed and in a friable condition but the rock texture and structure are preserved

SAMPLE TYPES

SS	-	Split spoon sample (obtained in conjunction with the performing of the Standard Penetration Test (SPT))
TW	-	Thin wall tube or Shelby tube
PS	-	Piston sample
AU	-	Auger sample or bulk sample
WS	-	Wash sample
RC	-	Rock core sample (Core bit size AXT (27 mm), BXL (36 mm), etc). Rock core samples are obtained with the use of standard diamond drilling bits

GRAIN SIZE DISTRIBUTION

MC%	-	Natural moisture content or water content of sample, %
LL	-	Liquid limit, % (water content above which soil behaves as a liquid)
PL	-	Plastic limit, % (water content above which soil behaves plastically)
PI	-	Plasticity index, % (difference between LL and PL)
Dxx	-	Grain size at which xx% of the soil, by weight, is of finer grain sizes. These grain size descriptions are not used below 0.075 mm grain size
D10	-	Grain size at which 10% of the soil is finer (effective grain size)
D60	-	Grain size at which 60% of the soil is finer
Cc	-	Concavity coefficient = $(D30)^2 / (D10 \times D60)$
Cu	-	Uniformity coefficient = $D60 / D10$

Cc and Cu are used to assess the grading of sands and gravels:

Well-graded gravels have:	$1<Cc<3$	and	$Cu>4$
Well-graded sands have:	$1<Cc<3$	and	$Cu>6$

Sand and gravels not meeting the above requirements are poorly-graded or uniformly-graded (more than 10% finer than 0.075 mm or the #200 sieve).

GRAIN SIZE

Term	Size*
Very Coarse Grained	>60 mm
Coarse Grained	2-60 mm
Medium Grained	60 microns - 2 mm
Fine Grained	2-60 microns
Very Fine Grained	<2 microns

Note: *Grains >60 microns diameter are visible to the naked eye.

PERMEABILITY TEST

k - Coefficient of permeability, or hydraulic conductivity, is a measure of the ability of water to flow through the sample. The value of k is measured at a specified unit weight for (remoulded) cohesionless soil samples, because its value will vary with the unit weight or density of the sample during the test.

ABBREVIATIONS FOR BORING AND TEST DATA

Amor	- Amorphous
Asph	- Asphalt
BR	- Bedrock
Blk	- Black
Bl	- Blue
Bld(y)	- Boulder(y)
Blds	- Boulders
BU	- Break Up
Br	- Brown
Cl	- Clay
Co	- Coarse
Cob	- Cobbles
Comp	- Compact
Conc	- Concrete
Contam	- contaminated
Cord	- Corduroy
Cr	- Crushed
Dk	- Dark
Decomp	- Decomposed
E	- Earth
Fib	- Fibrous
w	- Field Moisture Content
F	- Fine
FrWat	- Free Water
FB	- Frost Boil
FH	- Frost Heave
Gran	- Granular
Gr	- Gravel(ly)
Grn	- Green
Grey	- Grey
Hi	- Highly
HM	- Hot Mix
Lt	- Light
Liq	- Liquid
w_L	- Liquid Limit
Matl	- Material
Max	- Maximum
MDD	- Maximum Dry Density
MWD	- Maximum Wet Density
Med	- Medium
Mod	- Moderate
Mott	- Mottled
Mul	- Mulch
NFP	- No Further Progress
NFP (Blds)	- No Further Progress (Boulders)
Num	- Numerous
Occ	- Occasional
w_{opt}	- Optimum Moisture Content
Ora	- Orange
Org	- Organic
Org M	- Organic Matter
Ob	- Overburden
Pavt	- Pavement
Pedo	- Pedological
Pen Mac	- Penetration Macadam
w_p	- Plastic Limit
I_p	- Plasticity Index
PSty	- Polystyrene
Poss	- Possible
PST	- Prime & Surface Treated
Quant	- Quantity
Reinf	- Reinforced
RF	- Rock Fill
Sa	- Sand
Sat	- Saturated
Sh Rk	- Shot Rock
Sl	- Silt(y)
Sl(y)	- Slight(ly)
D_R	- Relative Density
Stks	- Streaks
Surf	- Surface
Temp	- Temperature
Tps	- Topsoil
Tr	- Trace
Unreinf	- Unreinforced
Varv	- Varved
VF	- Very Fine
WT	- Water Table
Weath	- Weathered
Wd(y)	- Wood(y)
Yel	- Yellow

SUSCEPTIBILITY TO FROST HEAVING (SFH)

HSFH - High
BSFH - Borderline
LSFH - Low

RECORD OF BH-101

SHEET 1 OF 1

PROJECT NAME: 500 COVENTRY ROAD
PROJECT LOCATION: OTTAWA, ONTARIO
CLIENT: COCA-COLA BOTTLING LTD.

PROJECT NUMBER: E769.2
BORING DATE: NOVEMBER 1, 1994

ARCTURUS

BORING METHOD	SOIL PROFILE: DESCRIPTION	STRATA PLOT	DEPTH (m)	SAMPLES: LOCATION	TYPE	% RECOV	SPT (N)	COMBUSTIBLE VAPOUR CONCENTRATION % LEL (CARBON FILTER CONCENTRATION)	ODOUR	LABORATORY TESTING	PIEZOMETER OR MONITORING WELL INSTALLATION
	GROUND SURFACE		0								
HOLLOW STEM AUGERS ACKER	ASPHALT										
	GRAVEL FILL				SS	100	7	2.0	EARTHY		
	MOTTLED ORANGE TO BROWN, DAMP TO WET, LOOSE TO COMPACT, FINE, SAND WITH SOME SILT		1		SS	100	19	1.7	EARTHY		
			2		SS	65	13	1.1	EARTHY		
					SS	90	12	<0.1	EARTHY		
	DARK GREY TO BLACK, MOIST TO WET, STIFF, FINE, SILTY CLAY TILL WITH SAND AND COBBLES		3		SS	60	19	0.2	EARTHY		
					SS	40	25	<0.1	EARTHY		
	BOTTOM OF BOREHOLE		4								
			5								
			6								
			7								
			8								
			9								
			10								

LOGGED BY: SMG INPUT BY: TO CHECKED BY: SMG INPUT DATE: NOVEMBER 10, 1994

RECORD OF BH-102

PROJECT NAME: 500 COVENTRY ROAD
PROJECT LOCATION: OTTAWA, ONTARIO
CLIENT: COCA-COLA BOTTLING LTD.

PROJECT NUMBER: E769.2
BORING DATE: NOVEMBER 1, 1994

ARCTURUS

BORING METHOD	SOIL PROFILE: DESCRIPTION	STRATA PLOT	DEPTH (m)	SAMPLES: LOCATION	TYPE	% RECOV	SPT (n)	COMBUSTIBLE VAPOUR CONCENTRATION ± LEL (CARBON FILTER CONCENTRATION)	ODOUR	LABORATORY TESTING	PIEZOMETER OR MONITORING WELL INSTALLATION
HOLLOW STEM AUGERS ACKER	GROUND SURFACE		0								
	ASPHALT										
	GRAVEL FILL				SS	100	13	2.0	TRACE HC		
	MOTTLED ORANGE BROWN, MOIST, COMPACT, FINE SAND		1		SS	100	13	6	TRACE HC		
	LIGHT GREY TO BROWN, MOIST, COMPACT FINE SILTY SAND		2		SS	100	15	5	TRACE HC		
	DARK GREY TO BLACK, MOIST TO WET, STIFF, SILTY CLAY TILL WITH SAND AND COBBLES				SS	100	9	7	TRACE HC		
			3		SS	100	9	0.5	TRACE HC		
					SS	80	22	0.4	TRACE HC		
	BOTTOM OF BOREHOLE		4								
			5								
			6								
			7								
			8								
			9								
			10								

LOGGED BY: SMG INPUT BY: TO CHECKED BY: SMG INPUT DATE: NOVEMBER 10, 1994

RECORD OF BH-103

SHEET 1 OF 1

PROJECT NAME: 500 COVENTRY ROAD
PROJECT LOCATION: OTTAWA, ONTARIO
CLIENT: COCA-COLA BOTTLING LTD.

PROJECT NUMBER: E769.2
BORING DATE: NOVEMBER 1, 1994

ARCTURUS

BORING METHOD	SOIL PROFILE: DESCRIPTION	STRATA PLOT	DEPTH (m)	SAMPLES: LOCATION	TYPE	% RECOV	SPT (N)	COMBUSTIBLE VAPOUR CONCENTRATION % LEL (CARBON FILTER CONCENTRATION)	ODOUR	LABORATORY TESTING	PIEZOMETER OR MONITORING WELL INSTALLATION
	GROUND SURFACE		0								
HOLLOW STEM AUGERS ACKER	ASPHALT										
	GRAVEL FILL				SS	100	6	0.8			
	ORANGE/BROWN, DAMP TO WET, LOOSE, FINE SAND		1		SS	<5	8	NA			
	LIGHT GREY/BROWN, WET, DENSE, FINE SILTY SAND		2		SS	60	3.7				
	GREY TO BLACK, WET, VERY STIFF, FINE SILTY CLAY TILL WITH TRACE SAND AND ANGULAR GRAVEL				SS	60	8	0.2			
			3		SS	60	23	0.2			
					SS	70	22	1.0			
	BOTTOM OF BOREHOLE		4								
			5								
			6								
			7								
			8								
			9								
			10								

LOGGED BY: SMG INPUT BY: TD CHECKED BY: SMG INPUT DATE: NOVEMBER 10, 1994

RECORD OF BH-104

SHEET 1 OF 1

PROJECT NAME: 500 COVENTRY ROAD
PROJECT LOCATION: OTTAWA, ONTARIO
CLIENT: COCA-COLA BOTTLING LTD.

PROJECT NUMBER: E769.2
BORING DATE: NOVEMBER 1, 1994

ARCTURUS

BORING METHOD	SOIL PROFILE: DESCRIPTION	STRATA PLOT	DEPTH (m)	SAMPLES: LOCATION	TYPE	% RECOV.	SPT (n)	COMBUSTIBLE VAPOUR CONCENTRATION % LEL (CARBON FILTER CONCENTRATION)	ODOUR	LABORATORY TESTING	PIEZOMETER OR MONITORING WELL INSTALLATION
	GROUND SURFACE		0								
HOLLOW STEM AUGERS ACKER	TOPSOIL WITH ROOTLETS										
	MOTTLED ORANGE/BROWN, DAMP, LOOSE, FINE, SAND		1		SS	100	7	>100	STRONG HC		
					SS	100	10	>100	STRONG HC		
	LIGHT GREY, MOIST, COMPACT, FINE SILTY SAND										
	GREY TO BLACK, MOIST TO WET, VERY STIFF, FINE SILY CLAY TILL WITH SAND AND GRAVEL		2		SS	100	22	77	STRONG HC		
			3		SS	75	9	20	MOD HC		
					SS	75	11	6	MOD HC		
			4		SS	20	31	6	MOD HC		
	BOTTOM OF BOREHOLE		5								
			6								
			7								
			8								
			9								
			10								

LOGGED BY: SMG INPUT BY: TD CHECKED BY: SMG INPUT DATE: NOVEMBER 10, 1994

RECORD OF BH-105

SHEET 1 OF 1

PROJECT NAME: 500 COVENTRY ROAD
PROJECT LOCATION: OTTAWA, ONTARIO
CLIENT: COCA-COLA BOTTLING LTD.

PROJECT NUMBER: E769.2
BORING DATE: NOVEMBER 1, 1994

ARCTURUS

BORING METHOD	SOIL PROFILE: DESCRIPTION	STRATA PLOT	DEPTH (m)	SAMPLES: LOCATION	TYPE	% RECOV	SPT (N)	COMBUSTIBLE VAPOUR CONCENTRATION % LEL (CARBON FILTER CONCENTRATION)	ODOUR	LABORATORY TESTING	PIEZOMETER OR MONITORING WELL INSTALLATION
HOLLOW STEM AUGERS ACKER	GROUND SURFACE		0								
	TOPSOIL WITH ROOTLETS										
	ORANGE/BROWN, DAMP, LOOSE, FINE SAND WITH SOME SILT		1		SS	100	4	8	STRONG HC		
	LIGHT GREY/BROWN, DAMP TO MOIST, COMPACT, FINE SILTY SAND WITH ANGULAR GRAVEL		2		SS	100	11	>100	STRONG HC		
					SS	65	30	53	MOD-STR HC		
	GREY TO BLACK, MOIST TO WET, VERY STIFF, SILTY CLAY TILL WITH ANGULAR COBBLES		3		SS	100	24	5	SLT HC		
					SS	100	29	1.3	MOD HC		
			4		SS	100	41	0.4	EARTHY		
	BOTTOM OF BOREHOLE		5								
			6								
			7								
			8								
			9								
			10								

LOGGED BY: SMG INPUT BY: TO CHECKED BY: SMG INPUT DATE: NOVEMBER 10, 1994

000500

RECORD OF BH-106

SHEET 1 OF 1

PROJECT NAME: 500 COVENTRY ROAD
PROJECT LOCATION: OTTAWA, ONTARIO
CLIENT: COCA-COLA BOTTLING LTD.

PROJECT NUMBER: E769.2
BORING DATE: NOVEMBER 2, 1994

ARCTURUS

BORING METHOD	SOIL PROFILE: DESCRIPTION	STRATA PLOT	DEPTH (m)	SAMPLES: LOCATION	TYPE	% RECOV	SPT (N)	COMBUSTIBLE VAPOUR CONCENTRATION % LEL (CARBON FILTER CONCENTRATION)	ODOUR	LABORATORY TESTING	PIEZOMETER OR MONITORING WELL INSTALLATION
HOLLOW STEM AUGERS ACKER	GROUND SURFACE		0								
	TOPSOIL										
	ORANGE/BROWN, DAMP, LOOSE, FINE SAND		1		SS	100	7	1.2	EARTHY		
	ORANGE/BROWN, DAMP TO WET, COMPACT TO DENSE, FINE, SILTY SAND GRAVEL TILL		2		SS	100	18	3.0	STR HC		
					SS	87	36	1.0	EARTHY		
	DARK GREY TO BLACK, MOIST TO WET, VERY STIFF, FINE SILTY CLAY TILL		3		SS	100	25	0.2	EARTHY		
					SS	100	20	<0.1	EARTHY		
			4		SS	100	25	<0.1	EARTHY		
	BOTTOM OF BOREHOLE		5								
			6								
			7								
			8								
			9								
			10								

LOGGED BY: SMG INPUT BY: TO CHECKED BY: SMG INPUT DATE: NOVEMBER 10, 1994

000501

RECORD OF BH-107

SHEET 1 OF 1

PROJECT NAME: 500 COVENTRY ROAD
PROJECT LOCATION: OTTAWA, ONTARIO
CLIENT: COCA-COLA BOTTLING LTD.

PROJECT NUMBER: E769.2
BORING DATE: NOVEMBER 2, 1994

ARCTURUS

BORING METHOD	SOIL PROFILE: DESCRIPTION	STRATA PLOT	DEPTH (m)	SAMPLES: LOCATION	TYPE	% RECOV	SPT (n)	COMBUSTIBLE VAPOUR CONCENTRATION % LEL (CARBON FILTER CONCENTRATION)	ODOUR	LABORATORY TESTING	PIEZOMETER OR MONITORING WELL INSTALLATION
	GROUND SURFACE		0								
HOLLOW STEM AUGERS ACKER	ASPHALT										
	GRAVEL				SS	100	12	0.9	EARTHY		
	ORANGE/BROWN, DAMP, COMPACT, FINE SAND WITH SOME SILT		1		SS	100	NA	0.9	EARTHY		
	BOULDERS AND COBBLES										
	GREY TO BROWN, DAMP TO WET, COMPACT, FINE SILTY SAND TILL WITH TRACE CLAY AND GRAVEL		2		SS	90	16	1.0	EARTHY		
					SS	100	9	0.8	EARTHY		
			3		SS	100	9	0.6	EARTHY		
	GREY TO BLACK, WET, STIFF TO VERY STIFF, SILTY CLAY TILL WITH COBBLES				SS	100	21	0.5	EARTHY		
	BOTTOM OF BOREHOLE		4								
			5								
			6								
			7								
			8								
			9								
			10								

LOGGED BY: SMG INPUT BY: TO CHECKED BY: SMG INPUT DATE: NOVEMBER 10, 1994

RECORD OF BH-108

SHEET 1 OF 1

PROJECT NAME: 500 COVENTRY ROAD
PROJECT LOCATION: OTTAWA, ONTARIO
CLIENT: COCA-COLA BOTTLING LTD.

PROJECT NUMBER: E769.2
BORING DATE: NOVEMBER 2, 1994

ARCTURUS

BORING METHOD	SOIL PROFILE: DESCRIPTION	STRATA PLOT	DEPTH (m)	SAMPLES: LOCATION	TYPE	% RECOV	SPT (n)	COMBUSTIBLE VAPOUR CONCENTRATION % LEL (CARBON FILTER CONCENTRATION)	ODOUR	LABORATORY TESTING	PIEZOMETER OR MONITORING WELL INSTALLATION
HOLLOW STEM AUGERS ACKER	GROUND SURFACE		0								
	ASPHALT										
	GRAVEL FILL				SS	100	6	1.0	EARTHY		
	LIGHT BROWN TO GREY, DAMP TO WET, LOOSE TO COMPACT, FINE SAND WITH SOME SILT		1		SS	100	19	1.3	EARTHY		
	GREY TO BLACK, MOIST TO WET, FIRM TO VERY STIFF, SILTY SAND GRAVEL TILL WITH TRACE CLAY		2		SS	100	21	0.7	EARTHY		
					SS	100	7	0.4	EARTHY		
			3		SS	100	10	0.2	EARTHY		
	GREY TO BLACK, MOIST, VERY STIFF, SILTY CLAY TILL WITH TRACE SAND AND COBBLES		4		SS	100	16	0.4	EARTHY		
	BOTTOM OF BOREHOLE		5								
			6								
			7								
			8								
			9								
			10								

LOGGED BY: SMG INPUT BY: TO CHECKED BY: SMG INPUT DATE: NOVEMBER 10, 1994

000503

RECORD OF BH-109

SHEET 1 OF 1

PROJECT NAME: 500 COVENTRY ROAD
PROJECT LOCATION: OTTAWA, ONTARIO
CLIENT: COCA-COLA BOTTLING LTD.

PROJECT NUMBER: E769.2
BORING DATE: NOVEMBER 2, 1994

ARCTURUS

BORING METHOD	SOIL PROFILE: DESCRIPTION	STRATA PLOT	DEPTH (m)	SAMPLES: LOCATION	TYPE	% RECOV	SPT (N)	COMBUSTIBLE VAPOUR CONCENTRATION + LEL (CARBON FILTER CONCENTRATION)	ODOUR	LABORATORY TESTING	PIEZOMETER OR MONITORING WELL INSTALLATION
	GROUND SURFACE		0								
HOLLOW STEM AUGERS ACKER	ASPHALT										
	GRAVEL FILL				SS	100	6	0.7	EARTHY		
	LIGHT BROWN, DAMP, LOOSE, FINE SAND WITH IRON STAINING		1		SS	100	6	0.9	EARTHY		
	LIGHT ORANGE/BROWN, MOIST TO WET, LOOSE TO COMPACT, SILTY SAND WITH GRAVEL		2		SS	25	16	0.5	EARTHY		
	LIGHT GREY TO BLACK, WET, FIRM TO HARD, FINE SILTY SAND GRAVEL TILL WITH COBBLES AND TRACE CLAY		3		SS	100	6	0.5	TRACE HC		
					SS	<5	30	NA	EARTHY		
	BOTTOM OF BOREHOLE		4 5 6 7 8 9 10								

LOGGED BY: SMG INPUT BY: TG CHECKED BY: SMG INPUT DATE: NOVEMBER 10, 1994

000504

RECORD OF BH-110

PROJECT NAME: 500 COVENTRY ROAD
PROJECT LOCATION: OTTAWA, ONTARIO
CLIENT: COCA-COLA BOTTLING LTD.

PROJECT NUMBER: E769.2
BORING DATE: NOVEMBER 2, 1994

ARCTURUS

BORING METHOD	SOIL PROFILE: DESCRIPTION	STRATA PLOT	DEPTH (m)	SAMPLES: LOCATION	TYPE	% RECOV	SPT (n)	COMBUSTIBLE VAPOUR CONCENTRATION % LEL (CARBON FILTER CONCENTRATION)	ODOUR	LABORATORY TESTING	PIEZOMETER OR MONITORING WELL INSTALLATION
	GROUND SURFACE		0								
HOLLOW STEM AUGERS ACKER	ASPHALT										
	GRAVEL FILL				SS	100	13	10	MOD HC		
	ORANGE/BROWN, DAMP, LOOSE, FINE SAND		1		SS	100	8	18	MOD HC		
	LIGHT BROWN TO GREY, MOIST TO WET, LOOSE, FINE SILTY SAND GRAVEL TILL		2		SS	100	9	25	MOD HC		
					SS	100	7	6	V STR HC		
	GREY TO BLACK, WET, STIFF, FINE SILTY CLAY TILL WITH TRACE SAND		3		SS	100	13	12	STR HC		
					SS	100	17	4	MOD HC		
			4		SS	30	NA	1.4	TRACE HC		
	BOTTOM OF BOREHOLE		5 6 7 8 9 10								

LOGGED BY: SMG INPUT BY: TO CHECKED BY: SMG INPUT DATE: NOVEMBER 10, 1994

RECORD OF BH-111

SHEET 1 OF 1

PROJECT NAME: 500 COVENTRY ROAD
PROJECT LOCATION: OTTAWA, ONTARIO
CLIENT: COCA-COLA BOTTLING LTD.

PROJECT NUMBER: E769.2
BORING DATE: NOVEMBER 3, 1994

ARCTURUS

BORING METHOD	SOIL PROFILE: DESCRIPTION	STRATA PLOT	DEPTH (m)	SAMPLES: LOCATION	TYPE	% RECOV	SPT (N)	COMBUSTIBLE VAPOUR CONCENTRATION % LEL (CARBON FILTER CONCENTRATION)	ODOUR	LABORATORY TESTING	PIEZOMETER OR MONITORING WELL INSTALLATION
	GROUND SURFACE		0								
HOLLOW STEM AUGERS ACKER	ASPHALT										
	GRAVEL FILL				SS	100	9	>100	STR HC		
	ORANGE/BROWN, DAMP, LOOSE, FINE SAND		1		SS	100	24	>100	STR HC		
	GREYISH BLACK, MOIST TO WET, STIFF, FINE SILTY SAND GRAVEL TILL WITH TRACE CLAY		2		SS	100	15	>100	STR HC		
					SS	60	11	>100	STR HC		
	GREY/BLACK, MOIST TO WET, STIFF, FINE, SILTY CLAY TILL WITH SAND AND GRAVEL		3		SS	65	12	16	MOD HC		
					SS	65	22	20	TRACE HC		
	BOTTOM OF BOREHOLE		4								
			5								
			6								
			7								
			8								
			9								
			10								

LOGGED BY: SMG INPUT BY: TO CHECKED BY: SMG INPUT DATE: NOVEMBER 10, 1994

000506

RECORD OF BH-112

SHEET 1 OF 1

PROJECT NAME: 500 COVENTRY ROAD
PROJECT LOCATION: OTTAWA, ONTARIO
CLIENT: COCA-COLA BOTTLING LTD.

PROJECT NUMBER: E769.2
BORING DATE: NOVEMBER 3, 1994

ARCTURUS

BORING METHOD	SOIL PROFILE: DESCRIPTION	STRATA PLOT	DEPTH (m)	SAMPLES: LOCATION	TYPE	% RECOV.	SPT (N)	COMBUSTIBLE VAPOUR CONCENTRATION % LEL (CARBON FILTER CONCENTRATION)	ODOUR	LABORATORY TESTING	PIEZOMETER OR MONITORING WELL INSTALLATION
	GROUND SURFACE		0								
HOLLOW STEM AUGERS ACKER	ASPHALT		0								
	GRAVEL FILL				SS	100	10	>100	STR HC		
	ORANGE/BROWN, DAMP, LOOSE, FINE SAND		1		SS	100	17	>100	STR HC		
	GREYISH BROWN, DAMP TO MOIST, COMPACT, FINE SILTY SAND GRAVEL TILL		2		SS	100	12	>100	STR HC		
	GREY TO BLACK, WET, STIFF, FINE SILTY CLAY TILL WITH TRACE SAND AND COBBLES				SS	100	12	>100	MOD/STR HC		
			3		SS	100	10	5	MOD HC		
					SS		15				
	BOTTOM OF BOREHOLE		4								
			5								
			6								
			7								
			8								
			9								
			10								

LOGGED BY: SMG INPUT BY: TO CHECKED BY: SMG INPUT DATE: NOVEMBER 10, 1994

000507

RECORD OF BH-113

SHEET 1 OF 1

PROJECT NAME: 500 COVENTRY ROAD
PROJECT LOCATION: OTTAWA, ONTARIO
CLIENT: COCA-COLA BOTTLING LTD.

PROJECT NUMBER: E769.2
BORING DATE: NOVEMBER 3, 1994

ARCTURUS

BORING METHOD	SOIL PROFILE: DESCRIPTION	STRATA PLOT	DEPTH (m)	SAMPLES: LOCATION	TYPE	% RECOV	SPT (n)	COMBUSTIBLE VAPOUR CONCENTRATION % LEL (CARBON FILTER CONCENTRATION)	ODOUR	LABORATORY TESTING	PIEZOMETER OR MONITORING WELL INSTALLATION
	GROUND SURFACE		0								
HOLLOW STEM AUGERS ACKER	GRAVEL FILL										
	LIGHT BROWN, DAMP TO WET, LOOSE, FINE SAND				SS	80	7	>100	STR HC		
			1		SS	100	21	45	STR HC		
	LIGHT GREY/BLACK, MOIST TO WET, STIFF, FINE SILTY SAND GRAVEL TILL WITH TRACE CLAY		2		SS	100	13	55	MOD/STR HC		
					SS	100	15	30	MOD/STR HC		
			3		SS	<5	12	5	MOD/STR HC		
	GREY/BROWN, WET, STIFF, FINE SILTY CLAY TILL WITH SAND AND GRAVEL				SS	90	24	12	TRACE HC		
	BOTTOM OF BOREHOLE		4								
			5								
			6								
			7								
			8								
			9								
			10								

LOGGED BY: SMG INPUT BY: TD CHECKED BY: SMG INPUT DATE: NOVEMBER 10, 1994

RECORD OF BH-114

SHEET 1 OF 1

PROJECT NAME: 500 COVENTRY ROAD
PROJECT LOCATION: OTTAWA, ONTARIO
CLIENT: COCA-COLA BOTTLING LTD.

PROJECT NUMBER: E769.2
BORING DATE: NOVEMBER 4, 1994

ARCTURUS

BORING METHOD	SOIL PROFILE: DESCRIPTION	STRATA PLOT	DEPTH (m)	SAMPLES: LOCATION	TYPE	% RECOV	SPT (n)	COMBUSTIBLE VAPOUR CONCENTRATION % LEL (CARBON FILTER CONCENTRATION)	ODOUR	LABORATORY TESTING	PIEZOMETER OR MONITORING WELL INSTALLATION
	GROUND SURFACE		0								
HOLLOW STEM AUGERS ACKER	ASPHALT										
	GRAVEL FILL				SS	80	19	1	NA		
	DEBRIS ASPHALT AND BRICK		1								
	MOTTLED GREY/BROWN, DRY TO DAMP, COMPACT, FINE SAND WITH SOME SILT				SS	80	19	>100	STR HC		
	GREY TO BLACK, DAMP TO MOIST, COMPACT, FINE SILTY SAND GRAVEL TILL WITH TRACE CLAY		2		SS	80	17	85	STR HC		
					SS	80	13	2.0	MOD HC		
	GREYISH BLACK, MOIST TO WET, FIRM TO STIFF, FINE SILTY CLAY TILL WITH COBBLES		3		SS	100	6	1.4	TRA/MOD HC		
					SS	100	15	1.0	TRACE HC		
	BOTTOM OF BOREHOLE		4								
			5								
			6								
			7								
			8								
			9								
			10								

LOGGED BY: SMG INPUT BY: TD CHECKED BY: SMG INPUT DATE: NOVEMBER 13, 1994

000509

RECORD OF BH-115

SHEET 1 OF 1

PROJECT NAME: 500 COVENTRY ROAD
PROJECT LOCATION: OTTAWA, ONTARIO
CLIENT: COCA-COLA BOTTLING LTD.

PROJECT NUMBER: E769.2
BORING DATE: NOVEMBER 4, 1994

ARCTURUS

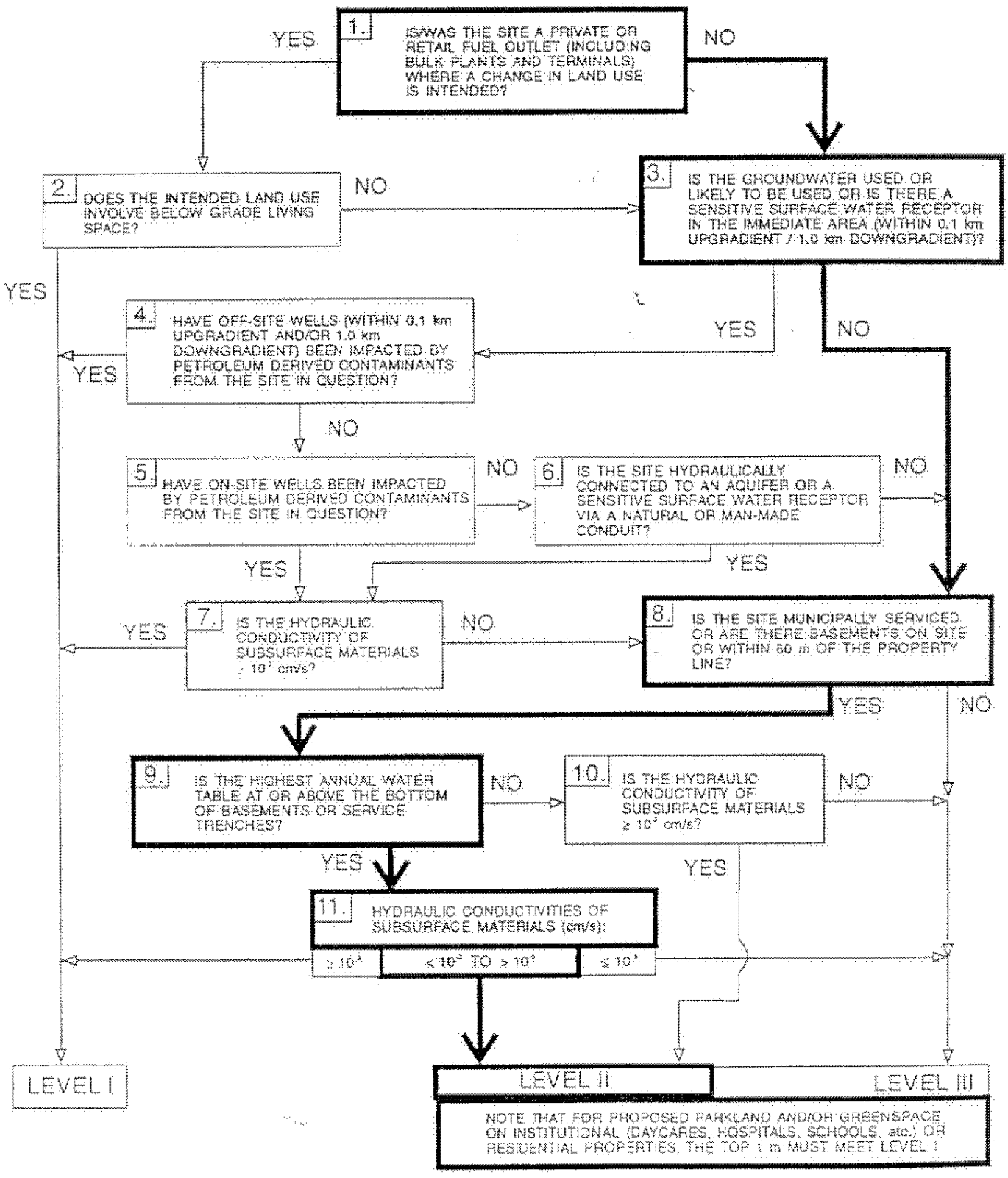
BORING METHOD	SOIL PROFILE: DESCRIPTION	STRATA PLOT	DEPTH (m)	SAMPLES: LOCATION	TYPE	% RECOV	SPT (n)	COMBUSTIBLE VAPOUR CONCENTRATION % LEL (CARBON FILTER CONCENTRATION)	ODOUR	LABORATORY TESTING	PIEZOMETER OR MONITORING WELL INSTALLATION
	GROUND SURFACE		0								
HOLLOW STEM AUGERS ACKER	ASPHALT										
	GRAVEL FILL										
	LIGHT BROWN, DAMP TO WET, LOOSE, FINE, SAND		1		AU			>100	STRONG HC		
	GREY TO BLACK, MOIST, COMPACT, FINE, SILTY SAND GRAVEL TILL WITH TRACE CLAY		2		AU			>100	STRONG HC		
					AU			>100	STRONG HC		
					AU			>100	STRONG HC		
	GREY TO BLACK, MOIST TO WET, STIFF TO VERY STIFF, SILTY CLAY TILL WITH GRAVEL AND ANGULAR COBBLES		3		AU			48	STRONG HC		
					AU			55	STRONG HC		
	BOTTOM OF BOREHOLE		4								
			5								
			6								
			7								
			8								
			9								
			10								

LOGGED BY: SMG INPUT BY: TD CHECKED BY: SMG INPUT DATE: NOVEMBER 10, 1994

000510

APPENDIX III
SITE SENSITIVITY ANALYSIS

SITE SENSITIVITY ANALYSIS



E789.4

SITE SENSITIVITY ANALYSIS
KEY DECISION RATIONALE

Question	Answer	Rationale
1	No	The site is a private fuel outlet where no change in land use is intended
3	No	Groundwater is not used or likely to be used, and there are no sensitive surface water receptors within the specified distances
8	Yes	The site is municipally serviced
9	Yes	The water table was observed in test pits within 2 m of grade
11	Level II	The majority of the subsurface material from surface to the water table is a silty sand which typically has a hydraulic conductivity in the range of 10^{-4} to 10^{-5} cm/s

APPENDIX II
DETAILED REMEDIATION STRATEGY
(includes design and capacity drawings/calculations)

TABLE OF CONTENTS

1.0 INTRODUCTION 1

2.0 SCOPE OF WORK 2
2.1 *EX-SITU* BIOREMEDIATION 3
2.2 DESIGN AND CONSTRUCTION DETAILS 3
2.2.1 EBC CONSTRUCTION 3
2.2.2 VAPOUR EXTRACTION SUPPORT FACILITIES 5
2.2.3 BIOFILTER CONSTRUCTION 5
2.2.4 GROUNDWATER PUMPING/TREATMENT SYSTEM 6

3.0 STANDARD OPERATION/MAINTENANCE PROGRAMS 8
3.1 EBC SYSTEM 8
3.2 VAPOUR EXTRACTION SUPPORT FACILITIES 8
3.2.1 AIR/WATER SEPARATORS 8
3.2.2 HUMIDIFIERS 8
3.2.3 BLOWERS 8
3.3 BIOFILTERS 8
3.4 GROUNDWATER PUMPING/TREATMENT SYSTEM 9

4.0 MONITORING PROGRAMS 10
4.1 EBC SOIL TREATMENT/MONITORING 10
4.2 EXCAVATION AIR MONITORING 10
4.3 BIOFILTER DISCHARGE MONITORING 11
4.4 GAC TREATMENT SYSTEM 12
4.5 AMBIENT AIR MONITORING 12
4.6 WORKER EXPOSURE 12

5.0 SITE SPECIFIC HEALTH AND SAFETY PLAN 14
5.1 INTRODUCTION 14
EMERGENCY TELEPHONE NUMBERS **15**
5.2 SITE CONTAMINANTS 16
5.3 RESPONSIBILITIES 16
5.3.1 SITE HEALTH AND SAFETY COORDINATOR 16
5.4 EMERGENCY SERVICES 17
5.5 SAFETY EQUIPMENT 17
5.5.1 ROUTINE TASKS 17
5.5.2 SPECIAL CASES 18
5.6 SITE FACILITIES 19
5.7 WORK AROUND EXCAVATIONS 19
5.8 ACCIDENT REPORTING 20
5.8.1 DEATH OR CRITICAL INJURY 20
5.8.2 LOST TIME OR MEDICAL ATTENTION 21
5.8.3 NEAR-MISS ACCIDENTS 21
5.9 EMPLOYEE TRAINING 21
5.10 TRUCK TRAFFIC 21
5.11 DUST SUPPRESSION 22

6.0 SITE SECURITY 23

7.0 SITE DECOMMISSIONING PLAN 24

8.0 REPORTING 25

1.0 INTRODUCTION

Arcturus Environmental Limited is currently under contract to Coca-Cola Beverages Limited to conduct soil/groundwater remediation program at the active soft drink distribution facility located at 500 Coventry Road in Ottawa, Ontario (Figure 1).

A detailed remediation strategy is presented below, including design and construction details, and standard operation/maintenance programs.

2.0 SCOPE OF WORK

In summary, the remediation plan consists of the following:

- an Engineered Bioremediation Cell (EBC) will be constructed on-site, by excavating clean soil and temporarily stockpiling this soil on-site
- petroleum hydrocarbon contaminated soil and groundwater from the zone of contamination will be excavated, and placed into the EBC for bioremediation/vapour extraction
- during excavation, sump wells will be installed to pump groundwater following excavation; groundwater will be pumped through a mobile Granular Activated Carbon (GAC) treatment system
- following excavation and removal of petroleum hydrocarbon contaminated soil, the excavation will be backfilled with clean soil previously stockpiled on-site
- a vapour extraction system (VES) will be installed and connected to the EBC piping network to remove hydrocarbon vapours from the soil
- a biofilter treatment system will be connected to the VES to treat hydrocarbon vapours removed from the soil
- monitoring of the biofilter treatment system and EBC soil will be conducted according to required MOEE protocol
- a separate Certificate of Approval (Air) is being solicited for discharge from the biofilter treatment system; an abbreviated version of the application is included in Appendix III
- once soil within the EBC has met appropriate remedial criteria, the EBC/VES complex will be decommissioned
- appropriate soil remedial criteria for this site are MOEE (1993) *Interim Guidelines for the Assessment and Management of Petroleum Contaminated Sites in Ontario* Level II (MODERATE).

2.1 *EX-SITU* BIOREMEDIATION

Petroleum hydrocarbon contaminated soil originating from the areas shown in Figure 1 would be transported to an Engineered Bioremediation Cell (EBC), for bioremediation treatment. The bioremediation process in each cell would be enhanced by adding appropriate nutrients and oxygen (air). By extracting hydrocarbon vapours, through the internal piping network of the EBC, oxygen is drawn into the soil pile. Oxygen and nutrients are used by the existing soil micro-organisms to degrade petroleum hydrocarbons to carbon dioxide and water within the soil pile. The extracted air, containing hydrocarbon vapours, would be treated using a biofilter before being discharged to the atmosphere. The biofilter would ensure that all remaining hydrocarbon vapours are degraded to carbon dioxide and water. Discharge would be monitored regularly to ensure compliance with applicable air emission standards.

As described in the Site Assessment and Recommended Remediation Alternatives (Appendix I), approximately 6,600 tonnes of contaminated "source" soil resulting from impact of petroleum hydrocarbons on-site, will be excavated and transported to the EBC for *ex-situ* treatment. An additional 3,500 tonnes of soil, previously excavated from an adjacent property and stockpiled on-site will be transported to the EBC. The EBC will have a total capacity of 12,000 tonnes (includes a contingency of approximately 2,000 tonnes).

The EBC will be located near the southern property boundary (Figure 2).

2.2 DESIGN AND CONSTRUCTION DETAILS

2.2.1 EBC CONSTRUCTION

The EBC, along with support facilities and equipment, would be provided and installed by Arcturus. Although no provincial legislation apply specifically to the design and operation of the EBC, construction will be in accordance with **Guidelines on the Ex-situ Bioremediation of Petroleum Hydrocarbon Soils on Federal Crown Land**, Environment Canada, June 1993.

EBC construction will include the following:

Configuration and Layout

- construction of one EBC approximately 25 m x 80 m located along the southern property boundary (Figure 2) to contain and treat approximately 6,000 m^3 (12,000 tonnes) of petroleum contaminated "source" soils derived from the vicinity of the former underground storage tanks, in addition to currently stockpiled soil; drawings and schematics of the EBC are shown in Figure 3 and Figure 4.

- approximately 2 m (depth) of clean soil will be stripped from the area of the EBC and temporarily stockpiled along the south end of the site

- the cell dimensions represent a total area of approximately 2000 m^2; soil will be piled approximately 3 m deep (2 m below-grade, 1 m above-grade) within the EBC

Liners and covers

- supply and installation of an impermeable liner along the base of the EBC to prevent any contamination leaching into the ground; each liner will consist of 30 mil chemically resistant HDPE (Flexi-Liner™ EX-30); the liner will be welded in one piece (40 m x 80 m) to fit the bottom and sides of the EBC

- the soil in the EBC will be covered with a 20 mil HDPE Flexi-Liner™ (EX-20) (Figure 3)

Soil Placement/Nutrient Addition

- approximately 10,000 T, representing a 3 m thickness of petroleum hydrocarbon contaminated soil, would be placed in the EBC without puncturing the impermeable liner

- nutrient application will be approximately 1 kg/tonnes; nutrients will consist of a mixture of 17-17-17 fertilizer supplemented with pure urea.

Piping Networks

- a basal water drainage network of piping that leads to a collection sump (Figure 3)

- a three layer network of vapour extraction lines throughout the soil pile; these lines will consist of 4 inch (10.16 cm) I.D. ABS perforated piping spaced 5 m apart (in width) and 0.75 m apart (in depth) (Figure 4)

- underground lines leading from the EBC to the VES trailer

Connection of the EBC system to the Vapour Extraction Support Facilities and biofilter complex is shown in Figure 5.

2.2.2 VAPOUR EXTRACTION SUPPORT FACILITIES

A central vapour extraction/treatment system (VES) will be installed to draw hydrocarbon vapours from soil within the EBC for treatment, while drawing fresh oxygen through the soil pile to enhance biological activity. The location of the VES support facilities is shown in Figure 2. The central vapour extraction support facilities are required to prepare the incoming air stream for treatment using biofilters, and will include the following:

- placement of vapour extraction piping within EBC (Figure 4)

- connection of the vapour extraction lines to two air/water separators (Figure 5)

- connection of the air stream from the air/water separators to two 5 hp blowers (Figure 5)

- recirculate the air stream within the humidifiers (Figure 5) to moisturize the air stream before biofilter treatment

- connection of the VES to two biofilters (Figure 6)

2.2.3 BIOFILTER CONSTRUCTION

Arcturus has designed a biofilter complex composed of the following:

- two biofilters, each consisting of a 2 m layer of compost (Figure 6) contained within a metal container 2.5 m x 2.5 m x 5.2 m with rear-loading access doors; compost materials provide an extensive surface area on which volatile organic contaminants (VOCs) can become adsorbed and are available for micro-organism metabolism

- a manifold which connects the biofilter to a discharge stack approximately 2.3 m above grade

- an air distribution system entering the base of the container, surrounded by a 0.5 m layer of finely crushed stone; this stone also provides efficient drainage of excess water from the base of the biofilter

- a sample port for discharge testing; sampling of air discharge would be conducted according to MOEE requirements upon receipt of a Certificate of Approval (Air)

A more detailed description of the biofilter to be used for treatment of extracted hydrocarbon vapours is given in the Application for a Certificate of Approval (Air) in Appendix III.

2.2.4 GROUNDWATER PUMPING/TREATMENT SYSTEM

A mobile groundwater pumping/treatment system will be used to remediate groundwater throughout the duration of the project; a schematic of the mobile treatment system is shown in Figure 7. Groundwater will be pumped from a network of sump wells installed during the excavation phase, in locations shown in Figure 8. Collected pore water from the EBC (Figure 3) will also be pumped through the mobile treatment system.

In the event that excess water enters the excavation, a large volume pump would remove water/sediment slurry in the excavation, and pump the slurry to a 400 L settling tank. Sediments in the slurry would settle to the bottom, while water would be pumped to the mobile GAC treatment system.

A schematic representation of this proposed mobile GAC groundwater pumping/treatment system is shown in Figure 7. This system consists of a fine sand filter, an oil/water separator, and four metal cells each containing approximately 180 kg of GAC. The petroleum contaminated groundwater slurry is pumped from the external settling tank, into a sand filter to remove the fine suspended load, and then to a coalescing-sphere oil/water separator. As water passes through the GAC, all organic contaminants are adsorbed and removed from the water stream. After passing through the GAC treatment drums, water is free of petroleum hydrocarbon contamination, and is ready for discharge.

To allow the collection of representative discharge samples, a sample port has been installed in sequence before the last GAC cell (discharge). Sampling of the water stream before the last GAC cell ensures early detection of breakthrough, and prevents any contaminant release in the discharge. When breakthrough is detected, the system is shut down for carbon replacement.

It is anticipated that the mobile GAC treatment system would be used for the duration of the project. Flow rate of the treatment system would be measured with Rockwell Flow Meters.

EFFECTIVENESS OF GAC GROUNDWATER PUMPING/TREATMENT SYSTEM

Arcturus has installed GAC groundwater pumping/treatment systems, similar to the treatment system proposed for this site, at 20 other sites in various municipalities in Ontario. Arcturus has obtained the required approvals from the appropriate municipal and provincial agencies for each of these GAC groundwater pumping/treatment systems. In addition, each system has functioned effectively in the removal of organic contaminants and complied with the required discharge criteria.

Each GAC groundwater pumping/treatment system is designed to meet site specific requirements, however, the GAC groundwater treatment systems are designed to remove all organic contamination from the treated groundwater stream. As a result, a very high quality of discharge (non-detectable concentrations for the parameters in question) is achieved for the effluent.

Further information, including a bench-scale experiment conducted by Arcturus, to determine the efficiency of contaminant removal by the proposed GAC groundwater treatment system, will be provided upon request.

3.0 STANDARD OPERATION/MAINTENANCE PROGRAMS

Operating hours for the VES and groundwater pumping/GAC treatment systems are anticipated to be 24 hours per day, 7 days per week, for the duration of the project. Operation/maintenance programs for each system component are described below.

3.1 EBC SYSTEM

Once the soil is added to the EBC and is covered, no maintenance of the EBC will be required. Air will be drawn through the soil piles through a network of vapour extraction piping, allowing sufficient oxygenation without removing the cover and tilling.

3.2 VAPOUR EXTRACTION SUPPORT FACILITIES

Standard operations of the support facilities is completely automated. However regular monthly inspections by a specialized technician will be performed to ensure proper and continuous operation of the entire system.

3.2.1 AIR/WATER SEPARATORS

Operation of these separators is passive, as they are controlled by the blowers. As the water entering the separators is immediately drained, the separators will require no maintenance.

3.2.2 HUMIDIFIERS

Operation of the humidifiers is controlled by air drawn by the blowers and by a pump which circulates clean water to the spray nozzle. As this water is clean, and is supplemented by an external water source, the only maintenance that may be required is the occasional replacement of the spray head due to calcium deposits.

3.2.3 BLOWERS

In order to maintain optimum operation conditions, and prevent damage to the blowers, the manufacturer's maintenance program will be followed.

3.3 BIOFILTERS

The biofilter compost will require mixing approximately every three months to ensure it is homogenous, and to prevent "matting". Mixing of the compost will ensure an even distribution of void space and will also ensure that preferred air pathways are removed.

3.4 GROUNDWATER PUMPING/TREATMENT SYSTEM

Standard operations of the groundwater treatment system would be completely automated. However, regular inspections every month by a specialized technician will be performed to ensure proper and continuous operation of the entire system.

4.0 MONITORING PROGRAMS

4.1 EBC SOIL TREATMENT/MONITORING

Monitoring of soil in the EBCs will include the following:

- monthly collection of soil samples from the EBC
- analysis of these samples for BTEX, TPH, nutrients, pH, and hydrocarbon-utilizing bacteria
- measurements of other parameters such as temperature, air flow, pressure differentials and moisture in the EBCs

4.2 EXCAVATION AIR MONITORING

Based on experience and all the data collected thus far from numerous sites containing petroleum contaminated soils, we are confident that air quality on-site during excavation and soil movement will not exceed Ministry of Labour (MOL) and Point of Impingement (POI) criteria.

MOL sampling using carbon tubes and laboratory analyses will be conducted, however, the disadvantage of this method is that there is a minimum of 48 hours, and more typically a week to ten day lag time, between collection of samples and receipt of analytical results. Because the proposed excavation and soil movement is a relatively short-term exercise, it is likely that any exceedances will have passed by the time the results are received.

Alternatively, colorimetric tube analyses provide instantaneous results, although somewhat less precise, allowing immediate response to exceedances. Colorimetric analyses are, by their nature, subject to interferences from compounds other than the target analyte. Therefore, the imprecision in the technique ususally leads to artificially high results, and a resulting "built-in" factor of safety. Therefore, Arturus will also conduct daily colorimetric analyses for BTEX to immediately evaluate air quality during excavation. As a back-up to this method, Arcturus will also use a Gastechtor Model 1238 combustible vapour analyzer to detect peak fugitive emissions during excavation should they occur.

If concentrations of BTEX exceed allowable MOL limits, the excavation operations will be shut down until suitable concentrations are achieved. Excavation will then proceed in smaller portions, allowing only smaller amounts of soil exposure at any one time.

The following are MOL limits for BTEX in ppm:

benzene	3.2
toluene	376
ethylbenzene	435
xylenes	435

4.3 BIOFILTER DISCHARGE MONITORING

Reliable monitoring results have been obtained for the biofilter treatment system discharge using GAC cartridge sampling according to the National Institute for Occupational Safety and Health (NIOSH) Method 1501 for aromatic hydrocarbons. Cartridges are submitted to the laboratory and analyzed according to USEPA Method 8021. As these methods provide accurate results and have been acceptable for monitoring in Quebec, it is proposed that a similar program be initiated for monitoring of biofilter emissions for the system at this site.

Samples of stack discharge would be collected from the sample port located on the discharge stack of the biofilter. Sampling is conducted by inserting an open activated carbon tube at the end of a suitable probe. Stack discharge is drawn into the carbon tube by a portable air pump for a suitable sampling period that will ensure against breakthrough (NIOSH method 1501).

After an appropriate sampling period, the carbon tube is removed, labelled, sealed, and submitted for laboratory analysis of the above parameters. Analyses of these parameters are conducted by a certified laboratory using Gas Chromatography - Mass Spectrometer Purge and Trap, USEPA Method 8021.

Measurements would also be taken with a Gastech® Model 1238 Combustible Vapour meter to immediately evaluate discharge quality on a regular basis. Immediate field monitoring of the discharge would allow rapid adjustments to be made to the system, and ensure preservation of the existing air quality.

The proposed frequency of monitoring for this site is described below:

- 12 emission samples would be collected using GAC cartridges during an initial 12 hour test run of the system; collection of samples would be conducted using GAC cartridges according to NIOSH Method 1501

- laboratory analysis would be conducted on these samples for the target volatile parameters identified earlier; the laboratory analytical technique used for analysis of the carbon cartridges would be USEPA Method 8021

- after obtaining acceptable results from the test run monitoring, the sampling frequency would be reduced to weekly, and the analytical target parameters would include BTEX only; weekly sampling would be supplemented by weekly intake and discharge measurements using a Gastechtor Model 1238 Combustible Vapour Monitor

- after obtaining acceptable results for the first month of monitoring (ie. compliance with MOEE Half-Hour Point of Impingement Guidelines), GAC cartridge sampling would be reduced to once per month, while Gastechtor measurements would continue to be taken weekly for the duration of operation

Initial monitoring will be conducted immediately upon start-up of the system.

This monitoring program is proposed in the Application for Certificate of Approval (Air) and is subject to approval from the Approvals Branch of the MOEE.

4.4 GAC TREATMENT SYSTEM

Monitoring of the mobile system will be conducted throughout the duration of pumping. Representative water samples from the discharge sample port will be collected upon initial pumping, then periodically for the duration of the project. The sampling and monitoring program will be conducted to ensure compliance with required Region of Ottawa-Carlton sewer-use guidelines.

4.5 AMBIENT AIR MONITORING

Ambient air within the VES Support Facilities (shed) will be tested to ensure that indoor air quality is not impacted. This testing will include:

- monitoring with a Gastechtor Model 1238 monitor to immediately evaluate the quality of indoor ambient air for fugitive emissions

4.6 WORKER EXPOSURE

It is essential that all construction workers and supervisors are aware of all potential hazards at this site. Workers conducting excavation activities would be monitored for exposure to hydrocarbon vapours.

Personal exposure sampling would be conducted during excavation using the standard technique of sample collection using a carbon sorbent tube, and portable sample pump (NIOSH Method 1501). Sample tubes will be supplied to a laboratory for BTEX analysis (USEPA Method 8021) to confirm minimum worker exposure. Results of these tests will be compared to MOL guidelines. Proper on-site excavation monitoring using Gastechtor 1238 gas monitors and colorimetric tubes will ensure that worker exposure levels are not exceeded.

5.0 SITE SPECIFIC HEALTH AND SAFETY PLAN

5.1 INTRODUCTION

This site specific health and safety plan is designed for the protection of all employees involved with the remediation project as well as the occupants of the above property and surrounding lands. The plan contains site information, possible health effects of the contaminants, precautions to be observed to avoid injury, emergency information and equipment, and assigns the responsibility for site safety during the project.

This safety plan has been prepared by Arcturus Environmental Limited using previous knowledge of the site and experience gained from past projects of this type. A safety plan is of limited use without the cooperation of all site employees. Arcturus has a stated health and safety policy, (included with this document), which requires the cooperation in such plans of all site employees, both those employed directly by Arcturus and by all subcontractors. All employees will receive notice of the existence of the plan and will be given instruction on the contents. All employees will be required to sign an acknowledgement to this effect. This signing signifies that the employee has accepted the terms of the plan, and agrees to follow the requirements. This agreement is a condition of working on the above site.

Inclusion of the word "Act" in the plan refers to the Ontario Ministry of Labour (MOL) *Occupational Health and Safety Act*, and "Regulation" refers to the *Regulation for Construction Projects* (Regulation 213/91).

ARCTURUS' HEALTH AND SAFETY POLICY

May, 1993

The health and safety of Arcturus staff, and those who interact with them as part of their regular duties, are the most important facet of all activities carried out under the Arcturus name, followed by protection of the environment and the well-being of the clients' workplace properties. All Arcturus personnel must ensure that practical and effective measures are in place to protect the health and safety of our fellow staff, contract employees, clients, subcontractors and the public at large, both in the field and the office. Further, all necessary measures must be in place to protect our clients' properties, and public and private properties close to the work site.

Arcturus requires that its personnel, contract employees, subcontractors and suppliers plan for, and design, safety into each of its field projects. Health and safety performance is a critical and significant factor in Arcturus employee review and contractor selection processes.

Arcturus Health and Safety Program will govern all Arcturus field activities, with site specific additions as required. Each field program will have a Health and Safety Coordinator assigned to it.

Arcturus personnel and contract employees, and employees of subcontractors, shall be aware of, and comply with, relevant health and safety legislation, and with established rules and procedures; and work with equal concern for the safety of co-employees.

Arcturus field and office projects will maintain the highest standards of health and safety excellence through effective training, careful planning and strong management.

EMERGENCY TELEPHONE NUMBERS

The Ottawa area uses the 911 system for all emergency situations including ambulance, police and fire services.

Coca-Cola:	(416) 424-6236	Bill Wallace (Toronto)
	(613) 748-5832	Glen Sutton (Ottawa)
Ministry of Labour:	(613) 228-8050	(Construction, Health and Safety)
Ministry of the Environment & Energy:	(613) 521-3450	Greg Montcalm (Senior Environmental Officer)
Ottawa Civic Hospital:	(613) 761-4000	1051 Carling Avenue
Riverside Hospital of Ottawa:	(613) 738-7100	1967 Riverside Drive
Ottawa General Hospital:	(613) 737-7777	501 Smythe Road

5.2 SITE CONTAMINANTS

An extensive soil sampling program has been performed by Arcturus Environmental Limited to determine the extent and identification of the contamination on the site. This sampling program has determined that the primary contaminants on-site include:

- petroleum hydrocarbon components including benzene, toluene, ethylbenzene, and xylenes

Of the contaminants, benzene is of the greatest concern due to its recognized carcinogenic (cancer-causing) properties. While present Ontario Ministry of Labour regulations concerning benzene do not apply to construction projects, precautions aimed at lessening the chance of contact with, and effects on, employees are desirable.

5.3 RESPONSIBILITIES

Individual employees, contractors and consultants are responsible for working in a safe and proper manner while performing tasks at the site. Common sense dictates that a "safety first" attitude is not a liability. One lost-time injury will nullify any gains acquired by short-cutting. Arcturus will enforce overall site health and safety. It is the aim of Arcturus to complete this project within schedule, and avoid injury and lost time.

5.3.1 SITE HEALTH AND SAFETY COORDINATOR

An Arcturus Health and Safety Coordinator will be responsible for day-to-day safety enforcement on the site. This employee will have been trained in the following safety related courses:

- First Aid
- WHMIS Training Course

The Arcturus Health and Safety Coordinator's duties will include the following:

- enforcing that proper safety equipment is in use by all site personnel, including contractor staff,
- identifying unsafe conditions and ordering the stoppage of work until such a situation has been rectified,
- periodic organic vapour monitoring in excavations,
- maintaining first aid supplies and other health and safety equipment in the site office,
- maintaining a record of all health and safety incidents that occur during the project
- assessing accidents and reporting to the Ontario Ministry of Labour Waterloo office when necessary (Section 8.0 contains information to guide such reporting).

Emergency services will be notified after authorization by the Health and Safety Coordinator. Common sense dictates that the well-being of an injured employee governs this provision.

Arcturus' Cleanup Manager will act as alternate Health and Safety Coordinator in the absence of the Coordinator. It is a requirement of this plan that the Health and Safety Coordinator, or alternate, be on-site at all times during the project.

5.4 EMERGENCY SERVICES

All emergency services, including ambulance, fire and police can be reached using the 911 service.

5.5 SAFETY EQUIPMENT

5.5.1 ROUTINE TASKS

Basic equipment, including safety shoes, meeting Section 23 requirements of the Regulation, will be required for entry to the site. The site entrance will be signed stating this requirement. According to the work in progress, eye protection may also be required. A supply of the latter will be maintained on-site for visitors not prepared for this stipulation. All visitors will be required to announce their presence at the site office, following signs posted to this effect, and will be questioned at that time about safety equipment in their possession.

Workers employed in routine tasks on the site will use the following equipment:

- safety boots meeting Section 23 requirements of the Regulation; this includes use of a waterproof boot if required by site conditions;
- hard hat meeting Section 22 requirements of the Regulation; use is mandatory on the site with the exception of the office building;
- eye protection meeting Section 24 requirements of the Regulation, when a danger to the eye exists due to the nature of the work in progress;
- full cloth coveralls sufficient to avoid contact with contaminated soil;
- when hand work leading to contact with contaminated soil or water is required, impervious gloves, such as rubber or neoprene, will be used; cloth gloves will be sufficient for normal tasks;
- when working in close proximity to excavating equipment, hearing protection in the form of plugs, inserts or muffs will be worn.

5.5.2 SPECIAL CASES

Some tasks may require employees to perform work in excavations with possible respiratory exposure to organic vapours, or dust which may contain high levels of metals in restricted areas. Routine monitoring of organic vapours will be done, as stated in Sections 4.2 and 4.6.

Regardless of the level of vapour found by monitoring, the employee has the option of requesting, and receiving, proper respiratory protection equipment. It is the responsibility of the various employers concerned to supply their own employees with the proper equipment. Training in the proper use and maintenance of such equipment must be provided. A half-face respirator equipped with organic vapour-removing charcoal cartridges will be supplied upon request. If dust is also a problem, the additional protection of a dust filter will be added to the charcoal cartridge. Should dust alone cause concern, a disposable dust-filtering mask will be suitable.

Liquid-phase petroleum hydrocarbons were detected during the sampling program. Therefore, petroleum hydrocarbon vapours are anticipated. The above provision is included to prepare for unforeseen situations that may arise. It is the intention of Arcturus to perform periodic air monitoring during this project to obtain a record of personal exposure. The air monitoring will be accomplished by having several employees wear personal air monitoring devices, in order to obtain accurate dosages from contaminants.

5.6 SITE FACILITIES

The following items and services are to be supplied by the Contractor:

- personal protective equipment
- fire extinguishers.

All open excavations on-site will be properly fenced at the end of the working day, to protect the public against unexpected hazards.

5.7 WORK AROUND EXCAVATIONS

Provisions in Regulation 213/91, Sections 222 to 242, list several stipulations, some applicable, for work in and around excavations such as those required on this project. No worker will enter an excavation that does not adhere to the Regulation. Work shall not be done in an excavation unless other workers are above ground in close proximity and a means of entry is available. The nature of the work does not require the use of shoring. Therefore, the following rules, based on Regulation requirements and expanded upon, must be obeyed:

- if employees are required to enter excavations more than 1.2 m deep, walls must be sloped to within 1.2 m of the excavation bottom with a slope not exceeding a 1:1 grade (Type 1 and 2 soils), walls must be sloped from top to bottom with a 1:1 grade (Type 3 soils), walls must be sloped from top to bottom with a 1:3 grade (Type 4 soils);

- if the above rule is not met, and the excavation is more than 2.4 m deep, a fence at least 1.1 m high must be placed around the excavation; this would apply to an excavation not requiring employee entry; due to the uncertainty of the final size of the excavation, this fence will need to be readily movable; plastic snow fence and T-bars are usually used;

- the area around the top of each excavation will be kept free of items that would injure an employee if they were to fall into the excavation; employees will wear hard hats in excavations where work is currently being done;

- equipment will not be operated near the wall of an excavation when an employee is performing tasks in the excavation;

- employees will not enter an excavation without first notifying the Health and Safety Coordinator or alternate or fellow employee of that intention; the informed person will visually check on the well-being of the employee in the excavation until the task is finished;

- employees will not enter excavations that are not reasonably free of water;

- extreme care will be exercised where buried services are involved; on this site, all services may be disconnected, but electrical power may be restored for the period of remedial work; therefore, it will be assumed that services are live until they can be determined otherwise;

- work near the foundations of the existing structures must be done in such a way as to avoid undermining of the footings and subsequent collapse.

5.8 ACCIDENT REPORTING

The reporting of accidents to the Ontario Ministry of Labour is covered in the Act under Sections 25, 26 and 27, and in the Regulation under Sections 8, 9, 10, 11 and 12. Reporting is done differently according to the degree of seriousness of the event. All first aid administered, regardless of the magnitude of the injury, must be recorded.

5.8.1 DEATH OR CRITICAL INJURY

According to Section 25 of the Act, immediate reporting by telephone or other direct means, followed by a written report as set out in Section 8 of the Regulation within 48 hours will follow a death or critical injury.

A critical injury is defined by the Ontario Ministry of Labour in Regulation 714/82, Section 1, to be:

"...an injury of a serious nature that,

a) places life in jeopardy;
b) produces unconsciousness;
c) results in substantial loss of blood;
d) involves the fracture of a leg or arm, but not a finger or toe;
e) involves the amputation of a leg, arm, hand or foot, but not a finger or toe;
f) consists of burns to a major portion of the body; or
g) causes the loss of sight in an eye".

In the event of a death or critical injury, it is very important, and stipulated in the Act, that the accident scene not be disturbed until an investigation by the Ontario Ministry of Labour has been carried out.

5.8.2 LOST TIME OR MEDICAL ATTENTION

In Section 26 of the Act, if the accident does not result in death or critical injury, but results in the need for professional medical attention and/or lost work time, written notice must be given to the Ontario Ministry of Labour within four (4) days of the event.

5.8.3 NEAR-MISS ACCIDENTS

In Section 27 of the Act, if an event occurs that does not result in injury, but had the potential to do so, the Ontario Ministry of Labour must be informed in writing within two (2) days of the occurrence. This includes fire, explosion, flood, equipment failure, cave-in or subsidence and other incidents that could have caused injury. The content of this report is as that set out in Section 11(2) of the Regulation.

5.9 EMPLOYEE TRAINING

All Arcturus employees will receive the training prior to the beginning of the on-site work.

5.10 TRUCK TRAFFIC

During construction, it is estimated that approximately 50 truck loads per day will be travelling on-site, between the areas of excavation and the south end of the property. Truck traffic will be directed in a safe and appropriate manner to avoid accident or injury.

5.11 DUST SUPPRESSION

If dust becomes a problem during construction activities, we intend to connect a hose to the on-site facilities, and apply water to the driveways as required.

6.0 SITE SECURITY

During excavation, the areas of activity will be surrounded by construction fencing to ensure open excavation areas are secure. Any fencing taken down to allow daily construction activities will be replaced at the end of the day.

7.0 SITE DECOMMISSIONING PLAN

Upon completion of soil remediation within the EBC, the following decommissioning plan would be conducted:

- Arcturus will decommission the EBC sites and the water treatment system; all piping and equipment will be removed from the EBC
- as the liners are non-reactive, they will not be contaminated after use and can remain in place
- the liner would be punctured with the excavator bucket to restore the natural drainage of the existing soil
- soil would be reused on-site in the grassed area along the southern property boundary

8.0 REPORTING

Upon the completion of the soil excavation phase of the project, a verification report will be submitted to the MOEE. This report will include the following:

- a description of construction activities
- a site plan illustrating areas of excavation, location of confirmatory samples, location of sumps, and location of underground lines
- soil analytical results compared to MOEE remediation criteria
- ambient air monitoring results obtained during construction
- worker monitoring results compared to MOL exposure limits

In addition, reporting will include monthly monitoring data detailing biofilter discharge results compared to MOEE Point of Impingement (POI) Limits, and groundwater treatment system discharge compared to pertinent sewer-use bylaws.

LEGEND

SITE LOCATION MAP IMAGE TAKEN FROM AN AIR PHOTO A27909-52, DATED 02/05/93

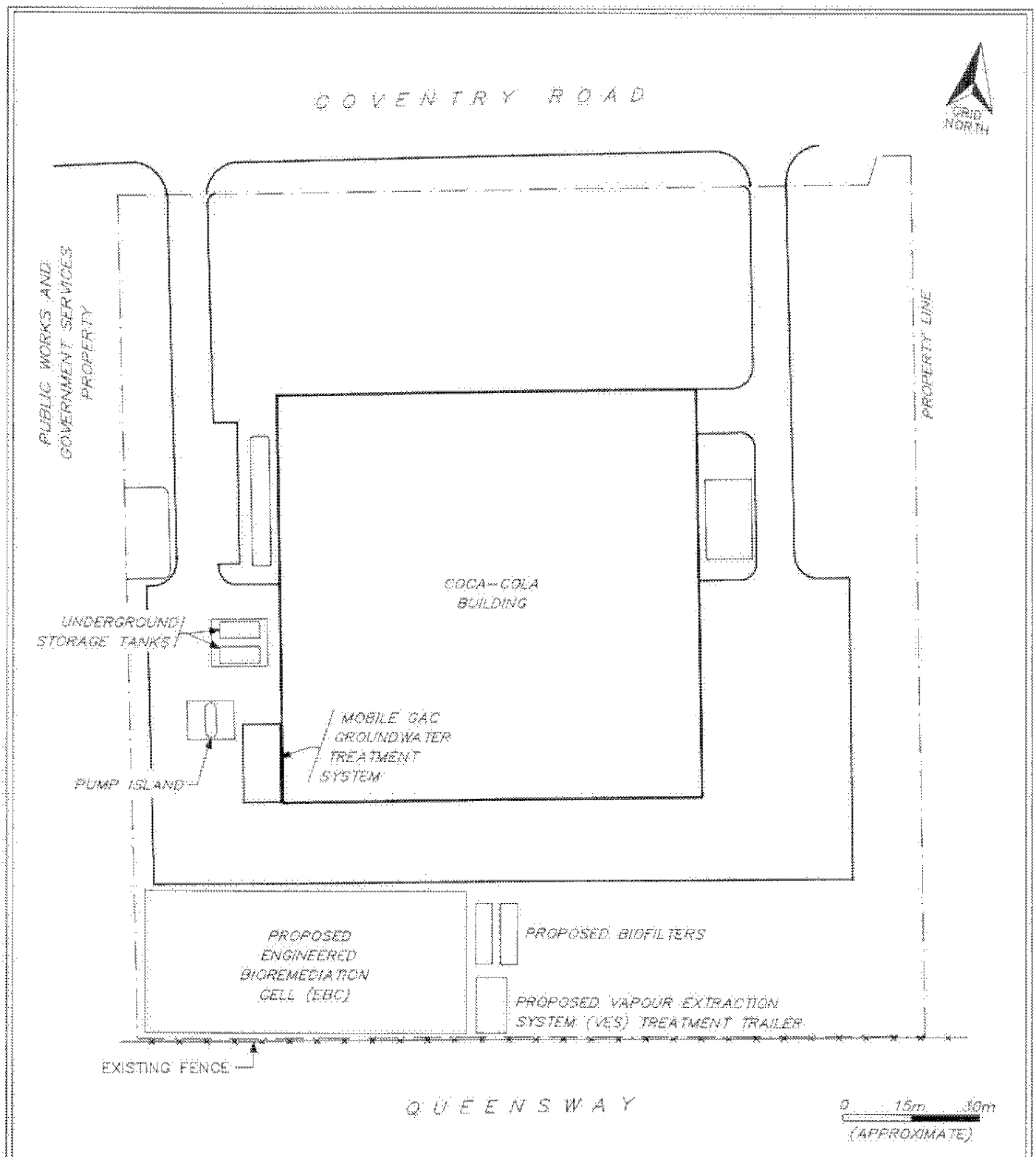
SITE LOCATION

500 COVENTRY ROAD
OTTAWA, ONTARIO

CLIENT: Coca-Cola

ARCTURUS

DATE: FEBRUARY 1995		PROJECT No: E769.6	DRAWING No. FIGURE 1
DRWN: TD	CHK'D: ALM	SCALE: AS SHOWN	



LEGEND

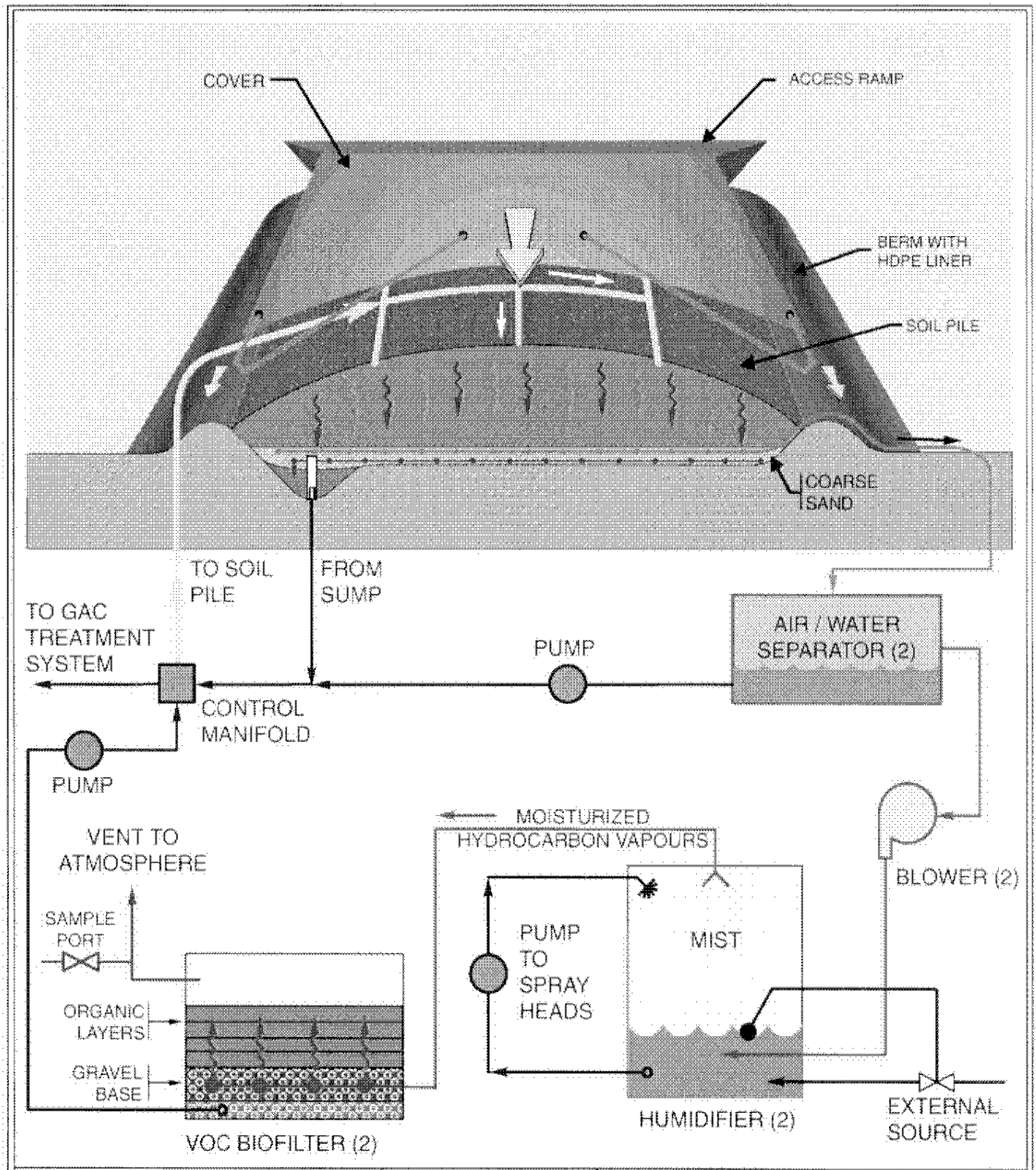
GENERAL SITE LAYOUT

500 COVENTRY ROAD
OTTAWA, ONTARIO

CLIENT: Coca-Cola

ARCTURUS

DATE: FEBRUARY 1995		PROJECT No.: E769.6	DRAWING No.: FIGURE 2
DRWN: TD/MJF	CHK'D: PJH	SCALE: AS SHOWN	



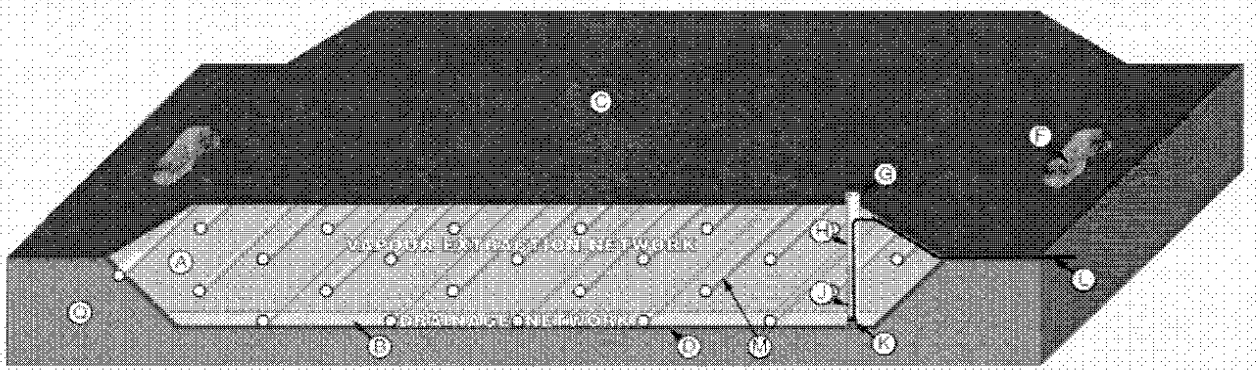
LEGEND

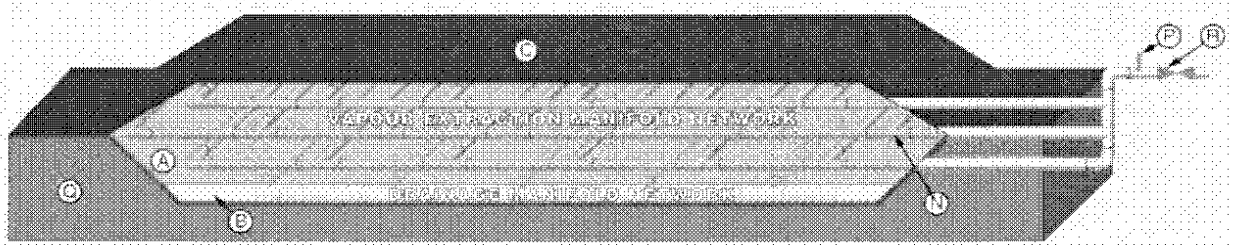
SCHEMATIC OF REMEDIATION SYSTEM PROCESS FLOW

CLIENT: Coca-Cola

ARCTURUS

DATE: FEBRUARY 1995		PROJECT No.: E769.6	DRAWING No.: FIGURE 3
DRWN: MJF	CHK'D: ALM	SCALE: NOT TO SCALE	





LEGEND

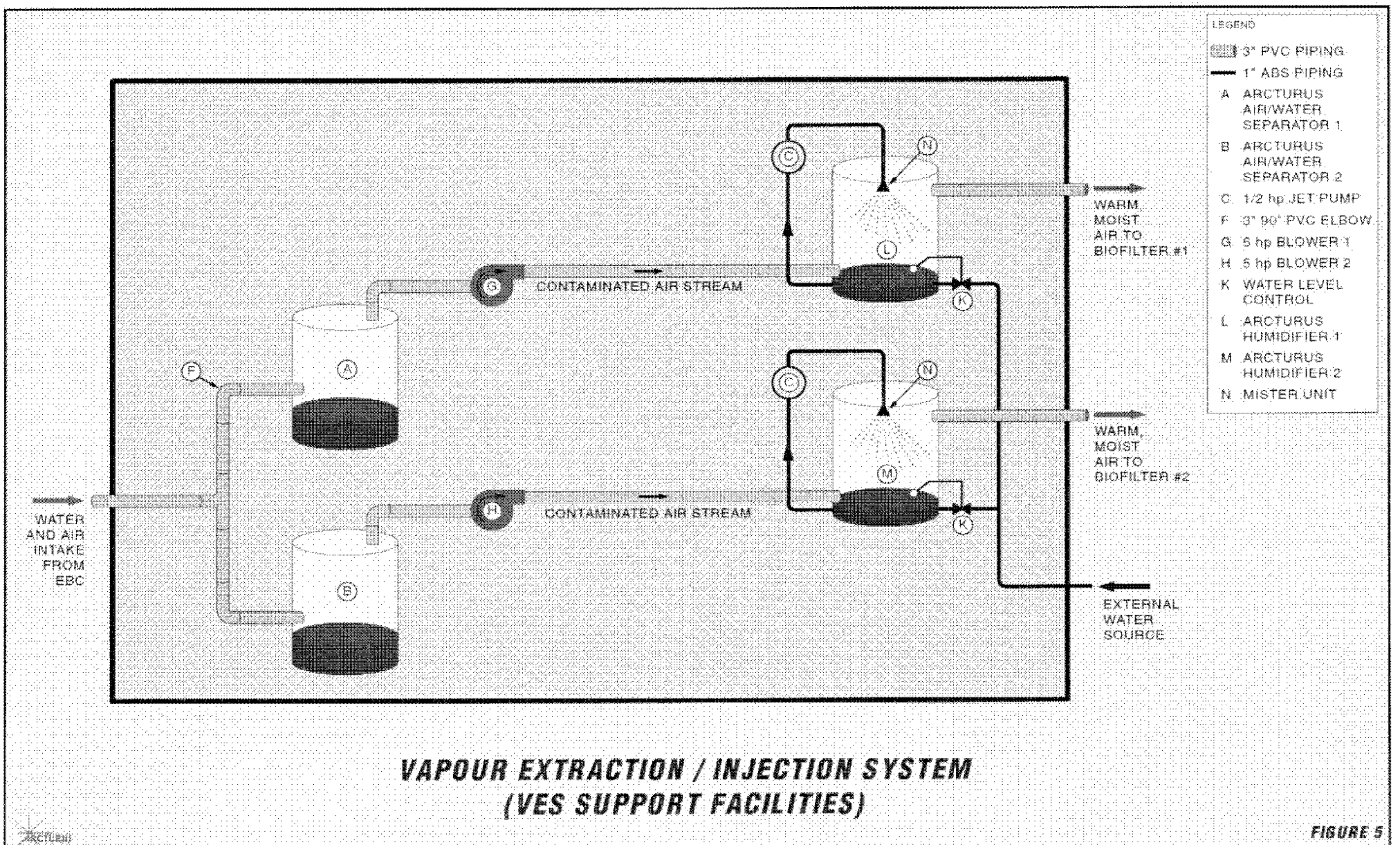
- 4" PVC PIPING
- A CONTAMINATED SOIL
- B SAND
- C 20mil HDPE COVER
- D 30mil HDPE LINER
- F SOIL PILE ANCHOR
- G SUMP WELL
- H 5" ID PVC RISER
- J 5" ID PVC SCREEN
- K 4" SUBMERSIBLE PUMP
- L 1" ABS DISCHARGE LINE
- M 4" SLOTTED VAPOUR EXTRACTION PIPE WITH GEOSOCK
- N 4" NON-PERFORATED 'T' JOINT AND MANIFOLD
- P SAMPLE PORT
- Q UNDISTURBED SOIL
- R VAPOUR EXTRACTION LINE CONTROL VALVE

DRAINAGE AND VAPOUR EXTRACTION NETWORKS

ARCTURUS

FIGURE 4

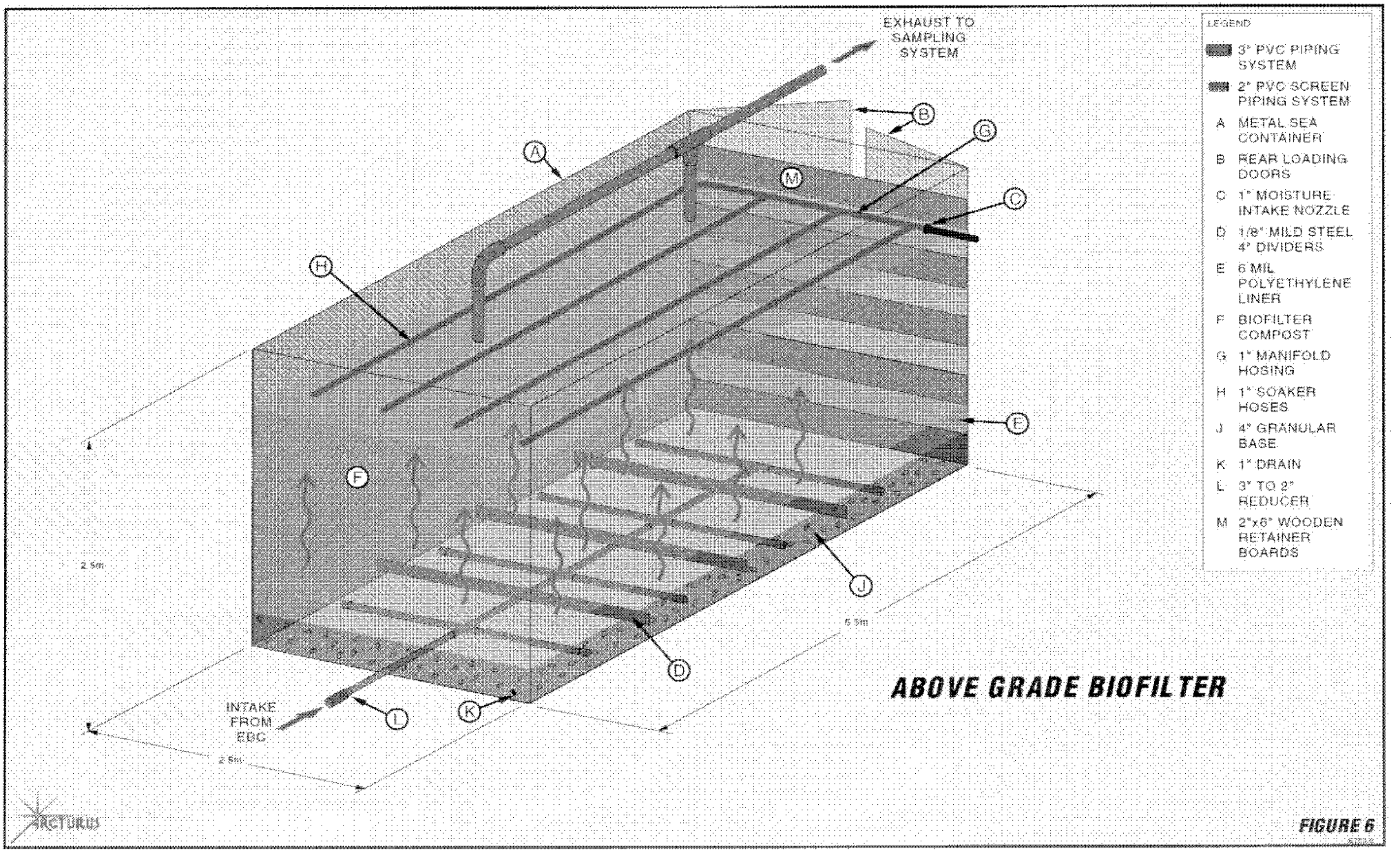
000544



VAPOUR EXTRACTION / INJECTION SYSTEM
(VES SUPPORT FACILITIES)

FIGURE 5

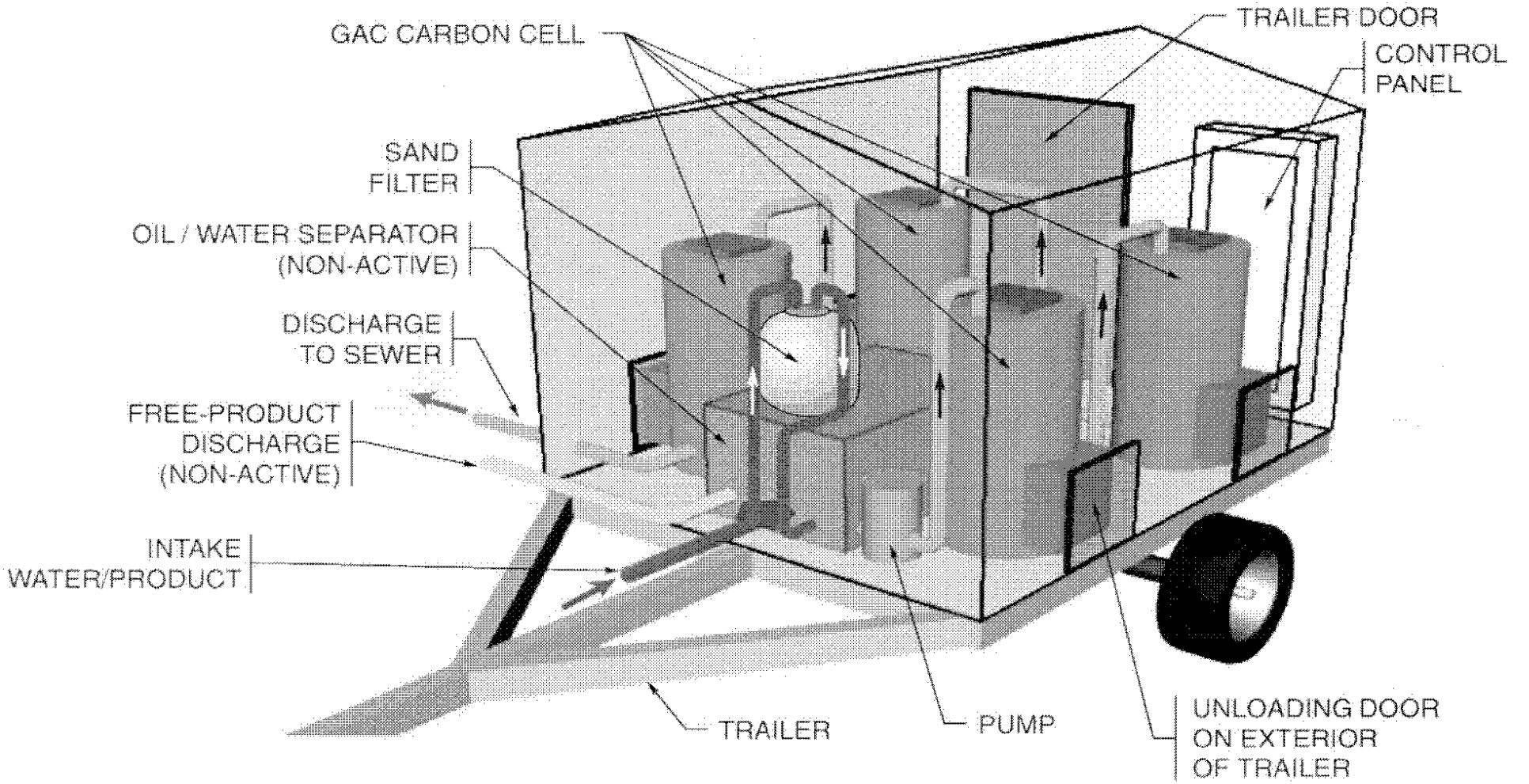
000545



ABOVE GRADE BIOFILTER

FIGURE 6

000546



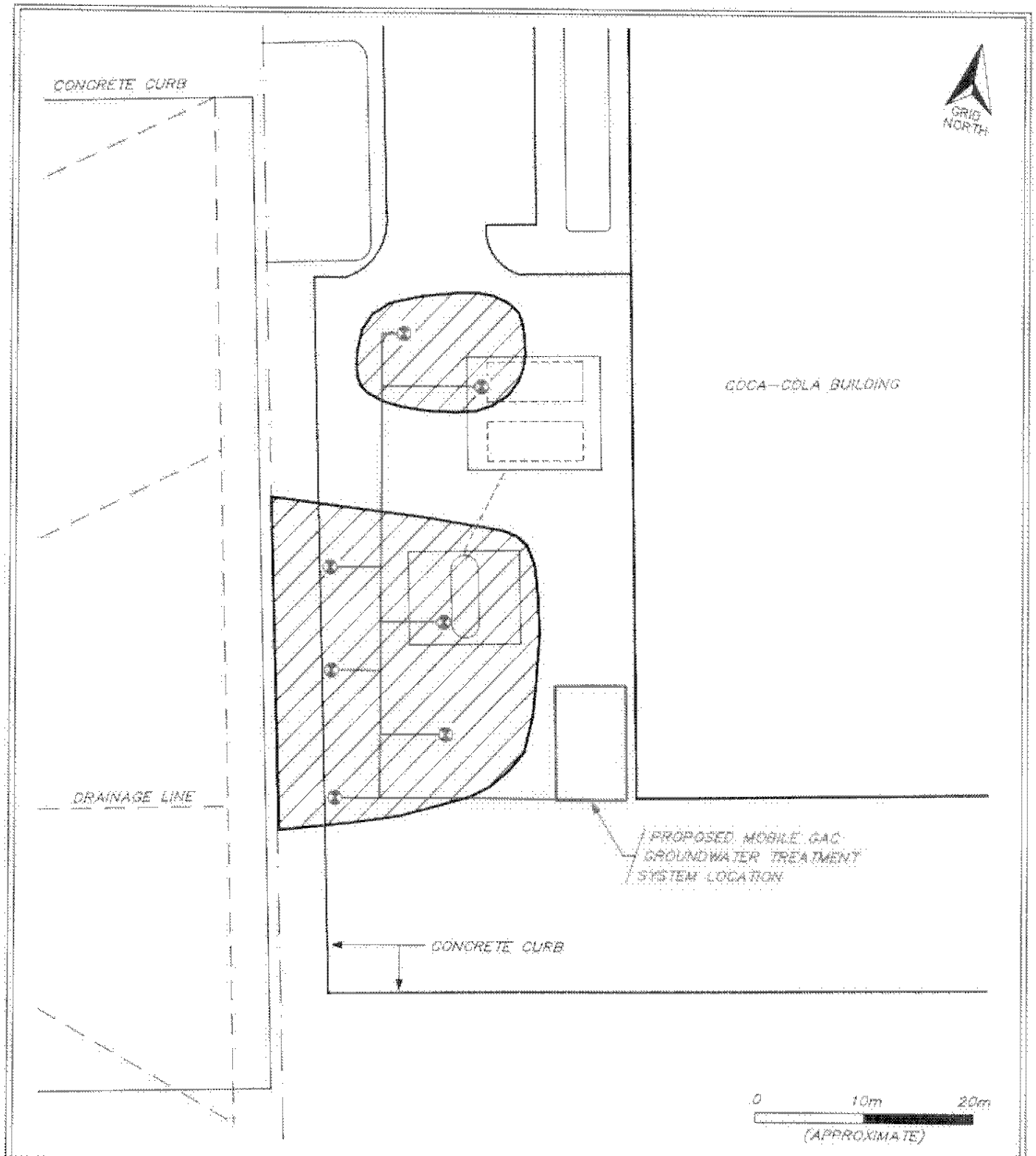
WATER TREATMENT TRAILER SCHEMATIC

ARCTURUS

FIGURE 7

E769.6

000547



LEGEND

PROPOSED SUMP WELL LOCATION AND TRENCHING

PROPOSED EXCAVATION AREAS

PROPOSED SUMP WELL LOCATIONS

CLIENT: Coca-Cola

ARCTURUS

DATE: FEBRUARY 1995	PROJECT No. E769.6	DRAWING No. FIGURE 8
DRWN: TD/MJF CHK'D: PJH	SCALE: AS SHOWN	

APPENDIX III
AIR CERTIFICATE OF APPROVAL APPLICATION

Ministry of Environment and Energy
Ontario

Application for Approval (Air)

FOR OFFICE USE ONLY				
Application Number(s)	Client Number	Payment Received	Date	Initials
		$		

e formulaire est disponible en français

formation requested by this form is collected under the authority of the *Environmental Protection Act*, R.S.O. 1990 (EPA) and the *Environmental ll of Rights*, c.28, Statutes of Ontario, 1993 (EBR) and will be used to evaluate applications for approval under Section 9 of the EPA. Questions should be directed to the Approvals Branch, 250 Davisville Avenue, 3rd Floor, Toronto, Ontario, M4S 1H2, Telephone No. (416)440-3713 or 1-800-461-6290, or to your local Ministry of Environment and Energy District Office.

nstructions

1. When completing this form, please refer to the "Guide For Applying for Approval (Air)", Section 9, EPA (referred to as the Guide).
2. This form must be completed with respect to all the requirements of the Guide in order for it to be considered as an application for approval. INCOMPLETE APPLICATIONS WILL BE RETURNED TO THE APPLICANT OR DENIED APPROVAL.
3. A complete application for approval consists of;
   (1) a completed and signed application form;
   (2) all supporting information as requested by this form and by the Guide; and
   (3) a certified cheque or money order for the approval fee, if applicable.
   The Ministry may require additional information following a review of the complete application.
4. Two (2) copies of the application together with the supporting information must be submitted to the Ministry of Environment and Energy.
   One copy to: Director of Approvals Branch, Ministry of Environment and Energy, 250 Davisville Avenue, 3rd Floor, Toronto, Ontario, M4S 1H2

   A duplicate copy must be sent to the District Office having jurisdiction over the area in which the works will be located.
5. Information contained in this application is not considered confidential and will be made available to the public upon request. Certain information submitted as supporting information may be claimed as confidential but will be subject to the *Freedom of Information and Protection of Privacy Act* (FOIPOPA) and EBR. If you do not claim confidentiality at the time of submitting the information, the Ministry may make the information available to the public without further notice to you.

1. APPLICANT

Name (attach proof of name if applicable)
Dr. A. W. Panko, President, Arcturus Environmental Ltd.

Address (include street number, concession, lot etc.)	City / Province
7900 Canadian Drive	Niagara Falls, Ontario

Postal Code	Telephone Number	Fax Number
L2E 6S5	905-357-6424	905-357-6447

Owner of the Proposed Equipment? [X] Yes [ ] No If no, attach name and address of the Owner of the Equipment

Operator of the Proposed Equipment? [X] Yes [ ] No If no, attach name and address of the Operator of the Equipment

CONTACT FOR TECHNICAL AND DESIGN INFORMATION

Name / Title
Mr. Ã. Maddalena, Project Manager

Address	City / Province
SAME AS ABOVE	

Postal Code	Telephone Number	Fax Number

3. LOCATION

[X] Mobile [ ] Stationary (Provide location (street, concession, lot etc.) and complete reminder of this section)

Immediate use proposed for 500 Coventry Road, Ottawa, Ontario

Adjacent Land Use Designation

[X] Industrial [XX] Commercial [ ] Residential [ ] Agricultural

Are the proposed works located in an area of development control as defined by the *Niagara Escarpment Planning and Development Act* (NEPDA)?
[ ] Yes [X] No (If Yes, attach copy of NEPDA permit)

4. PROCESS/ACTIVITY DESCRIPTION – Brief description of the nature of business, industrial process or activity related to this site.

The site is a central soft drink distribution facility (Coca-Cola Beverages Ltd.) in which trucks enter load/unload, and then exit to various retail outlets.

5. TYPE OF APPLICATION

[X] New Certificate of Approval

[ ] Amendment to a current Certificate of Approval

Current Certificate Number _____

Date of Issue _____

6. PROJECT/APPLICATION DESCRIPTION – EBR Abstract (Brief description of the proposal)

This project involves on-site soil bioremediation/vapour extraction. Petroleum contaminated soil will be placed into an Engineered Biocell, from which vapours will be removed by a Vapour Extraction System. Hydrocarbon vapours will be treated using a Biofilter Treatment System. Treated air will then be discharged to the atmosphere. Prior to discharge, the treated air stream will be monitored for hydrocarbon vapours.

7. EBR REQUIREMENTS

Is this a proposal for a Prescribed Instrument under EBR?	[X] Yes, Class of Instrument? II	[ ] No
If "Yes", is it excepted from public notification?	[X] Yes	[ ] No
If it is excepted from public notification, provide reason	[ ] Emergency	[ ] Equivalent Public Participation
	[X] EAA or Tribunal Decision	[ ] Environmentally Insignificant Amendment or Revocation

Documentation in support of the above noted exception must be provided in the attached information.

8. PUBLIC CONSULTATION/NOTIFICATION – Specify all public consultations/notification (such as public meetings, notification of First Nations, Canada – U.S. Air Quality Agreement notification etc.) that has been completed or is in the process of being completed.

Public Consultation Notification letters will be sent to all businesses/residents immediately adjacent to the Coca-Cola property (Attached). Notification includes a request for comments regarding the proposal to be sent to local MOEE and the Applicant. All comments from adjacent property owners will be addressed in consultation with MOEE Officials prior to operation.

9. OTHER APPROVALS/PERMITS – List all other environmental approvals/permits applied for or received under the Ontario Water Resources Act (OWRA) (water works, permit to take water, etc.) and EPA (waste management, sewage systems, etc.)

Permit to take water (Attached)

Permit to discharge treated water to sanitary sewer system (submitted to Region)

Emergency Certificate of Approval (Processing) (Submitted to MOEE)

10. PROJECT SCHEDULE

Estimated Date for Start of Construction	Estimated Date for Start of Operation
March 1995	April 1995

11. FEES ESTIMATE – The "cost" to be used to estimate the fee includes, all equipment and construction costs but does not include costs for land, engineering services or the costs of facilities for which a permit or approval is applied for under other Sections of the EPA or OWRA for which appropriate fees have or will be paid. The fee shall not be less than $50.00 or more than $100,000.00. (For more information refer to the Guide)

Cost for purpose of fee estimate $ 30,000

2% of cost $ 600

Estimated Fee ($50.00 minimum, $100,000.00 maximum) $ 600

Certified cheque or money order attached? [X] Yes [ ] No

When the application is submitted to the Ministry for review the fee must be in the form of a certified cheque or money order payable to "The Minister of Finance".

DO NOT SEND CASH

12. SUPPORTING INFORMATION CHECKLIST – This is a list of all supporting information attached to this application and is subject to the FOIPOPA and EBR.

INFORMATION	ATTACHED?	REFERENCE	CAN BE DISCLOSED
GENERAL			
Verification of Legal Name of Applicant	[X] Yes [ ] No	Appendix VI	[X] Yes
Copy of NEPDA Permit	[ ] Yes [ ] No	N/A	[ ] Yes
Copy of Current Certificate of Approval	[ ] Yes [ ] No	N/A	[ ] Yes
Verification of EBR Public Notification Exception	[X] Yes [ ] No	Appendix II	[X] Yes
Proof of Public Notification/Consultation	[X] Yes [ ] No	Appendix II	[X] Yes
Address of Owner/Operator (if different from section 1)	[ ] Yes [ ] No	N/A	[ ] Yes
TECHNICAL			
Production Data	[X] Yes [ ] No		[X] Yes [ ] No
Data Sheets	[ ] Yes [ ] No	N/A	[ ] Yes
Contaminant Emission Summary Table	[X] Yes [ ] No		[X] Yes [ ] No
Supporting Information for Estimate of Contaminant Emmissions	[X] Yes [ ] No		[X] Yes [ ] No
Site, Plot, Roof and Elevation Plans	[X] Yes [ ] No		[X] Yes
Dispersion Calculation	[X] Yes [ ] No		[X] Yes [ ] No
Supporting Information for Noise and Vibration Assessment	[X] Yes [ ] No		[X] Yes [ ] No

OTHER ATTACHED INFORMATION
(refer to following page)

12. SUPPORTING INFORMATION (Continued)

OTHER ATTACHED INFORMATION	CAN BE DISCLOSED
Appendix I - Site Assessment and Recommended Remediation	[X] Yes [ ] No
Appendix II - Proof of Public Notification/Consultation	[X] Yes [ ] No
Appendix III - Material Safety Data Sheets	[X] Yes [ ] No
Appendix IV - Point of Impingement Results	[X] Yes [ ] No
Appendix V - Blower Specifications	[X] Yes [ ] No
Appendix VI - Articles of Incorporation	[X] Yes [ ] No
Appendix VII - Permits	[X] Yes [ ] No
	[ ] Yes [ ] No
	[ ] Yes [ ] No
	[ ] Yes [ ] No
	[ ] Yes [ ] No
	[ ] Yes [ ] No
	[ ] Yes [ ] No
	[ ] Yes [ ] No
	[ ] Yes [ ] No
	[ ] Yes [ ] No
	[ ] Yes [ ] No
	[ ] Yes [ ] No

13. STATEMENT OF APPLICANT

I, the undersigned, hereby declare that, to the best of my knowledge, the information contained herein and the information submitted in support of this application is complete and accurate in every way and that the Contact for Technical and Design Information identified in Item 2 of this form is/are authorized to act on my behalf for the purpose of obtaining approval under Section 9 of the EPA for the proposed equipment identified herein.

Name DR. ANDREW PANKO	Position PRESIDENT - ARCTURUS ENVIRONMENTAL
Signature	Date FEB 22, 1995

1147 (11/94) Page 4 of 4

APPENDIX IV
CORPORATIONS INFORMATION
FINANCIAL LIABILITY INSURANCE
LETTER OF AUTHORIZATION

Coca-Cola Beverages Ltd.

43 Overlea Blvd.
Toronto, Ontario M4H 1B8
Fax (416) 424-6250
Telephone (416) 424-6238

R.B. (Bob) Wallace
Director
Environmental Operations

Fax Transmittal
(Total: 1 page)

February 10, 1995

Arcturus Environmental Limited
7900 Canadian Drive
Niagara Falls, Ontario
L2E 6S5

Attn.: Mr. A. Maddalena, M.Sc.
Remediation Specialist

Dear Mr. Maddalana,

This letter is to confirm that Arcturus Environmental is the consultant for Coca-Cola Bottling Limited concerning this certificate of approval application. As such, you are authorized on our behalf, to answer to any questions regarding the application.

Sincerely,

and Coca-Cola Beverages are trademarks of Coca-Cola Ltd.

1.0 INSURANCE

Arcturus Environmental Limited maintains a comprehensive insurance package as protection against various commercial and professional liabilities. They include:

Worker's Compensation

Company: Worker's Compensation Board (Ontario)
Account Number: 6288405

The State Insurance Fund (New York)
Policy Number: 107 6544-4

Commercial General Liability

Company: Zurich Insurance
Policy Number: 8365175

General Liability:	$5,000,000 CDN
Bodily Injury/Property Damage:	$5,000,000 CDN
Personal Injury:	$5,000,000 CDN
Non-Owned Automobile:	$5,000,000 CDN

Vehicle Insurance

Company: Zurich Insurance
Policy Number: AP9903384

General Liability: $5,000,000 CDN
(Includes leased vehicles)

Professional Liability with Pollution Inclusion

Company: Reliance Insurance Company
Policy Number: 7002968

General Liability: $1,400,000 US

Bonding

Company: Kingsway General Insurance Company
Policy Number: 400060

Current Limits: $1,500,000 CDN aggregate
$500,000 CDN per contract

Certificates of Insurance will be provided upon request.

APPENDIX V
PERMIT TO TAKE WATER

Regional Municipality of Ottawa-Carleton
800 Green Creek Drive
Gloucester, Ontario
K1J 1A6
Environmental Services Department
Water Environment Protection Division
Tel. (613) 745-7165
Fax. (613) 745-9197

Municipalité régionale d'Ottawa-Carleton
Services environnementaux
Division de la protection du milieu aquatique
800 prom. Green Creek
Services environnementaux
Division de la protection du milieu aquatique
Tél. (613) 745-7165
Télécopieur (613) 745-9197

22 February 1995
File: 31 40-94-0075-CC

Mr. Daniel Garand
Arcturus Environmental Limited
29 Camelot Drive, Unit 500
Nepean, Ontario
K2G 5W6

Dear Sir:

Re: Discharge of Treated Ground Water to the Sanitary Sewer
Coca Cola Bottling Limited - 500 Coventry Rd., City of Ottawa

The Regional Municipality of Ottawa-Carleton has performed a technical review on the information provided in your request to discharge. Permission is granted to discharge GAC treated ground water to the sanitary sewer on Coventry Road, in the City of Ottawa, provided the following conditions are satisfied:

a) The discharge components do not change significantly from what was reported in the lab analysis. These components should not exceed the limits established in the Regional Regulatory Code, Part 5.2, or any subsequent amendments.

b) The volume of discharge does not exceed 50, 000 litres per day.

c) The flow rate of the discharge does not exceed 34.7 litres per minute.

d) A weekly lab analysis be conducted on the discharge for Total Petroleum Hydrocarbons and Benzene, Ethylbenzene, Toluene, m/p-Xylene and o-Xylene. The results are to be submitted to the Region.

e) A weekly summary of the daily discharge volume be submitted to the Region.

f) The discharge is to a sewer clean-out located on the property of Coca Cola Bottling Limited, 500 Coventry Road, City of Ottawa.

g) The permission to discharge will extend to May 30, 1995.

The Region may conduct random checks on this discharge and take samples of the ground water for compliance purposes. The Sanitary Sewer Agreement regarding discharges that exceed 50, 000 litres per day will be forwarded to you shortly.

If you have any concerns or questions regarding the above, please contact me at 560-6086, extension 3219.

Sincerely,

James Arnott
Industrial Waste Inspector
Industrial Waste Section
Wastewater Collection Branch

JA:cb

c:\wordarnott\cokeperm.lst

Ontario

1-613/549-4000 1-800/267-0974 Fax: 613/548-6908

Ministry of Environment and Energy

Ministère de l'Environnement et de l'Énergie

133 Dalton Avenue
P O Box 820
Kingston ON K7L 4X8

133 avenue Dalton
C P 820
Kingston ON K7L 4X8

7 February 1995

RECEIVED

Arcturus
29 Camelot Drive, Unit 500
NEPEAN, Ontario
K2G 5W6

Attention: Mike Grinnell

Dear Mr. Grinnell:

Re: Approval to Take Water Under Section 34 of the Ontario Water Resources Act as Requested by the Application for a Permit to Take Water dated February 3, 1995

Purpose :	Groundwater Remediation
Applicant:	Coca Cola Bottling Limited
Location :	500 Coventry Road, City of Ottawa
No. Wells:	Three (3)
Test date:	February 27, 1995 - May 30, 1995
Max. Rate:	34 Litres per minute (49,080 Litres per day) from each of the three wells
Discharge Location:	Sanitary sewers in the Regional Municipality of Ottawa-Carleton
Duration :	28 Days

This letter constitutes approval to take water under Section 34 of the Ontario Water Resources Act. Pursuant to Section 101 of the Ontario Water Resources Act, you are hereby notified that this approval is subject to the following conditions:

1) The pumping rate and period of pumping must not result in the exceedance of the total water withdrawal requested without the further written approval of the Director under the Ontario Water Resources Act (hereafter referred to as "the Director").

2) All supply wells within 300 metres of the recovery wells shall be located and monitored for water quality and static water levels prior to pumping. Water level drawdown during pumping and recovery after pumping shall also be monitored. Water level monitoring during the pumping test must follow standard pumping test protocols.

The well owners must be contacted and written permission obtained to access their well at least 10 days prior to the pumping. If the owner agrees, water level and quality sampling shall be carried out. The accessibility of the well remains the responsibility of the owner. If the owner does not agree to the testing, the owner's refusal must be recorded by the Applicant.

3) If there are no wells within 300 metres of the recovery wells then the groundwater quality must be assessed prior to the taking of water.

4) All well supply water and discharge problems associated with the testing must be reported to the Director expeditiously.

5) If the taking of water is forecast to interfere seriously, or is observed to interfere seriously with other water supplies obtained from any adequate sources that were in use prior to initial issuance of the approval for this water taking, the Applicant shall take such action as will make available to those affected a supply of water equivalent in quantity and quality to their normal takings, or shall compensate such persons for their reasonable costs of so doing, or shall reduce the rate and amount of taking so as to prevent the forecast interference or alleviate the observed interference. Pending permanent restoration of the affected supplies, the Applicant shall provide, to those affected, temporary water supplies adequate to meet their normal requirements, or shall compensate such persons for their reasonable costs of doing so. A contingency plan for alternate water supplies shall be developed prior to commencing the pumping test.

6) All water taken as authorized by this approval must be discharged to sanitary sewers as authorized by the Regional Municipality of Ottawa-Carleton.

7) A written report of this water taking must be submitted to the Director, within 60 days of completion of the testing.

8) The Director must be advised in writing of any intent to abandon the recovery wells.

9) If the recovery wells are abandoned or not used for any extended period of time, they shall be properly sealed to prevent any further groundwater contamination.

10) This Approval shall be kept available for inspection at all times during the water taking.

The water taking shall be carried out under these general conditions. The reason for the imposition of these conditions is to ensure that the water quality and quantity of all surface water, groundwater and water supplies in the area of the testing are protected.

This approval is for the temporary taking only (28 days). If the wells are put into service for an extended period of time, a Permit to Take Water will be required if the taking is in excess of 50,000 litres per day.

This approval does not release you from any legal liability or obligation and remains in force subject to all limitations, requirements and liabilities imposed by law. It shall not be construed as estopping or limiting any legal claims or rights of action that any person, including the Crown in Right of Ontario or any agency thereof, has or may have against you, your officers, employees, agents and your contractors.

You may, by written notice served upon me and the Environmental Appeal Board within 15 days after receipt of this approval, require a hearing by the Board. Section 101 of the Ontario Water Resources Act, R.S.O. 1990, C. 0.40, as amended, provides that the Notice requiring the hearing shall state:

1) The portion of each Term or Condition in the approval in respect of which the hearing is required, and;

2) The grounds on which you intend to rely at the hearing in relation to each portion appealed.

In addition to these statutory requirements, the Notice should include:

3) The name of the appellant;
4) The address of the appellant;
5) The date of the Approval;
6) The name of the Director;
7) The municipality within which the taking is located;

and the Notice should be signed and dated by the appellant.

This Notice should be served upon:

The Secretary
Environmental Appeal Board
112 St. Clair Ave. West
5th Floor
Toronto, Ontario
M4V 1N3

The Director
Section 34, O.W.R.A.
Ministry of Environment and Energy
133 Dalton Avenue, Box 820
Kingston, Ontario
K7L 4X6

If you have any questions concerning the approval or wish to request an amendment or an extension please contact Penny Sutcliffe at this office.

Yours truly,

L.W. Fitz, Director
Section 34, R.S.O. 1990
Ontario Water Resources Act
Ministry of Environment and Energy
PLS/sh

APPENDIX VI
LAND USE, OFFICIAL PLAN AND ZONING MAP

BEST COPIES AVAILABLE

Schedule A – Land Use

Plan A – Utilisation du sol

Central Area / Aire Centrale

Site Specific Policy (Refer to policies in Volume II)
/Politique sur un emplacement spécifique (voir volume II)

Primary Employment Centre / Centre d'emploi primaire

Secondary Employment Centre / Centre d'emploi secondaire

Regional Shopping Centre / Centre commercial régional

Community Shopping Centre / Centre commercial communautaire

District Linear Commercial Area / Rue commerçante de district

Neighbourhood Linear Commercial Area / Rue commerçante de quartier

Business Employment Area / Secteur d'emploi commercial

Traditional Industrial Area / Secteur industriel traditionnel

Transportation Facility / Installations de transport

Major Institutional Area / Grand secteur institutionnel

Residential Area / Secteur résidentiel

Special Study Area / Secteur d'étude spéciale

Major Leisure Area / Grande aire de loisirs

Levels of Facilities / Niveau des installations
- National / National — N
- Regional / Régional — R
- Municipal / Municipal — M

Greenway System includes: / Réseau de verdure comprenant

- Environmentally Sensitive Area / Secteur écologiquement sensible
- Agricultural Area / Secteur agricole
- Waterway Corridor / Couloir de voie d'eau
- Linkage / Liaison
- Major Open Space / Grande aire libre

The border of the Greenway System is to be considered conceptual; should not be interpreted to follow individual property boundaries; and will be delineated through specific studies which will include public participation.

Les limites du Réseau de verdure sont purement conceptuelles et ne doivent pas être interprétées en fonction des limites de propriétés privées; elles seront établies dans le cadre d'études précises faisant appel à la participation du public.

Transitway / Transitway

- Existing / Établi
- Proposed / Proposé

Transitway Stations / Stations du Transitway

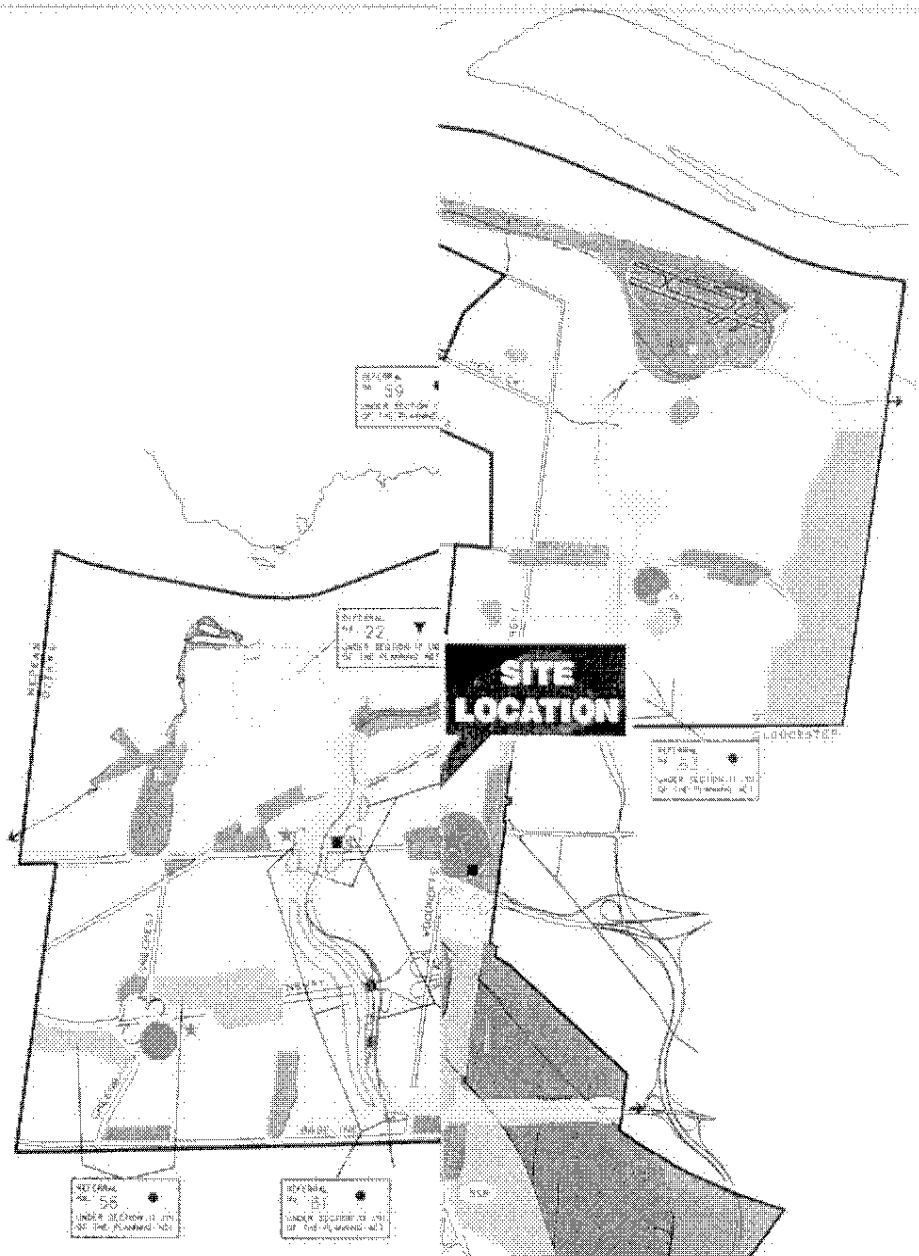
- Existing / Établies
- Proposed / Proposées

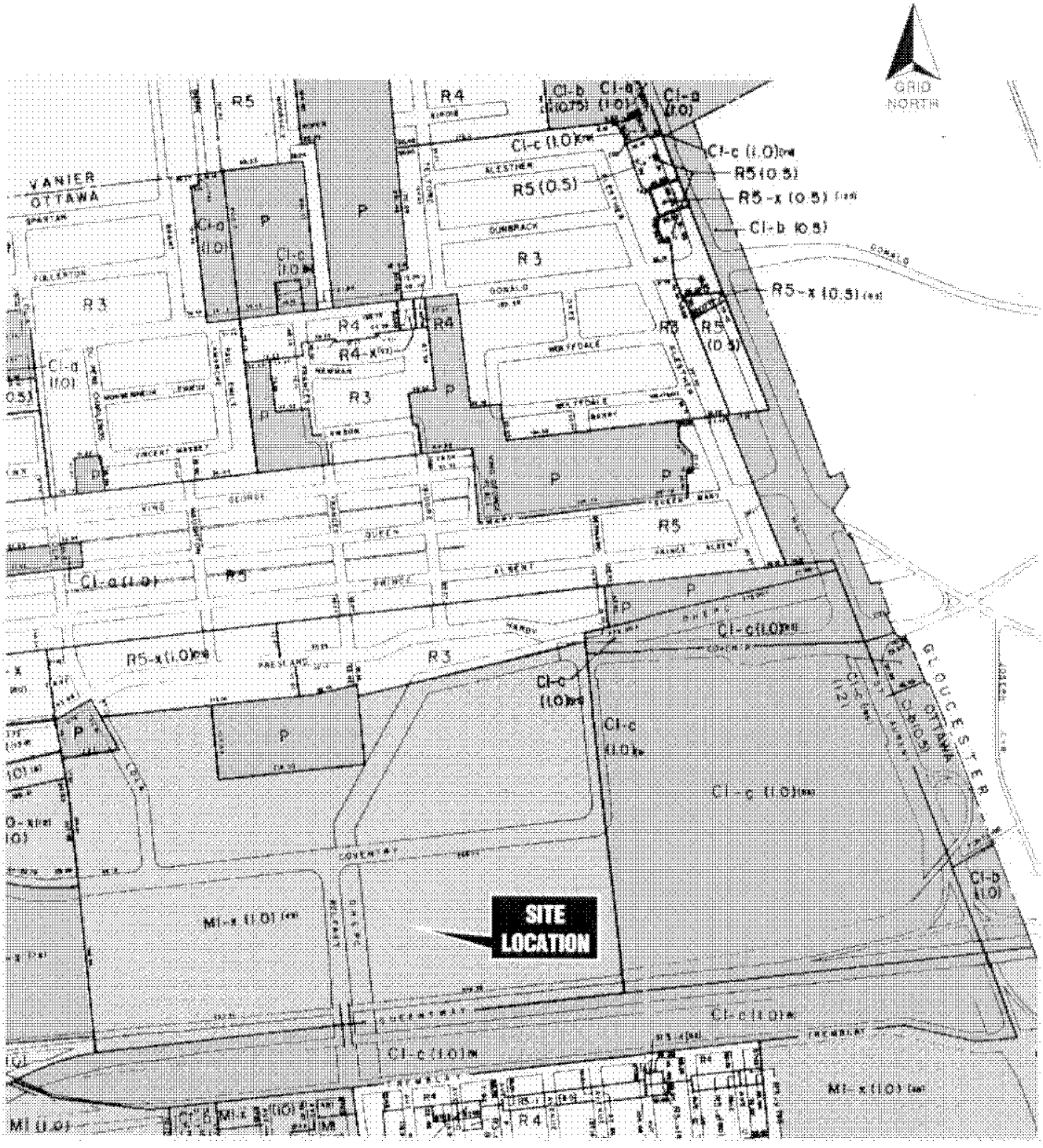
JULY 3, 1991
3 JUILLET, 1991

Information on this schedule is conceptual and is not to be scaled. Additional reference should be made to: Schedule F – Environmental Constraints Areas / Sites and Schedule C – Transportation System and Utilities. Proposed Roads and Transitways / Transitway Stations are illustrated on this schedule conceptually and their location is not to imply that the Transportation Facility will actually be built in the exact location illustrated.

Le présent Plan présente des données conceptuelles qu'il ne faut pas rapporter à l'échelle. Consulter également le Plan F (Secteurs et emplacements touchés par des contraintes environnementales) et le Plan C (Transport et services publics). Les voies et les parties et stations de Transitway proposées ne figurent sur ce plan qu'à titre conceptuel et ne seront pas nécessairement construites à l'emplacement exact illustré.

OFFICIAL PLAN
OTTAWA
PLAN DIRECTEUR


SITE LOCATION
Secondary Policy Plans
(See appropriate Chapters / Schedules in Volu
Plans de politique secondaire
(consulter chapitres, et sections pertinents au volu
Central Area / Aire centrale
Carleton Heights / Carleton Heights
Centretown / Centre-Ville
Hunt Club / Hunt Club
Sandy Hill / Côte-de-Sable
Key Principles of Neighbourhood Plans
(See appropriate Chapters in Volume II).
Principes clés des plans de quartier
(consulter chapitres pertinents au volume II)
Glebe / Glebe
Lowertown West / Basse-Ville Ouest
Ottawa West / Ottawa-Ouest
Greenboro / Green
New Edinburgh / New Edinburgh
Ottawa East / Ottawa-Est
Ottawa South / Ottawa-Sud
Riverside Park / Parc Riverside
Westboro Area / Westboro
Report no. ** en vertu de l'article 17(1)
l'aménagement du territoire.
Renvoi no. ** en vertu de l'article 17(1)
l'aménagement du territoire



LEGEND

MAP IMAGE TAKEN FROM THE CITY OF OTTAWA OFFICE CONSOLIDATION COUNCIL BYLAWS MAP

NEIGHBOURING ZONING

CLIENT: Coca-Cola

ARCTURUS

DATE: FEBRUARY 1995		PROJECT No: E769.6	DRAWING No:
DRWN: MJF	CHKD: PJH	SCALE: NOT TO SCALE	

Standard Zones

The City of Ottawa is divided into a number of individual Zones. The by-law specifies the uses which are permitted within each of these Zones. Each Zone or Zoning classification is identified by a specific symbol. In addition, other symbols may be attached as a suffix to the Zone Symbol in order to denote a variation to the said Zone(s).

The following is a list of the standard Zones for the City of Ottawa:

*BWM	a low to moderate scale and intensity mixed commercial and residential zone designed to conserve the heritage character of the By Ward Market as an open-air farmer's market and specialty retail food area.
C1	a general commercial zone
C2	a central business commercial zone
C3	a special commercial zone
C4	a specific commercial zone
C4a	a specific commercial exception zone
C5	a general commercial zone with a residential component subject to bedroom count requirements and amenity space provisions
CAH	Central Area heritage
Cons.	a conservation lands zone
G	a government zone
HC-1	a heritage commercial zone
HP-1	a heritage public zone
HR-1	a heritage residential zone
HR-2	a heritage residential zone
*HR-3	a primarily low scale and intensity residential zone that also allows a limited range of commercial uses related to arts and culture, designed to conserve the heritage character of the area
*HR-4	a low scale and intensity residential zone that also allows a limited range of non-residential uses, designed to preserve the built form of the area
*HR-5	a low scale and intensity residential zone designed to conserve the heritage character of individual buildings and the area.
*IBP	an industrial business park zone
IG	a general industrial zone
IH	a heavy industrial zone
IHC	an industrial highway commercial zone
IO	an industrial office zone
LF1	a residential zone for Lebreton Flats
M1	a light industrial zone
M2	an intensive light industrial zone
M3	a medium industrial zone
M4	a heavy industrial zone
P	a public use zone
PL	a public use zone for public land
R1	a single family housing zone
R2	a single family housing zone
R3	a single family housing zone
R4	a single family, two family and row house zone
R5	a low density apartment zone
R6	a medium density apartment zone
R7	a high density apartment zone
R8	a residential zone at thirty (30) units per hectare
R9	a residential zone at thirty-seven point five (37.5) units per hectare
R10	a residential zone at seventy-five (75) units per hectare
R11	a low density apartment zone subject to bedroom count requirements and amenity space provisions
R12	a medium density apartment zone subject to bedroom count requirements and amenity space provisions
R13	a high density apartment zone subject to bedroom count requirements and amenity space provisions
R14	a residential zone at forty-nine point five (49.5) units per hectare
RO	a residential office zone;

the following symbols are used as suffixes to the zone symbols set out above to denote variations to the said zones:

1. "-a" attached to C1 or C5 denotes a commercial zone in which residential uses are permitted;

2. "-b" attached to C1 denotes a general commercial zone in which residential uses are not permitted;

3. "-c" attached to C1, C2, C3, C4 and C5 denotes a commercial zone in which exceptions or variations have been made to permitted uses, parking, building location requirements or building height*, and when used as suffixes to the zone symbols set out in this Section, creates and shall be deemed to always have created an exception to the standard zone which enacts all of the provisions applicable to the standard zone along with the variations described in the paragraph creating the exception, and where the two conflict, the exception provisions shall apply;

4. "-ew" attached to P denotes a restriction to the public use zone to limit uses to ecclesiastical uses;

5. "-f" attached to a residential use zone designation denotes that parking is permitted in a front yard and in a side yard abutting a street, subject to the following conditions:

   (1) that only one (1) parking space shall be permitted per dwelling unit,

   (2) that each parking space permitted shall not exceed two point six (2.6) metres in width and shall not be less than two point two (2.2) metres in width,

   (3) that the parking space and the driveway leading thereto shall be clearly delineated with a hard surfaced material,

   (4) that no parking space shall be located within one (1) metre from the main wall of the residential use building measured perpendicular from the face of such wall, or closer than one point five (1.5) metres of any door of the residential use building measured perpendicular from the face of such door,

   (5) that the total area of the parking space and the driveway leading thereto shall not exceed forty per cent (40%) of the area of the front yard or required side yard abutting a street,

   (6) that the area of the front yard or required side yard abutting a street not consumed by the parking space(s) and the driveway(s) leading thereto shall be landscaped open space,

   (7) that the parking spaces must be sited within an angle which ranges from seventy-five degrees (75°) to ninety degrees (90°) measured from the front building face of the residential building where the permitted parking space is located in the front yard, or measured from the side building face in the case where the permitted parking space is located in the required side yard abutting a street;

6. *---*

6. *"-h" attached to a zone symbol denotes a zone to which a holding symbol applies within the meaning of Section 36, Planning Act, R.S.O. 1990, Chapter P.13.

7. "-ic" attached to a zone symbol denotes that the zone affected is subject to an interim control by-law;

8. "-t" attached to R3, R4, R5, R6, R7, R11, R12 or R13 denotes a residential zone where, in addition to all of the uses permitted in the zone, a transitional parking area shall be permitted;

9. "-tp" attached to a zone symbol denotes that a temporary use is permitted;

10. "-x" attached to a zone symbol other than C1 denotes a special exception to the permitted uses, parking, building location requirements or building height of the zone*, and when used as suffixes to the zone symbols set out in this Section, creates and shall be deemed to always have created an exception to the standard zone which enacts all of the provisions applicable to the standard zone along with the variations described in the paragraph creating the exception, and where the two conflict, the exception provisions shall apply

Ontario

Ministry of the Environment

OCCURENCE REPORT

Location of Occurence: OTTAWA CITY 500 COVENTRY ROAD OTTAWA, OONTARIO **Reg:** 4 **Dist:** OT **Municipality:** 20101		**Source:** COCA COLA BOTTLING LTD. **Sector:** FD **Source:** PF **SIC:** **UTM:** **N:** [] **E:** [] **Zone:** []	
Entered: :	**ORIS No.** 9340000029	**Abstracts:**	**Diaries:**
Received By:		**Batch:** 0	**I. E. B. No.**
s.21			
Occurence Type: N	**Subtype:** 01	**Occurence Date:**	
Work Plan:		**Occurence Time:**	
Reported By: G. MCMANUS		**Report to MOE :** 1992/07/08 00:00 **MOE at Scene:**	
Telephone No. 416-515-2424 x	**Alternate No.** x	**Assigned To:**	GEORGE CLARKE
Address: 1200-45 ST. CLAIR AVENUE WEST TORONTO, ONTARIO **Postal Code:**		**ERP Contacted:** **Callout:** [] **ERP Name:**	**NSP:** []

Syn: CROWN BRIEF SUBMITTTED

Brief Summary:
AN EXMINATION OF THE AUDITORS REPORT FOR THE MONTHS MAY, JUNE, JULY, AUGUST 1992 INDICATES THAT COCA COLA HAVE FAILED TO MEET THE 22.5% IN RECYCLABLE CONTAINERS FOR ALL 4 MONTHS CONTRARY TO SECTION 3(1) OF ONTARIO REG. 622/85.

If there are related reports, record initial/master ORIS No. here >>

Followup Action: X **Abatement** X **IEB Other**
BF Date:
CHARGES SHOULD BE LAID . RECOMMENDATION TO COME FROM LEGAL SERVICES (TALKED TO G. MCMANUS JANUARY 13, 1993).

File Closed: X **Abatement: IEB Other**
Suspected Violation: 52

Report Prepared By: GEORGE CLARKE	**Date:** 12/10/92	**IEB Investigator:**	**IEB BF Date**
Approving Officer GEORGE CLARKE	**Date:** 01/04/93	**Reviewing Officer:**	**Date**

Specify number(s) for routing Original [ ] [ ] [ ] [ ] **Continued** [ ] **Yes**
Specify number(s) for copy distribution [ ] [ ] [ ] [ ] [ ]
1. Investigator/E.O. **2. D. O. /File** **3. SAC (initial spills)**
4. Reg. Dir. /_____ Mgr. **5. IEB Reg. Spv** **6. IEB H.O./file** **7. Other _____**

SAC Action Class: 1: 2:

Material 1: N/A	**Code :**
Amount :	**UN No.:**
Material 2:	**Code :**
Amount :	**UN No.:**
Material 3:	**Code :**

Amount : UN No.:

Cause. . . . . : Code. . :
Reason. . . . . : Code. . :

Person in Control: Waste GenNum :
Owner . . . . . : Waste GenNum :
Agencies Involved . . . . :

Clean up and Restoration Carried out by:
[v] Controller [v] Owner [N] Other

% Cleaned up: Estimated Cost:
Were Directions or Approval Given Under
EPA Part X [v] Regulation 362 [v] Manifest No.

Waste Class : Code . . :
Hauler : Code . . :
Disposal Site : Code . . :

Environmental Impact: Nature of Impact:
Code . . :

People/Business Damaged
(Other than to Owner/Controller) :
Nature of Damage: Code . . :

Ontario

Ministry of the Environment

OCCURENCE REPORT

Location of Occurence: OTTAWA CITY 500 COVENTRY RD. K1K 2M1 **Reg:** 4 **Dist:** OT **Municipality:** 20101	**Source:** COCA COLA LTD. NORTH YORK PLANT 24 FENMAR DRIVE **Sector:** GN **Source:** OP **SIC:** 1111 **UTM:** **N:** [] **E:** [] **Zone:** []

Entered: :	**ORIS No.** 9140200174	**Abstracts:**	**Diaries:**
Received By:		**Batch:** 0	**I. E. B. No.**
Occurence Type: O	**Subtype:** 99	**Occurence Date:**	1991/03/13
Work Plan:		**Occurence Time:**	09:00

s.21

Reported By: LARRY BACKMAN MOE - OTTAWA	**Report to MOE :** 1991/03/13 09:00 **MOE at Scene:** :

Telephone No. 613-521-3450 **x**	**Alternate No.** - - **x**	**Assigned To:**	DAVE FUMERTON

Address: 2435 HOLLY LANE OTTAWA **Postal Code:** K1V 7P2	**ERP Contacted:** **Callout:** [] **ERP Name:** **NSP:** []

Syn: VIOLATION REG 309

Brief Summary:
FAILURE TO SUBMIT SUPPLEMENTARY GRR WITHIN 15 DAYS FOR ADDITIONAL WASTE (GLYCOL) STORING WASTE IN EXCESS OF 3 MON. * SEE ATTACHED. RE AUDIT INITIATED, COMPANY TOLD TO REAPPLY FOR GLYCOL IN A LETTER DATED APRIL 17, 1991. STORAGE REPORT REQUIRED IF WORK IS DEEMED TO BE IN WASTE.

If there are related reports, record initial/master ORIS No. here >>

Followup Action: X **Abatement IEB Other**
BF Date:

File Closed: X **Abatement: IEB Other**
Suspected Violation: 44

Report Prepared By: DAVE FUMERTON	**Date:** 03/13/91	**IEB Investigator:**	**IEB BF Date**
Approving Officer BARRIE REYNOLDS	**Date:** 09/11/91	**Reviewing Officer:**	**Date**

Specify number(s) for routing Original [ ] [ ] [ ] [ ] **Continued** [ ] **Yes**
Specify number(s) for copy distribution [ ] [ ] [ ] [ ] [ ]
1. Investigator/E.O. **2. D. O. /File** **3. SAC (initial spills)**
4. Reg. Dir. /_____ Mgr. **5. IEB Reg. Spv** **6. IEB H.O./file** **7. Other _____**

SAC Action Class: 1:00 **2:**

Material 1:	**Code :**
Amount :	**UN No.:**
Material 2:	**Code :**
Amount :	**UN No.:**
Material 3:	**Code :**

Amount : UN No.:

Cause. . . . . : Code. . :
Reason. . . . . : Code. . :

Person in Control: Waste GenNum :
Owner . . . . . : Waste GenNum :
Agencies Involved . . . . :

Clean up and Restoration Carried out by:
[v] Controller [v] Owner [N] Other

% Cleaned up: Estimated Cost:
Were Directions or Approval Given Under
EPA Part X [v] Regulation 362 [v] Manifest No.

Waste Class : Code . . :
Hauler : Code . . :
Disposal Site : Code . . :

Environmental Impact: Nature of Impact:
Code . . :

People/Business Damaged
(Other than to Owner/Controller) :
Nature of Damage: Code . . :

Ontario

Ministry of the Environment

OCCURENCE REPORT

Location of Occurence: OTTAWA CITY 500 COVENTRY RD. **Reg:** 4 **Dist:** OT **Municipality:** 20101		**Source:** COCA-COLA FUEL STORAGE TANK **Sector:** FD **Source:** OS **SIC:** 1111 **UTM:** **N:** [5026000] **E:** [447000] **Zone:** [18]	
Entered: 1994/10/15 12:30	**ORIS No.** 9400011272	**Abstracts:** 0	**Diaries:** 0
s.21		**Batch:** 1467	**I. E. B. No.**
Occurence Type: N	**Subtype:** 99	**Occurence Date:**	1994/10/15
Work Plan:		**Occurence Time:**	11:15
Reported By: MIKE GRINNELL ARCTURUS ENVIRONMENTAL		**Report to MOE :** 1994/10/15 12:30 **MOE at Scene:**	
Telephone No. 613-727-0216 **x**	**Alternate No.** **x**	**Assigned To:**	BOB STILES
Address: OTTAWA **Postal Code:**		**ERP Contacted:** **Callout: []** **NSP: []** **ERP Name:**	

Syn: COCA-COLA BOTTLING LTD- DISPOSAL OF MIXTURE OF 4500L DIESEL/GASOLINE.

Brief Summary:
CALLER REPORTS ON BEHALF COCA-COLA THAT TODAY AT 11:15, A MIXTURE OF 1000 GAL DIESEL/GASOLINE WASTE HAS BEEN PUMPED OUT OF AN UNDERGROUND FUEL STORAGE TANK, FROM THE ABOVE LOCATION. PUMPING WAS COMPLETED AT 12:15 & WASTE WILL BE DISPOSED BY DRAIN ALL & TAKEN TO THEIR SITE AS WASTE CLASS # 221 I, BY USING THE USUAL COCA-COLA WGN # ONS 0381005. MOEE, BOB STILES ADVISED CALLER TO NOTIFY SAC OF THE WASTE DISPOSAL, SINCE COCA-COLA IS NOT REGISTERED TO DISPOSE OF WASTE MATERIAL CLASSSIFIED AS 221 I. MANIFEST IS # Z 13420-5. SAC ADVISED CALLER TO FAX SAC A COPY OF THE MANIFEST.\@19:49 MIKE TO S.A.C.REPORTS SECOND LOAD OF WASTE IS LEAVING SITE ON\@ MANIFEST # Z-12047-7,QTY IS 2990 GALLONS,COPY TO BE FAXED TO S.A.C.\@

If there are related reports, record initial/master ORIS No. here >>

Followup Action: Abatement IEB Other
BF Date:

File Closed: X **Abatement: IEB Other**
Suspected Violation:

Report Prepared By: GREG MONTCALM	**Date:** 10/17/94	**IEB Investigator:**	**IEB BF Date**
Approving Officer GEORGE CLARKE	**Date:** 10/19/94	**Reviewing Officer:**	**Date**

Specify number(s) for routing Original [ ] [ ] [ ] [ ] **Continued** [ ] **Yes**
Specify number(s) for copy distribution [ ] [ ] [ ] [ ] [ ]
1. Investigator/E.O. **2. D. O. /File** **3. SAC (initial spills)**
4. Reg. Dir. /_____ Mgr. **5. IEB Reg. Spv** **6. IEB H.O./file** **7. Other _____**

SAC Action Class: 1: 2:

Material 1: PETROLEUM WASTE **Code :** 42
Amount : 4500 L **UN No.:**

Material 2: **Code :**
Amount : **UN No.:**
Material 3: **Code :**
Amount : **UN No.:**

Cause. . . . . : **Code. . :** 99
Reason. . . . . : **Code. . :** 01

Person in Control: ARCTURUS ENVIRONMENTAL **Waste GenNum :** 0381005
Owner . . . . . : COCA-COLA **Waste GenNum :** 0381005
Agencies Involved . . . . :

Clean up and Restoration Carried out by:
[v] Controller Y **[v] Owner** Y **[N] Other** DRAIN-ALL
% Cleaned up: 99 **Estimated Cost:**
Were Directions or Approval Given Under
EPA Part X [v] N **Regulation 362 [v]** N **Manifest No.** Z134205
Waste Class : **Code . . :** 221
Hauler : DRAIN-ALL **Code . . :** A860302
Disposal Site : DRAIN-ALL **Code . . :**

Environmental Impact: N
Nature of Impact:
Code . . :

People/Business Damaged
(Other than to Owner/Controller) :
Nature of Damage: **Code . . :**

Ontario

Ministry of the Environment

OCCURENCE REPORT

Location of Occurence: OTTAWA CITY 500 COVENTRY RD., ONTARIO **Reg:** 4 **Dist:** OT **Municipality:** 20107		**Source:** MORGUARD REAL ESTATE UNIVERSITY AVE., SUTIE 1400, TORONTO, ON **Sector: Source: SIC:** **UTM:** **N:** [] **E:** [] **Zone:** []	
Entered: 2001/07/12 14:06	**ORIS No.** 9940008292	**Abstracts:** 0	**Diaries:** 0
Received By: CAROL BOOTH		**Batch:** 3925	**I. E. B. No.**
Occurence Type: O	**Subtype:** 99	**Occurence Date:**	2001/07/12
Work Plan:	WH	**Occurence Time:**	
Reported By: TRIANGLE PUMP SERVICE LTD.		**Report to MOE :** 2001/07/12 00:00 **MOE at Scene:**	
Telephone No. 613-822-0624 **x**	**Alternate No.** **x**	**Assigned To:**	MARLA WILLIAMS
Address: 2565 DELZOTTO AVENUE GLOUCESTER, ONTARIO **Postal Code:** K1T 3V6		**ERP Contacted:** **Callout: []** **NSP: []** **ERP Name:**	

Syn: ISSUED EMERGENCY GENERATOR NUMBER

Brief Summary:
ISSUED EMERGENCY GENERATOR NUMBER FOR MANIFEST: LL06689-1, FOR WASTE CLASS NUMBER 221I WASTE (OIL/WATER "OILY").

If there are related reports, record initial/master ORIS No. here >>

Followup Action: X **Abatement IEB Other**
BF Date:

File Closed: Y **Abatement: IEB Other**
Suspected Violation:

Report Prepared By: CAROL BOOTH	**Date:** 07/12/2001	**IEB Investigator:**	**IEB BF Date**
Approving Officer PAUL KEHOE	**Date:** 07/12/2001	**Reviewing Officer:**	**Date**

Specify number(s) for routing Original [ ] [ ] [ ] [ ] **Continued** [ ] **Yes**
Specify number(s) for copy distribution [ ] [ ] [ ] [ ] [ ]
1. Investigator/E.O. **2. D. O. /File** **3. SAC (initial spills)**
4. Reg. Dir. /_____ Mgr. **5. IEB Reg. Spv** **6. IEB H.O./file** **7. Other _____**

SAC Action Class: 1: 2:

Material 1:	**Code :**
Amount :	**UN No.:**
Material 2:	**Code :**
Amount :	**UN No.:**
Material 3:	**Code :**
Amount :	**UN No.:**

Cause. . . . . : Code. . :
Reason. . . . . : Code. . :

Person in Control: Waste GenNum :
Owner . . . . . : Waste GenNum :
Agencies Involved . . . . :

Clean up and Restoration Carried out by:
[v] Controller [v] Owner [N] Other

% Cleaned up: Estimated Cost:
Were Directions or Approval Given Under
EPA Part X [v] Regulation 362 [v] Manifest No.

Waste Class : Code . . :
Hauler : Code . . :
Disposal Site : Code . . :

Environmental Impact: Nature of Impact:
Code . . :

People/Business Damaged
(Other than to Owner/Controller) :
Nature of Damage: Code . . :

Ontario

Ministry of the Environment

OCCURENCE REPORT

Location of Occurence: OTTAWA CITY 500 COVENTRY ROAD **Reg:** 4 **Dist:** OT **Municipality:** 20101		**Source:** TCC BOTTLING COMPANY SUPPLIER **Sector:** SI **Source:** OT **SIC:** 9999 **UTM:** **N:** [] **E:** [] **Zone:** []	
Entered: 1997/01/13 10:11	**ORIS No.** 9740000040	**Abstracts:** 0	**Diaries:** 1
Received By: TOR RUSTAD		**Batch:** 2291	**I. E. B. No.**
Occurence Type: N	**Subtype:** 01	**Occurence Date:**	
Work Plan:	18	**Occurence Time:**	
Reported By: BILLY WONG DRAIN-ALL		**Report to MOE :** 1997/01/13 08:45 **MOE at Scene:** 97/01/13 08:45	
Telephone No. 613-739-1070 **x**	**Alternate No.** **x**	**Assigned To:**	TOR RUSTAD
Address: 2705 STEVENAGE DRIVE R. R. #4 GLOUCESTER **Postal Code:** K1G 3N2		**ERP Contacted:** **Callout:** [] **ERP Name:**	**NSP:** []

Syn: TCC BOTTLING COMPANY- ISSUED EMERGENCY NUMBER

Brief Summary:
CALLER WAS ISSUED AN EMERGENCY NUMBER FOR THE REMOVAL OF WASTE ETHYLENE GLYCOL FROM THE SITE. MANIFEST FF 25560-5 WAS USED. CALLER STATES THAT NO FURTHER WASTE ETHYLENE GLYCOL WILL BE PRODUCED AT THIS SITE.

If there are related reports, record initial/master ORIS No. here >>

Followup Action: Abatement IEB Other
BF Date:

File Closed: X **Abatement: IEB Other**
Suspected Violation:

Report Prepared By: TOR RUSTAD	**Date:** 01/03/97	**IEB Investigator:**	**IEB BF Date**
Approving Officer GEORGE CLARKE	**Date:** 01/13/97	**Reviewing Officer:**	**Date**

Specify number(s) for routing Original [ ] [ ] [ ] [ ] **Continued** [ ] **Yes**
Specify number(s) for copy distribution [ ] [ ] [ ] [ ] [ ]
1. Investigator/E.O. **2. D. O. /File** **3. SAC (initial spills)**
4. Reg. Dir. /_____ Mgr. **5. IEB Reg. Spv** **6. IEB H.O./file** **7. Other _____**

SAC Action Class: 1: 2:

Material 1: ETHYLENE GLYCOL (ANTIFREEZE)	**Code :** 27
Amount : 408 LTR	**UN No.:**
Material 2:	**Code :**
Amount :	**UN No.:**
Material 3:	**Code :**
Amount :	**UN No.:**

Cause. . . . . : Code. . :
Reason. . . . . : Code. . :

Person in Control: Waste GenNum :
Owner . . . . . : Waste GenNum :
Agencies Involved . . . . :

Clean up and Restoration Carried out by:
[v] Controller [v] Owner [N] Other

% Cleaned up: Estimated Cost:
Were Directions or Approval Given Under
EPA Part X [v] Regulation 362 [v] Manifest No.

Waste Class : Code . . :
Hauler : Code . . :
Disposal Site : Code . . :

Environmental Impact: Nature of Impact:
Code . . :

People/Business Damaged
(Other than to Owner/Controller) :
Nature of Damage: Code . . :

Ontario

Ministry of the Environment

OCCURENCE REPORT

Location of Occurence: OTTAWA CITY 500 COVENTRY ROAD, ONTARIO **Reg:** 4 **Dist:** OT **Municipality:** 20107		**Source:** MORGUARD REAL ESTATE UNIVERSITY AVE., SUTIE 1400, TORONTO, ON **Sector: Source: SIC:** **UTM:** **N:** [] **E:** [] **Zone:** []	
Entered: 2001/07/10 09:56	**ORIS No.** 9940008251	**Abstracts:** 0	**Diaries:** 0
Received By: CAROL BOOTH		**Batch:** 3923	**I. E. B. No.**
Occurence Type: O	**Subtype:** 99	**Occurence Date:**	2001/07/10
Work Plan:	WH	**Occurence Time:**	
Reported By: TRIANGLE PUMP SERVICE LTD.		**Report to MOE :** 2001/07/10 00:00 **MOE at Scene:**	
Telephone No. 613-822-0624 **x**	**Alternate No.** **x**	**Assigned To:**	BRAD ECKERT
Address: 2565 DELZOTTO AVENUE GLOUCESTER, ONTARIO **Postal Code:** K1T 3V6		**ERP Contacted:** **Callout: []** **NSP: []** **ERP Name:**	

Syn: ISSUED EMERGENCY GENERATOR NUMBER

Brief Summary:
ISSUED EMERGENCY GENERATOR NUMBER FOR MANIFEST: LL06887-5, FOR WASTE CLASS NUMBER 221I WASTE (OIL)

If there are related reports, record initial/master ORIS No. here >>

Followup Action: X **Abatement IEB Other**
BF Date:

File Closed: Y **Abatement: IEB Other**
Suspected Violation:

Report Prepared By: CAROL BOOTH	**Date:** 07/10/2001	**IEB Investigator:**	**IEB BF Date**
Approving Officer PAUL KEHOE	**Date:** 07/10/2001	**Reviewing Officer:**	**Date**

Specify number(s) for routing Original [ ] [ ] [ ] [ ] **Continued** [ ] **Yes**
Specify number(s) for copy distribution [ ] [ ] [ ] [ ] [ ]
1. Investigator/E.O. **2. D. O. /File** **3. SAC (initial spills)**
4. Reg. Dir. /_____ Mgr. **5. IEB Reg. Spv** **6. IEB H.O./file** **7. Other _____**

SAC Action Class: 1: 2:

Material 1:	**Code :**
Amount :	**UN No.:**
Material 2:	**Code :**
Amount :	**UN No.:**
Material 3:	**Code :**
Amount :	**UN No.:**
Cause. . . . . :	**Code. . :**

Reason. . . . . : Code. . :

Person in Control: Waste GenNum :
Owner . . . . . : Waste GenNum :
Agencies Involved . . . . :

Clean up and Restoration Carried out by:
[v] Controller [v] Owner [N] Other

% Cleaned up: Estimated Cost:
Were Directions or Approval Given Under
EPA Part X [v] Regulation 362 [v] Manifest No.

Waste Class : Code . . :
Hauler : Code . . :
Disposal Site : Code . . :

Environmental Impact: Nature of Impact:
Code . . :

People/Business Damaged
(Other than to Owner/Controller) :
Nature of Damage: Code . . :

APPENDIX J

TSSA Search Results

345 Carlingview Drive
Toronto, Ontario M9W 6N9
Tel.: 416.734.3300
Fax: 416.231.1626
Toll Free: 1.877.682.8772

www.tssa.org

17 January 2024

Julie Crooks
Pinchin Ltd.
200 – 1 Hines Road
Kanata, ON K2K 2X3

Subject: **500 Coventry Road, Ottawa, Ontario**
Your File No.: **319674**
WO No.: **14207857**

Dear Madam/Sir:

We are in receipt of your correspondence wherein you requested the release of information regarding the above noted address.

Requested records relating to the following Program(s) were located:

Program	Record	Documents Attached
Fuels Safety	☒	☒
Boiler/Pressure Vessel**	☐	☐
Elevating & Amusement Devices	☐	☐
Other	☐	☐

**For BPV, if it has been indicated that records have been located but are not attached, it is likely that TSSA may not be the keeper of the records you are looking for, see note below.

TSSA does not make any representations or warranties with respect to the accuracy or completeness of any records released. The requestor assumes all risk in using or relying on the information provided.

Should you have any questions, please contact Public Information at publicinformationservices@tssa.org.

Yours truly,

C. Hill

Connie Hill
Public Information Services Agent

Limitations and Notices:

General:

TSSA, as a safety regulator, uses inspection resources to address the greatest harm posed to the public. Thus, inspection only follows-up on safety orders it issues based on the degree of risk posed by the non-compliance identified in the order(s). All high-risk orders will result in a follow-up inspection by TSSA until the non-compliance is resolved. TSSA no longer follows-up on low or medium risk orders referred to as safety tasks, therefore, TSSA can no longer provide you with a report indicating the safety tasks (low and medium-risk orders) have been resolved. This information should be obtained from the device/facility owner or their contractor. One can also engage a third-party contractor to confirm device/facility compliance.

The Public Information Department, (PID), can only provide existing records for a specific location, facility, or device. If an inspection or any other type of record does not exist, PID cannot instruct TSSA to do work, such as an inspection, to create a record. TSSA, as an outcome-based regulator, deploys all of its resources, including, inspections to address the greatest harm posed to the public; and as such, cannot deploy resources to create records to satisfy an inquiry.

Please Note: *While the PID provides existing records for a specific location, facility, or device; it does not interpret or provide further explanations of the content contained in the document.*

Change of Ownership

Please be advised, if the new owner has acquired a property that contains TSSA regulated devices, i.e. elevators, boilers and pressure vessels, they would be required to complete a change of ownership to obtain new licences. Visit our website at www.tssa.org under the Licencing & Registration section for the Change of Ownership process or contact our Customer Service department at 1.877.682.8772

TSSA Fuels Safety:

If you have environmental concerns regarding this property, you should consider hiring an environmental consultant to conduct an environmental assessment of the property in question.

- Sites that have not been licensed since 1987 may not be in TSSA records.
- Be advised, TSSA Fuels Safety Division did not register:
    - private fuel underground/ aboveground storage tanks prior to January of 1990; and
    - furnace oil tanks prior to May 1, 2002.
- If records being released to you relate to private fuel outlets ("**PFOs**") or fuel oil furnace tanks, please note the following:
    - PFOs are defined in O. Reg. 217/01 (Liquid Fuels), where "private outlet" means "any premise, other than a retail outlet, where gasoline or an associated product is put into the fuel tanks of motor vehicles or floating motorized watercraft or into portable containers". After 2001, PFOs were no longer required to be licenced in Ontario. Thus, TSSA's records and information regarding PFOs is dated and unverified.
    - Underground furnace fuel oil tanks were required to be registered with TSSA commencing in 2001. These underground tanks are registered; however, TSSA does not inspect or verify the

registered tank information. It is incumbent on the fuel distributor to ensure that the tanks are registered. Above ground fuel oil furnace tanks do not require TSSA registration.

  - Please be advised that while the TSSA releases information relating to PFOs or fuel oil furnace tanks pursuant to the TSSA's Access and Privacy Code, the TSSA cautions against reliance on this information.

  - In particular, because PFOs do not require a license and there is no requirement to submit any documentation to TSSA for review or approval, TSSA has limited information on these facilities. The TSSA cautions that any information provided may be inaccurate, incomplete, or out of date.

- Fuels Safety Division <u>does not register</u>

  - private waste oil tanks in apartments, office buildings, residences etc.; and

  - aboveground gas or diesel tanks.

- The *Technical Standards and Safety Act* and associated regulations do not require the registration of private fuel outlets, nor does it require that any documentation on these facilities be submitted to or reviewed or approved by TSSA. As a result, TSSA has limited information on these facilities. TSSA cautions that any information provided may be inaccurate, incomplete or out of date.

TSSA Elevating & Amusement Devices Program Notice:

- All orders and/or directions issued by the TSSA Inspector have a compliance date and the owner or designated contractor are required to comply within the specified time limit. Compliance is the responsibility of the owner or operator of the device.

- All written declarations of compliance (where eligible) should be sent to TSSA. Once a declaration of compliance has been received, the outstanding order will be resolved.

- Each report shows the details and date of the inspection conducted by TSSA at the requested location

- The Ontario Amusement Devices Regulation (O. Reg. 221/01) was adopted in 2001. Since that time, TSSA retains copies of technical dossiers of new amusement devices in Ontario (as per TSSA's retention policy). However, for rides that existed prior to the adoption of the Regulation, which were subject to a "grandfathering-in" clause, technical dossiers were not required to be filed with the TSSA. However, if the amusement ride remains in operation, as per ASTM requirements, the owner/licensee must possess an operations document for the device in question.

Federal Elevators

- Please be advised that without the express written consent of the owner, the TSSA does not release any information with respect to federal elevators or federal elevating equipment. The TSSA is a provincial regulator for the province of Ontario and federal elevators do not fall within the scope of TSSA's provincial mandate and the *Technical Standards and Safety Act* and associated Regulations. Further, the TSSA's Access and Privacy Code only applies to information collected, used, or disclosed by the TSSA in the course of TSSA's administration of the Act. Therefore, information with respect to federal elevators or federal elevator equipment is outside of the administration of the Act, and outside of the scope of the TSSA's Access and Privacy Codes.

Indigenous Lands

- Please be advised that the TSSA does not release any information with respect to indigenous lands, which are outside of the TSSA's mandate, without the express written permission from the Band. The *Technical Standards and Safety Act*, associated regulations, and TSSA's Access and Privacy Code does not apply to indigenous lands.

TSSA Boilers and Pressure Vessels (BPVs) Program Notice:

- Be advised, TSSA does not typically periodically inspect BPVs. These inspections are usually performed by insurance companies.

- **Inspection reports may not be submitted to TSSA by insurance companies; therefore, while TSSA may have some evidence of a BPV at a location on file, there may be no inspection records pertaining to BPVs located at the address provided.

- As of July 1, 2018, BPVs in Ontario may not be operated unless the Director has issued a current certificate of inspection (COI) to the owner or operator. A COI will be issued to the owner or operator of the BPV by TSSA after TSSA has received a Record of Inspection (ROI) from the insurer/third-party inspector, the associated fees have been paid and the BPV has passed a periodic inspection.

- Please note that if the BPV in question is insured, the insurance company may have additional inspection records. Please contact the insurer directly should you wish to obtain further information.

Or Installed Base

Navigator Favorites Home Profile Sign Out Help

Item Instances

Item Instances | Transactions | Systems

Quick Find Item Instance Go Advanced Search

Logged In As CHILL

- General
- Additional Attributes
- Assets
- Party Relationships
  - Owner
  - Parties
  - Accounts
  - Contacts
  - Summary
- Pricing
- Counters
- Contracts
- Notes
- Transactions
- Service Requests
- Repair Orders
- History
- Operating Units
- Configuration

Item Instance Details

Item Instance: 9272124
Item: FS PRIVATE FUEL OUTLET - SELF SERVE
Item Description: Fuels Safety Private Fuel Outlet - Self Serve

General Attributes

Organization Name	TSSA Item Master	Instance Name	
Last Version Label	1	Version Label Date	17-JAN-1990 0:00
Revision		New Version Label	
System	Go	External Reference	
Item Instance Type		Accounting Classification	Customer Product
Operational Status	Not Used	Lot Number	: not lot-controlled
Status	EXPIRED	Condition	
Quantity	1	UOM	Each
Start Date	17-JAN-1990	Start Time	0:00
Shipped On Date		Shipped On Time	
End Date	05-JUN-1990	End Time	0:00
Return By Date		Return By Time	
Actual Return Date		Actual Return Time	

* Indicates required field.
Time format is HH24:MM
Note: You do not have permission to make updates in this page.

☑ Creation Completed

Owner

Party Type	Party		
Party Name:	TCC BOTTLING LTD	Party Number:	364094
Account Number:	169746	Account Name	TCC BOTTLING LTD

Current Location

* Type	Party Site Go		
Party Name	TCC BOTTLING LT Go	Party Number	364094 Go
*Line 1	500 COVENTRY RI Go	Site Number	369348 Go
Address	500 COVENTRY RD OTTAWA, K1K 2C4, CA		

Installed At

Installed Date 17-JAN-1990 Installed Time 0:00

Time format is HH24:MM

Change in installed date does not change contract date.

Type [ ] Go

Order

Sales Order Number

Sales Order Date

Sales Order Line

Purchase Order Number

Agreement Name

Item Flags

- [x] BOM Enabled
- [x] IB Trackable
- [x] Inventory Trackable
- [x] Sellable
- [ ] Shippable

Item Views

- [ ] Merchant
- [x] Customer

Descriptive Flexfields

Context Value: FS Facility

Select Context Value and click 'Go' to show relevant fields.

Facility Type 2

Facility Type 3

Total Capacity - Liquid Fuel Tanks (L): 0

Total Capacity - Propane Tank s (USWG)

* Previous Facility Type

Previous Instance Number

Item Instances Home Profile Sign Out Help

Copyright 2006, Oracle Corporation. All rights reserved.

Or Installed Base

Navigator Favorites Home Profile Sign Out Help

Item Instances

Item Instances | Transactions | Systems

Quick Find Item Instance Go Advanced Search

Logged In As CHILL

- General
- Additional Attributes
- Assets
- Party Relationships
  - Owner
  - Parties
  - Accounts
  - Contacts
  - Summary
- Pricing
- Counters
- Contracts
- Notes
- Transactions
- Service Requests
- Repair Orders
- History
- Operating Units
- Configuration

Item Instance Details

Item Instance: 9250771
Item: FS PRIVATE FUEL OUTLET - SELF SERVE
Item Description: Fuels Safety Private Fuel Outlet - Self Serve

General Attributes

Organization Name	TSSA Item Master	Instance Name	
Last Version Label	1	Version Label Date	10-JAN-1990 0:00
Revision		New Version Label	
System	Go	External Reference	
Item Instance Type		Accounting Classification	Customer Product
Operational Status	Not Used	Lot Number	: not lot-controlled
Status	EXPIRED	Condition	
Quantity	1	UOM	Each
Start Date	10-JAN-1990	Start Time	0:00
Shipped On Date		Shipped On Time	
End Date	05-JUN-1990	End Time	0:00
Return By Date		Return By Time	
Actual Return Date		Actual Return Time	

* Indicates required field.
Time format is HH24:MM
Note: You do not have permission to make updates in this page.

☑ Creation Completed

Owner

Party Type	Party		
Party Name:	TCC BOTTLING LTD	Party Number:	364094
Account Number:	169746	Account Name	TCC BOTTLING LTD

Current Location

* Type	Party Site Go		
Party Name	TCC BOTTLING LTI Go	Party Number	364094 Go
*Line 1	500 COVENTRY RI Go	Site Number	369348 Go
Address	500 COVENTRY RD OTTAWA, K1K 2C4, CA		

Installed At

Installed Date 10-JAN-1990 Installed Time 0:00

Time format is HH24:MM

Change in installed date does not change contract date.

Type [ ] Go

Order

Sales Order Number

Sales Order Date

Sales Order Line

Purchase Order Number

Agreement Name

Item Flags

- [x] BOM Enabled
- [x] IB Trackable
- [x] Inventory Trackable
- [x] Sellable
- [ ] Shippable

Item Views

- [ ] Merchant
- [x] Customer

Descriptive Flexfields

Context Value: FS Facility

Select Context Value and click 'Go' to show relevant fields.

Facility Type 2

Facility Type 3

Total Capacity - Liquid Fuel Tanks (L): 0

Total Capacity - Propane Tank s (USWG)

* Previous Facility Type

Previous Instance Number

Item Instances Home Profile Sign Out Help

Copyright 2006, Oracle Corporation. All rights reserved.

SortKey	Inventory Number	Attribute Name	Attribute Value
Expired	**10902499**	**Capacity (L)**	**20000**
2	10902499	Description	UNDERGROUND TANK
3	10902499	FS Corrosion Protection	Fiberglass
4	10902499	Fuel Type1	Gasoline
5	10902499	Installation Year	1987
6	10902499	Tank Material	Fiberglass (FRP)
7	10902499	Tank Type	Liquid Fuel Single Wall UST
8	10902499	TSSA Created Date	10-JAN-90
9	10902499	TSSA Posse ObjectId	10902499
Expired	**10902516**	**Capacity (L)**	**20000**
2	10902516	Description	UNDERGROUND TANK
3	10902516	FS Corrosion Protection	Fiberglass
4	10902516	Fuel Type1	Diesel
5	10902516	Installation Year	1987
6	10902516	Tank Material	Fiberglass (FRP)
7	10902516	Tank Type	Liquid Fuel Single Wall UST
8	10902516	TSSA Created Date	10-JAN-90
9	10902516	TSSA Posse ObjectId	10902516
Expired	**10902536**	**Capacity (L)**	**20000**
2	10902536	Description	UNDERGROUND TANK
3	10902536	FS Corrosion Protection	Fiberglass
4	10902536	Fuel Type1	Gasoline
5	10902536	Installation Year	1987
6	10902536	Tank Material	Fiberglass (FRP)
7	10902536	Tank Type	Liquid Fuel Single Wall UST
8	10902536	TSSA Created Date	17-JAN-90
9	10902536	TSSA Posse ObjectId	10902536
Expired	**10902558**	**Capacity (L)**	**20000**
2	10902558	Description	UNDERGROUND TANK
3	10902558	FS Corrosion Protection	Fiberglass
4	10902558	Fuel Type1	Diesel
5	10902558	Installation Year	1987
6	10902558	Tank Material	Fiberglass (FRP)
7	10902558	Tank Type	Liquid Fuel Single Wall UST
8	10902558	TSSA Created Date	17-JAN-90
9	10902558	TSSA Posse ObjectId	10902558

Ontario

Ministry of Consumer and Commercial Relations / Ministère de la Consommation et du Commerce

Technical Standards Division / Division des normes techniques

Inspection and Enforcement Branch / Direction de l'inspection et de l'application des mesures législatives

Inspector's Report/ Rapport de l'inspecteur/inspectrice

Part A/Partie A

Report #/N° de rapport : D- 15662

Location Inspected/Lieu inspecté: COCA COLA LTD.	Owner's Name / Nom du/de la propriétaire
Address/Adresse: 500 COVENTRY RD.	Address/Adresse
City/town/Ville: OTTAWA.	City/town/Ville
Postal Code/Code postal — Tel.No./N° de tél.	Postal Code/Code postal — Tel.No. /N° de tél.
Operator's Name/Nom de la personne responsable	Fuel Supplier/Fournisseur de combustible — City/Ville
Licence #/N° de permis: 000101 2361 & 000101 8211	

Contractor/Entrepreneur — Registration #/N° d'inscription

OPERATION/ACTIVITÉ	SUB TYPE/ SOUS-TYPE	LOC TYPE/ TYPE DE LIEU	POP DENS/ DENS. DE POP.	FUEL/ COMBUSTIBLE	CLASS/ CATÉGORIE	REASON/ RAISON	TRIGGER/ MOTIVÉ PAR :
20		03	04	0	03	26	02

ACTION/ MESURES PRISES	ACT/LOI	REG/RÈGLEMENT	DURATION/ DURÉE	BILLABLE/ À FACTURER	TRAVEL/ DÉPLACEMENT	BILL FACTURER Y/N (O/N)	
	EPHA	521/93	.5	Ø	.5	N	

DAMAGE/ DOMMAGES	OCC RATE/ GRAV. DE L'ACC.	CAUSE/CAUSE	CON FACT/ FACT. CONTR.	OCC DATE/ DATE DE L'ACC.	OCC TIME/ HEURE DE L'ACC.	MANDATED MANDAT Y/N (O/N)	
						Y	

FIELD 1/ DOMAINE 1	CALL/ INTERVENTION	CONSULT CONSULT. Y/N (O/N)	SITE REM REMÉDIER Y/N (O/N)				F/U REQ'D? SUIVI REQUIS? Y/N (O/N)
	01	N	N				N

Comments/Remarques

TANKS REMOVED MARCH 1995. PLEASE DELETE BOTH LICENCES.

Equipment/Appliance/Component / Matériel/Appareil/Composant

Type/Type	Code/Code
Description/Description	
Manufacturer/Fabricant	
Model/Modèle	Serial #/N° de série
Material/Matériel	
Corrosion Protection/Protection contre la corrosion	
Fuel Input Rating/Débit de combustible	
Capacity/Capacité	
Installation Date/Date d'installation	
Manufacture Date/Date de fabrication	
Supply Pressure/ Pression d'alimentation	Manifold Pressure/ Pression d'admission

RECEIVED OCT 03 1995 Technical Standards Division

Equipment/Appliance/Component / Matériel/Appareil/Composant

Type/Type	Code/Code
Description/Description	
Manufacturer/Fabricant	
Model/Modèle	Serial #/N° de série
Material/Matériel	
Corrosion Protection/Protection contre la corrosion	
Fuel Input Rating/Débit de combustible	
Capacity/Capacité	
Installation Date/Date d'installation	
Manufacture Date/Date de fabrication	
Supply Pressure/ Pression d'alimentation	Manifold Pressure/ Pression d'admission

Client's Signature / Signature du client/de la cliente	Inspector's Name / Nom de l'inspecteur/inspectrice	Badge #/N° d'insigne
	ERIC LUNN	154
		Date of Inspection/ Date de l'inspection Y/A M/M D/J: 1995 09 28

09181(10/94)

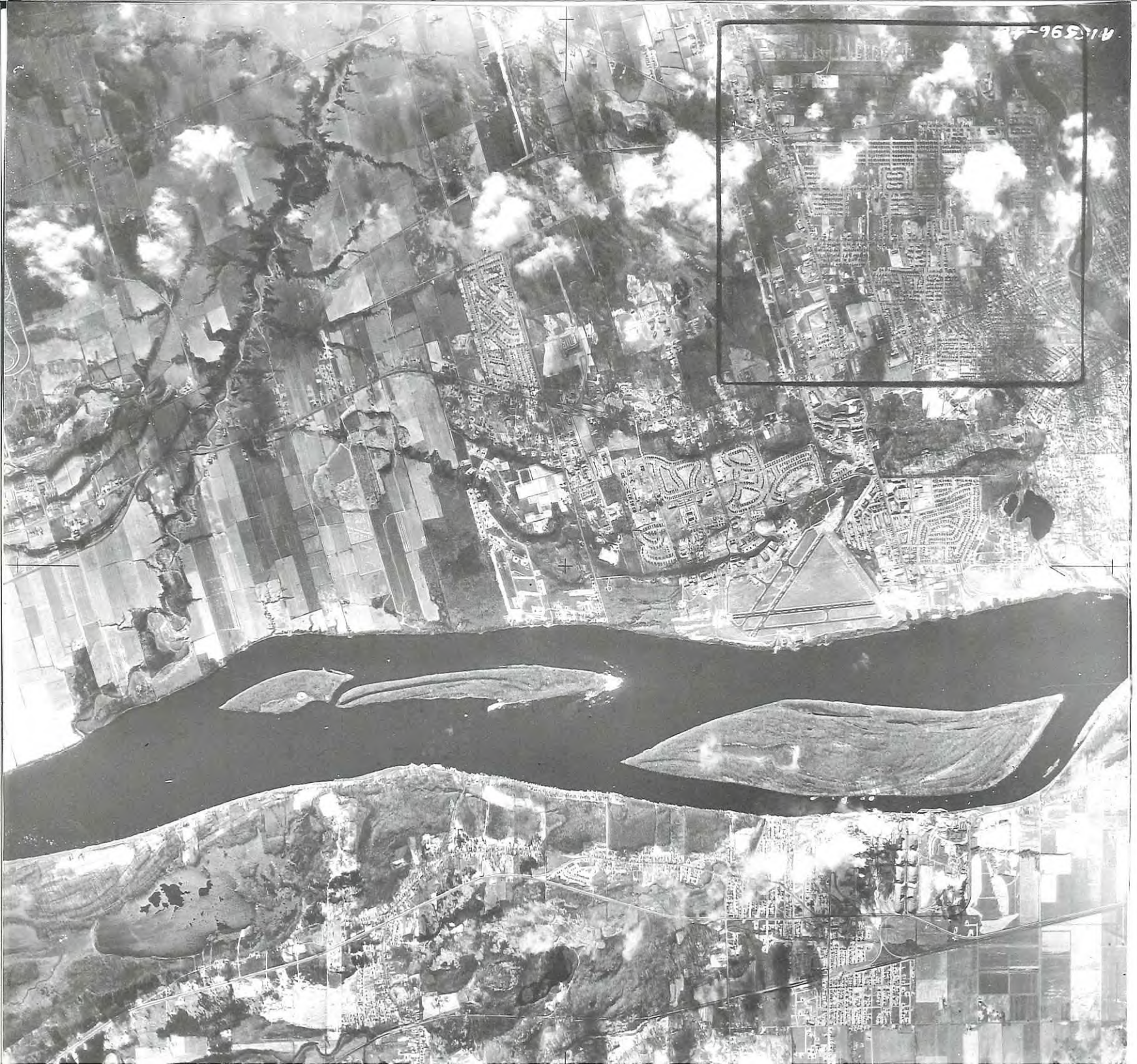
Head Office

APPENDIX K

Aerial Photographs

A4570. 30.

A12583-81



46 V RR2430 408 RCAF 13MAY 63=
3200FT 152.13MM QUEENSWAY OTTAWA

St. Laurent
Shopping Centre

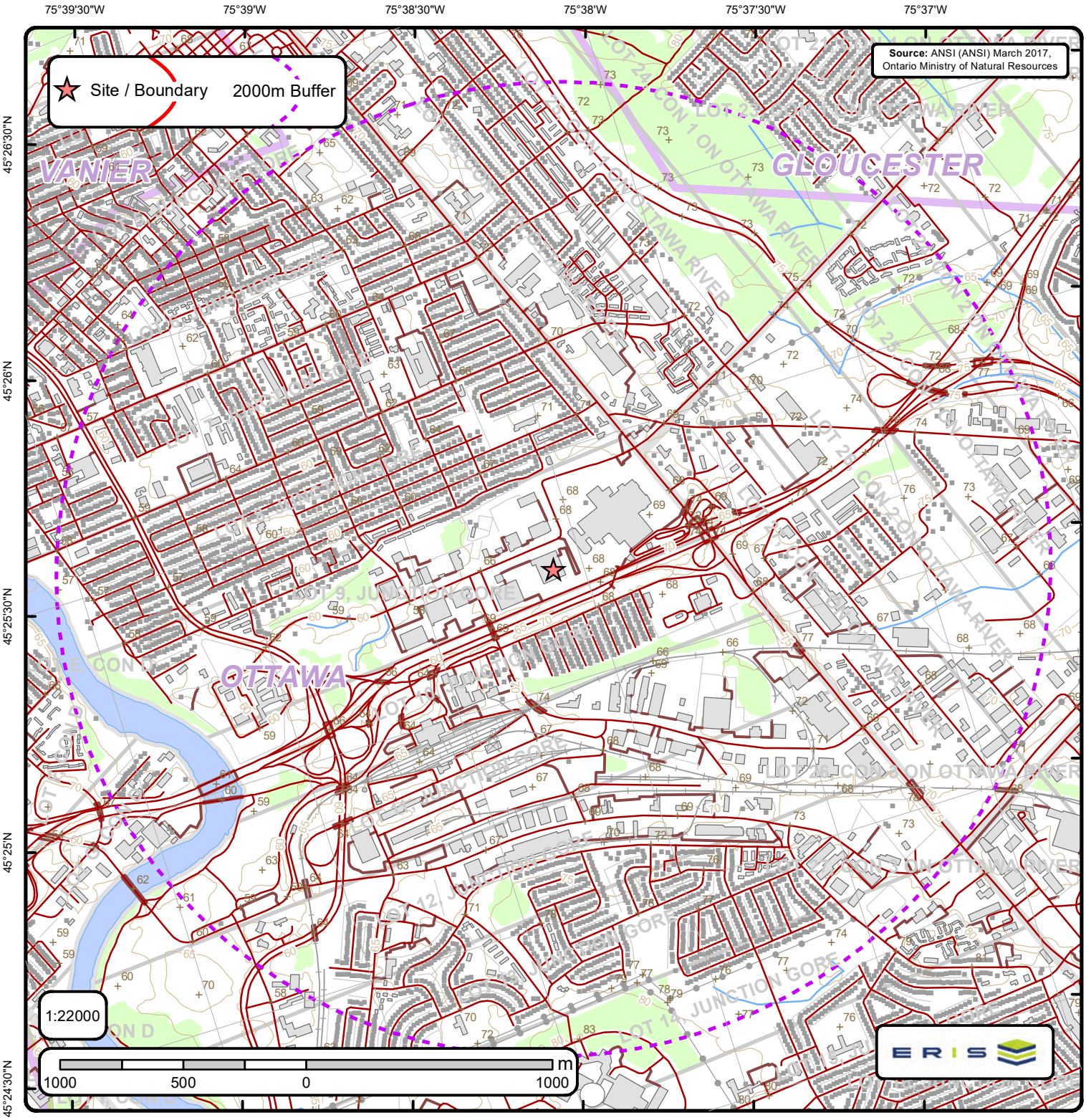
A26892
85

A31529 - 13

A28185-70
16,000
08/05/

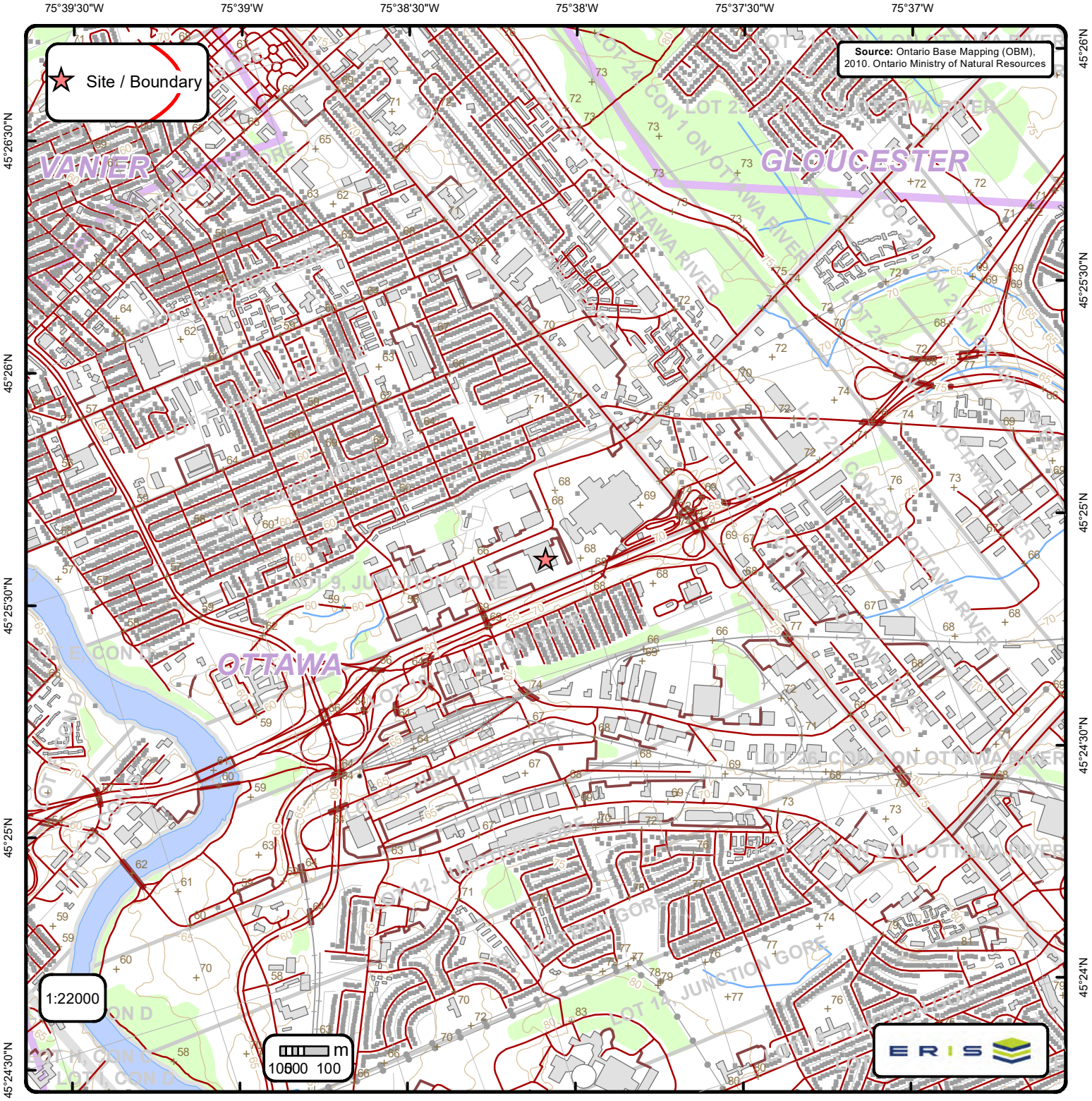
APPENDIX L

Maps



Area of Natural & Scientific Interest (ANSI) Order No. 24010800331

Spot Height	Transportation Structure	Contour Line	Wooded Area
Building Point	Utility Line	Pit or Quarry	Conservation Authority
Towers	Water Structure	Waterbody	Conservation Area
Utility Site Point	Drainage Line Feature	Wetlands	Municipal Park
Misc. Line	River or Stream	Concession	Provincial Park
Railroads	Airports	Lots	National Park
Roads	Tanks	Municipalitiy	Nature Reserve
Trail	Building to Scale	Land Ownership	ANSI Area



Ontario Base Mapping (OBM) Data

Order No. 24010800331

Spot Height (metre)	Transportation Structure	Contour Line	Wooded Area
Building Point	Utility Line	Pit or Quarry	Conservation Authority
Towers	Water Structure	Waterbody	Conservation Area
Utility Site Point	Drainage Line Feature	Wetlands	Municipal Park
Misc. Line	River or Stream	Concession	Provincial Park
Railroads	Airports	Lots	National Park
Roads	Tanks	Municipalitiy	Nature Reserve
Trail	Building to Scale	Land Ownership	