



TESTMARK Laboratories Ltd.

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Technical Summary of Recent Updates to O. Reg. 153/04

Background:

After several years of re-evaluation, the Ontario government recently posted their amendments to Ontario Regulation 153/04 (Record of Site Condition). The purpose of this Regulation remains the same – to detail the requirements that property owners must meet in order to file a Record of Site Condition. Filing a Record of Site Condition requires that the property be assessed to indicate that the soil, sediment and groundwater standards are met for the proposed use that takes place on that property.

Many things have changed as a result of the new amendments, including the Soil, Ground Water and Sediment Standards themselves. Testmark Laboratories was actively involved in the Technical Advisory Group established by the Ministry of the Environment to help assess the current Standards and recommend changes based on current scientific rationale.

The following provides a quick overview of the amendments as they relate to requests for analytical testing:

What's New?

- 9 Tables of Chemical Standards vs. 6 in the current Standards - the new tables address sites within 30m of a water body and also elaborate on shallow soil sites
- Six new parameters:
 - 1-4 dioxane (VOC)
 - boron (total) (ICPMS)
 - dichlorodifluoromethane (VOC)
 - hexane (VOC)
 - trichlorofluoromethane (VOC)
 - uranium (ICPMS)
- Updated standards for approx. 120 chemicals based on newer scientific evidence. Updated standards generally attribute set risk levels for carcinogens and non-carcinogens for each calculated exposure pathway.
- Enhanced QC requirements including reporting of matrix spikes
- Enhanced reporting requirements for labs such as the inclusion of qualitative comments in regards to sample non-conformities (such as the appearance of particulate in ground water), statement of date of sample extraction, etc.

When Are These Changes Effective?

The amended Regulation becomes effective July 1, 2011.

Until July 1, 2011, the current Site Condition Standards ("Soil, Ground Water and Sediment Standards for Use under Part XV.1 of the Environmental Protection Act (March 9, 2004)) must be used when screening for Contaminants of Concern.

Sample Containers and Hold Times:

Water:

Test	Bottle	Preservative	Hold Time
Chloride	HDPE or PET	None	n/a
Cyanide		NaOH	14 days
Hexavalent Chromium		NaOH	30 days
Metals		Field filtered first, HNO ₃	60 days
Mercury	HDPE	HNO ₃	28 days
Methyl Mercury	Glass	HCl	28 days
VOC, BTEX, F1 PHCs, 1,4-dioxane	43 mL vials (2 vials for VOC/BTEX/F1, 2 vials for 1,4-dioxane)	HCl	14 days
F2-F4 PHCs	1 L amber glass,	HCl	14 days
SVOC, PAH*, Chlorophenols	Teflon-lined lid		
PCB, OCP		None	14 days
Dioxins and Furans		None	n/a

* PAHs tend to adsorb strongly to particulate matter. Therefore, a ground water sample containing a lot of particulate may be biased high for PAHs. The QP has the option to submit a duplicate sample for lab filtration for the analysis of benzo(a)pyrene if particulate is apparent.

Soil and Sediment:

Test	Bottle	Preservative	Hold Time
Chloride	Glass with Teflon-lined lid	None	30 days as received
Cyanide		Protect from light	14 days
Conductivity, pH		None	30 days as received
Hexavalent Chromium			
Metals (including SAR, HWS Boron)			
Mercury, Methyl Mercury			28 days
VOC, BTEX, F1 PHCs, 1,4-dioxane	Glass with Teflon-lined lid (no headspace)	None - OR - Best Practice - ask us about our Terra Core™ Sampling Kit	48 hours to freeze or extract
F2-F4 PHCs	Amber glass with Teflon-lined lid	None	14 days
SVOC, PAH,			
Chlorophenols, PCB, OCP			
Dioxins and Furans			

Testmark's Role

As an active participant in the MOE Technical Advisory Committee for this Regulation, and as the accredited lab doing your testing, Testmark is well aware of what these changes require. We have ensured that:

- All additional parameters have been incorporated into our routine scans at no additional charge
- All detection limits are accommodated for in accordance with the new associated analytical protocol
- New Chains of Custody will provide you with the option to compare your results to either the amended chemical standards which come into effect July 1, 2011 or the current chemical standards (March 2004)
- Additional QC measures (as required) and the provision of additional qualitative report comments will be incorporated into your Certificate of Analysis (e.g. date of sample extraction) as required
- Bottle orders will accommodate for all new parameters

Transitioning a Site?

Although the new Standards come into effect July 1, 2011, the MOE may allow an additional 18-month transition period (beyond July 1, 2011) for sites that have not reached the stage of submitting RSCs prior to July 1, 2011. To take advantage of this transition provision, property owners must submit their request to the MOE between July 1, 2010 and December 31, 2010. Some conditions apply.

Questions?

Please give our Customer Service Department a call @ 1-888-282-0422.

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