



Fundamentals of Petrophysical Well-Log Interpretation: A course-note collection with commentary

Dr. George B. Asquith

[Download now](#)

[Click here](#) if your download doesn't start automatically

Fundamentals of Petrophysical Well-Log Interpretation: A course-note collection with commentary

Dr. George B. Asquith

Fundamentals of Petrophysical Well-Log Interpretation: A course-note collection with commentary

Dr. George B. Asquith

Petrophysical well-logs are incremental-depth records of rock, mineral, fluid, and other properties of the subsurface. Well logs and the practice of well-log interpretation by geologists and petroleum engineers represent a critical component of the exploration and assessment of potential hydrocarbon producing formations and reservoirs. The fundamentals of petrophysical well-log interpretation are presented in this monograph, which is a compilation of slide-oriented course notes and commentary created by the author over many semesters of undergraduate and graduate class-room instruction and is designed as a self-teaching guide with worksheets. Chapter 1 is an introduction to well-log interpretation, reviews discipline terminology, the types and uses of various well logs, and how the analyst might visually review logs in an effort to identify potentially productive zones of hydrocarbons. Chapter 2 introduces the reader the borehole environment and a view of the zones in a porous and permeable formation that has been invaded during drilling. The algorithmic steps are presented for computation of formation temperature from data on the log header. Chapters 3–7 present to the user the general information and characteristics of the various well logs including what individual well logs are designed to measure and how tool measurements are converted to appropriate units needed for hydrocarbon production assessment. Each chapter presents well-log analysis for two well-known Cretaceous formations: Glen Rose and Frontier. Chapter 8 reviews the critically important “Archie Parameters” that subsequently are used in Chapter 9 to compute the water saturations of the Glen Rose and Frontier formations using the Archie water-saturation equation. In prior worksheets, the reader is guided to the determination that the Frontier formation is a shaly sandstone and therefore the specific methods of “shaly-sandstone analysis” are required. Chapter 10 is a review of additional techniques used to progressively refine interpretation of the two formations through well-log analysis. Additional techniques demonstrated include guidance on the user answering the following questions: (1) Are the hydrocarbons calculated within Chapter 9 moveable? (2) Are the two formations “water-wet” or “oil-wet?” (3) What are the pore types within the Glen Rose? (4) Should the Glen Rose and Frontier formations individually make “water-free completions.” Similar to the other chapters, the information acquired and computations by the user are oriented around worksheets so that final interpretations of each formation can be made. Chapter 11 introduces and extensively reviews techniques useful for the evaluation of hydrocarbon potential in unconventional shale reservoirs using the standard well-log suite comprised of resistivity, neutron porosity, and bulk density logs. The techniques will be presented along with four case studies of the gas-bearing Woodford Shale and the three oil-bearing shales (Permian Leonard shale and two Permian Wolfcamp shales). Although the focus of the self-guided components of the monograph are generally restricted to a few select formations. The monograph includes considerable information and examples of, the well logs, host-rock properties (sandstones, shales, ...), and reservoirs within other formations discussed include: Ordovician Gunton; Devonian Marcellus; Mississippian Barnett, Chester, Mission Canyon; Pennsylvanian Canyon, Springer, Morrow, and Upper Morrow; Permian Bone Springs, Glorieta, and San Andres; Triassic Montney; Cretaceous Lewis, Pictured Cliffs, and Woodbine. The slides and commentary in this monograph are expected to be useful to a broad range of petrophysical well log analysts as tools to practical application as well as ascending for the beginner the formidable learning curve of petrophysical well-log interpretation.

 [Download Fundamentals of Petrophysical Well-Log Interpretat ...pdf](#)

 [Read Online Fundamentals of Petrophysical Well-Log Interpret ...pdf](#)

Download and Read Free Online Fundamentals of Petrophysical Well-Log Interpretation: A course-note collection with commentary Dr. George B. Asquith

From reader reviews:

Martin Hobson:

Have you spare time for the day? What do you do when you have far more or little spare time? Yes, you can choose the suitable activity regarding spend your time. Any person spent all their spare time to take a move, shopping, or went to often the Mall. How about open or even read a book called Fundamentals of Petrophysical Well-Log Interpretation: A course-note collection with commentary? Maybe it is being best activity for you. You understand beside you can spend your time with your favorite's book, you can wiser than before. Do you agree with their opinion or you have different opinion?

Joyce Williams:

What do you ponder on book? It is just for students because they're still students or it for all people in the world, the actual best subject for that? Just simply you can be answered for that issue above. Every person has diverse personality and hobby for every other. Don't to be compelled someone or something that they don't would like do that. You must know how great in addition to important the book Fundamentals of Petrophysical Well-Log Interpretation: A course-note collection with commentary. All type of book could you see on many methods. You can look for the internet methods or other social media.

Irma Cook:

This Fundamentals of Petrophysical Well-Log Interpretation: A course-note collection with commentary book is not really ordinary book, you have it then the world is in your hands. The benefit you will get by reading this book is information inside this book incredible fresh, you will get details which is getting deeper you actually read a lot of information you will get. This kind of Fundamentals of Petrophysical Well-Log Interpretation: A course-note collection with commentary without we comprehend teach the one who reading it become critical in thinking and analyzing. Don't become worry Fundamentals of Petrophysical Well-Log Interpretation: A course-note collection with commentary can bring once you are and not make your carrier space or bookshelves' grow to be full because you can have it in the lovely laptop even mobile phone. This Fundamentals of Petrophysical Well-Log Interpretation: A course-note collection with commentary having very good arrangement in word in addition to layout, so you will not really feel uninterested in reading.

Ronald Sadowski:

The knowledge that you get from Fundamentals of Petrophysical Well-Log Interpretation: A course-note collection with commentary is a more deep you searching the information that hide into the words the more you get enthusiastic about reading it. It does not mean that this book is hard to be aware of but Fundamentals of Petrophysical Well-Log Interpretation: A course-note collection with commentary giving you enjoyment feeling of reading. The article writer conveys their point in a number of way that can be understood through anyone who read it because the author of this book is well-known enough. This book also makes your personal vocabulary increase well. Therefore it is easy to understand then can go to you, both in printed or e-

book style are available. We highly recommend you for having this particular Fundamentals of Petrophysical Well-Log Interpretation: A course-note collection with commentary instantly.

Download and Read Online Fundamentals of Petrophysical Well-Log Interpretation: A course-note collection with commentary Dr. George B. Asquith #P6IHNX7A83M

Read Fundamentals of Petrophysical Well-Log Interpretation: A course-note collection with commentary by Dr. George B. Asquith for online ebook

Fundamentals of Petrophysical Well-Log Interpretation: A course-note collection with commentary by Dr. George B. Asquith Free PDF d0wnl0ad, audio books, books to read, good books to read, cheap books, good books, online books, books online, book reviews epub, read books online, books to read online, online library, greatbooks to read, PDF best books to read, top books to read Fundamentals of Petrophysical Well-Log Interpretation: A course-note collection with commentary by Dr. George B. Asquith books to read online.

Online Fundamentals of Petrophysical Well-Log Interpretation: A course-note collection with commentary by Dr. George B. Asquith ebook PDF download

Fundamentals of Petrophysical Well-Log Interpretation: A course-note collection with commentary by Dr. George B. Asquith Doc

Fundamentals of Petrophysical Well-Log Interpretation: A course-note collection with commentary by Dr. George B. Asquith Mobipocket

Fundamentals of Petrophysical Well-Log Interpretation: A course-note collection with commentary by Dr. George B. Asquith EPub