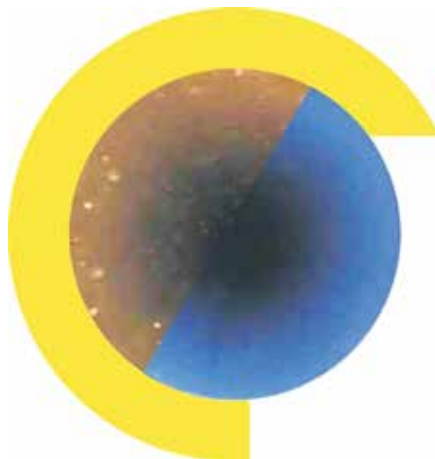
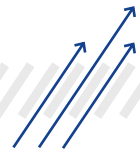


MANUAL

Water well rehabilitation





Well ageing

- 1.1 Causes of well ageing
- 1.2 Types of incrustations
- 1.3 Iron oxides
- 1.4 Quantification of well ageing
- 1.5 Cost of well ageing

1

Prevention of well ageing

- 2.1 Planning and construction
- 2.2 Operation
- 2.3 Monitoring
- 2.4 Maintenance

2

Hydraulic-chemical well rehabilitation

- 3.1 Planning
- 3.2 Execution
- 3.3 Success control
- 3.4 Sustainability of rehabilitation
- 3.5 Economic efficiency of rehabilitation
- 3.6 Advantages of rehabilitation

3

Removal of well incrustations

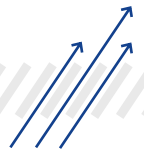
- AIXTRACTOR® 1.0
- AIXTRACTOR® 2.0
- AIXTRACTOR® 3.0
- AIXTRACTOR® 4.0
- AIXTRACTOR® 5.0
- AIXTRACTOR® 6.0
- AIXTRACTOR® 7.0
- AIXTRACTOR® 8.0
- AIXTRACTOR® 9.0
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cleanwells® protocols

- 5.1 Step-discharge test
- 5.2 Process control
- 5.3 Execution
- 5.4 Clear pumping
- 5.5 Intensive desanding
- 5.6 Result
- 5.7 Acceptance

5



1. Well ageing

1.1 Causes of well ageing

1.2 Types of incrustations

1.3 Iron oxides

- 1.3.1 Iron oxides in microscope
- 1.3.2 Ageing of iron oxides
- 1.3.3 Temporal development of incrustations
- 1.3.4 Spatial distribution of incrustations
- 1.3.5 Dissolution of iron oxides

1.4 Quantification of well ageing

- 1.4.1 Step-discharge test
- 1.4.2 Camera inspection
- 1.4.3 Geophysical investigation

1.5 Cost of well ageing

- 1.5.1 Effects on pumping capacity
- 1.5.2 Calculation of additional cost

1

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