# ISO 21226:2019-12 (E)

## Soil q uality - Guideline for the screening of soil polluted with toxic elements using soil magnetometry

## Contents

Page


Foreword ..... iv

Introduction ..... v

1 Scope ..... 1

2 Normative references ..... 1

3 Termsanddefinitions ..... 1

4 Symbols and abbreviated terms ..... 3

5 Fundamentals ..... 3
5.1 Screening principle ..... 3
5.2 Screening work processes ..... 4
5.3 Field measurements and works ..... 4
5.4 Laboratory measurements ..... 4
5.5 Data mapping ..... 4
5.6 Soil sampling for geochemical analysis ..... 4

6 Apparatus ..... 4
6.1 Field equipment ..... 4
6.2 Laboratory equipment ..... 5
6.3 Data mapping ..... 5

7 Procedures ..... 5
7.1 Measurement network ..... 5
7.2 Measurements of magnetic susceptibility at the topsoil surface ..... 5
7.3 Measurements of vertical magnetic susceptibility distribution ..... 6
7.3.1 General ..... 6
7.3.2 Topsoil core sampling ..... 6
7.3.3 Field measurements ..... 6
7.3.4 Laboratory measurements ..... 6
7.3.5 Topsoil magnetic profile analysis ..... 6
7.4 Magnetic susceptibility mapping and data analysis ..... 7
7.4.1 Data processing ..... 7
7.4.2 Magnetic susceptibility surface mapping ..... 7
7.4.3 Data analysis ..... 7
7.5 Soil sampling for geochemical analysis ..... 7

8 Screening report ..... 8

Annex A (informative) Relation between magnetic susceptibility and trace element contamination of topsoil ..... 9

Annex B (informative) Measurement performance according to 7.1 and 7.2 ..... 16

Annex C (informative) Example of a screening report to record measurement results according to 9 ..... 18

Annex D (informative) Validation summary ..... 22

Bibliography ..... 26