

بسم الله الرحمن الرحيم

الاستهلال

وَآيَةٌ لَهُمْ لَّهُمُ الْأَرْضُ الْمَيْتَةُ أَحْيَيْنَاهَا
وَآخْرَجْنَا مِنْهَا حَبًّا فَمِنْهُ يَأْكُلُونَ (33)
وَجَعَلْنَا فِيهَا جَنَّاتٍ مِنْ نَخِيلٍ وَأَعْنَابٍ
وَفَجَّرْنَا فِيهَا مِنَ الْعُيُونِ (34) لِيَأْكُلُوا مِنْ
ثَمَرِهِ وَمَا عَمِلَتْهُ أَيْدِيهِمْ أَفَلَا يَشْكُرُونَ)
(35)

صدق الله العظيم

(سورة يس الآيات (33 - 34 - 35)

Dedication

To the fountain of patience and optimism and hope
To each of the following in the presence of God and His
Messenger, **my mother dear**

To those who have demonstrated to me what is the most
beautiful of **my brothers life**

To the big heart **my dear father**

To the people who paved our way of science and knowledge
All our **teachers Distinguished**

To the taste of the most beautiful moments with **my friends**
I guide this research

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Nomenclature

EOR	Enhanced oil recovery
IOR	Improved oil recovery
STOIIP	Original oil in place
ASP	Alkali- surfactant polymer
SP	surfactant polymer
EV	Volume efficiency
ED	Displacement efficiency
IFT	Interfacial tension
RSI	Reservoir solution Inc
CTI	Chemical tracers Inc
TDS	Total dissolved solids
API	American petroleum institute

Abstract

This study was conducted to evaluate the application of Enhanced Oil Recovery using chemical flooding in the Sudanese Oil Fields.

The objective of this study is to Find the most compatible SURFACTANT for EOR to Bamboo field and determine the cumulative oil recovery after performing spontaneous imbibition test using surfactant.

The study started by collecting data from Greater Nile Petroleum Operating Company [GNPOC] cores and fluids sample form Bamboo field were taken as candidates for the case study in lab.

Based on the result of imbibition test, SURFACTANT S13A* 1% showed the highest oil recovery of 53.18%.

المستخلص

أجريت هذه الدراسة لتقييم الاستخلاص باستخدام التدفق الكيميائي في الحقول السودانية

الهدف من هذه الدراسة هو اختيار أكثر أنواع السيرفاكتنت ملاءمة لحقل بامبو وحساب معامل الاستخلاص للحقل

بدأت الدراسة بجمع المعلومات من شركة النيل الكبرى لعمليات البترول [GNPOC] وتم اخذ عينات من صخور وموائع الحقل لدراسة الحالة في المعمل. و قد وجد أن معامل الاستخلاص باستخدام السيرفاكتنت وصل الي 53.18% .

وان أفضل أنواع السيرفاكتنت لحقل بامبو هو 1% S13A*.

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