

كلية الهندسة
القسم: هندسة نفطية
الزمن : ساعتان ونصف
أستاذ المقرر: أ. عطيه عوينات
رقم الطالب:

جامعة مصراتة
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الامتحان النهائي لمقرر/تسجيلات أبار (هـ.ن 422)
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أسم الطالب:

QUESTION ONE

1. Fill the Gaps:

1. Porosity is defined as
While the effective Porosity is
2. The main Factors that affect the Permeability are,
..... and
3. The Gamma Ray emission is produced by three mains radioactive series found in the Earth's
Crust which are, and
4. SP results from electrical current which is produced from three main sources,
..... and
5. The main corrections are applied to the Neutron Log are 1.
2. 3.
4. 5.

2. What are the main parameters of the Density and Sonic Logs?

3. What are the main uses of the Gamma and the SP Logs?

QUESTION TWO

1. An Oil well ## was drilled and most of the wire line logs were run. From the Gamma Ray Log (GR) calculate the volume of the shale (Vsh)? From the same well calculate the reservoir porosity from the Density and the Neutron Logs, where the reservoir was Limestone Rock?

انصفه 1 من 2

2. An Oil well ### was drilled, calculate the reservoir porosity from the Sonic Log (Delta T)? In the same well the resistivity of the mud filtrate (R_{mf}) was 0.4 Ohm @ 90F while the reservoir temperature was 300F and the Static Spontaneous Potential was 80 mv. From the SP log technique calculate the resistivity of water (R_w) using the SP charts?
3. An Oil well #### was drilled and most of the wire line logs were run From the Resistivity Logs calculate the water saturation (S_w) where the water resistivity (R_w) is 0.03 Ohm and the porosity of the reservoir is about 19%?

ALL THE BEST