

# DIN EN ISO 13503-3:2022-10 (E)

Petroleum and natural gas industries - Completion fluids and materials - Part 3:  
Testing of heavy brines (ISO 13503-3:2022); English version EN ISO 13503-3:2022

---

## Contents

	Page
<b>Foreword</b>	iv
<b>Introduction</b>	vi
<b>1 Scope</b>	1
<b>2 Normative references</b>	1
<b>3 Terms and definitions</b>	1
<b>4 Supplements to API RP 13J, 5th edition (2014)</b>	2
4.1 General	2
4.2 Method for determining iron content	2
4.3 Method for determining carbonate and bicarbonate concentrations	2
4.3.1 General	2
4.3.2 Determination of carbonate concentration by titration in the titration sample	2
4.3.3 Calculation of carbonate fraction in the titration sample	3
4.3.4 Calculation of bicarbonate concentration in the titration sample	5
4.3.5 Calculation of total carbonate and bicarbonate concentration	5
4.3.6 Calculation of carbonate and bicarbonate concentrations in the original sample (before pH adjustment)	5
4.4 Method for determining CT	6
4.4.1 General	6
4.4.2 Application and procedure	7
4.4.3 Preparation of seeding material	7
4.4.4 Selection of seeding material	8
4.4.5 Determination of approximate CT	11
4.4.6 Accurate determination of CT	11
4.5 Method for measuring pH of formate brines	14