DEDICATION

This dissertation is dedicated to my parents, who always helped me in every sphere of life with their great practical advices

ACKNOWLEDGEMENT

(In the name of ALLAH, the most merciful and beneficent)

All praises are for Almighty ALLAH, who blessed me with courage to cope with the odds of life and who enabled me to accomplish this project. I owe to the HOLY PROPHET (P.B.U.H) for the true guidelines of life. I am thankful to all of my friends who had provided me with the confidence and courage.

I am very much thankful to all the faculty members of the Department of Earth and Environmental Sciences, Bahria University for their valuable support and constructive ideas throughout my stay here.

I am glad to acknowledge the support and encouragement of my external supervisor Mr. Muhammad Zahid (Petrophysicist), Land Mark Resources Pakistan Limited; and internal supervisor Mr. Mohsin Munir.

I would like to acknowledge my friends Mr. Farrukh Khan, Mr. Inam Malik, Mr. Tauqeer Ahmed, Mr. Wahab, Mr. Jamal, Mr. Imran, Mr. Adeel and Haroon Rasheed who were always there to help me despite the fact.

There needs to pay a bunch of special thank to those special and true friends, who are around me like air. They have given me a boost in my life and provided me a launching pad. Thank you so much!

Thank You All!

Muhammad Adnan

ABSTRACT

The main purpose of the study is to evaluate hydrocarbon potential of a well named Bobi Well # 01, Lower Indus Basin, Pakistan. This has been achieved by using complete suite of wire line logs and available well data. This complete set of data is issued by Land Mark Resources, Pakistan with the prior permission of Directorate General of Petroleum Concessions, Pakistan.

To complete the above mentioned task, all logs were correlated to mark the horizon of interest i.e. reservoir zone. In my case the reservoir lies in Goru Formation of Cretaceous age. After the demarcation of reservoir zone of about 122 meter, this zone was then divided into three sub zones according to the quick look interpretation for the Gamma ray and Resistivity Log.

Then these zones were evaluated for the hydrocarbon potential in detail using set of equations and different formation evaluation charts made by Schlumberger.

The methodology adopted to accomplish this task include; the measurements for the Shale volume by using Gamma Ray Log, Porosities of the Reservoir zone by Density and Neutron Log, Resistivity of water by using Spontaneous potential log , Saturation of water in the zone of reservoir and Hydrocarbon saturation using Archie equation.

The results for the dissertation were then displayed in the form of excel sheets and graphs for the better approach towards the task. These all displayed results show a good reservoir quality in all the three sub zones.

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