

ServiceOntario

ONTARIO REGULATION 511/09

made under the

ENVIRONMENTAL PROTECTION ACT

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Amending O. Reg. 153/04

(Records of Site Condition — Part XV.1 of the Act)

Note: Ontario Regulation 153/04 has previously been amended. For the legislative history of the Regulation, see the Table of Consolidated Regulations – Detailed Legislative History at www.e-Laws.gov.on.ca.

1. (1) Subsection 1 (1) of Ontario Regulation 153/04 is amended by adding the following definitions:

"area of natural significance" means any of the following:

- 1. An area reserved or set apart as a provincial park or conservation reserve under the *Provincial Parks and Conservation Reserves Act*, 2006.
- 2. An area of natural and scientific interest (life science or earth science) identified by the Ministry of Natural Resources as having provincial significance.
- 3. A wetland identified by the Ministry of Natural Resources as having provincial significance.
- 4. An area designated by a municipality in its official plan as environmentally significant, however expressed, including designations of areas as environmentally sensitive, as being of environmental concern and as being ecologically significant.
- 5. An area designated as an escarpment natural area or an escarpment protection area by the Niagara Escarpment Plan under the *Niagara Escarpment Planning and Development Act*.
- 6. An area identified by the Ministry of Natural Resources as significant habitat of a threatened or endangered species.
- 7. An area which is habitat of a species that is classified under section 7 of the *Endangered Species Act*, 2007 as a threatened or endangered species.
- 8. Property within an area designated as a natural core area or natural linkage area within the area to which the Oak Ridges Moraine Conservation Plan under the

- Oak Ridges Moraine Conservation Act, 2001 applies.
- 9. An area set apart as a wilderness area under the Wilderness Areas Act;
- "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;
- "contaminants of concern" means.
 - (a) one or more contaminants found on, in or under a property at a concentration that exceeds the applicable site condition standards for the property, or
 - (b) one or more contaminants found on, in or under a property for which no applicable site condition standard is prescribed under Part IX (Site Condition Standards and Risk Assessment) and which are associated with potentially contaminating activity;
- "description", in reference to a description approved by the Surveyor General, means a plan of survey prepared, signed and sealed by a surveyor or a descriptive map of a property;
- "lawyer" means a person authorized under the *Law Society Act* to practise law in Ontario; "medium" means soil, ground water or sediment;
- (2) The definitions of "Phase I ESA Standard" and "Phase II ESA Standard" in subsection 1 (1) of the Regulation are revoked and the following substituted:
 - "phase one property" means the property that is the subject of a phase one environmental site assessment;
 - "phase one study area" means the area that includes a phase one property, any other property that is located, wholly or partly, within 250 metres from the nearest point on a boundary of the phase one property and any property that the qualified person determines should be included as a part of the phase one study area under clause 3 (1) (a) of Schedule D;
 - "phase two property" means the property that is the subject of a phase two environmental site assessment;
 - "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) Subsection 1 (1) of the Regulation is amended by adding the following definitions:
 - "RA property" means a property that is the subject of a risk assessment;
 - "RSC property", in relation to a record of site condition, means the property in respect of which the record of site condition is submitted for filing or is filed;
 - "site condition standards" means the full depth background site condition standards, full depth generic site condition standards and stratified site condition standards;
 - "surveyor" means a person licensed under the *Surveyors Act* to practice cadastral surveying in Ontario;
 - (4) The definition of "Soil, Ground Water and Sediment Standards" in subsection

- 1 (1) of the Regulation is amended by striking out "March 9, 2004" at the end and substituting "July 27, 2009".
- (5) The definitions of "subsurface soil" and "surface soil" in subsection 1 (1) of the Regulation are revoked and the following substituted:
 - "subsurface soil" means soil that is more than 1.5 metres beneath the soil surface, including the bottom .5 metres of any non-soil surface treatment such as asphalt, concrete or aggregate above the soil surface, but excluding the thickness of any such non-soil surface treatment that is greater than .5 metres;
 - "surface soil" means soil that is no more than 1.5 metres beneath the soil surface, including the bottom .5 metres of any non-soil surface treatment such as asphalt, concrete or aggregate above the soil surface, but excluding the thickness of any such non-soil surface treatment that is greater than .5 metres;
- (6) The definition of "waste disposal site" in subsection 1 (1) of the Regulation is amended by striking out "the Phase I ESA Standard and".
- (7) Paragraph 3 of the definition of "commercial use" in subsection 1 (3) of the Regulation is amended by striking out "Ontario Regulation 403/97 (Building Code)" in the portion before subparagraph (i) and substituting "Division B of Ontario Regulation 350/06 (Building Code) made under the *Building Code Act*, 1992".
- (8) Subparagraph 1 i of the definition of "community use" in subsection 1 (3) of the Regulation is revoked and the following substituted:
 - i. indoor recreational activities, other than activities involving uses that fall within the classification of occupancies in Table 3.1.2.1. of Division B of Ontario Regulation 350/06 (Building Code), Group A, Division 3, assembly occupancies of the arena type,
- (9) Paragraph 2 of the definition of "community use" in subsection 1 (3) of the Regulation is revoked and the following substituted:
 - 2. In respect of the classification of occupancies in Table 3.1.2.1. of Division B of Ontario Regulation 350/06 (Building Code), use that falls within Group A, Division 1, assembly occupancies intended for the production and viewing of the performing arts.
- (10) Paragraph 2 of the definition of "industrial use" in subsection 1 (3) of the Regulation is amended by striking out "Ontario Regulation 403/97 (Building Code)" in the portion before subparagraph i and substituting "Division B of Ontario Regulation 350/06 (Building Code)".
- (11) Paragraph 11 of the definition of "industrial use" in subsection 1 (3) of the Regulation is revoked and the following substituted:
 - 11. Use for the storage, maintenance, fuelling or repair of equipment, vehicles or material used to maintain transportation systems.
- (12) Clause (d) of the definition of "parkland use" in subsection 1 (3) of the Regulation is revoked and the following substituted:
 - (d) in respect of the classification of occupancies in Table 3.1.2.1. of Division B of Ontario Regulation 350/06 (Building Code), use that falls within,
 - (i) Group A, Division 3, assembly occupancies of the arena type, or
 - (ii) Group A, Division 4, assembly occupancies in which occupants are gathered

in the open air;

- (13) Paragraph 2 of the definition of "residential use" in subsection 1 (3) of the Regulation is amended by striking out "Ontario Regulation 403/97 (Building Code)" in the portion before subparagraph i and substituting "Division B of Ontario Regulation 350/06 (Building Code)".
 - 2. Section 4 of the Regulation is revoked and the following substituted:

Owner of property

4. For the purposes of Part XV.1 of the Act,

"owner", in relation to a record of site condition or risk assessment, includes a beneficial owner of or receiver in respect of the property for which the record of site condition is submitted for filing, is to be submitted for filing or is filed or for which the risk assessment is submitted.

3. The Regulation is amended by adding the following sections:

Qualified persons, conflict of interest

- **6.1** (1) No qualified person mentioned in section 5 or 6 shall, in respect of a RSC property or RA property in which the qualified person or his or her employer holds a direct or indirect interest,
 - (a) conduct or supervise a phase one or phase two environmental site assessment;
 - (b) complete the certifications that must be completed by a qualified person in a record of site condition in respect of a property; or
 - (c) prepare or supervise a risk assessment.
- (2) Nothing in subsection (1) shall be construed so as to derogate from any obligations imposed on the qualified person under the *Professional Engineers Act* or the *Professional Geoscientists Act*, 2000.

Qualified persons as employee

- **6.2** (1) A qualified person mentioned in section 5 or 6 who is the employee, shareholder, director, partner or principal of a firm, company or partnership and who wishes to submit a record of site condition or risk assessment,
 - (a) shall file with the Director the document referred to in subsection (2), if the qualified person has not previously filed the document with the Director; and
 - (b) shall, within 12 months after filing the document with the Director under clause (a) and annually thereafter for as long as the qualified person remains an employee, shareholder, director, partner or principal of the firm, company or partnership, file the document referred to in subsection (2) with the Director.
- (2) The document the qualified person who is the employee, shareholder, director, partner or principal of a firm, company or partnership shall file with the Director is,
 - (a) a copy of the Certificate of Status, in the case of a corporation incorporated under the *Business Corporations Act*; or
 - (b) an equivalent document in the case of any other type of corporation or of a firm or partnership.
 - (3) The document referred to in subsection (2),
 - (a) shall be dated no earlier than one month before the date on which the qualified person first submits a record of site condition or risk assessment, where the

qualified person is submitting the document for the first time; and

- (b) shall be dated no earlier than one month before the date on which the qualified person first submits a record of site condition or risk assessment during the 12-month period applicable to the qualified person submitting the document.
- 4. Subsection 7 (3) of the Regulation is amended by striking out "and in respect of property owned by the employer" at the end.
 - 5. Section 8 of the Regulation is amended by adding the following subsection:
- (3) The Director may cause a record of site condition, notice, certificate of property use or other document that has been filed in the Registry to be updated to add new information and remove previous information and the change shall not require a new filing, if the Director becomes aware of, and the update relates to, a change to,
 - (a) a mailing address, fax number, postal code or e-mail address or a change in the mailing address, fax number, postal code or e-mail address of the owner of an RSC property who has submitted the record of site condition for filing or on whose behalf the record of site condition was submitted for filing;
 - (b) a municipal address or a change in the municipal address of an RSC property;
 - (c) a notice of a certificate of property use or an altered or revoked certificate of property use related to an RSC property; or
 - (d) the mailing address for an owner of the RSC property at the time the record of site condition was filed, other than an owner referenced in clause (a).
- 6. Subsections 10 (1) and (2) of the Regulation are revoked and the following substituted:

Notice of order in Registry

- (1) The Director may require that the Registry contain notice of a certificate of property use issued, altered or revoked pursuant to section 168.6 of the Act, with respect to a property for which a record of site condition has been filed.
- 7. (1) Subsection 16 (1) of the Regulation is amended by striking out "and filed" and substituting "and submitted for filing".
 - (2) Subsection 16 (2) of the Regulation is amended by striking out "any part of".
 - 8. The Regulation is amended by adding the following sections:

Prescribed time for notice or acknowledgement

16.1 Thirty days, excluding holidays and Saturdays, is the time prescribed for the purposes of clause 168.4 (3) (b) of the Act.

Prescribed defects

- **16.2** (1) The following are prescribed defects for the purposes of clause 168.4 (3.3) (a) of the Act:
 - 1. Failure to comply with a requirement of this Regulation for a phase one environmental site assessment or a phase two environmental site assessment.
 - 2. Failure to comply with any requirement referred to in paragraph 1 because the manner in which the requirement is addressed fails to achieve the general or specific objectives of the assessment.
 - 3. Failure to complete a record of site condition in accordance with the Act or this Regulation.

- (2) The notice of a defect provided by the Director shall be of sufficient detail so as to alert the owner to the nature of the defect.
- 9. (1) Subsection 17 (2) of the Regulation is amended by striking out "any part of".
 - (2) Subsection 17 (3) of the Regulation is amended by striking out "any part of".
 - 10. Section 18 of the Regulation is revoked and the following substituted:

Retention and storage of reports

- **18.** (1) For the purposes of subsection 168.4 (5) of the Act, the prescribed period for the retention of a report is seven years after the date the record of site condition listing the report is filed in the Registry.
- (2) Subsection (1) and subsection 168.4 (5) of the Act do not apply in respect of a qualified person if a qualified person takes all reasonable steps to ensure that a copy of the report is stored for the period referred to in subsection (1) in the offices of the firm, company or partnership where the qualified person was employed at the time when the record of site condition was completed.
- 11. (1) Paragraph 1 of subsection 20 (2) of the Regulation is amended by striking out "in accordance with the agreement" at the end.
- (2) Subsection 20 (2) of the Regulation is amended by adding the following paragraph:
 - 1.1 The person sold the property to a purchaser pursuant to an agreement for the purchase and sale of land that included a condition, covenant or term that the purchaser would submit a record of site condition for filing in the Registry under section 168.4 of the Act and the filing of a record of site condition by the purchaser in respect of the property has been acknowledged by the Director under section 168.4 of the Act.
 - (3) Section 20 of the Regulation is amended by adding the following subsection:
- (3) If an agreement mentioned in paragraph 1 of subsection (2) is made before the day subsection 6 (1) of Schedule 13 to the *Budget Measures and Interim Appropriation Act*, 2007 comes into force, it is sufficient for the purpose of satisfying the requirement in that paragraph if the purchaser has submitted for filing a record of site condition in respect of the property that was the subject of the agreement and the filing of the record of site condition by the purchaser in respect of the property has been acknowledged by the Director under section 168.4 of the Act.

12. Section 21 of the Regulation is revoked and the following substituted:

Soil Management

- **21.** (1) This section applies in relation to a property if a record of site condition has been filed in the Registry containing a certification under sub-subparagraph 4 i C of subsection 168.4 (1) of the Act by a qualified person that the property meets the applicable stratified site condition standards for all prescribed contaminants subject to any exceptions specified by the qualified person.
- (2) A person who owns or occupies the property, or a person who has charge, management or control of the property, shall ensure that surface soil and subsurface soil on, in or under the property meets the applicable stratified site condition standards for all prescribed contaminants subject to any exceptions specified by the qualified person in the certification referred to in subsection (1).

13. The Regulation is amended by adding the following section before Part VI:

Transition

- **21.1** (1) This section applies to a record of site condition if,
- (a) the record of site condition, together with the acknowledgment referred to in clause (d), is submitted for filing on a day that is later than the latest of the days referred to in subsections 32 (2) and (3) of Ontario Regulation 511/09, but is before January 1, 2013;
- (b) a notice of receipt has been given pursuant to clause 168.4 (3) (a) of the Act with respect of the record of site condition before January 1, 2013;
- (c) the owner of the property in respect of which the record of site condition is being submitted for filing has, before January 1, 2011, submitted a notice in the form approved by the Director; and
- (d) the owner has received from the Ministry a written acknowledgment in the form approved by the Director of the notice referred to in clause (b).
- (2) The notice under clause (1) (b) shall,
 - (a) contain a certification by a qualified person in the words of paragraph 1 of section 10 of Schedule A with respect to the RSC property; and
 - (b) contain, in the language specified in the form of notice approved by the Director, either or both of, as applicable,
 - (i) a certification by the owner that a risk assessment with respect to a contaminant at the property has been submitted, together with the date of the submission and the number of the risk assessment, or
 - (ii) a certification by the owner that action to reduce the concentration of a contaminant on, in or under the RSC property in order to meet a standard specified in a risk assessment accepted by the Director for the contaminant with respect to the property or, where none exists, the applicable site condition standard for the contaminant, has begun.
- (3) Where this section applies to a record of site condition,
- (a) the definition of "Soil, Ground Water and Sediment Standards" in subsection 1 (1) as it read immediately before the date on which subsection 1 (4) of Ontario Regulation 511/09 came into force applies to the record of site condition;
- (b) sections 36, 37, and 41 as they read immediately before the date on which sections 16, 17 and 18 of Ontario Regulation 511/09 came into force apply to the record of site condition:
- (c) section 43.1 and all references to section 43.1 do not apply to the record of site condition; and
- (d) all references to section 41 of the Regulation are deemed to mean section 41 as it read immediately before the date on which section 18 of Ontario Regulation 511/09 came into force.

14. Parts VI, VII and VIII of the Regulation are revoked and the following substituted:

PART VI

DEFINITIONS FOR AND INTERPRETATION OF PHASE ONE AND PHASE TWO

ENVIRONMENTAL SITE ASSESSMENTS

Definitions and interpretation

- 22. (1) In Parts VII and VIII and Schedules D and E,
- "all reasonable inquiries" means review of current and historical sources of reasonably accessible information about a property to determine uses and occupancies of the property since the property's first developed use;
- "building" means a building as defined in subsection 1 (1) of the Building Code Act, 1992;
- "contaminant of potential concern" includes a contaminant identified as potentially present on, in or under a phase one property in a phase one environmental site assessment report;
- "enhanced investigation property" means a property that is being used or has been used, in whole or in part, in a manner described in clause 32 (1) (b) to which subsection 32 (2) does not apply;
- "first developed use" means the earlier of,
 - (a) 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
 - (b) the first potentially contaminating use or activity on the phase one property;
- "monitoring well" means a well that is a test hole as defined in Regulation 903 of the Revised Regulations of Ontario 1990 (Wells) made under the *Ontario Water Resources Act*;
- "PCB" means PCB as defined in Regulation 362 of the Revised Regulations of Ontario, 1990 (Waste Management PCB's) made under the Act;
- "PCB waste" means PCB waste as defined in Regulation 362 of the Revised Regulations of Ontario, 1990 (Waste Management PCB's) made under the Act;
- "record", when used as a noun, has the same meaning as "document" in subsection 1 (1) of the Act;
- "site", when used in the phrase "site reconnaissance" means phase one study area;
- "spill" means spill as defined in subsection 91 (1) of the Act, other than a spill of a pollutant comprised solely of odour;
- "test hole" means a test hole as defined in Regulation 903 of the Revised Regulations of Ontario 1990 (Wells) made under the *Ontario Water Resources Act*;
- "waste" means waste as defined in section 25 of the Act;
- "waste generator" means a generator as defined in Regulation 347 of the Revised Regulations of Ontario, 1990 (General Waste Management) made under the Act;
- "waste receiver" means a receiver as defined in Regulation 347 of the Revised Regulations of Ontario, 1990 (General Waste Management) made under the Act.
- (2) For purposes of Parts VII and VIII and Schedules D and E, information is reasonably accessible if,
 - (a) the information is provided by an owner of a phase one property or other person to a qualified person or someone supervised by a qualified person;
 - (b) subject to subsection (3), the information is relevant to the environmental

- condition of a phase one property, including the objectives and requirements of a phase one environmental site assessment or phase two environmental site assessment of the property, and the information is within the possession or control of any of the owners of the property or any other person funding the phase one environmental site assessment;
- (c) the information is publicly available; or
- (d) the information is available from government sources through access to information legislation.
- (3) For the purposes of clause (2) (b), it is sufficient if an owner of the phase one property or any person funding the phase one environmental assessment provides a written statement to the qualified person,
 - (a) stating that the information referred to in clause (2) (b) has been provided to the qualified person or someone supervised by the qualified person in respect of the phase one environmental site assessment;
 - (b) detailing the information provided;
 - (c) providing details of any other information of which the owner or person is aware; and
 - (d) stating that all the information referred to in clause (c) of which the owner or person is aware has been included in the statement.
- (4) The provisions of the *Ontario Water Resources Act* and of Regulation 903 of the Revised Regulations of Ontario, 1990 (Wells) made under that Act, that would apply to a test hole but for section 1.1, and subsections 13 (2), 14.1 (2), 14.2 (3), 14.3 (2), 14.4 (4) and 14.5 (3) of that regulation, apply to a monitoring well installed for the purpose of,
 - (a) a phase one environmental site assessment; and
 - (b) a phase two environmental site assessment.

PART VII PHASE ONE ENVIRONMENTAL SITE ASSESSMENTS

Phase one environmental site assessment, requirements

23. A phase one environmental site assessment shall be conducted in accordance with this Part and shall meet the requirements set out in Schedule D.

Phase one environmental site assessment, general objectives

- **24.** The general objectives of a phase one environmental site assessment are to do the following:
 - 1. To develop a preliminary determination of the likelihood that one or more contaminants have affected any land or water on, in or under the phase one property.
 - 2. To determine the need for a phase two environmental site assessment.
 - 3. To provide a basis for carrying out any phase two environmental site assessment required.
 - 4. To provide adequate preliminary information about environmental conditions in the land or water on, in or under the phase one property for the conduct of a risk assessment following completion of a phase two environmental site assessment.

Phase one environmental site assessment, components

- **25.** Subject to section 31, a phase one environmental site assessment of a property shall include the following components:
 - 1. A records review.
 - 2. Interviews.
 - 3. Site reconnaissance.
 - 4. An evaluation of the information gathered from the records review, interviews and site reconnaissance.
 - 5. A phase one environmental site assessment report.
 - 6. The submission of the phase one environmental site assessment report to the owner of the phase one property.

Responsibilities of qualified persons, general

- **26.** (1) A qualified person shall conduct or supervise a phase one environmental site assessment.
- (2) Where this Regulation or Schedule D specifies that an aspect of a phase one environmental site assessment is to be conducted by a qualified person, a qualified person shall conduct that aspect of the assessment.
- (3) In all cases, the qualified person shall ensure that the phase one environmental site assessment is conducted in accordance with this Part and meets the requirements of Schedule D.

Responsibilities of qualified person, impediments

- **27.** (1) The qualified person shall identify physical impediments that interfere with or may limit the ability to conduct investigations or to meet any general or specific objectives, components or requirements of a phase one environmental site assessment.
- (2) The qualified person shall ensure that no impediment precludes meeting the general or specific objectives, components or requirements of a phase one environmental site assessment.
- (3) Denial of access to a qualified person, or someone supervised by a qualified person, to a structure or building or to any other part of the phase one property or any area under the phase one property, for any reason other than safety or inaccessibility, is an impediment that precludes meeting the general or specific objectives, components or requirements of a phase one environmental site assessment.
- (4) The qualified person shall document the denial of access, where access to a structure or building or to any other part of the phase one property or any area under the phase one property is denied to the qualified person, or someone supervised by a qualified person, because of safety or inaccessibility.

Requirement that phase one site assessment report be based on current work

- **28.** (1) A report may be used by a qualified person as a phase one environmental site assessment report in a record of site condition or used as a phase one environmental site assessment report in planning, conducting or supervising a phase two environmental site assessment, for the phase one property that is the subject of the report or an RSC property within it, if,
 - (a) the date the last work on all of the records review, interviews and site reconnaissance required for the phase one environmental site assessment that is the subject of the report was done is no later than 18 months before the submission

- of the record of site condition or the commencement of the phase two environmental site assessment:
- (b) in the professional opinion of the qualified person, there is no new or materially changed area of potential environmental concern at the property;
- (c) the phase one environmental site assessment meets all other requirements of this Part and Schedule D for a phase one environmental site assessment, including the requirements for a phase one environmental site assessment report;
- (d) the report is a single document; and
- (e) the report is the most recent document that meets the requirements of this Part and Schedule D for a phase one environmental site assessment report.
- (2) If subsection (1) does not apply, the qualified person shall, before submitting the record of site condition or commencing the phase two environmental site assessment, update the phase one environmental site assessment by conducting or supervising such further portions of a phase one environmental site assessment as may be necessary to achieve,
 - (a) the general objectives in section 24; and
 - (b) the specific objectives and requirements for the components of the assessment set out in Schedule D.
- (3) Subsection (1) applies to a report of an update undertaken pursuant to subsection (2), except clause (1) (d) does not apply and clauses (1) (c) and (e) apply with necessary modifications.

Responsibilities of qualified person re reports and data

- **29.** The qualified person who is conducting or supervising the phase one environmental site assessment shall,
 - (a) use all reasonably accessible environmental site assessment reports and other reports and data, as appropriate, to conduct a phase one environmental site assessment; and
 - (b) document all reports and data consulted, and indicate what was used and how it was used in the phase one environmental site assessment.

Responsibilities of newly retained qualified person

- **30.** (1) Where a qualified person retained by or on behalf of an owner who wishes to submit a record of site condition for filing is not the same qualified person who conducted or supervised the phase one environmental site assessment, the qualified person who has been retained with respect to the submission of the record of site condition for filing shall review the phase one environmental site assessment and any other material necessary to determine whether.
 - (a) the phase one environmental site assessment meets the requirements of this Part and Schedule D for a phase one environmental site assessment, including the requirements for a phase one environmental site assessment report;
 - (b) the phase one conceptual site model accurately reflects the environmental condition of the phase one property and any need for a phase two environmental site assessment; and
 - (c) there is no new or materially changed area of potential environmental concern at the phase one property.
 - (2) The qualified person referred to in subsection (1) shall, before submitting the

record of site condition or commencing the phase two environmental site assessment, conduct or supervise such work on a phase one environmental site assessment as may be necessary, to achieve the general objectives in section 24 and the specific objectives and requirements for the components of the assessment set out in Schedule D, if the qualified person determines that,

- (a) the phase one environmental site assessment conducted or supervised by another qualified person does not meet the requirements referred to in clause (1) (a);
- (b) the phase one conceptual site model does not accurately reflect the environmental condition of the phase one property and any need for a phase two environmental site assessment; or
- (c) there is a new or materially changed area of potential environmental concern at the phase one property.
- (3) The work referred to in subsection (2) includes the conduct and supervision of all or part of a phase one environmental site assessment, the preparation of all or part of a phase one environmental site assessment report or update to the report and the preparation of any documentary components of the report, such as a phase one conceptual site model.
- (4) Nothing in this section shall be construed so as to derogate from any obligations imposed on the qualified person under the *Professional Engineers Act* or the *Professional Geoscientists Act*, 2000.

Transition

- **31.** (1) If, before October 1, 2004, a report was completed for the purposes of an initial site assessment as referred to in section 8.1 of the Cleanup Guideline 1996, the initial site assessment is deemed to be a phase one environmental site assessment for the purpose of section 168.1 of the Act if a qualified person reviews the report and certifies that the initial site assessment was completed in accordance with this Part, except clause 28 (1) (a).
- (2) If, before October 1, 2004, an initial site assessment, as referred to in section 8.1 of the Cleanup Guideline 1996, was commenced, but not completed, the initial site assessment satisfies the requirements of this Regulation for a phase one environmental site assessment if,
 - (a) a qualified person certifies in writing in the phase one environmental assessment report required under section 25 that the components of the initial site assessment completed before this Regulation came into force meet the requirements of this Regulation, except clause 28 (1) (a), with respect to a phase one environmental site assessment, except that they were not conducted or supervised by a qualified person; and
 - (b) a phase one environmental site assessment is completed that consists of,
 - (i) a review by a qualified person of those components of the initial site assessment completed before October 1, 2004, and
 - (ii) the completion of those components required under this Part that were not completed before October 1, 2004.

PART VIII PHASE TWO ENVIRONMENTAL SITE ASSESSMENTS

When phase two assessment required to file record of site condition

32. (1) For the purposes of submitting a record of site condition for filing under subsection 168.4 (1) of the Act in respect of a property, a phase two environmental site assessment is required,

- (a) if during a phase one environmental site assessment of the property, a potentially contaminating activity is identified on, in or under the property; or
- (b) if the property is used, or has ever been used, in whole or in part for an industrial use or for any of the following commercial uses,
 - (i) as a garage,
 - (ii) as a bulk liquid dispensing facility, including a gasoline outlet, or
 - (iii) for the operation of dry cleaning equipment.
- (2) Clause (1) (b) does not apply if,
 - (a) the property is currently used for an agricultural or other use, or a community use, an institutional use, a parkland use or a residential use; and
 - (b) since the latest date on which the property stopped being used for any of the types of property uses described in clause (1) (b), a record of site condition has been filed in the Registry under section 168.4 of the Act for the use described in clause (a).
- (3) Clause (1) (b) does not apply with respect to the part of a property that is being used or has ever been used.
 - (a) for quarrying to excavate consolidated or unconsolidated aggregate; or
 - (b) for that aspect of the production of oil and gas consisting of the presence of an oil well or gas well on, in or under the property.

Phase two environmental site assessments, requirements

33. A phase two environmental site assessment shall be conducted in accordance with this Part and shall meet the requirements set out in Schedule E.

Phase two environmental site assessments, general objectives

- **33.1** (1) The general objectives of a phase two environmental site assessment are to do the following:
 - 1. To determine the location and concentration of contaminants in the land or water on, in or under the phase two property.
 - 2. To obtain information about environmental conditions in the land or water on, in or under the phase two property necessary to undertake a risk assessment, in accordance with this Regulation, with respect to one or more contaminants of concern.
 - 3. To determine if applicable site condition standards and standards specified in a risk assessment for contaminants on, in or under the phase two property were met as of the certification date.
- (2) The qualified person shall ensure that the general objectives of a phase two environmental site assessment are achieved by,
 - (a) developing an understanding of the geological and hydrogeological conditions at the phase two property; and
 - (b) conducting one or more rounds of field sampling for all contaminants associated with any area of potential environmental concern identified in the phase two sampling and analysis plan and for any such contaminants identified during subsequent phase two activities and analyses of environmental conditions at the phase two property.

Phase two environmental site assessment, components

- **33.2** Subject to section 33.8, a phase two environmental site assessment shall include the following components:
 - 1. The planning of a site investigation.
 - 2. A site investigation.
 - 3. A review and evaluation of the information gathered through the site investigation.
 - 4. A phase two environmental site assessment report.
 - 5. The submission of the phase two environmental site assessment report to the owner of the phase two property.

Responsibilities of qualified persons, general

- **33.3** (1) A qualified person shall conduct or supervise a phase two environmental site assessment.
- (2) Where this Regulation or Schedule E specifies that an aspect of a phase two environmental site assessment is to be conducted by a qualified person, a qualified person shall conduct that aspect of the assessment.
- (3) In all cases, the qualified person shall ensure that the phase two environmental site assessment is conducted in accordance with this Part and meets the requirements of Schedule E.

Responsibilities of a qualified person, impediments

- **33.4** (1) The qualified person shall identify physical impediments that interfere with or may limit the ability to conduct investigations, sampling or analyses or to meet any general or specific objectives, components or requirements of a phase two environmental site assessment.
- (2) The qualified person shall ensure that no impediment precludes meeting the general or specific objectives, components or requirements of a phase two environmental site assessment.
- (3) Denial of access to a qualified person, or someone supervised by a qualified person, to a structure or building or to any other part of the phase two property or any area under the phase two property, for any reason other than safety or inaccessibility, is an impediment that precludes meeting the general or specific objectives, components or requirements of a phase two environmental site assessment.
- (4) The qualified person shall document the denial of access, where access to a structure or building or to any other part of the phase two property or any area under the phase two property is denied to the qualified person, or someone supervised by a qualified person, because of safety or inaccessibility.

Requirement that phase two environmental site assessment report be based on current work

- **33.5** (1) A report may be used by a qualified person as a phase two environmental site assessment report in a record of site condition or used as a phase two environmental site assessment report in planning, conducting or supervising a risk assessment, for the phase two property that is the subject of the report or an RSC property within it, if,
 - (a) the date the last work on all of the planning the site investigation, conducting the site investigation and reviewing and evaluating the information gathered through the site investigation required for the phase two environmental site assessment that is the subject of the report was done is no later than 18 months before the

- submission of the record of site condition or the commencement of the risk assessment:
- (b) in the professional opinion of the qualified person, there is no new or materially changed area of potential environmental concern at the property;
- (c) the phase two environmental site assessment meets all other requirements of this Part and Schedule E for a phase two environmental site assessment, including the requirements for a phase two environmental site assessment report;
- (d) the report is a single document; and
- (e) the report is the most recent document that meets the requirements of this Part and Schedule E for a phase two environmental site assessment report.
- (2) If subsection (1) does not apply, the qualified person shall, before submitting the record of site condition or commencing the risk assessment, update the phase two environmental site assessment by conducting or supervising such further portions of a phase two environmental site assessment as may be necessary to achieve,
 - (a) the general objectives in subsection 33.1 (1); and
 - (b) the specific objectives and requirements for the components of the assessment set out in Schedule E.
- (3) Subsection (1) applies to a report of an update undertaken pursuant to subsection (2) except clause (1) (d) does not apply and clauses (1) (c) and (e) apply with necessary modifications.

Responsibilities of qualified person re reports and data

- **33.6** The qualified person who is conducting or supervising the phase two environmental site assessment shall,
 - (a) use all reasonably accessible environmental site assessment reports and other reports and data, as appropriate, to conduct a phase two environmental site assessment; and
 - (b) document all reports and data consulted, and indicate what was used and how it was used in the phase two environmental site assessment.

Responsibilities of newly retained qualified person

- **33.7** (1) Where a qualified person retained by or on behalf of an owner who wishes to submit a record of site condition for filing is not the same qualified person who conducted or supervised the phase two environmental site assessment, the qualified person who has been retained with respect to submission of the record of site condition for filing shall review the phase two environmental site assessment and any other material necessary to determine whether.
 - (a) the phase two environmental site assessment meets the requirements of this Part and Schedule E for a phase two environmental site assessment, including the requirements for a phase two environmental site assessment report;
 - (b) the phase two conceptual site model accurately reflects the environmental condition of the phase two property prior to any actions taken to reduce the concentration of contaminants; and
 - (c) there is no new or materially changed area of potential environmental concern at the phase two property.
 - (2) The qualified person referred to in subsection (1) shall, before submitting the

record of site condition or commencing a risk assessment, conduct or supervise such work on a phase two environmental site assessment as may be necessary to achieve the general objectives in subsection 33.1 (1) and the specific objectives and requirements for the components of the assessment set out in Schedule E, if the qualified person determines that,

- (a) the phase two environmental site assessment conducted or supervised by another qualified person does not meet the requirements referred to in clause (1) (a);
- (b) the phase two conceptual site model does not accurately represent the environmental condition of the phase two property prior to any actions taken to reduce the concentration of contaminants; or
- (c) there is a new or materially changed area of potential environmental concern at the phase one property.
- (3) The work referred to in subsection (2) includes the conduct and supervision of all or part of a phase two environmental site assessment, the preparation of all or part of a phase two environmental site assessment report or update to the report and the preparation of any documentary components of the report, such as a phase two conceptual site model.
- (4) Nothing in this section shall be construed so as to derogate from any obligations imposed on the qualified person under the *Professional Engineers Act* or the *Professional Geoscientists Act*, 2000.

Transition

- **33.8** (1) If, before October 1, 2004, a report was completed for the purposes of a detailed site assessment as referred to in section 8.2 of the Cleanup Guideline 1996, the detailed site assessment is deemed to be a phase two environmental site assessment for the purpose of section 168.1 of the Act if a qualified person reviews the report and certifies that the detailed site assessment was completed in accordance with this Part, except clause 33.5 (1) (a).
- (2) If, before October 1, 2004, a detailed site assessment as referred to in section 8.2 of the Cleanup Guideline 1996 in respect of a property was commenced, but not completed, the detailed site assessment satisfies the requirements of this Regulation for a phase two environmental site assessment if,
 - (a) a qualified person certifies in writing in the phase two environmental assessment report required under section 33 that the components of the detailed site assessment completed before October 1, 2004 meet the requirements of this Regulation, except clause 33.5 (1) (a), with respect to a phase two environmental site assessment, except that they were not conducted or supervised by a qualified person; and
 - (b) a phase two environmental site assessment is completed that consists of,
 - (i) a review by a qualified person of those components of the detailed site assessment completed before October 1, 2004, and
 - (ii) the completion of those components required under this Part that were not completed by October 1, 2004.

15. (1) The definition of "well" in subsection 35 (1) of the Regulation is revoked and the following substituted:

"well" means a hole made in the ground to locate or to obtain ground water and includes a spring around or in which works are made or equipment is installed for collection or transmission of water, but does not include such a hole intended to test or to obtain

information in respect of ground water or an aquifer;

- (2) Clause 35 (3) (a) of the Regulation is revoked and the following substituted:
- (a) the property, and all other properties located, in whole or in part, within 250 metres of the boundaries of the property, are supplied by a municipal drinking water system, as defined in the *Safe Drinking Water Act*, 2002, and have no wells installed for the extraction of ground water;
- 16. (1) Subsection 36 (2) of the Regulation is amended by adding "Subject to subsection (2.1)" at the beginning.
 - (2) Section 36 of the Regulation is amended by adding the following subsection:
- (2.1) Subject to subsection (4), for the purposes of sub-subparagraph 4 i B of subsection 168.4 (1) of the Act, the prescribed contaminants and the applicable prescribed full depth generic site condition standards for those contaminants are,
 - (a) in the case of a property described in clause 43.1 (1) (a), those set out in Table 6 of the Soil, Ground Water and Sediment Standards; and
 - (b) in the case of a property described in clause 43.1 (1) (b), those set out in Table 8 of the Soil, Ground Water and Sediment Standards.
- (3) Paragraph 1 of subsection 36 (3) of the Regulation is revoked and the following substituted:
 - 1. In each of the following media that exist at the property, the concentration of the contaminants does not exceed the standards in relation to the medium for that type of property use set out in Table 2, Table 6 or Table 8, as the case may be, of the Soil, Ground Water and Sediment Standards:
 - i. In the case of standards set out in Table 2 or Table 6, soil, not including sediment (if any).
 - ii. In the case of standards set out in Table 8,
 - A. soil, not including sediment (if any), and
 - B. sediment.
- (4) Paragraph 2 of subsection 36 (3) of the Regulations is amended by striking out "Table 2" and substituting "Table 2, Table 6 or Table 8, as the case may be,".
 - (5) Section 36 of the Regulation is amended by adding the following subsection:
- (4) If each of clauses 43.1 (1) (a) and (b) apply to a property and the applicable full depth generic standard for a contaminant that is set out in Table 6 is different from the applicable full depth generic standard that is set out in Table 8, the applicable full depth generic standard for the contaminant is the standard that prescribes the lower concentration for the contaminant.
- 17. (1) Subsection 37 (2) of the Regulation is amended by adding "Subject to subsection (2.1)" at the beginning.
 - (2) Section 37 of the Regulation is amended by adding the following subsection:
- (2.1) Subject to subsection (4), for the purposes of sub-subparagraph 4 i B of subsection 168.4 (1) of the Act, the prescribed contaminants and the applicable full depth generic site condition standards for those contaminants are,
 - (a) in the case of a property described in clause 43.1 (1) (a), those set out in Table 7 of

the Soil. Ground Water and Sediment Standards: and

(b) in the case of a property described in clause 43.1 (1) (b), those set out in Table 9 of the Soil, Ground Water and Sediment Standards.

(3) Paragraph 1 of subsection 37 (3) of the Regulation is revoked and the following substituted:

- 1. In each of the following media that exist at the property, the concentration of the contaminants does not exceed the standards in relation to the medium for that type of property use set out in Table 3, Table 7 or Table 9, as the case may be, of the Soil, Ground Water and Sediment Standards:
 - i. In the case of standards set out in Table 3 or Table 7, soil, not including sediment (if any).
 - ii. In the case of standards set out in Table 9,
 - A. soil, not including sediment (if any), and
 - B. sediment.
- (4) Paragraph 2 of subsection 37 (3) of the Regulation is amended by striking out "Table 3" and substituting "Table 3, Table 7 or Table 9, as the case may be,".
 - (5) Section 37 of the Regulation is amended by adding the following subsection:
- (4) If each of clauses 43.1 (1) (a) and (b) apply to a property and the applicable full depth generic standard for a contaminant that is set out in Table 7 is different from the applicable full depth generic standard that is set out in Table 9, the applicable full depth generic standard for the contaminant is the standard that prescribes the lower concentration for the contaminant.

18. (1) Clause 41 (1) (a) of the Regulation is revoked and the following substituted:

- (a) the property is,
 - (i) within an area of natural significance,
 - (ii) includes or is adjacent to an area of natural significance or part of such an area, or
 - (iii) includes land that is within 30 metres of an area of natural significance or part of such an area;
- (2) Clause 41 (1) (b) of the Regulation is amended by adding at the end "or".
- (3) Clauses 41 (1) (c) and (d) of the Regulation are revoked.
- (4) Subsection 41 (3) of the Regulation is revoked.
- 19. The definition of "course textured soil" in subsection 42 (2) of the Regulation is revoked and the following substituted:

"coarse textured soil" means soil that contains more than 50 per cent by mass of particles that are 75 micrometres or larger in mean diameter;

20. Subsections 43 (2) and (3) of the Regulation are revoked and the following substituted:

(2) In cases where a cell in a table in the Soil, Ground Water and Sediment Standards indicates "N/V" as referenced in subsection (1), if the contaminant is detected in the

environmental medium on, in or under a property and is associated with potentially contaminating activity, the owner of the property may submit to the Director a new science risk assessment described in section 9 of Schedule C, if the owner or qualified person is of the opinion that a risk assessment is necessary in order to complete the certifications in a record of site condition prescribed by Schedule A.

(3) In cases where a contaminant is detected on, in or under a property and the contaminant is not listed in the table that sets out the applicable site conditions standards in the Soil, Ground Water and Sediment Standards and is associated with potentially contaminating activity, the owner of the property may submit to the Director a new science risk assessment described in section 9 of Schedule C, if the owner or qualified person is of the opinion that a risk assessment is necessary in order to complete the certifications in a record of site condition prescribed by Schedule A.

21. The Regulation is amended by adding the following section before the heading "Risk Assessments":

Site condition standards, shallow soil property or water body

- **43.1** (1) This section applies in relation to a property if,
 - (a) the property is a shallow soil property; or
 - (b) the property includes all or part of a water body or is adjacent to a water body or includes land that is within 30 metres of a water body.
- (2) If this section applies, the qualified person shall not use the applicable stratified site condition standards pursuant to sub-subparagraph 4 i C of subsection 168.4 (1) of the Act in certifying the record of site condition for the purposes of paragraph 4 of subsection 168.4 (1) of the Act.
 - (3) In this section,
 - "shallow soil property" means a property of which 1/3 or more of the area consists of soil equal to or less than 2 metres in depth beneath the soil surface, excluding any non-soil surface treatment such as asphalt, concrete or aggregate;
 - "soil" means, for the purposes of the definition of shallow soil property, unconsolidated naturally occurring mineral particles and other naturally occurring material resulting from the natural breakdown of rock or organic matter by physical, chemical or biological processes that are smaller than 2 millimetres in size or that pass the US #10 sieve, and includes a mixture of soil and rock if less than 50 per cent by mass of the mixture is rock.

22. Section 47 of the Regulation is revoked and the following substituted:

Analytical procedures

- **47.** (1) Where a qualified person takes a sample of sediment, soil or ground water from the land or water in, on or under a property for the purpose of analysing the sample for a contaminant as part of a phase one or phase two environmental site assessment or a risk assessment or for the purpose of indicating the maximum concentration of a contaminant in, on or under the property in a record of site condition, the qualified person shall ensure that,
 - (a) the samples are handled and stored in accordance with the Analytical Protocol;
 - (b) the collection and chain of custody of samples is carried out in accordance with the requirements in Part VIII and Schedule E;
 - (c) the analyses of the samples mentioned in clause (a) are carried out by a laboratory that,

- (i) has been accredited in accordance with the International Standard ISO/IEC 17025 General Requirement for the Competence of Testing and Calibration Laboratories, dated May 5, 2005, as amended from time to time, and
- (ii) has been accredited in accordance with the standards, if standards for proficiency testing have been developed by the Standards Council of Canada, the Canadian Association for Laboratory Accreditation or another accreditation body accepted by the Director for a parameter set out in the Soil, Ground Water and Sediment Standards;
- (d) the laboratory provides the certificate of analysis or analytical report referred to in subsection (2) prepared in accordance with the Analytical Protocol and the requirements of subsection (3); and
- (e) the laboratory is not instructed to exclude, from an analytical report or certificate of analysis, any of the parameters which were analyzed.
- (2) If a sample mentioned in subsection (1) is submitted by a qualified person to a laboratory for analysis for a contaminant, the laboratory shall,
 - (a) conduct the analysis for the contaminant in accordance with the Analytical Protocol; and
 - (b) give a certificate of analysis or analytical report to the qualified person that specifies the analytical method used for conducting the analysis for the contaminant.
- (3) The certificate of analysis or analytical report referenced in clause (2) (b) shall contain a complete record of the submission and analysis, including all correspondence between the laboratory and the qualified person or anyone under the supervision and control of the qualified person with respect to the sample collection, chain of custody, handling and analysis including,
 - (a) the laboratory name, address, contact and phone number;
 - (b) client name, client contact, address and phone number;
 - (c) sample identification number for tracking purposes;
 - (d) sample type and location;
 - (e) sampling date;
 - (f) date the sample was received;
 - (g) date the sample was analyzed;
 - (h) method identification and method reference as specified in the Analytical Protocol;
 - (i) chemical parameter measured;
 - (j) reporting limits, including adjustment for sample size, moisture content or dilution factor;
 - (k) method specific quality assurance and quality control requirements as specified in the Analytical Protocol;
 - (1) authorization to release the certificate including,
 - (i) the name, function, and signature or equivalent of any person authorizing the release, and
 - (ii) a statement that the results relate only to the items tested and to all the items

tested:

- (m) certification that the data met all analytical requirements in the Analytical Protocol with, if applicable, a detailed description of and rationale for qualification for required exceptions; and
- (n) all information recorded by the laboratory with respect to the condition of samples brought to the laboratory, including information recorded with respect to,
 - (i) sample quality, holding time, preservation and storage, and
 - (ii) sample containers.
- (4) Despite subsection (2), the analysis of a sample for a contaminant may be conducted by a laboratory using a method other than a method specified in the Analytical Protocol if the laboratory obtains the written permission of the Director to use that analytical method for that contaminant.
- (5) The qualified person mentioned in subsection (2) shall obtain from the laboratory mentioned in subsection (2) written confirmation that the laboratory has,
 - (a) conducted its analysis for a contaminant,
 - (i) in accordance with the Analytical Protocol, or
 - (ii) in accordance with an analytical method for which the laboratory has obtained the written permission of the Director under subsection (4); and
 - (b) provided an analytical report or certificate of analysis referred to in subsection (2) that has been prepared in accordance with the Analytical Protocol and the requirements of subsection (3).
- (6) If an analysis has been undertaken pursuant to subsection (4), the provisions of clause (2) (b) and subsection (3) apply with necessary modifications to the reporting of the results of the analysis.
 - (7) In this section,
 - "Analytical Protocol", means the "Protocol for Analytical Methods Used in the Assessment of Properties under Part XV.1 of the *Environmental Protection Act*" published by the Ministry and dated March 9, 2004, as it may be amended from time to time.
 - 23. Section 48 of the Regulation is amended by adding the following subsection:
- (2.1) Subsection (2) does not apply to allow, in the circumstances outlined in that subsection, compositing of samples of soil or sediment to be analysed for volatile contaminants, including volatile organic compounds.
 - 24. Subsection 49 (2) of the Regulation is revoked and the following substituted:
- (2) A property does not meet an applicable potable ground water site condition standard unless the qualified person has determined that there is no indication of objectionable petroleum hydrocarbon odour and taste associated with the ground water.
- 25. (1) The heading to Part XI of the Regulation is revoked and the following substituted:

PART XI NOTICES OF ORDERS

(2) Part XI of the Regulation is amended by adding the following section:

Notice of an order

- **51.1** (1) For the purposes of subsection 168.7.2 (1) of the Act, a notice of an order shall set out the number and date of issue of the order.
- (2) For the purposes of subsection 168.7.2 (2) of the Act, notice of compliance shall set out the number and date of issue of the order and the date on which the Director was satisfied that the order had been complied with.
 - 26. Section 55 of the Regulation is revoked.
 - 27. The Regulation is amended by adding the following Part:

PART XII SOIL

Soil brought from another property

- **55.** (1) Soil that did not originate at a RSC property may be brought from another property to a RSC property to remain there following the filing of a record of site condition only where the RSC property,
 - (a) is being used or has been used, in whole or in part, for one of the uses described in clause 32 (1) (b);
 - (b) is a property with respect to which a potentially contaminating activity on, in or under the property has been identified as occurring or having occurred;
 - (c) is not a property described in subsection 32 (2); and
 - (d) is a property with respect to which one or more contaminants of concern have been identified as present.
- (2) Soil referred to in subsection (1) may only be brought to an RSC property referred to in subsection (1) where a qualified person has ensured in the course of the phase two environmental site assessment with respect to the RSC property that the requirements of Schedule E regarding soil brought to the phase two property have been met and the RSC property is the same as or within the phase two property.
- (3) Despite subsection (1), soil that did not originate at a RSC property may be brought from another property to the RSC property to remain there following the filing of a record of site condition if either of the following circumstances apply:
 - 1. A qualified person conducting or supervising the phase two environmental site assessment has determined that the soil meets the standards set out in Table 1 of the Soil, Ground Water and Sediment Standards with respect to all contaminants in the soil to be brought from the other property to the RSC property and the determination was made during the course of a phase two environmental site assessment and, with necessary modifications, in accordance with the provisions in Schedule E that apply to soil brought to the phase two property with respect to a RSC property described in subsection (1).
 - 2. A qualified person has determined that a record of site condition may be submitted without a phase two environmental site assessment, the record of site condition is to be submitted or has been submitted and the qualified person who is conducting or supervising or has conducted or supervised the phase one environmental site assessment has determined in accordance with Schedule F that soil intended to be brought from the other property to the RSC property meets the standards set out in Table 1 of the Soil, Ground Water and Sediment Standards with respect to all contaminants in the soil to be brought from the other property to the RSC

property.

(4) Soil that did not originate at a RSC property and that is brought from another property to a RSC property to remain at the RSC property following the filing of a record of site condition shall be used at the RSC property solely to backfill an excavation or for final grading.

28. (1) Section 1 of Schedule A to the Regulation is amended by adding the following subsections:

- (3) For the purposes of this Schedule, when reference is made to information relevant to this RSC it includes reports prepared by or on behalf of any person, including a current or former owner of the property, containing information in respect of the environmental condition of all or part of a phase one or phase two property.
- (4) Without limiting the generality of subsection (3), information relevant to this RSC includes the following:
 - 1. Environmental site assessment reports.
 - 2. Remediation reports.
 - 3. Reports prepared in response to an order or request of the Ministry.
 - 4. Any other reports relating to the presence of a contaminant on, in or under the phase one property or the existence of an area of potential environmental concern.
- (2) Section 2 of Schedule A to the Regulation is revoked and the following substituted:
- 2. The RSC and documents included in the RSC shall be submitted for filing in a form acceptable to the Director and the Director may require that the RSC and documents be submitted for filing in an acceptable electronic form.
- (3) Section 3 of Schedule A to the Regulation is amended by striking out "is filed" and substituting "is submitted for filing".
- (4) Section 4 of Schedule A to the Regulation is amended by striking out the portion before paragraph 1 and substituting the following:
- 4. The person who is submitting the RSC for filing in respect of the property shall ensure that the RSC contains the following information:

. . . .

(5) Paragraphs 1, 2, 3 and 4 of section 4 of Schedule A to the Regulation are revoked and the following substituted:

- 1. The name, mailing address, postal code and telephone number of the owner of the RSC property who is submitting the RSC for filing or is authorizing the submission of the RSC for filing.
- 2. The e-mail address and fax number, if any, of the owner of the RSC property who is submitting the RSC for filing or who is authorizing that another person submit the RSC for filing.
- 3. If the owner is a firm, company or partnership, the name of the person who is authorizing the filing on behalf of the firm, company or partnership.
- 4. The name and mailing address of any other current owner of the RSC property and, if the other owner is a firm, company or partnership, the name of a contact person for the other owner.

4.1 For the RSC property,

- i. a legal description of the property and a list of its owners and a description of the nature of their interest and any municipal address, assessment roll number and property identification number applicable to the property, prepared by a lawyer after reviewing a current plan of survey of the property that has been prepared, signed and sealed by a surveyor and all other necessary documents, and
- ii. geographic coordinates of the centroid of the property measured using a Global Positioning System receiver and projected on the UTM grid coordinate system identifying easting, northing and zone based on NAD 83 datum.

(6) Section 4 of Schedule A to the Regulation is amended by adding the following subsection:

- (2) Despite paragraph 4.1 of subsection (1), where the RSC property consists of land that is administered by the Ministry of Natural Resources under the *Public Lands Act*, a description approved by the Surveyor General may be used instead of a plan of survey.
- (7) Section 5 of Schedule A to the Regulation is amended by striking out the portion before paragraph 1 and substituting the following:
- 5. The person who is submitting the RSC for filing in respect of the property shall ensure that the following documents are contained in the RSC:

.

(8) Paragraphs 1, 2, 3 and 4 of section 5 of Schedule A to the Regulation are revoked and the following substituted:

- 1. If the owner is a corporation, other than a municipal corporation that is a beneficial owner, a copy of the Certificate of Status in the case of a corporation incorporated or continued under the *Business Corporations Act* or an equivalent document in the case of any other corporation. The Certificate of Status or other document must be dated no earlier than one month before the RSC is submitted for filing.
- 2. If the owner is an entity other than a corporation or an individual, a copy of a document that is equivalent to the documents referred to in paragraph 1, dated no earlier than one month before the date on which the RSC is submitted for filing.
- 3. If the owner has authorized an agent to make the statements required under subsection 6 (1) on their behalf, proof in a form approved by the Director of the owner's authorization to make the statements and to sign the RSC on the owner's behalf.

(9) Paragraphs 6, 7 and 8 of section 5 of Schedule A to the Regulation are revoked and the following substituted:

- 6. If the owner is not a receiver, a copy of any deed, transfer or other document by which the RSC property was in whole or part acquired by the owner, as determined by the lawyer providing the legal description required by paragraph 4.1 of section 4, even if the deed, transfer or other document includes other property in addition to the RSC property.
- 7. A copy of a current plan of survey, prepared, signed and sealed by a surveyor showing,

- i. the RSC property,
- ii. any RA property within which the RSC property is located, and
- iii. the phase one property and any phase two property within which the RSC property is located.

(10) Section 5 of Schedule A to the Regulation is amended by adding the following subsections:

- (2) Where section 21.1 of the regulation applies to allow the use of the standards referred to in subsection 21.1 (3) of the regulation in the record of site condition and the owner of the property wishes to use such standards, the person who is submitting the RSC for filing in respect of the property shall ensure that the following documents are contained in the RSC:
 - 1. A copy of the notice referred to in section 21.1 of the regulation.
 - 2. A copy of the acknowledgment referred to in section 21.1 of the regulation.
- (3) Paragraphs 1 and 2 of subsection (1) do not apply if the beneficial owner of the RSC property is the Queen in right of Ontario or in right of Canada.
- (4) Paragraph 7 of subsection (1) does not apply where the RSC property consists of land that is administered by the Ministry of Natural Resources under the *Public Lands Act*, but a description approved by the Surveyor General showing the RSC property, any RA property within which the RSC property is located and the phase one property and any phase two property within which the RSC property is located shall be contained in the RSC.
- (11) Subsection 6 (1) of Schedule A to the Regulation is amended by striking out "The person who is filing the RSC" in the portion before paragraph 1 and substituting "The person who is submitting the RSC for filing".
- (12) Paragraph 1 of subsection 6 (1) of Schedule A to the Regulation is amended by striking out "I acknowledge that the RSC will be filed" at the beginning and substituting "I acknowledge that the RSC will be submitted for filing".
- (13) Paragraph 2 of subsection 6 (1) of Schedule A to the Regulation is revoked and the following substituted:
 - 2. I have conducted reasonable inquiries to obtain all information relevant to this RSC, including information from the other current owners of the RSC property named in this part of the RSC and I [insert have or have not] obtained all information relevant to this RSC of which I am aware.
- (14) Subsection 6 (1) of Schedule A to the Regulation is amended by adding the following paragraph:
 - 5. I have ensured that access to the entire property, including the phase one property, any phase two property and the RSC property, has been afforded to the qualified person and to persons supervised by the qualified person, for purposes of conducting the site reconnaissance.
- (15) Section 7 of Schedule A to the Regulation is revoked and the following substituted:
- 7. This Part applies to a RSC submitted for filing in respect of a property if a phase two environmental site assessment was not conducted for the property.
 - (16) Section 9 of Schedule A to the Regulation is revoked and the following

substituted:

- 9. The qualified person shall provide in the RSC the following information:
- 1. Their name, mailing address, telephone number, e-mail address and fax number.
- 2. The name of the local municipality and of any upper-tier municipality in which the property is located.

(17) Paragraphs 1 and 2 of section 10 of Schedule A to the Regulation are revoked and the following substituted:

- 1. A phase one environmental site assessment of the RSC property, which includes the evaluation of the information gathered from a records review, site reconnaissance, interviews, a report and any updates as required has been conducted in accordance with the regulation by or under the supervision of a qualified person as required by the regulation.
- 2. As of [insert the certification date], no phase two environmental site assessment is required by the regulation for the RSC property and based on the phase one environmental site assessment for the RSC property, in my opinion, it is not necessary for any other reason to conduct a phase two environmental site assessment for the RSC property.

(18) Section 11 of Schedule A to the Regulation is revoked and the following substituted:

- 11. The qualified person shall provide in the RSC the following information and documents:
 - 1. The total area of the RSC property in hectares.
 - 2. The title, author and date of the document used as the phase one environmental site assessment report in submitting the record of site condition for filing.
 - 3. The RSC number of any previous RSC that has been filed in the Registry, if the previous RSC applies to any part of the RSC property.
 - 4. The transition notice number of any previous transition notice that has been filed in the Registry, if the previous transition notice applies to any part of the RSC property.
 - 5. A list of reports or other documents, other than the documents referred to in paragraph 2, setting out title, author and date and type of environmental site assessment, where applicable, relied upon in certifying the information set out in section 10 or otherwise used in conducting the phase one environmental site assessment.
 - 6. The table of current and past uses of the phase one property prepared during the phase one environmental site assessment.
 - 7. The phase one conceptual site model prepared during the phase one environmental site assessment.
 - 8. The date the last work on the records review, interviews and site reconnaissance components of the phase one environmental site assessment was done.
 - 9. The document prepared pursuant to subsection 3 (3) of Schedule F, where Schedule F and paragraph 2 of subsection 55 (3) of the regulation apply to the RSC.
 - (19) Paragraph 3 of section 12 of Schedule A to the Regulation is amended by

striking out "I acknowledge that the RSC will be filed" at the beginning and substituting "I acknowledge that the RSC will be submitted for filing".

- (20) Section 12 of Schedule A to the Regulation is amended by adding the following paragraph:
 - 4.1 I do not hold and have not held [add, where the qualified person is employed and my employer does not hold and has not held] a direct or indirect interest in the RSC property or any property which includes the RSC property and was the subject of a phase one or two environmental site assessment or risk assessment upon which this record of site condition is based.
- (21) Section 13 of Schedule A to the Regulation is revoked and the following substituted:
- 13. This Part applies to a RSC submitted for filing in respect of a property if a phase two environmental site assessment was conducted for the property.
- (22) Paragraphs 2, 3, 4 and 5 of section 15 of Schedule A to the Regulation are revoked and the following substituted:
 - 2. The date the last work on the planning of the site investigation and conducting the site investigation components of the phase two environmental site assessment was done.
 - 3. The table of current and past uses of the phase one property prepared during the phase one environmental site assessment.
 - 4. The phase two conceptual site model prepared during the phase two environmental site assessment.
 - 5. The name of the laboratory used to analyze any samples collected of soil, ground water or sediment on, in or under the RSC property.
- (23) Paragraph 1 of subsection 16 (1) of Schedule A to the Regulation is revoked and the following substituted:
 - 1. A phase one environmental site assessment of the RSC property, which includes the evaluation of the information gathered from a records review, site reconnaissance, interviews, a report and any updates required and has been conducted in accordance with the regulation by or under the supervision of a qualified person as required by the regulation.
 - (24) Subsection 16 (2) of Schedule A to the Regulation is revoked.
- (25) Paragraph 1 of section 17 of Schedule A to the Regulation is revoked and the following substituted:
 - 1. A phase two environmental site assessment of the RSC property, which includes the evaluation of the information gathered from planning and conducting a site investigation, a report, and any updates required, has been conducted in accordance with the regulation by or under the supervision of a qualified person as required by the regulation.
- (26) Section 18 of Schedule A to the Regulation is amended by adding "information and documents in respect of," at the end of the portion before clause (a).
 - (27) Clause 18 (b) of Schedule A to the Regulation is revoked.
 - (28) Paragraph 1 of subsection 19 (2) of Schedule A to the Regulation is revoked

and the following substituted:

- 1. One of the following certifications:
 - i. The owner of the property or a person authorized by the owner of the property has informed me that the owner of the property has, within the six months immediately before the submission of this record of site condition, given written notice of intention to apply non-potable ground water site condition standards to the clerk of the local municipality in which the property is located and the clerk of any upper-tier municipality in which the property is located.
 - ii. I have, within the six months immediately before the submission of this record of site condition, given written notice of intention to apply non-potable ground water site condition standards to the clerk of the local municipality in which the property is located and the clerk of any upper-tier municipality in which the property is located.

(29) Section 20 of Schedule A to the Regulation is revoked and the following substituted:

GROUND WATER SAMPLING

- 20. (1) Where ground water sampling at the RSC property is required, the qualified person shall certify in the RSC, in the language set out in this subsection, the following in relation to the RSC property:
 - 1. Ground water sampling has been conducted in accordance with the regulation by or under the supervision of a qualified person as required by the regulation.
- (2) Where ground water sampling at the RSC property is not required, the qualified person shall make a statement in the RSC as to whether ground water sampling has been carried out at the RSC property and, if not, the qualified person shall certify, in the language set out in this subsection, the following:
 - 1. As of [insert certification date], in my opinion, based on the phase one and phase two environmental site assessments, and any confirmatory sampling, which included the sampling and analysis of soil, it is not necessary to conduct sampling and analysis of ground water quality for the RSC property to make the certified statement set out in paragraph 3 of section 17 of Schedule A.

(30) Sections 27 to 34 of Schedule A to the Regulation are revoked and the following substituted:

- 27. The qualified person shall provide a description of any soil removals or other action taken to reduce the concentration of contaminants on, in or under the RSC property for the purposes of submitting the RSC for filing, in accordance with sections 28 to 34.2.
- 28. (1) The qualified person shall identify the estimated quantities of the soil, if any, originating at and remaining on the RSC property that have been remediated, at a location either on or off the property, to reduce the concentration of contaminants in the soil.
- (2) The qualified person shall report estimated soil quantities as measured in, or equivalent to, in-ground volume in cubic metres.
- (3) In identifying the quantities of any soil for the purposes of subsection (1), the qualified person shall indicate the remediation process or processes used and the estimated amount of soil remediated by each identified process.

- 29. (1) The qualified person shall identify the estimated quantities of soil or sediment, if any, removed from and not returned to the RSC property.
- (2) The qualified person shall report the estimated soil and sediment quantities as measured in, or equivalent to, the in-ground volume in cubic metres.
- 30. (1) The qualified person shall identify the estimated quantity of the soil, if any, being brought from another property to and deposited at the RSC property, not including any soil that may have originated at but been remediated off the RSC property and that is identified in section 28.
- (2) The qualified person shall report the estimated soil quantity as measured in, or equivalent to, the in-ground volume in cubic metres.
- 31. The qualified person shall identify and describe any ground water control or treatment measures that,
 - (a) were required for the RSC property prior to the certification date for the purpose of submitting the RSC for filing; or
 - (b) are or will be required for the RSC property after the certification date.
- 32. The qualified person shall identify the estimated volume in litres of ground water, if any, removed from and not returned to the RSC property.
- 33. The qualified person shall identify the volume in litres of ground water, if any, originating at and remaining on the RSC property that has been remediated at a location on or off the property, to reduce the concentration of contaminants in the ground water.
- 34. Other than the activities identified in sections 28 to 33, the qualified person shall identify any constructed works that,
 - (a) prior to the certification date for the purpose of submitting the RSC for filing, were required to control or otherwise mitigate the release or movement of known existing contaminants at the RSC property; or
 - (b) after the certification date, are required to control or otherwise mitigate the release or movement of known existing contaminants at the RSC property.
- 34.1 (1) The qualified person shall indicate whether there are any monitoring requirements or any requirements for care, maintenance or replacement of any monitoring or control works for known existing contaminants, if any, on the RSC property, after the certification date.
- (2) A qualified person who indicates that there are monitoring requirements or requirements for care, maintenance or replacement of any monitoring or control works shall indicate whether those requirements are ground water management measures or soil management measures.
- 34.2 The qualified person shall indicate if any soil, sediment or ground water at the RSC property that is or was located within 3 metres of the RSC property boundary has been remediated or removed for the purpose of remediation.
- (31) Paragraph 3 of section 35 of Schedule A to the Regulation is amended by striking out "I acknowledge the RSC will be filed" at the beginning and substituting "I acknowledge the RSC will be submitted for filing".
- (32) Section 35 of Schedule A to the Regulation is amended by adding the following paragraph:

4.1 I do not hold and have not held [add, where the qualified person is employed – and my employer does not hold and has not held] a direct or indirect interest in the RSC property or any property which includes the RSC property and was the subject of a phase one or two environmental site assessment or risk assessment upon which this record of site condition is based.

29. (1) Paragraphs 1, 2, 3 and 4 of section 3 of Schedule B to the Regulation are revoked and the following substituted:

- 1. The name, mailing address, postal code and telephone number of the owner of the RSC property who is filing the RSC or who is authorizing the filing of the RSC.
- 2. The e-mail address and fax number, if any, of the owner of the RSC property who is filing the RSC or who is authorizing the filing of the RSC.
- 3. If the owner is a firm, company or partnership, the name of the person who is authorizing the filing on behalf of the firm, company or partnership.
- 4. The name and mailing address of any other current owner of the RSC property and, if the other owner is a firm, company or partnership, the name of a contact person for the other owner.

4.1 For the RSC property,

- i. a legal description of the property, and a list of its owners and a description of the nature of their interest and any municipal address, assessment roll number and property identification number applicable to the property, prepared by a lawyer after reviewing a current plan of survey of the property that has been prepared, signed and sealed by a surveyor and all other necessary documents, and
- ii. geographic coordinates of the centroid of the property measured using a Global Positioning System receiver and projected on the UTM grid coordinate system identifying easting, northing and zone based on a NAD 83 datum.

(2) Paragraphs 9 and 10 of section 3 of Schedule B to the Regulation are revoked and the following substituted:

9. The name of the local municipality and of any upper-tier municipality in which the property is located.

(3) Section 3 of Schedule B to the Regulation is amended by adding the following subsection:

(2) Despite subparagraph 4.1 i of subsection (1), where the RSC property consists of land that is administered by the Ministry of Natural Resources under the *Public Lands Act*, a description approved by the Surveyor General may be provided instead of a plan of survey.

(4) Paragraphs 1, 2, 3 and 4 of section 4 of Schedule B to the Regulation are revoked and the following substituted:

- 1. If the owner is a corporation, other than a municipal corporation that is the beneficial owner, a copy of the Certificate of Status in the case of a corporation incorporated or continued under the *Business Corporations Act* or an equivalent document in the case of any other corporation. The Certificate of Status or other document must be dated no earlier than one month before the RSC is filed.
- 2. If the owner is an entity other than a corporation or an individual, a copy of a

document that is equivalent to the documents referred to in paragraph 1, dated no earlier than one month before the date on which the RSC is filed.

(5) Paragraph 6 of section 4 of Schedule B to the Regulation is revoked and the following substituted:

6. If the owner is not a receiver, a copy of any deed, transfer or other document by which the RSC property was in whole or part acquired by the owner, as determined by the lawyer providing the legal description required by paragraph 4.1 of section 3, even if the deed, transfer or other document includes other property in addition to the RSC property.

(6) Paragraph 7 of section 4 to Schedule B to the Regulation is revoked and the following substituted:

- 7. A copy of a current plan of survey, prepared, signed and sealed by a surveyor showing and outlining,
 - i. the RSC property,
 - ii. any RA property within which the RSC property is located, and
 - iii. the phase one property and any phase two property within which the RSC property is located.
- (7) Paragraphs 8 and 9 of section 4 of Schedule B to the Regulation are revoked.
- (8) Section 4 of Schedule B to the Regulation is amended by adding the following subsections:
- (2) Paragraphs 1 and 2 of subsection (1) do not apply if the beneficial owner of the RSC property is the Queen in right of Ontario or in right of Canada.
- (3) Paragraph 7 of subsection (1) does not apply where the RSC property consists of land that is administered by the Ministry of Natural Resources under the *Public Lands Act*, but a description approved by the Surveyor General showing the RSC property, any RA property within which the RSC property is located and the phase one property and any phase two property within which the RSC property is located shall be contained in the RSC.

30. (1) Subsection 1 (1) of Schedule C to the Regulation is amended by adding the following definitions:

"approved model" means the data file entitled "Modified Generic Risk Assessment Model" and dated October 19, 2009, as amended from time to time, that is maintained by the Ministry as part of its Brownfield initiative and is available on the Internet and may be available in such other manner as the Minister of the Environment considers appropriate;

"community assessment report" means a report that,

- (a) has been prepared by a person referred to in section 6 of the regulation based on an assessment by such a person,
- (b) is a report on the assessment of contaminants of concern on one or more properties,
- (c) uses assumptions and models in order to propose intervention values for one or more of the contaminants referred to in clause (b),
- (d) proposes intervention values in respect of one or more properties which were not the source of the contaminant,

- (e) identifies the area within which properties to which the intervention values apply are located, and
- (f) has been submitted to a Director pursuant to an order or a draft order under legislation administered by the Ministry;
- (2) The definitions of "contaminants of concern" and "RA property" in subsection 1 (1) of Schedule C to the Regulation are revoked.
- (3) Section 2 of Schedule C to the Regulation is amended by adding the following subsection:
- (3) The Director may require that the pre-submission form or the risk assessment report be in whole or in part submitted in an acceptable electronic form.
- (4) Section 3 of Schedule C to the Regulation is amended by adding the following subsection:
- (1.1) Despite subsection (1), in respect of a modified generic risk assessment that is described in section 7, the property owner shall submit the pre-submission form to the Ministry with the written risk assessment report referred to in paragraph 3 of subsection 2 (1).
- (5) Paragraph 1 of subsection 3 (5) of Schedule C to the Regulation is revoked and the following substituted:
 - 1. The name, mailing address, postal code and telephone number of the owner of the RA property who is responsible for the submission of the risk assessment.
 - 1.1 The e-mail address and fax number, if any, of the owner of the RA property who is responsible for the submission of the risk assessment.
- (6) Paragraph 4 of subsection 3 (5) of Schedule C to the Regulation is revoked and the following substituted:
 - 4. For the RA property,
 - i. a legal description of the property and a list of its owners and a description of the nature of their interest and any municipal address, assessment roll number and property identification number applicable to the property, prepared by a lawyer after reviewing a current plan of survey of the property that has been prepared, signed and sealed by a surveyor and all other necessary documents, and
 - ii. municipal address, assessment roll number and property identification number, if any, applicable to the property.
- (7) Section 3 of Schedule C to the Regulation is amended by adding the following subsection:
- (5.1) Despite subparagraph 4.1 i of subsection (5), where the RSC property consists of land that is administered by the Ministry of Natural Resources under the *Public Lands Act*, a description approved by the Surveyor General may be provided instead of a plan of survey.
- (8) Clause 3 (8) (a) of Schedule C to the Regulation is revoked and the following substituted:
 - (a) a description and assessment of,
 - (i) areas of potential environmental concern, and
 - (ii) any subsurface structures and utilities on, in or under the RA property that

may affect contaminant distribution and transport;

- (a.1) a description of and, as appropriate, figures illustrating, the physical setting of a RA property and any areas under it including,
 - (i) stratigraphy from ground surface to the deepest aquifer or aquitard investigated,
 - (ii) hydrogeological characteristics, including aquifers, aquitards and, in each hydrostratigraphic unit where one or more contaminants is present at concentrations above the applicable site condition standards, lateral and vertical hydraulic gradients,
 - (iii) approximate depth to bedrock,
 - (iv) approximate depth to water table,
 - (v) any respect in which section 41 or 43.1 of the regulation applies to the property,
 - (vi) areas where soil has been brought from another property and placed on, in or under the RA property, and
 - (vii) approximate locations, if known, of any proposed buildings and other structures;
- (a.2) where a contaminant is present on, in or under a RA property at a concentration greater than the applicable site condition standard, identification of,
 - (i) each area where a contaminant is present on, in or under a RA property at a concentration greater than the applicable site condition standard,
 - (ii) the contaminants associated with each of the areas referred to in subclause (i), and
 - (iii) each medium in which a contaminant associated with an area referred to in subclause (i) above is present;
- (a.3) where a contaminant is present on, in or under a RA property at a concentration greater than the applicable site condition standard, a description of,
 - (i) what is known about each of the areas referred to in subclause (a.2) (i),
 - (ii) the distribution, in each of the areas referred to in subclause (a.2) (i), of each contaminant present in the area at a concentration greater than the applicable site condition standard, for each medium in which the contaminant is present, together with figures showing the distribution,
 - (iii) anything known about the reason for the discharge into the natural environment of the contaminants present on, in or under the RA property at a concentration greater than the applicable site condition standard,
 - (iv) anything known about migration away from any area of potential environmental concern of the contaminants present on, in or under the RA property at a concentration greater than the applicable site condition standard, including the identification of any preferential pathways,
 - (v) climatic or meteorological conditions that may have influenced distribution and migration of the contaminants, such as temporal fluctuations in ground water levels, and
 - (vi) if applicable, information concerning soil vapour intrusion of the

contaminants into buildings including,

- (A) relevant construction features of a building, such as a basement or crawl space,
- (B) building heating, ventilating and air conditioning design and operation, and
- (C) subsurface utilities;
- (a.4) where contaminants on, in or under the RA property are present at concentrations greater than the applicable site condition standard, one or more cross-sections showing,
 - (i) the lateral and vertical distribution of a contaminant in each area where the contaminant is present at a concentration greater than the applicable site condition standard in soil, ground water and sediment,
 - (ii) approximate depth to water table in each area referred to in subclause (i),
 - (iii) stratigraphy from ground surface to the deepest aquifer or aquitard investigated, and
 - (iv) any subsurface structures and utilities that may affect contaminant distribution and transport in each area referred to in subclause (i);

(9) Clause 3 (8) (b) of Schedule C to the Regulation is revoked and the following substituted:

- (b) for each area where a contaminant is present on, in or under the RA property at a concentration greater than the applicable site condition standard for the contaminant, a diagram identifying, with narrative explanatory notes,
 - (i) the release mechanisms,
 - (ii) contaminant transport pathway,
 - (iii) the human and ecological receptors located on, in, under and off the RA property,
 - (iv) receptor exposure points, and
 - (v) routes of exposure;

(10) Subsection 3 (12) of Schedule C to the Regulation is revoked and the following substituted:

- (12) Except in respect of a modified generic risk assessment, the Director shall review the pre-submission form and may provide comments with respect to it to the owner of the property.
- (11) Paragraph 4 of subsection 4 (6) of Schedule C to the Regulation is revoked and the following substituted:
 - 4. A summary of the phase one environmental site assessment and phase two environmental site assessment reports, including,
 - i. justification for the sampling program used in undertaking the phase two environmental site assessment,
 - ii. a summary of quality assurance and quality controls used for the sampling program and analysis of the samples,

- iii. an assessment of whether the sampling program is sufficient for the purposes of the risk assessment and if not, a description of what further site investigations were conducted to support the risk assessment, and
- iv. a rationale for and description of any hydrogeological and geological interpretations which differ from assumptions on which the Soil, Ground Water and Sediment Standards are based.
- 4.1 The appendix to the phase two environmental site assessment report that reports on requirements in a phase two environmental site assessment in support of a modified generic risk assessment.
- 4.2 The portion of the review and evaluation section of the phase two environmental site assessment report headed "phase two conceptual site model".

(12) Section 4 of Schedule C to the Regulation is amended by adding the following subsections:

- (7) Paragraphs 1 and 7 of subsection (6) do not apply with respect to a risk assessment report prepared as part of a modified generic risk assessment described in section 7.
- (8) Paragraph 7 of subsection (6) does not apply with respect to a risk assessment report prepared as part of a risk assessment based on a community assessment report described in section 7.

(13) Section 7 of Schedule C to the Regulation is revoked and the following substituted:

Limited scope risk assessment

- 7. (1) A risk assessment is a limited scope risk assessment in respect of a property if,
- (a) it is either a risk assessment based on a community assessment report or a modified generic risk assessment; and
- (b) sections 9 and 10 do not apply to the risk assessment.
- (2) A risk assessment is a risk assessment based on a community assessment report if,
 - (a) the owner of the RA property, with respect to a contaminant that was assessed as part of and reported on in the community assessment report,
 - (i) relies on the models and assumptions used in the community assessment with respect to the contaminant, and
 - (ii) proposes one or more intervention values for contaminants set out in the community assessment report as a standard to be specified in the risk assessment;
- (b) the RA property is within the study area of the assessment described in the community assessment report;
- (c) the risk assessment uses the community assessment report in a manner that is appropriate to the characteristics of the RA property; and
- (d) the District Office of the Ministry for the area in which the RA property is located has been consulted on the appropriateness of using a limited scope risk assessment based on the community assessment report.
- (3) A risk assessment is a modified generic risk assessment if the risk assessment,
- (a) uses the approved model in a manner that is appropriate to the characteristics of the RA property;

- (b) is submitted in a template provided by the Ministry for use in submitting a modified generic risk assessment; and
- (c) modifies an assumed value for an assumption, based on and in a manner consistent with the results of an assessment which meets the minimum requirements and objective for the assumption category associated with the assumption in each case where the risk assessment is to modify an assumed value for an assumption associated with an assumption category in Table 4 of Schedule E from the assumed value for the assumption used by the Ministry to develop the full depth generic site condition standards.
- (4) A modified generic risk assessment shall not be submitted in respect of,
- (a) a property to which section 41 of the regulation applies; or
- (b) a property for which any risk management measure, other than any risk management measure designed and published by the Ministry for use in a modified generic risk assessment, is proposed in the risk assessment.

(14) Table 1 of Schedule C to the Regulation is revoked and the following substituted:

TABLE 1 MANDATORY REQUIREMENTS FOR RISK ASSESSMENT REPORTS

Report Section	Heading	Sub-Heading	Minimum Requirements
1. Summary of Recommendations and Findings	(a) Risk Assessment Objectives and Approach		Summarize the risk assessment objectives, including those specified in report section 4 (Human Health Risk Assessment) and report section 5 (Ecological Risk Assessment).
			Summarize the type or types of risk assessment approaches taken to meet the objectives.
	(b) Deviations from Pre- submission Form		Describe in detail any deviations from the information provided in the pre-submission form including,
			(a) any changes to the conceptual site model that was submitted as part of the form;
			(b) whether there has been a change in the type of risk assessment approach identified in the form; and,
			(c) whether another computer model was used other than the model specified in the form.
	(c) Risk Assessment Standards		State the proposed standard specified in the risk assessment for each contaminant of concern.
	(d) Risk Assessment Assumptions		State the assumptions used in determining each standard specified in the risk assessment, including property use assumptions.
	(e) Risk Management Requirements		State the risk management measures and ongoing monitoring, maintenance and contingency plan requirements, if applicable.
2. Risk Assessment Team Membership			State the expertise required to complete this risk assessment and design of any risk management measures specified in report section 7 and justify the omission of areas of expertise normally associated with the completion of a risk assessment.
			Identify each team member with the expertise necessary to complete the risk assessment and

(a) Property Information		Describe the general physical characteristics of the property including size of the property and size of contaminated area. Provide sufficient detail on the property to support the conceptual site model used in the preparation of the risk assessment report, including, (a) a summary of past and current use of property; (b) a summary of past and current use of any relevant property that is adjacent to the property; (c) a description of off-site sources of contaminants of concern and off
		of the property including size of the property and size of contaminated area. Provide sufficient detail on the property to support the conceptual site model used in the preparation of the risk assessment report, including, (a) a summary of past and current use of property; (b) a summary of past and current use of any relevant property that is adjacent to the property; (c) a description of off-site sources of contaminants of concern and off
		support the conceptual site model used in the preparation of the risk assessment report, including, (a) a summary of past and current use of property; (b) a summary of past and current use of any relevant property that is adjacent to the property; (c) a description of off-site sources of contaminants of concern and off
		of property; (b) a summary of past and current use of any relevant property that is adjacent to the property; (c) a description of off-site sources of contaminants of concern and off
		(b) a summary of past and current use of any relevant property that is adjacent to the property; (c) a description of off-site sources of contaminants of concern and off
		contaminants of concern and off
		site receptors; and,
		(d) an indication of the proposed use of property.
(b) Site Plan and Hydrogeologic Interpretation of RA Property	cal	Provide the site plans, cross-sections and a hydrgeological interpretation of the RA property that satisfies the requirements of clause 3 (8) (a) and that was relied upon in the preparation of the risk assessment and all documentation used to support this interpretation.
(c) Contaminants of Concern	_ ·	List all of the contaminants of concern.
01 00 1100 111		The contaminants of concern must include the following:
		Any contaminants detected on, in or under the RA property that exceed the applicable site condition standards.
		2. Any contaminants detected on, in or under the RA property and for which no applicable site condition standard is prescribed under Part IX (Site Condition Standards and Risk Assessment of the regulation.
	(i) Sampling Programs	With reference to the sampling programs summarized in the appendices to the risk assessment report, describe how the program is adequate for the risk assessment objectives and approach specified in report section 1.
		In the case of an estimation of natural local background concentration risk assessment, specify the methods that were used to estimat the local background concentrations in soil, including details of,
		(a) any sampling programs undertake in accordance with subsections (4) to (8);
		(b) any existing geological data, as described in subsection 8 (9) that were used to estimate the natural local background concentrations in place of sampling data.
(a) Problem Formulation		
	Hydrogeologic Interpretation of RA Property (c) Contaminants of Concern	Hydrogeological Interpretation of RA Property (c) Contaminants of Concern (i) Sampling Programs (a) Problem (i) Human

 	1		3 (8) (b) and is consistent with the
			information upon which the diagrams referred to in that clause are based:
			(b) explains how the information
			provided under report section 3 was incorporated into and is
			consistent with the human health conceptual site model; and
			(c) was relied upon in the preparation of the risk assessment.
		(ii) Risk Assessment Objectives	State the objectives of the human health risk assessment and include an indication of,
			(a) the proposed use of the RA property;
			(b) the receptors and exposure pathways to be assessed by the human health risk assessment;
			(c) whether a qualitative or
			quantitative assessment of risk or both will be used in the human health risk assessment; and
			(d) the type of approach used for the human health risk assessment.
			Demonstrate that the data used for the human health risk assessment is sufficient to meet the objectives of the assessment, having regard to,
			(a) the data quality objectives specified in the reports on the sampling program summarized in the appendices to the risk
			assessment report; and (b) any other relevant information the
			qualified person has gathered or obtained in conducting the assessment.
			State how any uncertainty resulting from variable data, poor data quality or gaps in data in relation to the RA property affected,
			(a) the setting of objectives for the human health risk assessment; and
			(b) the ability to meet those objectives.
	(b) Exposure Assessment	(i) Receptor Characterist	Describe in detail the characteristics of every its man receptor, both on and off the RA property, identified in the human health conceptual site model.
		(ii) Pathway Analysis	Describe in detail every exposure pathway identified in the human health conceptual site model. Justify which exposure pathways are
		(iii) Exposure	incomplete. For every complete exposure pathway state,
		Estimates	(a) the relative frequency and duration
			of actual or potential exposures; (b) the relative magnitude of exposure
			to the human receptors, using measured contaminant exposure concentrations or concentrations predicted through fate and transport modelling; and
			(c) given the uncertainty described under the heading of "Problem Formulation", how does this uncertainty affect the outcomes of the exposure assessments conducted under clauses (a) and

			(b).
	(c) Toxicity Assessment	(i) Nature of Toxicity (Hazard Assessment	For each contaminant of concern,
			(a) state the potential adverse health effects on the human receptors associated with their exposure to those contaminants; and
			(b) indicate whether the contaminants are carcinogenic or exhibit threshold or non-threshold characteristics.
		(ii) Dose Response Assessment	For each contaminant of concern,
			(a) describe the relationship between the magnitude of exposure to the contaminant from each route of exposure and the probability of the occurrence of the adverse health effects identified in the Hazard Assessment;
			(b) if the data permits, identify the appropriate toxicity limit, from published limits available from a credible agency as described in subsection 9 (3) for each of the routes of exposure identified in clause (a); and
			(c) analyze the sources of uncertainty in the data used to conduct the hazard assessment and the dose response assessment, including any gaps or variability in the data and state how such uncertainty could affect these assessments.
	(d) Risk Characterizatio	n of Health Risks	For each contaminant of concern, having regard to the exposure assessment and the toxicity assessment, state the risk attributable in respect of that contaminant to each exposure route for human receptors on the RA property, using either a quantitative or qualitative analysis.
		Interpretation	A quantitative analysis undertaken for a pontaminant of concern must include the following:
			1. Provide a comparison of the dose response assessment to the exposure estimate to derive the risk level or hazard quotient at the RA property in the absence of any measures that have been taken or are being proposed at the RA property which have the effect of reducing the risk from the contaminant of concern.
			2. For each contaminant of concern with non-threshold toxic effects and taking into consideration any risk management measures that are being proposed in the risk assessment, propose and justify a human health standard for the contaminant, ensuring that the standard meets a target risk level of 1 × 10 ⁻⁶ for each
			of 1 × 10 ⁻⁶ for each environmental medium. 3. For each contaminant of concern with threshold toxic effects and taking into consideration any risk

I	1		management measures that are being
			management measures that are being proposed in the risk assessment, propose and justify a human health standard for the
			contaminant, ensuring that each human receptor does not receive
			an estimated dose exceeding 0.2 × the limit dose (TDI, RfD or
			RfC) for each environmental medium. In this paragraph,
			"TDI" means tolerable daily intake, "RfD" means the
			reference dose, "RfC" means the reference concentration. The
			units used to measure the TDI, the RfD and the RfC must be
			specified and conform to acceptable conventions.
			4. If, under paragraph 3, given the circumstances of the human
			receptors and the characteristics of the contaminant, it is
			unreasonable to apply a hazard quotient of less than or equal to
			0.2 for each environmental medium, a higher hazard quotient
			may be proposed, if the proposed quotient is accompanied with a
			detailed site specific multi-media exposure assessment that
			considers the transport of the contaminant across all environmental media to the
			human receptors by all exposure pathways and ensures that the
			standard achieves the same level of protection for each human
			receptor as is intended to be achieved by the applicable full
			depth generic site condition standard for that contaminant.
		(iii) Qualitative Interpretation	A qualitative analysis undertaken for a potential points of concern must include the
		of Health Risks	following:
			Provide a justification for why a quantitative analysis was not undertaken.
			Describe the justification process being used as part of the
			qualitative analysis. The justification process includes a
			non-numeric characterization of risk and may include a numeric
			assessment of exposure or toxicity for screening purposes
			and risk prioritization. 3. Taking into consideration any risk
			management measures that are being proposed for the RA
			property, propose and justify a human health standard for the
		(iv) Special	contaminant. If section 41 or 43.1 of the regulation applies
		Consideration	RA property, the justification for the health standard being proposed for the RA
			property must take into account the site conditions that make section 41 or 43.1 of the
			regulation apply to the RA property.
			For each contaminant of concern, assess whether the human health standard being
		of Off-Site	proposed for the RA property is likely to result
		Health	in a concentration greater than the applicable

		(vi) Discussion of Uncertainty	full depth site condition standard at the nearest human receptor located off the RA property and, if this is the case for any contaminant, specify the contaminant, the applicable site condition for that contaminant and the property where the human receptor is located and describe the human receptors that may be impacted. Having regard to the discussions of uncertainty under headings "Exposure Assessment" and "Toxicity Assessment", state how such uncertainty could affect the interpretation of risk in this report section and the need to manage such risks.
5. Ecological Risk Assessment (ERA)	(a) Problem Formulation	(i) Ecological Conceptual Site Model	Provide an ecological conceptual site model that,
			(a) satisfies the requirements of clauses 3 (8) (b) and (c) and is consistent with the information upon which the diagrams referred to in that clause are based;
			(b) explains how the information provided under report section 3 was incorporated into and is consistent with the human health conceptual site model; and
			(c) was relied upon in the preparation of the risk assessment.
		(ii) Risk Assessment Objectives	State the objectives of the ecological risk assessment and include an indication of,
			(a) the proposed use of the RA property;
			(b) which ecological receptors on the RA property are considered to be valued ecosystem components, the degree to which they must be protected and a justification to support such decisions;
			(c) the exposure pathways to be assessed in the ecological risk assessment;
			(d) whether a qualitative or quantitative assessment of risk or both will be used in the ecological risk assessment;
			(e) the type of approach used for the ecological risk assessment.
			Demonstrate that the data used for the ecological risk assessment are sufficient to meet the objectives of the assessment, having regard to,
			(a) the data quality objectives specified in the reports on the sampling program summarized in the appendices to the risk assessment report; and
			(b) any other relevant information that the qualified person has gathered or obtained in conducting the assessment.
			State how any uncertainty resulting from variable data, poor data quality or gaps in data in relation to the RA property affected,
			(a) the setting of objectives for the ecological risk assessment; and
			(b) the ability to meet those objectives.

(b) Receptor Characterization		Describe in detail the characteristics of every valued ecosystem component, both on and off the RA property, identified in the ecological conceptual site model.
(c) Exposure Assessment	(i) Pathway Analysis	Describe in detail every exposure pathway identified in the ecological conceptual site model. Justify which exposure pathways are incomplete.
	(ii) Exposure Estimates	For every complete exposure pathway, state,
		(a) the relative frequency and duration of actual or potential exposures;
		(b) the relative magnitude of exposure to the valued ecosystem components, using measured contaminant exposure concentrations or concentrations predicted through fate and transport modelling in a manner compatible with that used in the human health risk assessment; and
		(c) given the uncertainty described under the heading of "Problem Formulation", how does this uncertainty affect the outcomes of the exposure assessments conducted under clauses (a) and (b).
(d) Hazard Assessment		State the potential adverse effects on the valued ecosystem components associated with their exposure to each contaminant of concern.
		For each contaminant of concern,
		(a) describe the relationship between the magnitude of exposure to the contaminant from each route of exposure and the probability of the occurrence of the adverse ecological effect identified in the Hazard Assessment; (b) if the data permits, propose a
		toxicity reference value for each of the routes of exposure identified in clause (a); and
		(c) analyze the sources of uncertainty in the data used to conduct the hazard assessment, including any gaps or variability in the data and state how such uncertainty could affect the assessment.
(e) Risk Characterization	(i) Interpretation of Ecological Risks	For each contaminant of concern, having regard to the exposure assessment and the hazard assessment, state the risk attributable in respect of that contaminant to each exposure route for the valued ecological components on the RA property, using either a quantitative or qualitative analysis.
	(ii) Quantitative Interpretatio of Ecological Risks	A quantitative analysis that has been undertaken for a contaminant of concern must include the following:
		1. For each valued ecosystem component, provide a comparison of the toxicity reference value proposed in the "Hazard Assessment" to the exposure estimate proposed in the "Exposure Assessment" to derive an estimate of the degree of risk at the RA property in the

		absence of any measures that have been taken or are being proposed at the RA property which have the effect of reducing the risk
		from the contaminant of concern.
		Provide narrative to describe all magnitudes, comparisons and limitations relied upon to derive the risk under paragraph 1.
		3. Taking into consideration any risk management measures being proposed in the risk assessment, propose and justify an ecological standard for the contaminant, ensuring that the standard achieves the same level of protection for each valued ecosystem component that is intended to be achieved by the applicable full-depth generic site condition standard for that contaminant.
	(iii) Qualitative Interpretatio of Ecological Risks	A qualitative analysis that has been undertaken for a contaminant of concern must include the following:
		Provide a justification for why a quantitative analysis was not undertaken.
		2. Describe the justification process being used as part of the qualitative analysis. The justification process includes a non-numeric characterization of risk and may include a numeric assessment of exposure or toxicity for screening purposes and risk prioritization.
		3. Taking into consideration any risk management measures being proposed for the RA property, propose and justify an ecological standard for the contaminant, ensuring that the standard achieves the same level of protection for each valued ecosystem component that is intended to be achieved by the applicable full-depth generic site condition standard for that contaminant.
	(iv) Special Consideration	If a RA property is,
		(a) located within 30 metres of an "area of natural significance", includes such an area, is adjacent to such an area or part of such an area, the justification for the ecological standard being proposed for the RA property must ensure that the standard is protective of the conditions that causes the area to be an area of natural significance; and
		(b) subject to section 41 or 43.1 of the regulation, the justification for the ecological standard being proposed for the RA property must take into account the site conditions that make section 41 or 43.1 of the regulation apply to the RA property.

		of Off-Site Ecological Risks (vi) Discussion of	For each contaminant of concern, assess whether the ecological standard being proposed for the RA property is likely to result in a concentration greater than the applicable full depth site condition standard at the nearest ecological receptor located off the RA property and, if this is the case for any contaminant, specify the contaminant, the applicable site condition standard for that contaminant and the property where the ecological receptor is located and describe the ecological receptors that may be impacted. Having regard to the discussions of uncertainty under headings "Exposure
6. Conclusions and		(i)	Assessment" and "Hazard Assessment", state how such uncertainty could affect the interpretation of risk advanced in this report section and the need to manage such risks. A standard must be specific in the risk
Recommendations		Recommend Standards	The specified standard shall be, at a minimum, the more stringent of the human health standard and the ecological standard being proposed for the RA property. In the case of an estimation of natural local
			background concentration risk assessment, the specified standard shall be the local background concentration soil standard proposed under subsection 8 (1). State critical assumptions on which the
			state critical assumptions on which the standards specified in the risk assessment rely, having regard to the discussion of uncertainty in the "Risk Characterization" in report sections 4 (Human Health Risk Assessment) and 5 (Ecological Risk Assessment).
		Consideration for Ground Water Standards	If a standard being proposed in the risk was essment for ground water in or under the RA property is greater than 50% of the solubility limit, demonstrate the risk of free product formation and propose any risk management measures necessary in order to mitigate the formation of free product.
7. Risk Management Plan (if applicable)	(a) Risk Management Plan	Managemen	State the exposure pathways and environmental media that risk management measures are intended to address.
		(:) P: 1	State the required reduction in exposure concentration that the risk management measures are intended to achieve.
		(ii) Risk Managemen Measures	To achieve the specified performance believes, (a) propose risk management
			measures on the RA property that are designed to prevent, eliminate or ameliorate any adverse effects on or off the RA property;
			(b) propose restrictions on the use of the RA property, including any restriction that apply to the construction of a building on the property; or
			(c) propose a combination of measures specified in clauses (a) and (b). State the implications of the risk management
			plan for off-site health and ecological receptors.

		Risk	Specify the duration the proposed risk management measures are required to remain place to ensure the specified performance objectives are achieved.
		(iv) Requirement for Monitoring and Maintenance	Specify the designed lifespan of the measure, applicable.
			Propose a program for one or more of the following activities, if the program is necessary to achieve the specified risk management performance objectives:
			1. A program which includes procedures for the ongoing maintenance, monitoring and replacement of the risk management measures to ensure they remain operable for the period identified in this report under the sub-heading "Duration of Risk Management Measures". 2. A program which includes procedures for the ongoing monitoring of contaminants of
			3. A contingency plan for meeting the Risk Management Objectives if the Risk Management Measures fail.
8. Public Communication Plan (if applicable)	(a) Public Communicatio Plan	(i) Optional Communica Plans	If owner has implemented a plan to consult the tions ic as part of the development of the risk assessment, provide,
			(a) a description of the plan, including any opportunities given to the public to comment on the proposed risk assessment;
			(b) a summary of the comments received during the consultation; and
			(c) a description of how the public comments were considered as part of the risk assessment process.
		(ii) Required Communica Plans For RA Properties in Wider Area of Abatement	If the risk assessment has been identified by the Ministry as relating to a property located within a wider area of abatement under section 10, the risk assessment shall include,
			(a) a description of the public communication plan required by clause 10 (2) (b) including any opportunities given to the public to comment on the proposed risk assessment;
			(b) a summary of the comments received during consultation under the plan;
			(c) a description of how the public comments were considered as part of the risk assessment process; and
	ion is omended by	adding the falle	(d) a copy of all the written comments received from the Ministry under clause 10 (2) (a).

31. The Regulation is amended by adding the following Schedules:

SCHEDULE D PHASE ONE ENVIRONMENTAL SITE ASSESSMENTS

PART I APPLICATION

Application and definitions

- 1. (1) The requirements in this Schedule apply to phase one environmental site assessments.
- (2) Each section in this Schedule is deemed to be a requirement, whether it is described as such or not.
 - (3) In this Schedule,
 - "sewage" means,
 - (a) a waste of domestic origin that is human body waste, toilet or other bathroom waste, waste from showers and tubs, liquid or water borne culinary and sink waste and laundry waste, and
 - (b) drainage, storm water, commercial wastes and industrial wastes;

"sewage works" means any works for the collection, transmission, treatment and disposal of sewage or any part of such works.

PART II RECORDS REVIEW

Records review, specific objectives

- 2. The following are the specific objectives of a records review:
 - 1. To obtain and review records that relate to the phase one property and to the current and past uses of and activities at or affecting the phase one property in order to determine if an area of potential environmental concern exists and to interpret any area of potential environmental concern.
 - 2. To obtain and review records that relate to properties in the phase one study area, other than the phase one property, in order to determine if an area of potential environmental concern exists and to interpret any area of potential environmental concern.

Records review, requirements

- 3. (1) The qualified person shall, as part of a preliminary records review,
- (a) consider and determine, with a rationale for the determination, whether the phase one study area should include a property that is not located, wholly or partly, within 250 metres from the nearest point on a boundary of the phase one property; and
- (b) determine, with a rationale for the determination, the date of the first developed use of the phase one property.
- (2) The qualified person shall ensure that the following additional requirements are met as part of the records review:

General

1. Make all reasonable inquiries to obtain reasonably accessible records pertaining to the current use or uses and all past uses of the phase one property.

- 2. Make all reasonable inquiries, including reference to the *Catalogue of Canadian Fire Insurance Plans 1875-1975*, to obtain the fire insurance plans for all parts of the phase one property.
- 3. Prepare an up-to-date chronological chain of title that shows the owners' names and dates of ownership for the phase one property based on a search of the title of the phase one property that goes back to the date of the first developed use of the phase one property, unless other information from the records review satisfies the objectives of the records review and a title search back to the date of the first developed use would not contribute to obtaining information about the environmental condition of the phase one property.
- 4. Make all reasonable inquiries to obtain copies of reports prepared in respect of all or part of the phase one property by or on behalf of a current or former owner respecting environmental conditions at the phase one property including,
 - i. environmental site assessment reports,
 - ii. remediation reports,
 - iii. reports prepared in response to an order or request of the Ministry, and
 - iv. any other reports relating to the presence of a contaminant on, in or under the phase one property or the existence of an area of potential environmental concern.
- 5. Make all reasonable inquiries to obtain records concerning the matters referred to in sections 13 and 14 of this Schedule.
- 6. Review the documents obtained pursuant to paragraphs 1, 2, 4 and 5.

Environmental Source Information

- 7. Make all reasonable inquiries to obtain such of the following as are reasonably accessible and pertain, unless otherwise specified, to the phase one study area:
 - i. National Pollutant Release Inventory information maintained by Environment Canada,
 - ii. PCB information maintained by the Ministry,
 - iii. certificates of approval, permits to take water, certificates of property use or similar instruments related to the environmental condition of the phase one property and any property on, under or adjacent to the phase one property and issued pursuant to an Act administered by the Ministry, whether in force or not,
 - iv. the inventory of coal gasification plants that is maintained by the Ministry,
 - v. records concerning environmental incidents, orders, offences, spills, discharges of contaminants or inspections maintained by the Ministry where the incident, order, offence, spill, discharge or inspection affects the phase one property and any property on, under or adjacent to the phase one property,
 - vi. waste management records, including current and historical waste storage locations and waste generator and waste receiver information maintained pursuant to Regulation 347 of the Revised Regulations of Ontario, 1990 (General Waste Management) made under the Act, or its predecessors with respect to the phase one property and any property on, under or adjacent

- to the phase one property,
- vii. reports submitted to the Ministry related to the environmental conditions of the phase one property and any property on, under or adjacent to the phase one property,
- viii. retail fuel storage tanks information maintained by the Technical Standards and Safety Authority,
- ix. notices and instruments, including records of site condition, posted in the Registry,
- x. identification of areas of natural significance maintained by the Ministry of Natural Resources, and
- xi. landfill information maintained by the Ministry.
- 8. Review the documents obtained pursuant to paragraph 7.

Physical Setting Sources

- 9. Make all reasonable inquiries to obtain a series of aerial photographs of the phase one study area that, as a whole,
 - i. illustrate as much as possible of the period from the phase one property's first developed use to the time of the phase one environmental site assessment,
 - ii. identify the buildings and structures that were present on the phase one property from time to time throughout this period,
 - iii. identify potentially contaminating activities within the phase one study area from time to time throughout this period, and
 - iv. identify areas of potential environmental concern.
- 10. Obtain one or more topographic maps (Ontario Base Map series), which illustrate the location of the phase one property in relation to any water bodies in the phase one study area and document regional topography.
- 11. Make all reasonable inquiries to obtain one or more physiographic maps or other similar documents in order to define regional physiography in the phase one study area and to obtain information about the surficial soil and bedrock in the phase one study area.
- 12. Make all reasonable inquiries to obtain one or more geological maps or other similar document in order to define the regional geology in the phase one study area and to obtain information about the stratigraphy of the overburden, from ground surface to bedrock, including approximate depth to bedrock and type of bedrock.
- 13. Make all reasonable inquiries to obtain well records and other relevant data for any operating or abandoned wells, including all wells described or defined under the *Ontario Water Resources Act*, in the phase one study area in order to identify the presence of such wells and to make appropriate use of the records and data to help determine the hydrogeological and geological characteristics of the phase one study area and describe,
 - i. the location of any such wells,
 - ii. the stratigraphy of the overburden, from ground surface to bedrock,

- iii. approximate depth to bedrock, and
- iv. approximate depth to the water table.

Site Operating Records

- 14. Where the phase one property is an enhanced investigation property that is currently being used, in whole or in part, for one of the uses described in clause 32 (1) (b) of the regulation, review all of the following, as are applicable and reasonably accessible otherwise than as described in clause 22 (2) (c) or (d) of the regulation, in respect of the property,
 - i. regulatory permits and records related to areas of potential environmental concern.
 - ii. material safety data sheets,
 - iii. underground utility drawings,
 - iv. inventories of chemicals, chemical usage and chemical storage areas,
 - v. inventory of above ground storage tanks and underground storage tanks,
 - vi. environmental monitoring data, including data created in response to an order or request of the Ministry,
 - vii. waste management records, including current and historical waste storage locations and waste generator and waste receiver information maintained pursuant to Regulation 347 of the Revised Regulations of. Ontario, 1990 (General Waste Management) made under the Act, or its predecessors,
 - viii. process, production and maintenance documents related to areas of potential environmental concern,
 - ix. records of spills and records of discharges of contaminants, including records of spills and records of discharges of contaminants of which notice is required to be given to the Ministry under the Act and records of such spills and discharges required to be kept pursuant to Ontario Regulation 675/98 (Classification and Exemption of Spills and Reporting of Discharges) made under the Act,
 - x. emergency response and contingency plans, including spill prevention and contingency plans prepared pursuant to section 91.1 of the Act, and Ontario Regulation 224/07 (Spill Prevention and Contingency Plans) made under the Act,
 - xi. environmental audit reports, and
 - xii. site plan of facility showing areas of production and manufacturing.
- 15. Where the phase one property is an enhanced investigation property, in whole or in part, because the property had been put to a use that is no longer being carried on, all reasonable inquiries shall be made to obtain and review the material referred to in paragraph 14 with respect to the former use.
- (3) If a document required by the records review is obtained from one source, it need not be obtained again from another source.

PART III INTERVIEWS

Interviews, specific objectives

- 4. The following are the specific objectives of conducting the phase one environmental site assessment interviews:
 - 1. To obtain information to assist in determining if an area of potential environmental concern exists.
 - 2. To identify details of potentially contaminating activities or potential contaminant pathways in, on or under the phase one property.

Interviews, role of qualified person

5. Subject to section 6, the qualified person shall select persons to be interviewed, determine the timing and method of the interviews, and select the topics for each interview.

Persons to be interviewed

- 6. (1) The qualified person shall ensure that the following persons are interviewed:
 - 1. A current owner or a current occupant of the phase one property, where one can be identified, or an individual with control of or authority over the owner or occupant, where the owner or occupant is not an individual.
- 2. The key site manager for each use, where the phase one property is an enhanced investigation property currently being used, in whole or in part, as an industrial property or a commercial property described in clause 32 (1) (b) of the regulation.
- (2) The qualified person shall make all reasonable efforts to ensure that the following persons are interviewed:
 - 1. All persons relevant to meeting the general and specific objectives of the phase one environmental site assessment as determined by the qualified person.
 - 2. Where the phase one property is an enhanced investigation property, at least one person with detailed knowledge of site activities identified by the qualified person and referred to as the key site manager, for each use included among the uses referred to in clause 32 (1) (b) of the regulation that is no longer being carried out at the phase one property but that has been carried on at the phase one property.
 - 3. Where no owner or occupant of the phase one property can be identified, at least one owner or occupant of a property in the phase one study area and one provincial or municipal government official, each of whom is familiar with the phase one property and its history, as determined by the qualified person having regard to the objectives of a phase one environmental site assessment.

Persons with specific knowledge

- 7. (1) Where the phase one property is an enhanced investigation property, the owner of the property shall provide to the qualified person the information in the owner's possession or control concerning persons with detailed knowledge of site activities with respect to any use or activity described in subsection 32 (1) of the regulation which is currently or was formerly being carried on at the phase one property.
- (2) The qualified person shall make all reasonable efforts to ensure that at least one person with detailed knowledge of site activities identified under subsection (1) is present during the site reconnaissance component of the phase one environmental site assessment.

Conduct of the interviews

- 8. The phase one environmental site assessment interviews shall be conducted as follows:
 - 1. The qualified person shall design all interviews. Interviews shall, to the degree

- practicable, include questions about all matters referred to in sections 13 and 14, including questions about the former uses of the property, and such questions shall, unless no one is accompanying the person conducting the site reconnaissance, be asked during the site reconnaissance in addition to being asked of any other person being interviewed who may be able to answer them.
- 2. The date, place and method of the interview and the name of the person being interviewed, the reason why the person was identified as an interview subject and all relevant information concerning potentially contaminating activity and areas of potential environmental concern shall be noted in writing by the interviewer.
- 3. Information gleaned through interviews shall be compared to other information sources in order to assess the validity of the information from the interview, and such comparisons shall be documented by the interviewer or other person conducting the comparison.
- 4. A written summary of each interview shall be prepared, which shall include consideration of the interviewer's notes and the assessment of the validity of information from each interview.

PART IV SITE RECONNAISSANCE

Site reconnaissance, specific objectives

- 9. The following are the specific objectives of the site reconnaissance component of a phase one environmental site assessment:
 - 1. To determine if areas of potential environmental concern exist through observations about current and past uses and potentially contaminating activity on, in or under the phase one property and, as practicable, current and past uses and activities and potentially contaminating activity in the phase one study area.
 - 2. To identify details of potential contaminant pathways on, in or under the phase one property and areas of potential environmental concern and contaminants of potential concern.

Obligation of owner

10. The owner of the phase one property shall grant access and ensure that access is granted by any occupant of the phase one property who is not the owner to the qualified person and to persons supervised by the qualified person for purposes of conducting the site reconnaissance, to enable them to investigate the entire phase one property.

Timing of site reconnaissance

11. The site reconnaissance shall occur after the preliminary records review and shall consist of an investigation of the phase one study area, including the phase one property, on one or more occasions.

Site reconnaissance, general requirements

- 12. The following are the general requirements for the site reconnaissance:
 - 1. The qualified person or a person supervised by the qualified person shall physically attend at the phase one property and investigate it.
- 2. The qualified person or a person supervised by the qualified person shall conduct investigation of the remaining properties within the phase one study area from publicly accessible areas.
- 3. The following shall be noted during each investigation,

- i. date and time of the investigation,
- ii. weather conditions,
- iii. the length of time of the investigation,
- iv. whether the facility was operating at the time of the investigation, where the phase one property is an enhanced investigation property that is currently being used for one of the uses described in clause 32 (1) (b) of the regulation, and
- v. the name and qualifications of the person conducting the investigation.
- 4. The qualified person or a person supervised by the qualified person shall,
 - i. take photographs of the phase one property, including of the exterior and interior portions of buildings or structures on the property, in order to document any areas of potential environmental concern and illustrate any relevant structures and areas of disturbed soils such as fill areas,
 - ii. take photographs of the phase one study area, as practicable, in order to document any potentially contaminating activity which may be contributing to or causing an area of potential environmental concern and illustrate any relevant structures and areas of disturbed soils such as fill areas, and
 - iii. prepare a written description and explanation of the photographs taken pursuant to subparagraphs i and ii, including an orientation by compass of the photograph and a description of the photograph with respect to other photographs, records and figures.

Specific observations at phase one property

- 13. (1) At the phase one property, the following shall be carried out:
- 1. Investigations of structures sufficient to obtain and document the following,
 - i. a general description of structures and other improvements, including the number and age of buildings,
 - ii. a general description of the number, age and depth of below-ground structures.
 - iii. details of all tanks, above and below ground, at the phase one property, including the material and method of construction of the tank, tank age, tank contents and tank volume, whether the tank is in use or not, and
 - iv. any potable and non-potable water sources.
- 2. Inquiries about the type and approximate location of underground utility and service corridors, such as sewer, water, electrical or gas lines, located on, in or under the phase one property.
- 3. Inquiries about, and as practicable, investigations of the interior of any buildings or structures at the phase one property so as to identify and document the following:
 - i. exit and entry points,
 - ii. details of existing and former heating systems, including type and fuel source,
 - iii. details of cooling systems, including type and fuel source, if any,
 - iv. details of any drains, pits and sumps, including their current use, if any, and former use,

- v. details of any unidentified substances, and
- vi. details of stains or corrosion on floors other than from water, where located near a drain, pit, sump, crack or other potential discharge location.
- 4. Inquires about, and as practicable, investigations sufficient to obtain and document the following:
 - i. details and locations of wells described or defined under the *Ontario Water Resources Act* and the *Oil, Gas and Salt Resources Act*,
 - ii. details of sewage works, including their location,
 - iii. details of ground surface, including type of ground cover, such as grass, gravel, soil or pavement, and
 - iv. details of current or former railway lines or spurs and their locations.
- (2) At the parts of the phase one property not covered by buildings or other structures, investigations shall be carried out to identify, locate and document,
 - (a) areas of stained soil, vegetation or pavement;
 - (b) stressed vegetation;
 - (c) areas where fill and debris materials appear to have been placed or graded;
 - (d) potentially contaminating activity; and
 - (e) details of any unidentified substances found at the property.
- (3) Where the phase one property is an enhanced investigation property that is currently being used for one of the uses described in clause 32 (1) (b) of the regulation, investigations shall be carried out to identify, locate and document,
 - (a) operations at the property, including processing or manufacturing;
 - (b) hazardous materials used or stored at the phase one property;
 - (c) products manufactured at the phase one property;
 - (d) by-products and wastes at the phase one property;
 - (e) raw materials handling and storage locations at the phase one property;
 - (f) location and contents of drums, totes and bins at the phase one property;
 - (g) details of all oil/water separators at the phase one property including for each separator the location, installation date, source of incoming liquid and effluent discharge location;
 - (h) all vehicle and equipment maintenance areas, including the locations of maintenance, fluid storage, and waste storage areas;
 - (i) details of all spills including the dates, locations, materials involved, and volumes of material spilled;
 - (j) details of liquid discharge points such as water and French drains, including their locations; and
 - (k) details of all hydraulic lift equipment at the property, including elevators, inground hoists and loading docks.
- (4) Where the phase one property is an enhanced investigation property that has been used, in whole or in part, in a manner described in clause 32 (1) (b) of the regulation, the

qualified person or someone supervised by the qualified person,

- (a) shall conduct an investigation to identify and document such of the things specified in subsection (3) as it may be practicable to do during the site reconnaissance, with respect to those uses set out in clause 32 (1) (b) of the regulation that the property has been used for; and
- (b) shall consider and use information available from the records review and interviews in conducting this investigation.

Investigation of phase one study area, other than phase one property

- 14. In the part of the phase one study area that is outside of the phase one property and that is not covered by buildings or other structures, investigations shall be carried out to identify, locate and document,
 - (a) potentially contaminating activity;
 - (b) water bodies; and
 - (c) areas of natural significance.

Written description of investigation

- 15. (1) The qualified person shall ensure that a written description of the investigations carried out pursuant to sections 13 and 14 is prepared.
- (2) The written description shall include details of each of the investigations and any findings that are relevant to the existence of an area of potential environmental concern.

PART V REVIEW AND EVALUATION OF INFORMATION

Review and evaluation of information

- 16. (1) The qualified person shall review, evaluate and interpret the information obtained from the records review, the interviews and the site reconnaissance components of the phase one environmental site assessment so as to achieve the general and specific objectives of a phase one environmental site assessment.
- (2) Without limiting the generality of subsection (1), and based on the review, evaluation and interpretation, the qualified person shall prepare,
 - (a) a table of areas of potential environmental concern in a form approved by the Director;
 - (b) a table of current and past uses of the phase one property in a form approved by the Director; and
 - (c) a phase one conceptual site model.
- (3) To assist with meeting the requirements of subsection (2) and the objectives of a phase one environmental site assessment, the qualified person shall reach a conclusion on, based on a review of the available information and the exercise of professional judgment,
 - (a) the existence and location of any areas of potential environmental concern on, in or under the phase one property;
 - (b) the current and past uses of the phase one property;
 - (c) the likelihood that one or more contaminants have affected any land or water on, in or under the phase one property; and
 - (d) whether a phase two environmental site assessment is required before a record of

site condition may be submitted with respect to all or part of the phase one property.

- (4) For each of the matters referred to in subsections (2) and (3), the qualified person shall include the logic and reasoning used to evaluate the available information.
- (5) For each of the matters referred to in subsections (2) and (3), except clause (2) (c), the qualified person shall in the review and evaluation document the data sources, with reference to the specific data and source used, including,
 - (a) whether the source was from a record, an interview or a site investigation or a combination of them or another source; and
 - (b) what aspect of each record, interview or observation during a site investigation or a combination of them or other source was relied upon and how it was relied upon.
- (6) The qualified person shall consider and document how any uncertainty or absence of information obtained in each of the components of the phase one environmental site assessment could affect the validity of the conclusions, tables and model described in subsections (2) and (3).
- (7) The phase one conceptual site model shall consist of the figures and narrative descriptions and assessments set out in Table 1 of this Schedule, section 7, Review and Evaluation of Information, subheading (iv), Phase One Conceptual Site Model.
 - (8) The phase one conceptual site model shall be prepared taking into consideration,
 - (a) any property use to which the phase one property could be put where a record of site condition is to be filed based on the phase one environmental site assessment; and
 - (b) the proposed property use to which the phase one property will be put, where it is known, in any other case.
- (9) During the course of the phase one environmental site assessment or any subsequent phase one or phase two environmental site assessment of the phase one property, the qualified person shall update the review, evaluation and interpretation as further information becomes available.

PART VI PHASE ONE ENVIRONMENTAL SITE ASSESSMENT REPORT

Preparation of report

17. Subject to subsection 16 (1), the qualified person shall prepare or supervise the preparation of a phase one environmental site assessment report.

Phase one environmental site assessment report, specific objectives

- 18. The following are the specific objectives of a phase one environmental site assessment report:
 - 1. To document the presence or absence of areas of potential environmental concern.
 - 2. To provide a record of a phase one environmental site assessment of a phase one property that demonstrates, in a manner that is clear and can be assessed, tested and reconstructed, how the phase one environmental site assessment of the property was carried out, and, in particular, to document and demonstrate,
 - i. how the general and specific objectives of a phase one environmental site assessment were achieved and how each of the minimum requirements for such objectives were met,

- ii. whether further investigation is required in order to submit a record of site condition for filing,
- iii. that there exists an adequate basis for any further investigation that may be needed, and
- iv. that there is a basis for any required certifications.

Sections of report

- 19. (1) The phase one environmental site assessment report shall,
- (a) be divided into the report sections as specified in Table 1; and
- (b) include the headings and sub-headings set out in Table 1.
- (2) The phase one environmental site assessment report shall meet the requirements set out in Table 1.
 - (3) The qualified person may include,
 - (a) report sections, headings and sub-headings in addition to those set out in Table 1; and
 - (b) other information in the phase one environmental site assessment report.
- (4) The phase one environmental site assessment report shall have the appendices, references, figures specified in Table 1 attached to the report.
- (5) Figures, maps, site plans and cross-sections in the phase one environmental site assessment report shall contain a scale, north arrow and a title block that includes,
 - (a) a descriptive title;
 - (b) the address, if any, of the phase one property;
 - (c) the name of the qualified person's firm, company or partnership, if any; and
 - (d) the date the figure, map, site plan or cross-section was created.

TABLE 1
MANDATORY REQUIREMENTS FOR PHASE ONE ENVIRONMENTAL SITE
ASSESSMENT REPORTS

Report Section	Heading	Sub-Heading	Minimum Requirements
1. Executive Summary			Provide a brief summary of the contents of the Report.
2. Introduction	(a) Phase One Property Information		Include the following and any other relevant introductory material concerning the phase one property and the phase one environmental site assessment:
			The municipal address and property identification number, if any, of the phase one property.
			2. The name and address and other contact information for the owner of the phase one property and the name, status and other contact information for any other person who has engaged the qualified person to conduct the phase one environmental site assessment.
3. Scope of Investigation			Provide an overview of the phase one environmental site assessment conducted with respect to the phase one property.
4. Records Review	(a) General	(i) Phase One Study Area	Document, with reference to details of the relevant property, the rationale for the

		determination that the phase one study area should or should not include a property that is not located, wholly or partly, within 250
		metres from the nearest point on a boundary of the phase one property.
	Developed Use	Document, with reference to details of the phase one property, the rationale for the determination of the date of the first developed are of the phase one property.
		Make a summary of each fire insurance plan reviewed including,
		i. date and description of the area covered with reference to the phase one property,
		ii. lot and address numbers,
		iii. lot sizes and description of structures and other improvements, and
		iv. relevant information gleaned from the plan concerning potentially contaminating activity and areas of potential environmental concern.
	Title	Prepare an up-to-date chronological chain of title that shows the owners' names and dates of ownership for the phase one property based on a search of the title of the phase one property that goes back to the date of the first developed use of the phase one property, unless other information from the records review satisfies the objectives of the records review and a title search back to the date of the first developed use would not contribute to obtaining
		information about the environmental condition of the phase one property. Document and provide a rationale for the
		period chosen for the search of title of the phase one property, with details of any information relied on in lieu of conducting a title search back to the date of the first developed use of the phase one property, where a title search of the phase one property has not been conducted back to the date of the first developed use of the phase one property.
	(v) Environmen	Provide a list and summary of reports referred in paragraph 4 of section 3, if any,
	Reports	including, i. the title, date, name of the property owner or other person funding the work and the report,
		ii. the author of the report, and
		iii. a description of data, analysis and findings relevant to the phase one environmental site assessment, such as the existence of an area of potential environmental concern.
(b) Environmental Source Information		Provide the list and summary of information or documents referred to in paragraph 7 of section 3 including,
		i. the title of the information or document, and
		 ii. a detailed description of data, analysis or findings relevant to the phase one environmental site assessment, such as the existence of an area of potential environmental concern.
(c) Physical	(i) Aerial	Where possible, provide the series of aerial

photographs of the phase one study ar ii, provide a rationale for it time period betwee aerial photographs used, iii, identify the date of the carlists aerial photographs used, iii, identify the date of the carlists aerial photographs with a series of aerial photographs. (ii) Topography, Provide topographic maps (Ontario Base M Hydrology, Geology which illustrate the location of the phase on property in relation to any water bodies in the phase one study area has dead on the phase one study area has dead on the phase one study area based on physiography maps or other similar documents referred to paragraph 11 of section 3. Describe the geology, including the stratigraphy of the overburden from ground surface to bedrock, the approximate depth to bedrock and type of bedrock and type of bedrock and type of bedrock and yet of bedrock and yet of section 3 and well records and other reference to study area based on geological maps or other similar documents are study area based on geological maps or other study area based on geological maps or other study area based on geological maps or other study area based on physiography. (iii) Fill Describe any areas of disturbed soil or fill areas on the phase one study area based on geological maps or other study areas of sturbed soil or fill areas on the phase one study areas of study areas of sturbed soil or fill areas on the phase one study area. (iv) Well Describe any areas of disturbed soil or fill areas on the phase one study area. (iv) Well Records Records i. the location of them, which it dentifies the presence of wells, helps determine the phytogeological and geological characterists of them, which it dentifies the presence of wells, helps determine the phytogeological and geological characterists of the phase one study area and describes, i. the location of any such wells. ii. the stratigraphy of the overburde from ground surface to bedrock a it. approximate depth to the water table. Where applicable, provide a list and summ the phytogeological and geologic	Setting Sources	Photographs	photographs of the phase one study area referred to in paragraph 9 of section 3.
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document, and ii. a detailed description of data, analysis or findings relevant to the phase one environmental s			Where applicable, provide a list and summary of the information and documents referred to in
analysis or findings relevant to the phase one environmental s			
of an area of potential environmental concern.			ii. a detailed description of data, analysis or findings relevant to the phase one environmental site assessment such as the existence of an area of potential

5. Interviews		Provide the information referred to in paragraph 2 of section 8 including,
		i. the date, place, and method of the interviews and the name of person being interviewed,
		ii. the reason why the person was identified as an interview subject, and
		iii. relevant information concerning potentially contaminating activity and areas of potential environmental concern noted by the interviewer.
		Provide the comparison and assessment, referred to in paragraph 4 of section 8, of information gleaned through interviews with other information sources and of the validity of the information gleaned from the interviews.
		Provide the summary of the interviews referred to in paragraph 5 of section 8.
		Identify and evaluate relevant information from the interviews concerning potentially contaminating activity and areas of potential environmental concern.
6. Site reconnaissance	(a) General Requirements	Provides notes of the following for each investigation,
		i. date and time of the investigation,
		ii. weather conditions,
		iii. the length of time of the investigation,
		iv. whether the facility was operating at the time of the investigation, where the phase one property is an enhanced investigation property that is currently being used for one of the uses described in clause 30 (1) (b) of the regulation, and
		v. the name and qualifications of the person conducting the investigation.
		Provide the following information and analysis based on paragraph 4 of section 12,
		i. photographs of the exterior and interior portions of the phase one property,
		a. documenting any areas of potential environmental concern, and
		b. illustrating any relevant structures and areas of disturbed soils, including fill areas, and
		ii. a written description and explanation of the photographs including,
		a. an orientation by compass of the photograph, and
		b. a description of the photograph with respect to other photographs, records and figures.
	(b) Specific Observations at Phase One	Provide the following, based on the investigation referred to in paragraph 1 of subsection 13 (1),

Property	
	i. a general description of structures and other improvements, including the number and age of buildings,
	ii. a general description of the number, age and depth of below-ground structures,
	iii. details of all tanks, above and below ground, at the phase one property, including the material and method of construction of the tank, tank age, tank contents and tank volume, whether in use or not, and
	iv. any potable and non-potable water sources.
	Based on the inquiries referred to in paragraph 2 of subsection 13 (1), provide the type and approximate location of underground utility and service corridors, such as sewer, water, electrical or gas lines, located on, in or under the phase one property.
	Based on the investigations referred to in paragraph 3 of subsection 13 (1), identify and document the following features of structures and buildings at the phase one property,
	i. exit and entry points,
	ii. details of existing and former heating systems, including type and fuel source,
	iii. details of cooling systems, including type and fuel source, if any,
	iv. details of any drains, pits and sumps, including their current use, if any, and former use,
	v. details of any unidentified substances, and
	vi. details, including locations, of stains or corrosion on floors other than from water, where located near a drain, pit, sump, crack or other potential discharge location.
	Provide the documentation referred to in paragraph 4 of subsection 13 (1) of,
	i. details including locations of current and former wells, including all wells described or defined in or under the <i>Ontario Water Resources Act</i> and the <i>Oil, Gas and Salt Resources Act</i> ,
	ii. details of sewage works, including their location,
	iii. details of ground surface, including type of ground cover, such as grass, gravel, soil or pavement, and
	iv. details of current or former railway lines or spurs and their locations.
	Provide the documentation, referred to in subsection 13 (2), of the following,
	i. areas of stained soil, vegetation or pavement,
	ii. stressed vegetation,
	iii. areas where fill and debris materials appear to have been placed or graded,

			incoming liquid and effluent discharge location,
			viii. all vehicle and equipment maintenance areas, including the locations of maintenance, fluid
			storage, and waste storage areas, whether in use or not,
			ix. details of all spills including the dates, locations, materials involved, and volumes of material spilled,
			x. details of liquid discharge points such as water and French drains, including their locations,
			xi. details of operations at the property, including processing or manufacturing and equipment used in processing or manufacturing, and
			xii. details of all hydraulic lift equipment at the property, including elevators, in-ground hoists and loading docks.
			Where subsection 13 (4) applies to a phase one property, provide the documentation referred to in subsection 13 (4).
	(c) Written Description of Investigation		Provide a written description of the investigations carried out pursuant to sections 13 and 14 including,
			i. details of each of the investigations, and
			ii. any findings that are relevant to the existence of an area of potential environmental concern such as the presence on, in or under the phase one property of any of the things to be identified in section 13 or 14 which may be relevant to the existence of an area of potential environmental concern.
7. Review and Evaluation of Information.		(i) Current and Past Uses	Provide a table of current and past uses of the phase one property in a form approved by the Director.

	Provide a description of the current and past
	uses of the phase one property to its first developed use.
Contaminati	Provide a list and description of each potentially contaminating activity on, in or under the phase one property.
	Provide a list and description of each potentially contaminating activity in the phase one study area that may be contributing to an area of potential environmental concern.
(iii) Areas of Potential	Provide a table of areas of potential environmental concern in a form approved by the Director.
	Provide documentation and rationale for the conclusion referred to in clause 16 (3) (a) as to the existence of areas of potential environmental concern including,
	i. a discussion of the logic and reasoning used by the qualified person to evaluate the available information,
	ii. a summary and description of any areas of potential environmental concern determined to exist,
	iii. a summary, description and rationale for contaminants of potential concern identified with respect to each area of potential environmental concern determined to exist, and
	iv. a discussion and description of how any uncertainty or absence of information obtained in each of the components of the phase one environmental site assessment could affect the conclusion.
(iv) Phase One Conceptual Site Model	Provide one or more figures of the phase one study area that,
	 i. show any existing buildings and structures,
	ii. identify and locate water bodies located in whole or in part on the phase one study area,
	iii. identify and locate any areas of natural significance located in whole or in part on the phase study area,
	iv. locate any drinking water wells at the phase one property,
	v. show roads, including names, within the phase one study area,
	vi. show uses of properties adjacent to the phase one property,
	vii. identify and locate areas where any potentially contaminating activity has occurred, and show tanks in such areas, and
	viii. identify and locate any areas of potential environmental concern.
	Provide a description and assessment of,
	 i. any areas where potentially contaminating activity on or potentially affecting the phase one property has occurred,
	ii. any contaminants of potential concern,
	iii. the potential for underground utilities, if any present, to affect

		contaminant distribution and transport,
		iv. available regional or site specific geological and hydrogeological information, and
		v. how any uncertainty or absence of information obtained in each of the components of the phase one environmental site assessment could affect the validity of the model.
8. Conclusions	Phase Two Environmen Site Assessment	Provide documentation and rationale for the conclusion referred to in clause 16 (3) (d) as to the ther a phase two environmental site assessment is required before a record of site condition may be submitted with respect to all or part of the phase one property including,
		i. a discussion of the logic and reasoning used by the qualified person to evaluate the available information, and
		ii. identification and reporting of data sources for the conclusion, with reference to the specific data and source used in reaching the conclusion.
	Site Condition Based on Phase One	Provide a rationale, where a record of site condition is to be filed based on the phase one environmental site assessment, for why the phase one property is suitable for any of the types of property use listed in subsection 1 (2) of the regulation.
		Provide original signatures of the qualified person who conducted or supervised the phase one environmental site assessment.
		Provide a statement by the qualified person confirming the carrying out of the phase one environmental site assessment and the findings and conclusions of the report.
9. References		The phase one environmental site assessment report shall include a list of all documents or data cited in the report.
10. Appendices		Provide a current plan of survey of the phase one property that has been prepared, signed and sealed by a surveyor or, where the phase one property consists of land that is administered by the Ministry of Natural Resources under the <i>Public Lands Act</i> , a description of the phase one property approved by the Surveyor General.
		Provide a topographic map (Ontario Base Map series) that includes the phase one study area.

TABLE 2 POTENTIALLY CONTAMINATING ACTIVITIES

Item	Column A
	Potentially Contaminating Activity
1.	Abrasive blasting
2.	Airstrips or Hangars Operation
3.	Antifreeze Manufacturing, Processing, Use, Bulk Storage, Handling, Disposal or Recycling

4.	Laboratory or Chemical Analysis
5.	Asphalt or Bitumen Manufacture or Bulk Storage
6.	Battery Manufacturing, Recycling or Disposal
7.	Boat Building and Maintenance
8.	Concrete, Cement or Lime Manufacturing
9.	Putrescible Materials Handling, Disposal or Recycling Cemeteries
10.	Chemical Manufacturing, Processing, Use, Storage, Handling or Disposal
11.	Acid or Alkali Manufacturing, Processing, Use, Storage, Handling or Disposal
12.	Adhesives or Resins Manufacturing, Processing, Use, Storage, Handling or Disposal
13.	Cosmetics Manufacturing, Processing, Use, Bulk Storage, Handling or Disposal
14.	Dye Manufacturing, Processing, Use, Storage, Handling or Disposal
15.	Fertilizer Manufacturing, Processing, Use, Bulk Storage, Handling or Disposal
16.	Flocculants Manufacturing, Processing, Use, Storage, Handling or Disposal
17.	Foam or Expanded Foam Manufacturing or Processing
18.	Glass Manufacturing
19.	Landfilling
20.	Paint Manufacturing, Processing, Use, Bulk Storage, Handling or Disposal
21.	Pesticides (including Herbicides, Fungicides and Anti- Fouling Agents) Manufacturing, Processing, Use, Storage, Handling or Disposal
22.	Pharmaceutical Manufacturing, Processing or Storage
23.	Photographic Processing
24.	Plastics (including Fibreglass) Manufacturing, Processing, Storage and Disposal
25.	Rubber Manufacturing or Processing
26.	Soap or Detergent Manufacturing, Processing or Bulk Storage
27.	Solvent Manufacturing, Processing, Use, Storage, Handling or Disposal
28.	Drum and Barrel or Tank Reconditioning or Recycling
29.	Dry Cleaning (where chemicals are used)
30.	Electrical Equipment or Transformer Manufacturing, Processing, or Use
31.	Electricity Generation or Transformation or Power Stations
32.	Electronic or Computer Equipment Manufacturing or Reconditioning
33.	Explosives or Ammunition Manufacturing, Production, Use, Bulk Storage, Demolition or Disposal
34.	Fire Training
35.	Fire Retardant Manufacturing, Processing, Use, Storage, Handling or Disposal
36.	Foundry Operations
37.	Fuel Storage and Dispensing
38.	Coal Gasification
39.	Gas Manufacturing, Processing and Storage
40.	Ink Manufacturing, Processing or Storage
41.	Iron and Steel Manufacturing or Processing
42.	Coke Oven Operation
43.	Incinerating or other Thermal Processing
44.	Machine Maintenance and Operation, Metal Fabrication

45.	Metal Treatment or Coating
46.	Metal Plating or Finishing
47.	Metal Fabrication
48.	Mining, Smelting or Refining; Ore Processing; Tailings Storage
49.	Mining of Coal
50.	Military Exercises
51.	Ordnance Use, Demolition or Disposal
52.	De-icing and Antifreeze Agent Manufacturing, Processing, Use, Storage, Handling or Disposal
53.	Salt Manufacturing, Processing, Use, Storage, Handling or Disposal
54.	Oil or Gas Refining and Storage
55.	Oil Production
56.	Discharge of Brine
57.	Heating Oil Manufacturing, Processing, Use, Storage, Handling or Disposal
58.	Motor Vehicle Operation or Maintenance
59.	Port Activities, including Operation and Maintenance of Wharves and Docks
60.	Printing and Duplicating
61.	Pulp, Paper and Paperboard Manufacturing and Processing
62.	Salvage or Junk Yard Operation or both
63.	Scrap Metal Recovery and Auto Wrecking
64.	Sewage Treatment
65.	Tanning (and associated trades activities)
66.	Textile Manufacturing or Processing
67.	Wood Treating, Preservation and Storage
68.	Automotive Repair or Maintenance; Autobody Shop Operation; Vehicle Maintenance and Repair Garages (Auto, bus, truck, railcar, marine, aviation vehicles, etc.)
69.	Vehicle Manufacturing and Associated Activities
70.	Waste Disposal or Waste Management — other than the use of biosolids as soil conditioners
71.	Importation of Fill Material of Unknown Quality

SCHEDULE E PHASE TWO ENVIRONMENTAL SITE ASSESSMENTS

PART I APPLICATION

Application and definitions

- 1. (1) The requirements in this Schedule apply to phase two environmental site assessments.
- (2) Each section in this Schedule is deemed to be a requirement, whether it is described as such or not.
 - (3) In this Schedule,
 - "in situ" means in place;
 - "site investigation" means a site investigation that includes both a field investigation and a non-field investigation;
 - "soil type" means soil texture class as determined pursuant to Figure 3.16 and Chapter 3 of the Soil Survey Manual, United States Department of Agriculture, Natural Resources Conservation Service, published at its website.

PART II PLANNING SITE INVESTIGATION

Planning site investigation, specific objectives

- 2. The following are the specific objectives of the planning of the site investigation component of a phase two environmental site assessment:
 - 1. To plan an investigation that will achieve the general objectives of a phase two environmental site assessment.
 - i. through the use of an appropriate and complete information base concerning the phase two property, and
 - ii. through the conduct of an investigation based both on information obtained before the phase two environmental site assessment begins and on the incorporation of information obtained during the phase two environmental site assessment.
 - 2. To develop a sampling and analysis plan that will adequately assess all areas of the phase two property where contaminants may be present in land or water on, in or under the property.
 - 3. To develop a quality assurance program that is designed to effectively limit errors and bias in sampling and analysis through implementation of assessment and control measures that will ensure data are useful, appropriate and accurate in the determination of whether the phase two property, or any RSC property within it, meets applicable site condition standards and any standards specified in a risk assessment.

Planning site investigation, specific requirements

- 3. (1) The qualified person shall ensure the following requirements are met in planning a site investigation:
 - 1. The phase one conceptual site model for the phase one environmental site assessment report shall be used in conjunction with other information in determining,
 - i. media for investigation,
 - ii. locations and depths for sampling, and
 - iii. parameters for laboratory analysis.
 - 2. Information obtained after the completion of the phase one environmental site assessment shall be used to modify the investigation, as appropriate.
- (2) The qualified person shall ensure that there is a sampling and analysis plan that includes a quality assurance and quality control program, data quality objectives, standard operating procedures and a description of any physical impediments that interfere with or limit the ability to conduct sampling and analysis.
- (3) The quality assurance and quality control program shall include the following requirements:
 - 1. All non-dedicated sampling and monitoring equipment must be cleaned following each use.
 - 2. Where ground water samples are to be analyzed for volatile organic compounds, one trip blank sample shall be submitted for laboratory analysis with each laboratory submission.

- 3. Specification of the minimum requirements for the number, type and frequency of field quality control measures including,
 - i. trip blanks,
 - ii. field duplicates, and
 - iii. calibration checks on field instruments.
- 4. Sufficient field duplicate samples shall be collected in each medium being sampled, so that at least one field duplicate sample can be submitted for laboratory analysis for every ten samples submitted for laboratory analysis.
- 5. At least one field duplicate sample shall be submitted for laboratory analysis for every ten samples submitted for laboratory analysis.
- (4) The data quality objectives for all types of field data collected during the phase two environmental site assessment field investigation that set the level of uncertainty in environmental data shall be such that,
 - (a) the decision-making is not affected; and
 - (b) the overall objectives of the investigation are met.
- (5) Standard operating procedures shall be developed for all of the following field investigation methods used in the field investigation,
 - (a) borehole drilling;
 - (b) excavating;
 - (c) soil sampling;
 - (d) field screening measurements, including calibration procedures;
 - (e) monitoring well installation;
 - (f) monitoring well development;
 - (g) field measurement of water quality indicators, including calibration procedures;
 - (h) sediment sampling; and
 - (i) ground water sampling.
- (6) The sampling and analysis plan shall include identification of and rationale and procedures for,
 - (a) the choice of sampling system, such as a judgmental, random or grid sampling system;
 - (b) the sampling media;
 - (c) the number of samples;
 - (d) sampling frequency;
 - (e) sampling points;
 - (f) sampling depth intervals, including the screened intervals of the monitoring wells;
 - (g) other field information to be obtained, including water levels, field measurements and elevation surveying; and
 - (h) samples to be submitted for laboratory analysis.
 - (7) The sampling and analysis plan shall meet the following criteria:

- 1. The qualified person shall consider,
 - i. findings as to potentially contaminating activity,
 - ii. all contaminants of potential concern or appropriate subsets of such contaminants, and
 - iii. any other information and matters relating to the environmental condition of the property which are relevant to an informed professional judgment.
- 2. After considering the matters referred to in paragraph 1, the qualified person shall determine.
 - i. sampling and analysis for all contaminants of potential concern, or appropriate subsets of such contaminants, and
 - ii. appropriate sampling and analysis for any other relevant contaminants.

Soil vapour investigations

- 4. (1) Where a site investigation is to include a soil vapour investigation, the requirements of this Part apply, with necessary modifications.
 - (2) Without limiting the generality of subsection (1),
 - (a) when soil vapour samples are to be analyzed for volatile contaminants, including volatile organic compounds, one trip blank sample shall be submitted for laboratory analysis with each laboratory submission;
 - (b) sufficient field duplicate samples of soil vapour shall be collected so that at least one field duplicate sample can be submitted for laboratory analysis for every ten samples submitted for laboratory analysis;
 - (c) at least one field duplicate sample of soil vapour shall be submitted for laboratory analysis for every ten samples submitted for laboratory analysis; and
 - (d) in addition to the standard operating procedures referred to in subsection 3 (5), standard operating procedures shall be developed for soil vapour probe installation and soil vapour probe development, performance, leak testing and purging and sampling.

PART III CONDUCTING THE SITE INVESTIGATION

GENERAL

Site investigation, specific objectives

- 5. The following are the specific objectives of the site investigation component of a phase two environmental site assessment:
 - 1. To determine what applicable site condition standards apply to the phase two property.
 - 2. To confirm whether contaminants are present on, in or under the phase two property, and, if so, what the contaminants are, where they are located on, in or under the phase two property and at what concentrations.
 - 3. To determine whether any contaminants on, in or under the phase two property are present at concentrations higher than applicable site condition standards by,
 - i. investigating and characterizing soil, ground water and sediment on, in or under the phase two property, and

- ii. taking measures to further investigate and characterize the soil, ground water and sediment following any actions taken to reduce the concentration of contaminants on, in or under the phase two property.
- 4. To determine whether any contaminants on, in or under the phase two property are present at concentrations higher than the standards specified in the risk assessment for the contaminants, where a risk assessment has been accepted with respect to contaminants on, in or under the phase two property, by,
 - i. investigating and characterizing soil, ground water and sediment on, in or under the phase two property, and
 - ii. taking measures to further investigate and characterize the soil, ground water and sediment following any actions taken to reduce the concentration of contaminants on, in or under the phase two property.

Sampling and analysis of ground water

- 6. (1) The qualified person shall ensure that the site investigation includes investigation, sampling and analysis of ground water on, in or under the phase two property where it is required or advisable to do so to achieve any of the objectives of,
 - (a) a phase two environmental site assessment or its components; or
 - (b) any of the other provisions of the regulation, this Schedule or any other Schedule to the regulation.
- (2) The qualified person shall ensure that the site investigation includes investigation, sampling and analysis of ground water on, in or under the phase two property where the phase two property is an enhanced investigation property.

DELINEATION, GENERAL

Site investigation, delineation

- 7. (1) The qualified person shall ensure that all areas on in or under the phase two property where a contaminant is present at a concentration greater than the applicable site condition standard for the contaminant shall be delineated laterally and vertically for each contaminant present in soil, ground water or sediment on, in or under the phase two property.
- (2) The qualified person shall ensure that all areas on, in or under the phase two property where a contaminant is present at a concentration greater than the standard specified in the risk assessment for the contaminant shall be delineated laterally and vertically for each contaminant present in soil, ground water or sediment on, in or under the phase two property for which a standard has been specified in a risk assessment that has been accepted by the Director.
- (3) The qualified person shall ensure the lateral and vertical delineations referred to in subsections (1) and (2) are undertaken, as appropriate in the circumstances,
 - (a) during the investigation and characterization of contaminants on, in or under the phase two property; or
 - (b) following any actions taken to reduce the concentration of contaminants on, in or under the phase two property.
- (4) The qualified person shall ensure that during the delineations referred to in subsections (1) and (2),
 - (a) samples of each medium being investigated are collected from depths and locations on, in or under the phase two property and analyzed for contaminants,

- until it is determined that samples have been collected from the areas of highest concentration of contaminants on, in or under the phase two property;
- (b) areas of highest concentration of each contaminant in each medium being investigated on, in or under the phase two property are identified and located; and
- (c) the delineation is conducted by assuming the lateral and vertical extent of the area in which a contaminant is present at a concentration equal to or greater than the applicable site condition standard for that contaminant extends laterally or vertically, as the case may be, from a sampling location at which the contaminant is present at a concentration equal to or greater than the applicable site condition standard for the contaminant to the next sampling location at which the concentration of the contaminant is below the applicable site condition standard for the contaminant.
- (5) The qualified person shall ensure that the depth and thickness of sediments on, in or under the phase two property where a contaminant is present at concentrations greater than the applicable site condition standard or standard specified in a risk assessment, as the case may be, is determined for the contaminant while the presence of contaminants in sediment is being considered during the delineations referred to in subsections (1) and (2).

FIELD INVESTIGATION EQUIPMENT, METHODS AND REQUIREMENTS

Ground water sampling methods, general requirements

- 8. For a ground water sampling method to be used to characterize contamination or determine if the concentration of a contaminant is above, at or below an applicable site condition standard or standard specified in a risk assessment for the contaminant, the following requirements shall be met:
 - 1. Sampling depth intervals, including the screened intervals of monitoring wells shall be positioned,
 - i. within the geologic formation in which a contaminant may be present,
 - ii. so as to isolate the zones where contaminants may be present, and
 - iii. so as to delineate both dissolved and separate phase contaminants.
 - 2. Where petroleum hydrocarbons or light non-aqueous phase liquids may be present on, in or under the phase two property, sampling depth intervals, including screened intervals of monitoring wells, shall be positioned to intersect the water table.
 - 3. Where a monitoring well is being used, monitoring well screens shall not exceed 3.1 metres in length, based on the saturated length of the screen.
 - 4. Samples to be analyzed for metals, except mercury and methyl mercury, shall be field filtered.

Requirements where sampling re meeting standards

- 9. (1) Where sampling of ground water is being undertaken to demonstrate if the applicable site condition standard for a contaminant has been met or not, the following requirements shall be followed:
 - 1. Samples shall be collected from a monitoring well or equivalent professionally acceptable ground water collection method, and not from a test pit, excavation, borehole, undeveloped monitoring well, or any other similar source.
 - 2. A monitoring well from which a sample is to be collected shall have been

- developed to remove any fluids that may have been introduced into the well during drilling and to remove particulates that may have become entrained in the well and filter pack.
- 3. A monitoring well from which a sample is to be collected shall have been appropriately purged immediately prior to sampling.
- 4. Precautions shall be taken to minimize the potential for cross-contamination or contamination through preferential pathways.
- (2) The qualified person shall ensure that the well development and purging referred to in paragraphs 2 and 3 of subsection (1) shall be documented by,
 - (a) recording,
 - (i) the date of the development or purging,
 - (ii) the time the development or purging started and stopped, and
 - (iii) the volume of fluid removed from the well during development or purging;
 - (b) recording a rationale for concluding the development or purging was complete; and
 - (c) recording a description of the measures taken to minimize cross contamination between wells when using non-dedicated equipment.

Limitation on use of measurements taken by field screening equipment

10. Measurements taken by field screening equipment shall not be used to demonstrate that the applicable site condition standard or standard specified in a risk assessment for a contaminant have been met on, in or under the phase two property.

Following standard operating procedures

- 11. (1) The standard operating procedures referred to in subsection 3 (5) shall be followed during the field investigation.
- (2) A qualified person or person supervised by a qualified person may deviate from standard operating procedures as appropriate, but the qualified person shall ensure that there is a professional rationale for any deviation.
- (3) The qualified person shall ensure that the standard operating procedures and any deviations from them, with a rationale for any deviation, used during the phase two environmental site assessment field investigation are documented in a manner that is sufficient to allow a third party to review the adequacy of the methods used.

Identification and investigation of aquifers and aquitards

12. The qualified person shall ensure that all aquifers and aquitards on, in or under a phase two property which are relevant for determining the location and concentration of contaminants are identified and investigated.

SAMPLING LOCATION AND SAMPLING POINT REQUIREMENTS

Sampling points, soil and ground water

- 13. The qualified person shall ensure the following is taken into account when sampling points are being determined for soil and ground water during the field investigation:
 - 1. The sampling and analysis plan.
 - 2. Any new information about areas of potential environmental concern, contaminants and geologic and hydrogeologic conditions identified during the investigation up

to the time of sampling.

- 3. The phase one conceptual site model from the phase one environmental site assessment.
- 4. The objectives and requirements of the site investigation.

Sampling points, sediment

- 14. The qualified person shall ensure, in addition to the matters outlined in section 13, that the following is taken into account when sampling points for sediment are being determined during the course of the field investigation:
 - 1. The size of the sampling area.
 - 2. The location of depositional areas.
 - 3. New information about areas of potential environmental concern, contaminants and geologic and hydrologeological conditions identified during the field investigation.

Sampling locations, sediment

- 15. (1) The qualified person shall ensure that sediment samples are collected for all contaminants expected to be present on, in or under the phase two property and from locations on, in or under the phase two property that are most likely to have the contaminants present at concentrations above the applicable site condition standards.
- (2) The sampling done under subsection (1) shall be based on the applicable criteria set out in section 14.

Sampling requirements where contaminant present above applicable standards

- 16. If at any time during the phase two field investigation a ground water sample is collected and analyzed for a contaminant and the analysis shows the contaminant is present at a concentration greater than the applicable site condition standard for the contaminant, the qualified person shall ensure that,
 - (a) ground water samples are collected cross-gradient and down-gradient from the sampling point from which the ground water sample showing the concentration was collected;
 - (b) the sample collected from each of the additional cross-gradient and down-gradient sampling points are submitted for laboratory analysis; and
 - (c) the samples are analyzed for each contaminant that was shown to be present at a concentration greater than the applicable site condition standard for the contaminant, and for any other associated or related contaminants.

COLLECTING, HANDLING AND ANALYZING SAMPLES

Soil samples, requirements

- 17. The qualified person shall ensure that the following requirements concerning soil sampling are met:
 - 1. Soil samples for characterization or delineation shall be collected from undisturbed soils on, in or under the phase two property and not from soil which has been excavated, unless delineation is being undertaken after completion of actions to reduce the concentration of contaminants in which case soil samples shall be collected both from undisturbed soils on, in or under the phase two property and from stockpiles of soil which is intended to remain on the property permanently.
 - 2. Soil samples shall be collected using professionally acceptable soil collection

methods.

- 3. Precautions shall be taken to minimize the potential for cross-contamination or contamination through preferential pathways.
- 4. Grain size analysis shall be undertaken by an accredited laboratory whenever a standard for fine-medium textured soil is to be applied.

Soil sampling and analysis

18. The qualified person shall ensure that the number of samples of soil collected and analyzed is sufficient to determine the subsurface stratigraphy at or under the phase two property and the location of contaminants in soil, on, in or under the phase two property.

Sediment samples

19. The qualified person shall ensure that for sediment samples a record is made of the depth at which each sample was collected and of the depth interval each sample is intended to represent.

Contaminant not listed

20. Where a contaminant is identified on, in or under the phase two property during the site investigation and the contaminant is one for which there is no standard listed in the Soil, Ground Water and Sediment Standards, samples of the contaminant shall be collected and analyzed if the contaminant is a contaminant of concern.

SELECTING SAMPLES FOR ANALYSIS

Selecting soil samples for analysis

- 21. The qualified person shall ensure the following are considered when soil samples to be analyzed are being selected in order to ensure the samples analyzed are representative of the maximum concentration of a contaminant in each area of the phase two property to be investigated:
 - 1. Any evidence of the presence of a contaminant.
 - 2. The maximum concentrations of a contaminant,
 - i. measured using field screening equipment, and
 - ii. any other field screening means which may be necessary to ensure the analysis includes such maximum concentrations.

MEASURING GROUND WATER LEVELS AND DETERMINING GROUND WATER FLOW DIRECTION

Variation in ground water level

- 22. (1) The qualified person shall ensure that measuring ground water levels and determining ground water flow direction is undertaken during the site investigation and that this includes consideration of,
 - (a) temporal ground water level variations on, in or under the phase two property; and
 - (b) whether and how such variations may affect the distribution and concentration of contaminants in the ground water.
- (2) The measurement and determination referred to in subsection (1) shall be carried out at the times and places needed, but shall be included whenever ground water sampling is undertaken.

Ground water flow directions

23. (1) When ground water flow directions are being determined pursuant to section

- 22, the qualified person shall ensure this is done through an assessment that includes,
 - (a) measuring water levels to interpret ground water flow directions in any aquifer that is on, in or under a phase two property and in which a contaminant may be present at a concentration above the applicable site condition standard for the contaminant;
- (b) using water level measurements that are representative of static and actual conditions:
- (c) taking into account all water level measurements made when ground water samples have been collected;
- (d) determining the direction of interpreted ground water flow in each aquifer investigated;
- (e) assessing the potential for temporal variability in ground water flow direction;
- (f) determining a reference elevation for each monitoring well reported to the nearest centimetre relative to a geodetic or permanent and recoverable benchmark;
- (g) measuring water levels in a monitoring well at least 24 hours after the development of the well;
- (h) determining the ground water elevation of each aquifer in which water level measurements were taken;
- (i) installing a minimum of three monitoring wells, not placed in a straight line, in each aquifer to be investigated, at locations and in a manner appropriate to interpret horizontal flow directions;
- (j) determining horizontal hydraulic gradients for each aquifer; and
- (k) taking water level measurements whenever ground water samples are collected from a monitoring well, and at such other times as may be necessary to determine ground water flow direction and temporal ground water level variations.
- (2) The qualified person shall ensure that the following measures are undertaken where a phase two property is one at which petroleum hydrocarbons, light non-aqueous phase liquids, volatile contaminants, including volatile organic compounds, or dense non-aqueous phase liquids may be present on, in or under the property:
 - 1. Testing each monitoring well with an interface probe to determine if light or dense non-aqueous phase liquids are present in the well.
 - 2. Where light or dense non-aqueous liquids are present, measuring the thickness of such free product and including the measurement in determining water levels and measuring and interpreting ground water flow directions.

DOCUMENTING THE FIELD INVESTIGATION

Finalized field logs, soil

- 24. (1) The qualified person shall ensure that field logs are recorded and finalized for all intrusive investigation points and test holes in the field investigation to document the soil conditions on, in or under the phase two property.
 - (2) A finalized field log shall include,
 - (a) a unique identification number;
 - (b) the date;

- (c) a description of type and condition of geologic material encountered;
- (d) a description of type and condition of other material encountered;
- (e) the soil colour;
- (f) the soil vapour measurement from field screening for volatile contaminants, including volatile organic compounds;
- (g) the soil moisture content, using a qualitative description;
- (h) the observations concerning the soil;
- (i) the identification of soil samples sent for laboratory analysis;
- (j) the soil sample depths;
- (k) the soil sampling methods;
- (1) evidence of free flowing product;
- (m) the total depth drilled; and
- (n) any drilling refusal.

Monitoring wells and test holes, finalized field logs

- 25. (1) The qualified person shall ensure that field logs are recorded and finalized for all monitoring wells and test holes constructed during the field investigation to document the ground water conditions on, in or under the phase two property.
 - (2) A finalized field log for a monitoring well shall include,
 - (a) the surveyed location and elevation of the well;
 - (b) the monitoring well identification number;
 - (c) the details of the well construction, including screened interval, sand pack, seal location and thickness, well diameter and screen slot size;
 - (d) the date:
 - (e) the total depth drilled; and
 - (f) any drilling refusal.

Sediment sampling, finalized field logs

- 26. (1) The qualified person shall ensure that field logs are recorded and finalized for all sediment sampling during the field investigation to document the presence of contaminants on, in or under the phase two property that may be present at concentrations above the applicable site condition standards.
 - (2) A finalized field log for sediment shall include,
 - (a) a unique sample identification number;
 - (b) the date;
 - (c) the sediment type, for example gravel, sand, silt, clay or organic, or types, if different sediment types appear at different depths;
 - (d) the sediment colour or colours, if different sediment colours appear at different depths;
 - (e) the mixing layer depth;
 - (f) a description of bottom dynamics where samples are collected;

- (g) the sediment moisture content, using a qualitative description;
- (h) any significant observations concerning the sediment;
- (i) the identification of sediment samples sent for laboratory analysis;
- (j) the sediment sample depths;
- (k) the sediment sampling methods;
- (l) evidence of free flowing product or strong chemical odour; and
- (m) the presence or absence of aquatic biota in the sediment.

SOIL VAPOUR INVESTIGATION REQUIREMENTS

Soil vapour investigation requirements, general

- 27. (1) The qualified person shall ensure that the requirements that apply to an investigation of soil vapour that is being undertaken as part of a site investigation at a phase two property are met.
- (2) The requirements of this Schedule apply, with necessary modifications and subject to sections 28 and 29 to the conduct of a soil vapour investigation at a phase two property.

Limitation on use of measurements taken by field screening equipment

28. Measurements taken by field screening equipment shall not be used to determine the soil vapour concentration of a contaminant on, in or under the phase two property.

Soil vapour probes, finalized field logs

- 29. (1) The qualified person shall ensure that field logs are recorded and finalized for all soil vapour probes constructed during the field investigation to document the subsurface conditions on, in or under the phase two property.
- (2) In addition to the information entered into the field log with respect to soil samples under section 24, a finalized field log for a soil vapour probe shall include,
 - (a) the location and elevation of the well or probe;
 - (b) the identification number; and
 - (c) the details of the soil vapour probe construction, including screened interval, sand pack, seal location and thickness, soil vapour probe diameter and screen slot size.

SOIL EXCAVATED AT OR BROUGHT TO THE PHASE TWO PROPERTY

Specific objectives

- 30. The specific objective of the requirements concerning soil excavated at the phase two property for possible reuse there or that does not originate at the phase two property but is brought from another property to the phase two property to remain at the phase two property after the phase two environmental site assessment is to determine reliably whether,
 - (a) the applicable site condition standards or any standard specified in a risk assessment with respect to the property, for all contaminants in the soil have been met; and
 - (b) when the soil is used or reused at the phase two property, the property meets the applicable site condition standards or any standard specified in a risk assessment.

Requirements for soil to be brought to phase two property

31. Where soil is excavated at or brought from another property to a phase two property the provisions of this Schedule and sections 47 and 48 of the regulation applicable to the collection and recording of samples of soil and the methods of sampling, analysis of

samples, and reporting of analytical results, including requirements for sampling and analysis in order to determine whether soil meets the applicable site condition standards for the contaminants in the soil or any standard for a contaminant specified in a risk assessment with respect to the phase two property, apply, with necessary modifications, in addition to the requirements of sections 32 to 36.

Same

- 32. The qualified person shall ensure that where soil that does not originate at the phase two property but is to be brought from another property to a phase two property and remain at the phase two property after the filing of a record of site condition, the following requirements are met:
 - 1. Subject to paragraph 2, the concentration of each contaminant in the soil must be equal to or lesser than the standard that would be the applicable site condition standards for the contaminant assuming it was already in, on or under the phase two property.
 - 2. Where there has been a risk assessment with respect to one or more contaminants in, on or under the phase two property that included a soil management plan and the risk assessment has been accepted by the Director, the concentration of a contaminant in the soil may be equal to or lesser than a standard specified in the risk assessment for the contaminant.
 - 3. Samples shall be collected from the soil to be brought to the phase two property and shall be analyzed and the concentrations of contaminants known, before any soil is brought to the phase two property in order to determine what contaminants are in the soil, and whether the standards for each such contaminant referred to in paragraph 1, and any standard for a contaminant which may have been specified pursuant to paragraph 2 are met.
 - 4. The samples collected and analyzed under paragraph 3 must be,
 - i. representative samples collected for the purpose of determining the concentration of any contaminant in the soil to be brought to the phase two property and at locations and frequencies which will be adequate to allow the concentrations of any contaminants in the soil to be known,
 - ii. collected by or under the supervision of a qualified person by an individual qualified to take samples for such purpose following a plan determined by the qualified person to collect samples at locations and frequencies which will be adequate to allow the concentrations of any contaminants in the soil to be known, and
 - iii. collected for the purpose of determining if contaminants are present in the soil as a result of any potentially contaminating activity or other environmental condition,
 - A. at the property from which the soil originated while the soil was there,
 - B. at any property at which the soil has subsequently been stored while the soil was being stored at that property, and
 - C. while the soil was being handled, stored or transported at any time before its final placement on, in or under the phase two property.

Analysis of soil to be brought to the phase two property

33. The samples referred to in section 32 shall be analyzed for contaminants that may

reasonably be expected to be present in the soil, having regard to,

- (a) the property from which the soil was taken before being brought to the phase two property;
- (b) the handling of the soil, including its storage and transport, following its original excavation; and
- (c) any other relevant factors, including potentially contaminating activity.

Sampling of soil to be brought to the phase two property

- 34. (1) Samples of the soil referred to in section 32 shall be collected and selected for analysis so as to obtain representative results that locate any areas in the soil being sampled where a contaminant may be present at concentrations greater than the applicable site condition standard for the contaminant.
- (2) At least one soil sample shall be analyzed for each 160 cubic metres of soil for the first 5,000 cubic metres to be assessed at each source from which soil is being brought to the phase two property, following which at least one sample for each additional 300 cubic metres of soil which is to remain on, in or under the phase two property shall be analyzed.

Segregation of soil excavated from or under the phase two property

- 35. (1) The qualified person shall ensure that soil excavated from or under the phase two property during the phase two field investigation or in the course of remediation, and not removed from the phase two property as part of the excavating but placed in stockpiles for possible reuse on, in or under the phase two property, shall be segregated in separate stockpiles on or above the phase two property according to contaminant and concentration of contaminant.
- (2) Decisions on how to segregate excavated soil referred to in subsection (1) shall be based on the results of any one or more of,
 - (a) in situ characterization:
 - (b) field screening;
 - (c) sample collection and analysis; and
 - (d) indications of contamination.

Sampling and analysis of soil in stockpiles

- 36. The qualified person shall ensure that where excavated soil referred to in subsection 33 (1) is intended for reuse on, in or under the property, the soil shall be sampled and analyzed as follows, before it is reused:
 - 1. Samples of the excavated soil from each stockpile to be reused shall be collected and analyzed so as to characterize the contaminants present in the excavated soil.
 - 2. Samples must be selected for analysis and contaminants chosen for analysis on the basis of all available information, including the phase one environmental site assessment and subsequently obtained information and must include analysis for any contaminants which may have been introduced to, brought onto, released to or created in land and water on, in or under the phase two property during actions taken to reduce the concentration of contaminants.
 - 3. Sampling locations must be chosen so as to ensure uniformly distributed and representative sampling collection throughout the stockpile.
 - 4. Samples must not be collected from the surface of a stockpile.

5. Samples of soil from stockpiles must be collected and analyzed by an accredited laboratory, at or above the applicable minimum frequencies set out in Table 2 to this Schedule.

ACTIONS TAKEN TO REDUCE THE CONCENTRATION OF CONTAMINANTS

Required precautionary measures during remediation

- 37. The qualified person shall ensure that the following precautionary measures are undertaken before and during remediation of the phase two property:
 - 1. Before remediation is undertaken, the steps necessary to establish baseline and background conditions relevant to the proposed remediation method are taken to a degree that is adequate to detect any increases of contaminants on, in or under the phase two property following remediation, including contaminants created or introduced to the property during remediation.
 - 2. Sampling of appropriate monitoring wells and analysis of ground water samples occurs for appropriate contaminants, including contaminants created or introduced to the property during remediation.

Free flowing product

38. The qualified person shall ensure that the volume of any free flowing product removed from, ground water on, in or under the phase two property is monitored and recorded.

CONFIRMATION SAMPLING AND ANALYSIS

Objectives of confirmation sampling and analysis

- 39. The specific objectives of confirmation sampling and analysis are the following:
 - 1. To confirm the effect and effectiveness, if any, of remediation undertaken to reduce the concentration of contaminants on, in or under the phase two property.
- 2. To provide a reliable basis for conclusions as to whether the applicable site condition standards or standards specified in a risk assessment have or have not been met for each contaminant.
- 3. To identify and demonstrate the location and concentration of contaminants on, in or under the phase two property following the completion of remediation undertaken to reduce the concentration of contaminants on, in or under the phase two property.

Requirements for confirmation sampling and analysis

- 40. The following requirements apply to confirmation sampling and analysis:
- 1. Confirmation sampling and analysis shall be undertaken during and following actions taken to reduce the concentration of contaminants on, in or under the phase two property.
- 2. The requirements of this Schedule and sections 47 and 48 of the regulation applicable to the collection and recording of samples of soil and the methods of sampling, analysis of samples and reporting of analytical results apply to confirmation samples.
- 3. When actions intended to reduce the concentration of contaminants on, in or under the phase two property are to be taken, the qualified person shall,
 - i. design and implement a sampling and analysis program to collect samples and analyze them from all locations where remediation was undertaken, and

- ii. ensure samples are collected and analyzed for each contaminant in any area and medium where the contaminant was present at a concentration greater than the applicable site condition standard or standard specified in a risk assessment for the contaminant before remediation, where the soil, ground water or sediment remains on, in or under the phase two property after remediation or has been returned there after remediation at a location away from the phase two property.
- 4. The confirmation sampling and analysis program shall be designed and conducted so as to demonstrate whether the phase two property and any property under it meets or does not meet the applicable site condition standards or any standard specified in a risk assessment for all contaminants of concern.
- 5. Confirmation sampling shall be conducted at locations and depths which include those areas on, in or under the phase two property, where a contaminant was present, before remediation, at a concentration greater than the applicable site condition standard or any standard specified in a risk assessment for the contaminant and the maximum concentration of the contaminant in the area was located.
- 6. Samples taken from monitoring wells into which material was introduced into the monitoring well for purposes of remediation shall not be used to meet the objectives of confirmation sampling, including being used as evidence to demonstrate that the phase two property meets the applicable site condition standard or any standard specified in a risk assessment for a contaminant.
- 7. Where part or all of land on, in or under a phase two property has been excavated the qualified person shall ensure that,
 - i. confirmation samples of soil are collected from each wall and floor of the excavation and analyzed in order to demonstrate that the limits of the excavation are appropriate and that the excavation has included all areas where a contaminant may be present at a concentration greater than the applicable site condition standard or any standard specified in a risk assessment, and
 - ii. the number and location of samples at each excavation is equal to or greater than the minimum requirements set out in Table 3 to this Schedule or, where the floor area of the excavation is greater than 1,000 square metres, is adequate to meet the requirements of subparagraph i, is greater than the number and location requirements in Table 3 for a floor area of between 750 to 1,000 square metres, and follows the guidance in Note 1 to Table 3.
- 8. When actions have been undertaken on, in or under a phase two property to reduce the concentration of contaminants, the qualified person shall ensure that,
 - i. confirmation sampling of ground water is conducted, in each area where the actions occurred or to which material was returned following remediation at a location away from the property as follows:
 - A. where the remediation is in situ remediation, until the results from analysis of samples collected from four consecutive quarterly sampling events, the first of which is conducted a minimum of 90 days after the last remedial action, are for all contaminants analyzed below the applicable site condition standards or, where applicable, any standards specified in a risk assessment, and

- B. where the remediation is not remediation described in sub-subparagraph A, but is remediation of soil on, in or under the phase two property, and the applicable site condition standards for the contaminants in ground water on, in or under the phase two property have been exceeded, until the results from analysis of samples collected from two consecutive quarterly sampling events, the first of which is conducted a minimum of 90 days after the last remedial action, are for all contaminants analyzed below the applicable site condition standards or, where applicable, any standards specified in a risk assessment, and
- ii. the contaminants sampled and analyzed include all contaminants for which remediation was undertaken and any contaminants which may have been introduced to, created in or brought onto the land or water in, on or under the phase two property or released during remediation.
- 9. Where confirmation sampling is being undertaken pursuant to paragraph 8, the qualified person shall ensure that water level measurements are also taken in the monitoring wells from which the confirmation samples are being taken.

SITE ASSESSMENT REQUIREMENTS FOR RISK ASSESSMENT

Requirements for risk assessment

41. Where the owner of a phase two property wishes to submit a modified generic risk assessment, the qualified person shall ensure that in any case where in the risk assessment an assumed value for any assumption set out under an assumption category in Table 4 to be modified from the assumed value for the assumption used by the Ministry to develop the full depth generic site condition standards, an assessment is carried out which satisfies the minimum requirements and meets the objective set out in Table 4 with respect to that assumption category.

Requirements of this Schedule

42. The requirements of this Schedule that are relevant to an objective or minimum requirement in Table 4 which must be met pursuant to section 41 apply, with necessary modifications, to the minimum requirement.

PART IV REVIEW AND EVALUATION OF INFORMATION

Review and evaluation of information

- 43. (1) The qualified person shall review, interpret and evaluate the information used in the planning of the site investigation and obtained from conducting the site investigation.
- (2) Based on the review, interpretation and evaluation, the qualified person shall prepare a phase two conceptual site model of the phase two property that demonstrates the current condition of the phase two property or, where remedial actions have been undertaken, the condition of the phase two property before the remedial actions were undertaken.
 - (3) The format of the phase two conceptual site model shall consist of,
 - (a) diagrams, cross-sections and figures; and
 - (b) narrative, including explanation of the contents of the diagrams, cross-sections and figures and the logical bases for the interpretations and the scientific processes that account for the contaminant distribution.
- (4) The phase two conceptual site model shall include a narrative description and assessment of,

- (a) areas of potential environmental concern; and
- (b) any subsurface structures and utilities on, in or under the phase two property that may affect contaminant distribution and transport.
- (5) The phase two conceptual site model shall include a narrative description of, and, as appropriate, figures illustrating, the physical setting of the phase two property and any areas under it including,
 - (a) stratigraphy from ground surface to the deepest aquifer or aquitard investigated;
 - (b) hydrogeological characteristics, including aquifers, aquitards and, in each hydrostratigraphic unit where one or more contaminants are present at concentrations above the applicable site condition standards, lateral and vertical hydraulic gradients;
 - (c) approximate depth to bedrock;
 - (d) approximate depth to water table;
 - (e) any respect in which section 41 or 43.1 of the regulation applies to the property;
 - (f) areas where soil has been brought from another property and placed on, in or under the phase two property; and
 - (g) approximate locations, if known, of any proposed buildings and other structures.
- (6) Where a contaminant is present on, in or under the phase two property at a concentration greater than the applicable site condition standard, the phase two conceptual site model shall identify,
 - (a) each area where a contaminant is present on, in or under the phase two property at a concentration greater than the applicable site condition standard;
 - (b) the contaminants associated with each of the areas referred in clause (a); and
 - (c) each medium in which a contaminant associated with an area referred to in clause (a) is present.
- (7) Where a contaminant is present on, in or under the phase two property at a concentration greater than the applicable site condition standard, the phase two conceptual site model shall include a narrative description of,
 - (a) what is known about each of the areas referred to in clause (6) (a);
 - (b) the distribution, in each of the areas referred to in clause (6) (a), of each contaminant present in the area at a concentration greater than the applicable site condition standard, for each medium in which the contaminant is present, together with figures showing the distribution;
 - (c) anything known about the reason for the discharge into the natural environment of the contaminants present on, in or under the phase two property at a concentration greater than the applicable site condition standard;
 - (d) anything known about migration away from any area of potential environmental concern of the contaminants present on, in or under the phase two property at a concentration greater than the applicable site condition standard, including the identification of any preferential pathways;
 - (e) climatic or meteorological conditions that may have influenced distribution and migration of the contaminants, such as temporal fluctuations in ground water levels; and

- (f) if applicable, information concerning soil vapour intrusion of the contaminants into buildings including,
 - (i) relevant construction features of a building, such as a basement or crawl space,
 - (ii) building heating, ventilating and air conditioning design and operation, and
 - (iii) subsurface utilities.
- (8) Where contaminants on, in or under the phase two property are present at concentrations greater than the applicable site condition standard, the phase two conceptual site model shall include one or more cross-sections showing,
 - (a) the lateral and vertical distribution of a contaminant in each area where the contaminants is present at concentrations greater than the applicable site condition standard in soil, ground water and sediment;
 - (b) approximate depth to water table in each area referred to in clause (a);
 - (c) stratigraphy from ground surface to the deepest aquifer or aquitard investigated; and
 - (d) any subsurface structures and utilities that may affect contaminant distribution and transport in each area referred to in clause (a).
- (9) For each areas where a contaminant is present on, in or under the property at a concentration greater than the applicable site condition standard for the contaminant, the phase two conceptual site model shall include a diagram identifying, with narrative explanatory notes,
 - (a) the release mechanisms;
 - (b) contaminant transport pathway;
 - (c) the human and ecological receptors located on, in or under the phase two property;
 - (d) receptor exposure points; and
 - (e) routes of exposure.
- (10) During the course of the phase two environmental site assessment or any subsequent phase one or phase two environmental site assessment of the phase two property or other site assessment work with respect to the phase two property, the qualified person shall update the review, evaluation and interpretation as further information becomes available.

PART V PHASE TWO ENVIRONMENTAL SITE ASSESSMENT REPORT

Preparation of report

44. The qualified person shall ensure that a phase two environmental site assessment report which meets the requirements of this Part is prepared.

Phase two environmental site assessment report, specific objectives

- 45. The following are the specific objectives of a phase two environmental site assessment report:
 - 1. To document the presence or absence of contaminants in the land or water on, in or under the phase two property.
 - 2. To document the determination of the location of one or more contaminants in the

land or water on, in or under the phase two property.

- 3. To provide a record of a phase two environmental site assessment of the phase two property that demonstrates, in a manner that is clear and can be assessed and reconstructed, how the phase two environmental site assessment of the property was carried out, and, in particular, to document and demonstrate,
 - i. how the general and specific objectives of a phase two environmental site assessment, including each of its components, were achieved and how the minimum requirements for the objectives were met,
 - ii. to document the basis for certifications in a record of site condition as to whether all or that part of the phase two property that may comprise the RSC property meets the applicable site condition standards or standards specified in a risk assessment for one or more contaminants, and
 - iii. to document information needed to undertake a risk assessment of the phase two property with respect to one or more contaminants.

Phase two environmental site assessment report, general requirements

- 46. The phase two environmental site assessment report shall be based on the following:
 - 1. Information obtained from planning and conducting the phase two environmental site assessment.
 - 2. Interpretation and evaluation of the information from planning and conducting the phase two environmental site assessment.
 - 3. Any additional information that the qualified person considers relevant.

Same

- 47. (1) The phase two environmental site assessment report shall,
 - (a) be divided into the report sections as specified in Table 1; and
 - (b) include the headings and sub-headings set out in Table 1.
- (2) The phase two environmental site assessment report shall address the requirements set out in Table 1.
- (3) The qualified person may include report sections, headings and sub-headings in addition to those set out in Table 1 and other information in the phase two environmental site assessment report.
- (4) The following subheadings in Report Section 5 (Investigation Method) of Table 1 and the requirements associated with the subheadings do not apply unless there has been sampling of ground water during the phase two environmental site assessment:
 - 1. Ground Water: Monitoring Well Installation.
 - 2. Ground Water: Field Measurement of Water Quality Parameters.
 - 3. Ground Water: Sampling.
- (5) The subheading Sediment: Sampling in Report Section 5 (Investigation Method) of Table 1 and the requirements associated with it do not apply unless there has been sampling of sediment during the phase two environmental site assessment.
- (6) The following subheadings in Report Section 6 (Review and Evaluation) of Table 1 and the requirements associated with the subheadings do not apply unless there has been sampling of ground water during the phase two environmental site assessment:

- 1. Ground Water: Elevations and Flow Direction.
- 2. Ground Water: Hydraulic Gradients.
- 3. Ground Water Quality.
- (7) The subheading Sediment Quality in Report Section 6 (Review and Evaluation) of Table 1 and the requirements associated with it do not apply unless there has been sampling of sediment during the phase two environmental site assessment.
- (8) The requirements in Report Section 9 (Figures and Tables) of Table 1 which refer to monitoring wells, ground water, ground water elevations or analytical results of ground water sampling do not apply unless there has been sampling of ground water during the phase two environmental site assessment.
- (9) The requirements in Report Section 9 (Figures and Tables) of Table 1 which refer to analytical results of sediment sampling do not apply unless there has been sampling of sediment during the phase two environmental site assessment.
- (10) The following requirements associated with heading (c) (Soil Excavated at or Brought to the Phase Two Property) in Report Section 10 (Appendices) of Table 1 do not apply, unless the conditions in the paragraph are met:
 - 1. Subparagraph (i) (Soil Brought to the Phase Two Property) does not apply unless soil which did not originate at the phase two property has been brought from another property to the phase two property to remain there after the phase two environmental site assessment.
 - 2. Subparagraph (ii) (Segregation of Soil) does not apply unless soil has been excavated at the phase two property and placed in a stockpile for possible reuse at the phase two property.
 - 3. Subparagraph (iii) (Stockpiles) does not apply unless the soil in stockpiles is to be reused at the phase two property.
- (11) Heading (b) (Remediation) in Report Section 10 (Appendices) of Table 1 and the requirements associated with it do not apply where no remediation has been conducted.
- (12) The requirements under the heading (Remediation) in Report Section 10 (Appendices) of Table 1 which refer to remediation of ground water do not apply unless there has been remediation of ground water during the phase two environmental site assessment.
- (13) Heading (d) (Modified Generic Risk Assessment) in Report Section 10 (Appendices) of Table 1 and the requirements associated with it do not apply where the owner does not intend to submit such a risk assessment.
- (14) The phase two environmental site assessment report must have the appendices, references, figures specified in Table 1 attached to the report.
- (15) Figures, maps, site plans and cross-sections in the phase two environmental site assessment report shall contain a scale, north arrow and a title block that includes,
 - (a) a descriptive title;
 - (b) the address, if any, of the phase two property;
 - (c) the name of the qualified person's firm, company or partnership, if any; and
 - (d) the date the figure, map, site plan or cross-section was created.

MANDATORY REQUIREMENTS FOR PHASE TWO ENVIRONMENTAL SITE ASSESSMENT REPORTS

Report Section	Heading	Sub-Heading	Minimum Requirements
Executive Summary			Provide a brief summary of the report.
2. Introduction		(i) Site Description	Provide the following,
		•	i. municipal address and property identification number if any, of the phase two property, and
			ii. size and boundaries of the phase two property.
			Provide the name and address and other contact information for the owner of the phase two property and the name, status and other contact information for any other person who has engaged the qualified person to conduct the phase two environmental site assessment.
		Proposed Future Uses	Provide the identification of the current and proposed uses of the phase two property, and whether, if the proposed use is undertaken, section 168.3.1 of the Act would prohibit the new use unless a record of site condition is filed.
		Site	Provide identification of and rationale for the choice of the applicable site condition standard for the phase two property, based on consideration of matters relevant to the choice, including sections 35, 41 and 43.1 of the regulation, the current and proposed use of the property, soil texture of the property and proposed grading of the property following adoption of the proposed use.
3. Background Information		(i) Physical Setting	Provide a description of the general physical setting of the phase two property including,
			i. water bodies and areas of natural significance within the phase one study area, and
			ii. the topography and surface water drainage features on the phase two property.
		(ii) Past Investigation	Provide,
			i. a summary of any relevant past investigations of the phase two property, and
			ii. documentation of the steps taken to confirm that information or data which are to be used from previous investigations are of adequate quality such that it can be relied upon.
4. Scope of the Investigation		(i) Overview of Site Investigation	Provide an overview of the site investigation conducted with respect to the phase two property.
		(ii) Media Investigated	Provide,
			i. the rationale for whether to include in the field investigation sampling and analysis of each of ground water and sediment on, in or under the phase two property, and
		("'N O	ii. an overview of the field investigation of each medium for which sampling and analysis were done.
		(iii) Phase One Conceptual Site Model	Provide a description of the phase one conceptual site model prepared as part of the phase one environmental site assessment report

		and of relevant subsequently acquired information.
	(iv) Deviations From Sampling and Analysis Plan	Provide a description of any deviations from the sampling and analysis plan.
	(v) Impediments	Provide a description of any physical impediments and documentation of any denial of access.
5. Investigation Method	(i) General	Provide a brief description of all methods as specified in the following sections. Where the method differs from the associated standard operating procedure, provide a detailed description of the method used, and a rationale for the change in method.
	(ii) Drilling and Excavating	Provide for each borehole drilled or test pit excavated,
		i. the name of the contractor,
		ii. a description of the equipment used,
		iii. a description of the measures taken to minimize the potential for cross- contamination, and
		iv. the frequency of sample collection.
	(iii) Soil: Sampling	Provide,
		i a description of all equipment used to collect soil samples, and
		ii. a geological description of soil and sediment cores and samples, based on the finalized field logs for each monitoring well, test hole or intrusive investigation point.
	(iv) Field Screening Measuremen	Provide a description of any equipment used to perform field screening measurements including,
		i. make and model number,
		ii. chemicals the equipment can detect and associated detection limits,
		iii. precision of the measurements,
		iv. accuracy of the measurements,
		v. calibration reference standards such as span gas, and
		vi. procedures for checking calibration of the equipment.
		Provide a description of how field screening measurements were used to select samples for laboratory analysis, if applicable.
		Where a field screening method was different from what was proposed as a standard operating procedure in the sampling and analysis plan, provide a description of, and rationale for, the difference.
	(v) Ground Water: Monitoring Well Installation	For each monitoring well installed provide,
		i. the name of the contractor,
		ii. a description of the equipment used,
		iii. a description of the measures taken to minimize the potential for cross- contamination, and
		iv. the frequency of sample collection during drilling, if any.

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		Provide a description of the methods used to develop monitoring wells.
	(vi) Ground Water: Field Measuremer of Water Quality Parameters	Provide a description of the methods used to measure water quality parameters such as pH, specific conductance and temperature.
	(vii) Ground Water: Sampling	Provide a description of the methods used to conduct ground water samples.
	(viii) Sediment: Sampling	Provide a description of the methods used to collect sediment samples.
	(ix) Analytical Testing	Provide the names of all laboratories used for analysis of soil, sediment or ground water samples.
	(x) Residue Managemen Procedures	Provide detailed documentation of procedures tused for the management of residues from the field investigation including,
		i. soil cuttings from drilling and excavations,
		ii. water from well development and purging, and
		iii. fluids from equipment cleaning.
	(xi) Elevation Surveying	Provide an accurate specification of the location of any benchmark used in surveying of elevations.
	(xii) Quality Assurance and Quality Control Measures	Provide,
		i. a description of sample containers, preservation, labelling, handling and custody for samples submitted for laboratory analysis, including any deviations from the sampling and analysis plan,
		ii. a description of equipment cleaning procedures followed during all sampling,
		iii. a description of how the field quality control measures referred to in subsection 3 (3) were carried out, and
		iv. a description of, and rationale for, any deviations from the procedures set out in the quality assurance and quality control program set out in the sampling and analysis plan.
6. Review and Evaluation	(i) Geology	Provide a description and analysis of each aquifer and aquitard investigated pursuant to section 12 including,
		i. estimated thickness of each geologic unit,
		ii. elevations, relative to a geodetic benchmark or other permanent and recoverable benchmark, of the top and bottom of each geologic unit,
		iii. geological and other material in each geological unit,
		iv. the properties of each aquifer and aquitard, and
		v. the rationale for the choice of aquifers and aquitards investigated as it relates to identification of the location, presence, release, concentration, migration or retention of a contaminant.

(ii) Ground	Provide,
Water:	
Elevations	
and Flow Direction	
Direction	i. a discussion of, and rationale for,
	locations and screened intervals of
	monitoring wells used for
	interpretations of ground water
	flow direction,
	ii. results of any measurements taken
	using an interface probe during water level measurements, and
	iii. measurements of the thickness of
	any free flowing product present in
	monitoring wells.
	A description of the method used to calculate
	ground water elevation in the monitoring well,
	i. a description of the ground water
	elevations from all monitoring
	events in any aquifer investigated,
	ii. a description of the interpreted direction of ground water flow at
	the phase two property,
	iii. assessment of the potential for
	temporal variability in ground
	water flow direction, and
	iv. an evaluation and description of the
	potential interaction between any
	buried utilities in or under the phase two property and the water
	table.
(iii) Ground	Provide,
Water:	
Hydraulic	
Gradients	
	i. a description of the horizontal
	hydraulic gradient for each aquifer investigated, including minimum,
	maximum and average horizontal
	hydraulic gradients, and
	ii. a description of vertical hydraulic
	gradients in aquifers where a
	contaminant is present at a concentration greater than the
	applicable site condition standard
	for the contaminant, including
	minimum, maximum and average
(*) F:	vertical hydraulic gradients.
(iv) Fine- Medium	Where fine-medium soil texture is to be used in
Soil Texture	determining the applicable site condition standards provide,
Son Tenture	i. a rationale for the use of the
	fine-medium soil
	texture category,
	ii. a description of the results of
	the required grain size
	analysis, and
	iii. a description and rationale for the number of
	samples collected and
	analyzed.
(v) Soil: Field	Provide a discussion of soil field screening
Screening	results.
(vi) Soil Quality	Provide a discussion and analysis of the
	laboratory analytical results for all soil samples
	analyzed including,
	i. locations and depths of samples,
	ii. comparison of analytical results to
ļ	applicable site conditions

		standards,
		iii. contaminants of concern,
		iv. contaminants related to chemical and biological transformations that have or may have occurred,
		v. whether the results indicate soil serves as a source of contaminant mass contributing to ground water or sediment, and
		vi. whether the results indicate the presence of light or dense non- aqueous phase liquids
	(vii) Ground Water Quality	Provide a discussion and analysis of the laboratory analytical results for all ground water samples analyzed including,
	,	i. locations and sample depth interval of samples,
		ii. documentation of any field filtering,
		iii. comparison of analytical results to applicable site conditions standards,
		iv. contaminants of concern,
		v. contaminants related to chemical and biological transformations that have or may have occurred,
		vi. whether the results indicate soil serves as a source of contaminant mass contributing to ground water or sediment, and
		vii. whether the results indicate the presence of light or dense non-aqueous phase liquids.
	(viii) Sediment Quality	Provide a discussion and analysis of the laboratory analytical results for any sediment samples analyzed including,
		i. locations and depths of samples,
		ii. comparison of analytical results to applicable site conditions standards,
		iii. contaminants of concern,
		iv. contaminants related to chemical and biological transformations that have or may have occurred, and
		v. whether the results indicate the presence of light or dense non-aqueous phase liquids.
	(ix) Quality Assurance and Quality Control Results	Provide,
		i. a description of the types of quality control samples collected and results of any other quality assurance and quality control measures taken during the field investigation, including the types of quality control sample, the media sampled, and the importance of the results with respect to ensuring the data are useful, appropriate and accurate in the determination of whether the phase two property, or any RSC property within it, meets the applicable site condition standards and any standards specified in a risk assessment, ii. a description of each instance where

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			a sample was not handled in accordance with the Analytical Protocol with
			respect to,
			A. holding time,
			B. preservation method
			C. storage requirement; or
			D. container type,
			iii. a statement, with respect to
			subsection 47 (3) of the regulation that,
			A. all certificates of analysis or
			analytical reports received pursuant to
			clause 47 (2) (b) of the
			regulation comply with subsection 47(3),
			B. a certificate of analysis or
			analytical report has been received for each
			sample submitted for analysis, and
			C. all certificates of analysis or
			analytical reports received have been
			included in full in an
			appendix to the phase
			two environmental site
			assessment report, iv. a description of each instance where
			a laboratory qualified any results
			or made remarks in a certificate of
			analysis or analytical report about a sample, including, a discussion
			of the validity of any results
			qualified, and
			v. a discussion of the overall quality of the field data from the
			investigation with respect to the
			data quality objectives, to
			demonstrate that,
			A. decision-making was not affected, and
			B. the overall objectives of the investigation and the assessment were met.
		(x) Phase Two	Provide,
		Conceptual	
		Site Model	i a description and as
			i. a description and assessment of,
			A. areas where potentially contaminating activity has occurred,
			B. areas of potential
			environmental concern, and
			C. any subsurface structures
			and utilities on, in or under the phase two
			property that may
			affect contaminant
			distribution and transport,
			ii. a description of and, as appropriate,
			figures illustrating, the physical
			setting of the phase two property and any areas under it including,
			A. stratigraphy from ground
			surface to the deepest
			aquifer or aquitard investigated,
	 	 	mvestigated,

		B. hydrogeological
		characteristics,
		including aquifers,
		aquitards and, in each hydrostratigraphic unit
		where one or more
		contaminants is present
		at concentrations above
		the applicable site
		condition standards,
		gradients,
		C. approximate depth to
		bedrock, D. approximate depth to water
		table,
		E. any respect in which section
		41 or 43.1 of the regulation applies to
		the property,
		F. areas where soil has been
		brought from another
		property and placed on,
		in or under the phase two property, and
	+	G. approximate locations, if
		known, of any
		proposed buildings and
		other structures,
		iii. where a contaminant is present on,
		in or under the phase two property
		at a concentration greater than the applicable site condition standard,
		identification of,
		A. each area where a
		contaminant is present
		on, in or under the
		phase two property at a
		concentration greater than the applicable site
		condition standard,
		B. the contaminants associated
		with each of the areas
		referred to in
		subparagraph A,
		C. each medium in which a contaminant associated
		with an area referred to
		in subparagraph is
		present,
		D. a description and assessment
		of What is known about each of the areas
		about each of the areas referred to in
		subparagraph A,
		E. the distribution, in each of
		the areas referred to in
		subparagraph A, of
		each contaminant present in the area at a
		concentration greater
		than the applicable site
		condition standard, for
		each medium in which
		the contaminant is present, together with
		figures showing the
		distribution,
		F. anything known about the
		reason for the
		discharge of the
		contaminants present
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		on, in or under the phase two
		property at a
		concentration greater than the applicable site
		condition standard into
		the natural
		environment,
		G. anything known about
		migration of the
		contaminants present on, in or under the
		phase two property at a
		concentration greater
		than the applicable site
		condition standard away from any area of
		potential
		environmental concern,
		including the
		identification of any preferential pathways,
		H. climatic or meteorological conditions that may
		have influenced
		distribution and
		migration of the
		contaminants, such as temporal fluctuations
		in ground water levels,
		and
		I. if applicable, information
		concerning soil vapour
		intrusion of the contaminants into
		buildings including,
		1. relevant construction features of a building,
		such as a basement or crawl space,
		2. building heating, ventilating and air conditioning design and operation,
		and
		3. subsurface utilities,
		iv. where contaminants on, in or under
		the phase two property are present
		at concentrations greater than the applicable site condition standard,
		one or more cross-sections
		showing,
		A. the lateral and vertical
		distribution of a
		contaminant in each area where the
		contaminants is present
		at concentrations
		greater than the
		applicable site condition standard in
		soil, ground water and
		sediment,
		B. approximate depth to water
		table in each area
		referred to in subparagraph A,
	 	C. stratigraphy from ground
		surface to the deepest
		aquifer or aquitard
		investigated, and
		D. any subsurface structures
		and utilities that may affect contaminant
		distribution and
		transport in each area
		referred to in
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		İ	subparagraph A, and
			v. for each areas where a contaminant is present on, in or under the property at a concentration greater than the applicable site condition standard for the contaminant, a diagram identifying, with narrative explanatory notes,
			A. the release mechanisms, B. contaminant transport
			pathway, C. the human and ecological
			receptors located on, in or under the phase two property,
			D. receptor exposure points, and
			E. routes of exposure.
7. Conclusions			Provide a summary of the information about the following:
			i. the location and concentration of contaminants in the land or water on, in or under the phase two property,
			ii. environmental conditions in the land or water on, in or under the phase two property where it is necessary to undertake a risk assessment with respect to one or more contaminants of concern, and
			iii. whether applicable site condition standards and standards specified in a risk assessment for contaminants on, in or under the phase two property were met as of the certification date.
		(i) Signatures	Provide,
			i. original signatures of the qualified person who conducted or supervised the phase two environmental site assessment, and
			ii. a statement by the qualified person confirming the carrying out of the phase two environmental site assessment and the findings and conclusions of the report.
8. References			Ensure that the phase two environmental site assessment report includes a list of all documents or data cited in the report.
9. Figures and Tables	(a) Tables	(i) Monitoring Well Installation	Provide a table showing construction details and elevations for all monitoring wells installed during the field investigation.
		(ii) Water Levels	Provide a table showing all water level measurements for all monitoring events at or under the phase two property, including depth to water reported as elevations to the nearest centimetre relative to a geodetic or permanent and recoverable benchmark and reference elevations.
		DNAPLs	Provide a table showing all light or dense non- aqueous phase liquid measurements at or under the phase two property, reported as elevations to the nearest centimetre relative to a geodetic or permanent and recoverable benchmark and reference elevations.
		(iv) Soil Data	Provide one or more tables that,
			i. show soil quality data contained in laboratory certificates of analysis of samples taken at or under the

	İ	nhaca two property
		phase two property, ii. include the borehole, test hole, test pit or monitoring well identification number, sample depths, sample identification number, date of sample collection, date of analysis and laboratory certificate of analysis or analytical
		report reference number, and iii. include a comparison of the data to applicable site condition standards.
	(v) Ground Water Data	Provide one or more tables that,
		i. show any ground water quality data contained in laboratory certificates of analysis of samples taken at or under the phase two property,
		ii. include the test hole or monitoring well identification number, sample identification number, sampling depth intervals, date of sample collection, date of analysis and laboratory certificate of analysis or analytical report reference number, and
		iii. include a comparison of the data to applicable site condition standards.
	(vi) Sediment Data	Provide one or more tables that,
		i. summarize all sediment quality data contained in laboratory certificates of analysis of samples taken at or under the phase two property,
		ii. include the sample identification number, sampling depths, date of sample collection, date of analysis and laboratory certificate of analysis or analytical report reference number, and
		iii. include a comparison of the data to applicable site condition standards.
	(vii) Ground Water, Sediment and Soil Maximum Concentratio Data	Provide a table showing, for each contaminant for which sampling and analysis has been performed, the maximum known concentration of each contaminant on, in or under the phase two property as of the certification date hcluding,
		i. the location and unique identification number of each borehole, test pit, test hole or monitoring well from which the sample showing the maximum concentration was collected, and
		ii. the relevant soil sampling depths, sediment sampling depths, and ground water sampling depth intervals.
(b) Figures	(i) Areas of Natural Significance and Water Bodies	Provide a figure that illustrates the location of any,
		i. area of natural significance that includes the phase two property, that is adjacent to the phase two property or that is located, wholly or partly, on the phase two property or within 30 metres of the phase two property or part of the phase two property, and

(ii) Property Before Actions Taken to Reduce the Concentratio of Contaminant	
	i. areas where a contaminant is present at a concentrations greater than the applicable site condition standards for the contaminant, and ii. the locations of buildings, storage
	tanks, drainage features and fill areas on or under the phase two property.
(iii) Interpreted Contours of Ground Water Elevations	Provide a figure showing the phase two property that shows interpreted contours of the ground water elevations for each hydrostratigraphic unit where at least three monitoring wells have been installed to permit contouring and includes,
	i. monitoring well identification numbers,
	ii. water elevation at each monitoring well used for contouring,
	iii. labelling of the elevation contour,
	iv. ground water elevations contoured, which shall obey and not extend outside the dataset, and
	v. arrows indicating the qualified person's interpretation of lateral ground water flow direction at the phase two property.
in Soil Before Actions Taken to Reduce the Concentratio	Where one or more contaminants in soil at or under the phase two property are present at a concentration greater than the applicable site condition standard for the contaminant prior to any actions taken to reduce concentration of contaminants, provide one or more figures in than view of the phase two property that show the concentration of contaminants as analyzed in an accredited laboratory, in all boreholes, test holes, test pits and any other soil sampling locations.
Actions Taken to Reduce the Concentratio of	Where one or more contaminants in ground water at or under the phase two property are greater than the applicable site condition standard prior to any actions taken to reduce concentration of contaminants, provide one or more figures in plan view of the phase two property that show the concentration of contaminants, as analyzed in an accredited laboratory, in all monitoring wells and test holes.
in Sediment Before Actions Taken to Reduce the	Where one or more contaminants in sediment at or under the phase two property are greater than the applicable site condition standard prior to any actions taken to reduce concentration of contaminants, provide one or more figures in plan view of the phase two property that show the concentration of contaminants, as analyzed in an accredited laboratory, in all sediment sample locations.

	(b) Remediation	(i) Where any	Provide a remediation appendix that includes
		(v) Survey of Phase Two Property	Provide a survey of the phase two property which has been prepared, signed and sealed by a surveyor or, where the phase two property consists of land that is administered by the Ministry of Natural Resources under the <i>Public Lands Act</i> , a description of the phase two property approved by the Surveyor General.
			Provide copies of all permits, approvals and the like obtained from municipal, provincial or federal governments or agencies for handling, treating, discharging and disposing of soil, sediment and ground water.
		of Analysis or Analytical Reports from Laboratories	Provide laboratory certificates of analysis or analytical reports for all samples analyzed.
		(ii) Finalized Field Logs	Provide all finalized field logs.
10. Appendices	(a) General	(i) Sampling and Analysis Plan	Provide the sampling and analysis plan for the site investigation.
			iv. the stratigraphy from ground surface to the deepest aquifer or aquitard investigated.
			iii. in highlighting, all concentrations of contaminants in excess of the applicable site condition standard or standard specified in a risk assessment, and
			ii. concentration of contaminants analyzed in an accredited laboratory,
			i. the delineation of the lateral and vertical extent of contaminants of concern in soil, ground water or sediment for each area of potential environmental concern and showing sample locations, sampling identification numbers, sampling points and sampling depths,
		Contaminant of Concern	Provide cross-sections that are oriented parallel and perpendicular to the direction of ground water flow at the phase two property illustrating,
			vii. the applicable site condition standard or standard specified in a risk assessment for each contaminant analyzed.
			vi. concentrations of contaminants as analyzed in an accredited laboratory, and
			iv. sampling depths, v. sampling depth intervals,
			iii. sampling point,
			ii. sample identification number,
			i. sampling locations,
		(vii) Delineation	Provide figures showing the phase two property in a plan view and illustrating the delineation of the lateral and vertical extent of contaminants of concern in soil, ground water or sediment for each area contaminants of concern including,

Action has been Taken to Reduce the Concentrati of Contaminar	
on, in or under a Phase Two	
Property	
	i. remedial actions,
	ii. free flowing product,
	iii. results of confirmation sampling and analysis, and
	iv. conclusions.
(ii) Remedial Actions	Provide,
	i. a description of any soil excavation and soil treatment activities at the phase two property that includes,
	A. the rationale for each method used,
	B. the quantities and types of compounds used to treat contaminants of concern, and
	C. the location of the remedial action.
	ii. an estimate of the quantity of soil treated on the property and removed from the property, in tonnes,
	iii. a description of any ground water removal or ground water treatment activities at the phase two property including,
	A. the rationale for each method used,
	B. the quantities and types of compounds used to treat contaminants of concern, and
	C. the location of the remedial action,
	iv. an estimate, in litres, of the volume of any ground water removed from the phase two property,
	v. a description of any actions taken to reduce contaminant concentrations in sediment at the phase two property including,
	A. the rationale for each method used,
	B. the quantities and types of compounds used to treat contaminants of concern, and
	C. the location of the remedial action in relation to any areas of potential environmental concern,
	vi. an estimate of the quantity of sediment treated or removed from the property,
	vii. copies of all permits from local, provincial and federal agencies for handling, treating, discharging and disposing of soil, ground water or sediment,

	viii. a description of the steps taken to ensure that contaminants created or introduced to the property during remediation do not exceed the applicable site condition standard, if the remediation method involved the creation or introduction of contaminants or substances to the subsurface of the property, ix. a description of the steps taken to establish baseline and background conditions relevant to the proposed remediation method to a degree adequate to detect any increases of contaminants on, in or under the phase two property following remediation, including contaminants created or introduced to the property during remediation,
	x. a rationale for the selection of monitoring wells and contaminants to be analyzed for the purpose of monitoring concentrations of contaminants in, on or under the phase two property, including contaminants created or introduced to the property during remediation.
	ree Flowing Provide, roduct
	i. a discussion of the types and quantities of any free flowing product observed during remediation,
	ii. an estimate of the volume of free flowing product, in litres, removed from ground water on, in or under the phase two property, where free flowing product is present, and
	iii. a description of any free flowing product recovery system or other activity undertaken to remove the free flowing product.
S	onfirmation Provide, ampling nd analysis
	i. a description of all confirmation sampling activities conducted during and after remedial actions for the purpose of demonstrating that the phase two property meets the applicable site condition standards and any standards specified in a risk assessment,
	ii. a description and rationale for all confirmation sampling locations, depths and contaminants analyzed,
	iii. a description of the lateral and vertical dimensions of the excavations and the number and types of confirmation samples taken at each excavation, where part or all of the land on, in or under a phase two property has been excavated,
	iv. one or more figures of the phase two property, identifying the locations and dimensions of any excavations on, in or under the phase two property,

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			v. one or more cross-sections that show the vertical dimensions of any excavations on, in or under the phase two property,
			vi. one or more figures of the phase two property, identifying the locations
			of any ground water removal or treatment activities, including the locations of any injection wells and extraction wells,
			vii. one or more figures of the phase two property, identifying the locations of any sediment removal or treatment activities,
			viii. a description of the results of quarterly sampling events, including water level
			measurements and ground water sampling and analysis, where <i>in situ</i> treatment has been undertaken on, in or under the phase two property,
			ix. a description of the results of quarterly sampling events, including water level measurements and ground water
			sampling and analysis, where remediation, other than <i>in situ</i> remediation has been undertaken with respect to a contaminant in soil,.
			x. tables showing all soil, ground water and sediment quality data contained in laboratory certificates of analysis or analytical reports for confirmation samples including,
			A. comparison of the data to applicable site condition standards or standards specified in a risk assessment as the case may be for each
			contaminant analyzed, B. the borehole, test hole, test pit or monitoring well identification number.
			C. the sample identification number,
			D. soil or sediment sample depth,
			E. ground water sampling depth interval,
			F. date of sample collection, G. date of sample analysis, and
			H. laboratory certificate of analysis or analytical report reference number,
			xi. provide one or more figures that show the results of analyses for all confirmation samples of soil, ground water and sediment including the delineation of the lateral and vertical extent of contaminants in soil, ground water
			or sediment following actions taken to reduce contaminants following actions taken to reduce the concentration of contaminants, and illustrating,
	1		A. sampling points,

		B. sample identification
		number, C. sampling depth intervals,
		and D. concentrations of contaminants as analyzed in an accredited laboratory,
		xii. provide cross-sections that are oriented parallel and perpendicular to the direction of ground water flow that show the results of analyses for all confirmation samples of soil, ground water and sediment including the delineation of the lateral and vertical extent of contaminants. in soil, ground water or sediment following actions taken to reduce the concentration of contaminants, and illustrating, A. sampling points,
		B. sample identification number,
		C. sampling depth intervals,
		D. concentrations of contaminants as analyzed in an accredited laboratory, and
		E. the stratigraphy from ground surface to the deepest aquifer or aquitard where actions were taken to reduce the concentration of contaminants,
		xiii. a table showing construction details and elevations for all monitoring wells used in demonstrating that contaminant concentrations in ground water are below the applicable site condition standards following actions taken to reduce concentration of contaminants, and
		xiv. a table showing all water level measurements for all monitoring events used in demonstrating that contaminant concentrations in ground water are below the applicable site condition standards following actions taken to reduce concentration of contaminants, including depth to water reported as elevations to the nearest centimetre relative to a geodetic or permanent and recoverable benchmark and reference elevations.
(c) Soil Excavated at or Brought to the Phase Two Property	(i) Soil Brought to the Phase Two Property	Provide,
Порыц		i. a rationale for the selection of chemical parameters analyzed by a laboratory in accordance with section 32 of this Schedule,
 		ii. a description of the soil sampling activities conducted including,

			A. the number of samples
			analyzed, B. the soil sampling program, including methods
			used to ensure that the samples are
			representative of any
			areas where a contaminant may be
			present at a concentration greater
			than the applicable site condition standard for
			the contaminant,
			C. the address of the source property and any
			property where the soil was stored prior to
			being deposited on, in
			or under the phase two property,
			D. the former and current uses of the source property,
			including identification
			of any potentially contaminating activity,
			E. total volume of soil brought to the phase two
			property,
			F. the results of analyses of soil samples, including a
			comparison of the results to the
			applicable site condition standard for
			each contaminant
			analyzed, G. a figure showing the
			locations on the phase two property where
			soil was deposited,
			H. tables, 1. showing all soil quality data contained in
			laboratory certificates of analysis of
			soil, samples analyzed, and 2. comparing the analytical results to the
			applicable site condition standard for each contaminant analyzed, and
			iii. a description of the purposes for
			which the soil was brought to the phase two property.
		(ii) Segregation of Soil	Provide,
			i. a rationale for the choice of contaminants to be analyzed,
			ii. a description of the methods used to ensure uniform and representative
			sample collection, iii. the number of soil samples collected
			and the volume of each stockpile, and
			iv. a comparison of the results of analysis to the applicable site
			condition standards and standards specified in a risk assessment for
		(iii) Stockpiles	all contaminants analyzed. Provide,
			i. a rationale for the choice,
			ii. a description of the stockpile sampling program, including
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		methods used to ensure uniform and representative sample collection, the number of soil samples collected and the volume of each stockpile, and
		iii. a table showing all soil quality data contained in certificates of analysis or analytical reports for stockpiled soil samples analyzed and a comparison of the analytical results to the applicable site condition standards and standards specified in a risk assessment.
(d) Modified Generic Risk Assessment	(i) Property Information	Provide,
		i. property location and ownership,
		ii. municipal address and property identification number if any,
		iii. size and boundaries of the property, and
		iv. identification of the current and proposed uses of the property.
	(ii) Fraction of Organic Carbon (FOC)	Whenever an assumed value for FOC (for the water table to soil surface, in the upper 0.5m, or the aquifer) is to be modified in a modified generic risk assessment, the report shall include,
		i. a description of the rationale for determining sampling locations,
		ii. a table with the sampling results,
		iii. a figure showing the sampling points,
		iv. finalized field logs, indicating the depth of the soil samples, and
		v. the new value to be used in the modified generic risk assessment.
	(iii) Distance to Water Body	Whenever an assumed value for distance to water body is to be modified in a modified generic risk assessment, the report shall include a figure showing,
		i. the location of the property,
		ii. areas where a contaminant is present at concentration greater than the applicable site condition standard for the contaminant,
		iii. location of monitoring wells, ground water flow direction, interpreted flow pathways from each area to the nearest water body, estimated distance from each area to the nearest water body,
		iv. nearest water body down gradient of each area noted in ii, and
		v. the new value to be used in the modified generic risk assessment.
		Whenever an assumed value for depth to water table is to be modified in a modified generic risk assessment, the report shall include,
		i. a description of, and rationale for, the method used to estimate the depth from soil surface to the highest water table,
		ii. a figure showing the soil surface elevation contours, monitoring well locations, and measured depths to the highest water table from soil surface,

	iii. a table with all the water level data
	used to determine the highest water table, and iv. the new value to be used in the
	modified generic risk assessment.
(v) Aquifer Horizontal Hydraulic Gradient	Whenever an assumed value for aquifer horizontal hydraulic gradient is to be modified in a modified generic risk assessment, the report shall include,
	i. a figure showing the location of monitoring wells, water level information, and ground water elevation contours,
	ii. gradient calculations, and
	iii. the new value to be used in the modified generic risk assessment.
(vi) Aquifer Horizontal Hydraulic Conductivity	Whenever an assumed value for aquifer horizontal hydraulic conductivity is to be modified in a modified generic risk assessment, the report shall include,
	i. a description of field test methods, and interpretation of the field data,
	ii. a rationale for the decision to use or not use a multiplier, and for the particular choice and use of any multiplier chosen and used in adjusting hydraulic conductivity values,
	iii. all field data, calculations, and hydraulic conductivity values, and
	iv. the new value to be used in the modified generic risk assessment.
(vii) Soil Type in the Vadose Zone and Capillary Fringe	Whenever an assumed value for soil type in the vadose zone and capillary fringe is to be modified in a modified generic risk assessment, the report shall include,
	i. for each area where a contaminant is present on, in or under the property at a concentration greater than the applicable site condition standard for the contaminant, the following information related to soil type in the vadose zone and capillary fringe, if applicable,
	A. a description of grain size analysis undertaken by an accredited laboratory. and the process and rationale for the selection of the soil type,
	B. grain size distribution curves,
	C. a figure showing all the sampling points, and
	D. related finalized field logs, indicating the depth of the soil samples, and
	ii. soil type selected as property soil type (for each of the vadose zone and capillary fringe), and the area soil type (in each of the vadose zone and capillary fringe) for each of the areas investigated.
Investigation - Depth to	Whenever an assumed value for depth below soil surface to soil vapour is to be entered in a modified in a modified generic risk assessment, the report shall include,

		i. a description of the rationale for the selection of the soil vapour
		sampling locations and depths,
		ii. a discussion on soil vapour preferential pathways present or
		anticipated on the property, and
		whether and how they may affect
		vapour intrusion into existing and
		any known future buildings,
		iii. a figure showing the locations of,
		A. existing and, if known, future buildings,
		B. all soil vapour points,
		C. areas where volatile
		contaminants are
		present at
		concentration greater
		than the applicable site condition standards,
		D. known or inferred volatile
		contaminant release
		areas, and
		E. ground water flow direction,
		iv. a minimum of one cross section for
		each area at which a contaminant
		is present at a concentration above
		the applicable site condition standards for the contaminant,
		which illustrates,
		A. variations in the soil surface
		elevation at the
		property,
		B. soil and ground water sampling points,
		C. soil vapour probe locations
		and depths,
		D. interpreted distribution of the soil types present in
		the area,
		E. depth to water table, and
		F. soil and ground water
		concentrations for the
		volatile contaminants
		referred to above, and
		v. a table summarizing the rationale for
		the location and depth of each soil
		vapour probe used in the soil vapour investigation, construction
		details of the probes including
		materials, diameter, length of the
		screen interval, and depth from
		soil surface to the top of the probe
	(ix) Soil Vapour	screening interval. Whenever a value for soil vapour concentration
	Investigation	is to be entered in a modified generic risk
		assessment, the report shall include,
	Vapour	_
	Concentration	
		 i. a description of the soil vapour analytical methods, data quality
		objectives, rationale for the
		selected sampling method, devices
		and sampling duration, ii. a description of the standard
		operating procedures for soil
		vapour probe installation and soil
		vapour probe development, performance testing, leak testing,
		purging and sampling used in the
		field investigation,
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	iii. a description of the quality assurance and quality control measures implemented, iv. soil vapour field data, including leak
	test data, purge volumes and sample rates,
	v. soil vapour laboratory results presented in a tabular format by soil vapour sampling location and probe, including in the table depth to measurement (from soil surface to the top of the probe screening interval) and approved model calculated soil vapour screening level for each volatile contaminant,
	vi. soil vapour probe finalized field logs including depths and installation details, and
	vii. certificates of analysis or analytical reports for all soil vapour samples.
(x) References	Include a list of all documents or data cited in the report.

TABLE 2 MINIMUM STOCKPILE SAMPLING FREQUENCY

Sample Frequency		
Pile Volume	Field Screening Samples	Samples for Laboratory Analysis
Less than 50 m ³	A minimum of 5 samples	A minimum of one sample
>50m ³ to 150 m ³	A minimum of 15 samples	A minimum of three samples
>150m ³ to 500 m ³	A minimum of 30 samples	A minimum of five samples
>500m ³ to 1500 m ³	A minimum of 50 samples	A minimum of 10 samples
>1500 m ³	A minimum of 75 samples	A minimum of 15 samples

TABLE 3 MINIMUM CONFIRMATION SAMPLING REQUIREMENTS FOR EXCAVATION

Floor Area	u (m ²)	Floor Samples	Sidewall Samples ¹
	<25	2	2
	>25-50	2	3
	>50-100	3	3
	>100-250	3	5
	>250-500	4	6
	>500-750	4	7
	>750-1000	5	8
Note 1	Note 1 Sidewall samples should not all be taken from the same wall, and should represent worst-case.		

TABLE 4 PHASE TWO ENVIRONMENTAL SITE ASSESSMENT REQUIREMENTS FOR MODIFIED GENERIC RISK ASSESSMENTS

Assumption Category	Objective	Minimum Requirements
1. Fraction of Organic Carbon (FOC) – Water Table to Soil Surface	(a) Determine the FOC in the area between the water table and the soil surface.	Soil samples from at least four continuous borehole cores but not necessarily undisturbed soil samples must be collected at the phase two property for the purpose of defining FOC.
		The sample must be taken from soil between the soil surface and the top of the water table.
		3. The four sample locations must be chosen so as to provide results for natural (non-anthropogenic) FOC at

		the property.
		4. The samples must be taken from soil of the same soil type present in an area where a contaminant is present at a concentration greater than the applicable site condition standard for the contaminant.
		 A minimum of one composite soil sample for each sampling location is required for FOC determination.
		Each soil sample for FOC determination shall be analyzed in triplicate.
		7. The FOC for the phase two property shall be the mean of all the soil samples analyzed for FOC determination.
		8. At least one soil sample shall be taken at each of the four sampling locations and analyzed for the contaminants of concern.
2. Fraction of Organic Carbon (FOC) – in Upper 0.5 m	(a) Determine the FOC in the upper 0.5 m of soil immediately below soil surface.	 Soil samples shall be collected, from at least four locations at the property, each of which is in the upper 0.5 m of soil below soil surface at the time of sampling.
		The sample locations must be chosen so as to provide results for natural (non- anthropogenic) FOC at the phase two property.
		 The samples must be taken from soil of the same soil type present in an area where a contaminant is present at a concentration greater than the applicable site condition standard for the contaminant.
		 A minimum of one composite soil sample for each sampling location is required for FOC determination.
		The FOC for the phase two property shall be the mean of all the soil samples analyzed for FOC determination.
		 At least one soil sample shall be taken at each of the four sampling locations and analyzed for the contaminants of concern.
3. Minimum Distance From Areas Where Contaminants Present Above Applicable Site Condition Standards to Nearest Down Gradient Water Body	(a) Determine the minimum distance from the centre of areas on, in or under the phase two property at which a contaminant is present at a concentration greater than the applicable site condition standard for the contaminant to the nearest water body that is down gradient of the area.	1. Using hydrogeological expertise and all relevant information from the phase two environmental site assessment, determine the distance from the centre of each area on, in or under the phase two property at which a contaminant is present at a concentration greater than the applicable site condition standard for the contaminant to the nearest water body that is down gradient of the area.
		2. Determine the shortest of these distances.
4. Minimum Depth Below Soil Surface to the Highest Annual Water Table	(a) Determine the minimum depth below soil surface to the highest water table in areas where volatile contaminants are present at concentrations greater than the applicable site condition standards in ground water.	1. Where at least two years of water table level monitoring done at intervals no less frequent than quarterly has been undertaken for the water table at or within 250 metres from the boundary of the phase two property, water table level monitoring shall be conducted monthly for three months in order to determine the minimum depth of the high water table below soil surface. Such monitoring shall be conducted during the three months at which the highest water table can reasonably be expected to be at its highest elevation ASL based on historical data.

		 If the historical water level information referred to in paragraph 1 is not available then either,
		a. water table level monitoring shall be conducted monthly for 12 months in order to determine the minimum depth of the highest water table below soil surface, or
		b. water table level fluctuations reasonably to be anticipated at the phase two property shall be identified and documented by the qualified person, water table level monitoring shall be conducted once and the greater of the anticipated fluctuation as identified by the qualified person or one metre shall be subtracted from the measurement taken during the water table level monitoring in order to determine the minimum depth of the highest water table below soil surface.
5. Aquifer horizontal hydraulic conductivity	 (a) Determine the horizontal hydraulic conductivity for each aquifer that carries contaminants of concern to a water body. 	A representative horizontal hydraulic conductivity for each aquifer that carries contaminants of concern to a water body shall be determined, which shall be done as follows:
		i. Field testing shall be conducted within the coarsest geological material in the aquifer for the purpose of determining horizontal hydraulic conductivity for each aquifer that carries the contaminants of concern from the aquifer to a water body.
		ii. The hydraulic conductivity values from field testing shall be compared with published values associated with the geological material which was tested.
		iii. If the field testing values are not consistent with published values associated with the geological material in the aquifer which was tested, or if there are any other reasons to believe the field testing quality is subject to uncertainty, an appropriately conservative multiplier shall be applied to the field testing values.
6. Aquifer Horizontal Hydraulic Gradient	(a) Determine the average horizontal hydraulic gradient across the phase two property to the nearest down gradient water body.	The average horizontal hydraulic gradient between aquifers on, in or under the phase two property and the nearest water body to which ground water at the property discharges shall be determined, which determination shall be done as follows:
		i. Water level measurements shall be taken from at least three monitoring wells at the property from the same hydrostratigrapic unit

		during at least one monitoring event.
		ii. The monitoring wells must not be placed in a straight line.
		iii. In selecting the monitoring wells from which to collect water level information and determining when to collect it the qualified person shall take into consideration fluctuations of ground water flow direction, so that water level measurements from these wells are representative of ground water flows from the aquifer to the nearest water body.
		For all aquifers where a contaminant of concern is present at a concentration greater than the applicable site condition standard for the contaminant, the qualified person shall ensure the following information is prepared: i. Contours of the interpreted ground water surface based on the water level
		measurements. ii. A determination of the approximate water level elevation of the nearest water body.
		iii. A calculation of the horizontal hydraulic gradient between the phase two property and the nearest water body. using the minimum distance from areas where a contaminant is present at a concentration greater than the applicable site condition standard for the contaminant to the nearest water body calculated as indicated above.
		3. Using the calculations referred to in subparagraph 2 iii, the qualified person shall ensure that the average horizontal hydraulic gradient between the phase two property and the nearest water body is calculated.
7. Aquifer Fraction of Organic Carbon (FOC)	(a) Determine the FOC in the aquifer that carries the contaminants of concern to a water body.	Samples of geological material in the aquifer that carries contaminants of concern to a water body must be collected from at least two sampling points.
		2. Each sample must be analyzed in triplicate.3. The FOC for the aquifer is the mean of
8. Property Soil Type – Vadose Zone	(a) Determine the predominant soil type for the areas at the phase two property where a contaminant is present in soil or in ground water a concentrations greater than the applicable site condition standard for the contaminant.	all the samples. 1. In areas at the phase two property where a contaminant is present at concentrations greater than the applicable site condition standard for the contaminant, the predominant soil type in the vadose zone shall be determined as follows:
		For each area where a contaminant is present in soil only at a concentration

		greater than the applicable site condition standard for the contaminant, one or more boreholes must be advanced to the bottom of the area. ii. In any other case, one or more boreholes
		must be advanced to the top of the saturated zone.
		iii. The determination of the predominant soil type among all the areas shall be done through soil sampling and analysis as follows:
		a. an appropriate number and distribution of samples, but at least four samples, of soil from each area must be collected and analyzed in order to determine grain size distribution of the soil,
		b. grain size analysis shall be undertaken by an accredited laborator,
		c. the predominant soil type from among all the areas must be determined based on analysis of the samples chosen in subparagraph a, and on borehole information, and
		d. where two or more soil types exist in approximately equal amounts, taking into account all the areas, the predominant soil type shall be the coarsest soil type from amongst those present in approximately equal amounts.
9. Property Soil Type – Capillary Fringe	(a) Determine the predominant soil type directly above the water table in the capillary fringe for the areas at the phase two property where a contaminant is present in ground water in concentrations greater than the applicable site condition standard for the contaminant.	1. In areas at the phase two property where a contaminant is present at concentrations greater than the applicable site condition standard for the contaminant, the predominant soil type in the capillary fringe shall be determined through soil sampling and analysis as follows:
		 One or more boreholes must be advanced to the top of the saturated zone.
		ii. The determination of the predominant soil type among all the areas shall be done as follows:
		a. an appropriate number and distribution of samples, but at least two samples, of soil from each area must be collected and analyzed in order to determine grain size distribution of the soil,
		b. samples must be taken from the stratum directly above the water table in the capillary fringe,
		c. grain size analysis shall be undertaken by an accredited laboratory,
		d. the predominant soil type from among all the areas must be determined based on the samples chosen in clause a, and on borehole

		information, and
		e. where two or more soil types exist in approximately equal amounts taking into account all the areas, the predominant soil type shall be the coarsest soil type from amongst those present in approximately equal amounts.
10. Area Soil Type - Vadose Zone	(a) Determine the coarsest soil type in the vadose zone in each area in which a volatile contaminant is present at a concentration greater than the applicable site condition standard for the contaminant.	 In each area where a volatile contaminant is present in soil, or in ground water, at a concentration greater than the applicable site condition standard for the contaminant, determine the soil type in the area.
		 For each area where a contaminant is present in soil only at a concentration greater than the applicable site condition standard for the contaminant, one or more boreholes must be advanced to the bottom of the area.
		 In any other case, one or more boreholes must be advanced to the top of the saturated zone.
		4. The determination of the coarsest soil type for each area shall be done as follows:
		i. An appropriate number and distribution of samples, but at least four samples, of soil from each area must be collected and analyzed in order to determine grain size distribution of the soil.
		ii. Grain size analysis shall be undertaken by an accredited laboratory.
		iii. The coarsest soil type from among these samples for each are shall be identified.
11. Area Soil Type – Capillary Fringe	(a) Determine the coarsest soil type directly above the water table in the capillary fringe in each area of the phase two property where a volatile contaminant is present in ground water at a concentration greater than the applicable site condition standard for the contaminant.	In each area where a volatile contaminant is present at a concentration greater than the applicable site condition standard for the contaminant the coarsest soil type directly above the water table must be determined.
		2. One or more boreholes must be advanced to the top of the saturated zone.
		3. The determination of the coarsest soil type among all the area shall be done as follows:
		i. An appropriate number and distribution of samples, but at least two samples, of soil from each area must be collected and analyzed in order to determine grain size distribution of the soil.
		ii. Grain size analysis shall be undertaken by an accredited laboratory.
		iii. Samples must be taken from the stratum directly above the water table in the capillary

		fringe.
12. Soil Vapour Concentrations and Depth	(a) Determine soil vapour concentrations in each area	iv. The coarsest soil type from among these samples for each area where a volatile contaminant is present in ground water at a concentration greater than the applicable site condition standard for the contaminant-shall be identified. 1. Soil vapour concentrations shall be
to Soil Vapour Measurements	at the phase two property in which a volatile contaminant is present in soil, and in each area of the phase two property in which a volatile contaminant is present in ground water, at a concentration greater than the applicable site condition standard for the contaminant.	two property in which a volatile contaminant is present at a concentration greater than the applicable site condition standard for the contaminant, which determination shall be done as follows:
		i. The qualified person shall ensure a sampling and analysis plan for soil vapour characterization is prepared.
		ii. In this plan the qualified person shall determine the appropriate sampling locations for sampling soil vapour, including the appropriate depth for each location, which locations shall include the areas,
		where known or inferred releases of volatile contaminants have occurred,
		b. where the highest concentration of contaminants in soil and ground waters are present, and
		c. where the qualified person considers vapour intrusion related exposures may be of potential concern.
		iii. The soil vapour samples must be collected,
		a. from within the sampling location and at the depth that is approximately the same as the depth at which the highest concentration of the volatile contaminant in soil has been measured, and
		b. as close as possible to, but not more than 0.5 metres above the top of the capillary fringe in the area where the highest concentration of the volatile contaminant in ground water has been measured.
		iv. The soil vapour samples shall be collected and analyzed.
		v. The qualified person shall document the rationale for the selection of the soil vapour sampling locations and depths.
		vi. At least two soil vapour probes must be installed in each sampling location and depth. Multiple probes installed in a single borehole are not acceptable.

vii. Samples shall be collected from the probes in each sampling location during at least two sampling events separated by at least three months.
viii. Samples shall be collected from at least 1.5 metres below the soil surface.
ix. Screen intervals in soil vapour probes used for the sampling shall not exceed 0.5 metres.
x. The depth to soil vapour measurement is the distance from soil surface to the top of the probe screening interval for each soil vapour probe from which samples are collected.
2. The qualified person shall ensure that the soil vapour samples are collected using soil vapour probes that have been designed, constructed and operated within specifications for adequate measurement and in a manner that minimizes adsorption, desorption and leaks.

SCHEDULE F REQUIREMENTS FOR SOIL RE PARAGRAPH 2 OF SUBSECTION 55 (3) OF THE REGULATION

APPLICATION

Application

- 1. (1) This Schedule sets out the requirements for the purposes of paragraph 2 of subsection 55 (2) of the regulation for determining whether soil described subsection (2) meets the standards set out in Table 1 of the Soil, Ground Water and Sediment Standards with respect to all contaminants in the soil.
 - (2) Subsection (1) applies to soil that,
 - (a) originated at a property other than the one to which it is to be brought;
 - (b) is intended to be brought to a RSC property that is a RSC property for which a record of site condition may be submitted solely based on a phase one environmental site assessment; and
 - (c) is intended to remain at the RSC property after a record of site condition has been filed.

REQUIREMENTS

Requirements

- 2. A qualified person shall ensure that the following requirement are met:
 - 1. The concentration of each contaminant in the soil to be brought to the RSC must be equal to or lesser than the standard for the contaminant set out in Table 1 of the Soil, Ground Water and Sediment Standards.
 - 2. Samples must be collected from the soil to be brought to the RSC property.
 - 3. The samples must be analyzed in accordance with this section, and the

- concentrations of contaminants in the soil when it is to be brought to the RSC property known, before any soil is brought to the RSC property in order to determine what contaminants are in the soil, and whether the standards referred to in paragraph 1 are met for each contaminant in the soil.
- 4. The samples that are collected and analyzed must be,
 - i. representative samples collected for the purpose of determining the concentration of contaminants in the soil to be brought to the RSC property and at locations and frequencies which will be adequate to allow the concentrations of contaminants in the soil to be known,
 - ii. collected by the qualified person, or under the supervision of the qualified person by an individual qualified to take samples for such purpose, following a plan determined by the qualified person to collect samples at locations and frequencies which will be adequate to allow the concentrations of contaminants in the soil to be known, and
 - iii. collected for the purpose of determining if contaminants are present in the soil as a result of any potentially contaminating activity or other environmental condition,
 - A. at the property from which the soil originated while the soil was there,
 - B. at any property at which the soil has subsequently been stored while the soil was being stored at that property, and
 - C. while the soil was being handled, stored or transported at any time before its final placement on, in or under the phase two property.
- 5. The samples must be analyzed for contaminants that may reasonably be expected to be present in the soil, having regard to,
 - i. the property from which the soil was taken before being brought to the RSC property,
 - ii. the handling of the soil, including its storage and transport, following its original excavation, and
 - iii. any other relevant factors, including potentially contaminating activity.
- 6. The samples of the soil must be collected and selected for analysis so as to obtain representative results that locate any areas in the soil being sampled where a contaminant may be present at a concentration greater than the standard in Table 1 of the Soil, Ground Water and Sediment Standards for the contaminant and at least one soil sample must be analyzed for each 160 cubic metres of soil for the first 5,000 cubic metres to be assessed at each source from which soil is being brought to the RSC property, following which at least one sample for each additional 300 cubic metres of soil which is to remain on, in or under the RSC property must be analyzed.
- 7. Analysis of the samples referred in paragraph 6 is carried out at an accredited laboratory.

Application of Schedule E etc.

3. (1) The provisions of Schedule E and sections 47 and 48 of the regulation applicable to the collection and recording of samples of soil and the methods of sampling, analysis of samples and reporting of analytical results apply with necessary modifications to the determination of whether soil to be brought to the RSC property meets standards in Table

- 1 of the Soil, Ground Water and Sediment Standards for the contaminants in the soil.
- (2) For purposes of subsection (1), the applicable provisions include the requirements for sampling and analysis for the purpose of determining whether a standard for a contaminant set out in the Soil, Ground Water and Sediment Standards has been met.
- (3) The qualified person shall ensure that a document which meets the requirements of subclause 10 (c) (i) of Table 1 of Schedule E is prepared with respect to the sampling and analysis of soil brought to the RSC property.
- (4) For the purposes of subsection (3), subclause 10 (c) (i) of Table 1 of Schedule E shall be read as follows:
 - 1. References to section 32 are deemed to be references to section 2 of this Schedule.
 - 2. References to "phase two property" are deemed to be references to the "RSC property".
 - 3. References to "applicable site condition standard" are deemed to be references to "standard in Table 1 of the Soil, Ground Water and Sediment Standards".
- 32. (1) Subject to subsections (2), (3) and (4), this Regulation comes into force on the day it is filed.
- (2) Subsections 1 (1), (2), (4), (5), (6), (8), (9), (11) and (12) and sections 5, 6, 9, 15 to 18, 20 to 22, 29 and 30 come into force on July 1, 2011.
- (3) Subsection 1 (3), and sections 2, 3, 4, 7 to 11, 14, 25, 27, 28 and 31 come into force on the latest of July 1, 2011 and the day on which the last of the following provisions come into force:
 - 1. Section 2, subsections 5 (1), 6 (1), (2), (3) and (5) to (10) and 8 (2), and section 10, of Schedule 13 to the *Budget Measures and Interim Appropriation Act*, 2007.
 - 2. Subsection 2 (2) and section 4 of Schedule 30 to the *Budget Measures and Interim Appropriation Act*, 2007.
 - (4) Section 13 comes into force on July 1, 2010.

Back to top