

# ISO 10381-7:2005-09 (E)

## Soil quality - Sampling - Part 7: Guidance on sampling of soil gas

---

<b>Contents</b>		<b>Page</b>
Foreword .....		iv
Introduction .....		v
<b>1</b>	<b>Scope .....</b>	<b>1</b>
<b>2</b>	<b>Normative references .....</b>	<b>1</b>
<b>3</b>	<b>Terms and definitions .....</b>	<b>1</b>
<b>4</b>	<b>Preliminary points to be considered .....</b>	<b>4</b>
<b>5</b>	<b>Permanent gases .....</b>	<b>5</b>
5.1	Investigation objectives .....	5
5.2	Basic principles .....	5
5.3	General considerations for sampling .....	7
5.4	Sampling requirements .....	7
5.5	Technical equipment .....	9
5.6	Sampling plan .....	10
5.7	Sampling .....	11
5.8	Storage and transport of samples for laboratory analysis .....	12
5.9	Sampling report .....	12
5.10	Quality assurance .....	13
5.11	Interferences .....	15
<b>6</b>	<b>Volatile organic compounds (VOCs) .....</b>	<b>16</b>
6.1	Objectives .....	16
6.2	Basic principles .....	16
6.3	General considerations for sampling .....	17
6.4	Sampling requirements .....	18
6.5	Technical equipment .....	20
6.6	Sampling plan .....	22
6.7	Sampling .....	22
6.8	Storage and transport of samples for laboratory analysis .....	24
6.9	Sampling report .....	24
6.10	Quality assurance .....	24
6.11	Interferences .....	25
6.12	Interpretation of soil-gas analyses for VOCs .....	26
	<b>Annex A (informative) Sampling protocol .....</b>	<b>27</b>
	<b>Annex B (informative) Anaerobic degradation and the formation of methane and carbon dioxide .....</b>	<b>29</b>
	<b>Annex C (informative) Strategy of soil-gas investigations .....</b>	<b>31</b>
	<b>Annex D (informative) Apparatus for measurement of gas flow rate .....</b>	<b>34</b>
	<b>Annex E (informative) Portable equipment for measurement of concentrations of permanent gases .....</b>	<b>35</b>
	<b>Bibliography .....</b>	<b>38</b>