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بسم الله الرحمن الرحيم

مركز الشبكات وتكنولوجيا المعلومات

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جامعة عين شمس

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قسم

نقسم بالله العظيم أن المادة التي تم توثيقها وتسجيلها
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Cairo University

COMPREHENSIVE INVESTIGATION OF LOW SALINITY WATERFLOODING IN SANDSTONE AND CARBONATE RESERVOIRS

By

Mohamed Fouad Abd El-Majeed Snosy

A Thesis Submitted to the
Faculty of Engineering at Cairo University
in Partial Fulfillment of the
Requirements for the Degree of
DOCTOR OF PHILOSOPHY
in
Petroleum Engineering

FACULTY OF ENGINEERING, CAIRO UNIVERSITY
GIZA, EGYPT
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Comprehensive Investigation of Low Salinity Waterflooding in Sandstone and Carbonate Reservoirs

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Summary:

The thesis investigated the key parameters of the low salinity waterflooding effect in sandstone and carbonate reservoirs. An experimental work program has been performed using 34 core samples and 11 different water salinities and a comprehensive review of more than 800 flooding experiments from the literature. The study investigates the effects of changing water salinity during both secondary and tertiary stages of waterflooding. It developed important guidelines for screening and designing optimum salinity for waterflooding projects in sandstone and carbonate reservoirs.

Disclaimer

I hereby declare that this thesis is my own original work and that no part of it has been submitted for a degree qualification at any other university or institute.

I further declare that I have appropriately acknowledged all sources used and have cited them in the references section.

Name:

Date: / /2022

Signature:

Dedication

To the soul of my father

To my dear mother, sweet brother, and sisters,

To my supporting wife,

To my adorable kids Hamza and Anas,

To the soul of Eng. Mohamed Shawky Abd El-Hamid

To my loyal and supportive friends,

And to anyone who had given us a sincere supportive word one day.

Thank you all for being there for me.

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