



Montney rock drill structure introduction

Is the Montney Formation suitable for horizontal drilling and multistage hydraulic fracturing?

The Montney Formation is considered a prime candidate for horizontal drilling and multistage hydraulic fracturing treatment. Despite many studies on the Montney Formation and units within it and separation into different stratigraphic levels, there are no universally accepted lithostratigraphic subdivisions.

What type of rock is in the Montney Formation?

The Montney is a NW-SE trending, lens-shaped formation that straddles the border between British Columbia and Alberta. The map below illustrates the major rock types throughout the Montney Formation. Along the eastern edge, the Montney Formation includes shallow-water marine interbedded sandstone and siltstone.

How big is the Montney Formation?

The Montney Formation covers about 57,000 square miles from west-central Alberta to northeastern British Columbia. More than 3200 horizontal, multistage wells have been drilled and completed in the Montney since 2008.

What are the two completion methods used in the Montney Formation?

Background on the Montney operation Two completion methods are typically used in the Montney Formation to generate multiple fractures along horizontal wellbores: the first is the cement liner plug and perforate (CLPP), and the second is the open hole multistage system (OHMS) (Kimmitt, 2012).

Which rigs are targeting the Montney shale?

Of Birchcliff's 25 horizontal wells, 24 wells are targeting the Middle/Lower Montney Play and one well is targeting the Basal Doig/Upper Montney Play. This is a snapshot of today's active rigs in the region where the Montney is typically the target formation. The Montney Shale possesses many attractive characteristics for exploitation, such as:

Where was the Montney Formation deposited?

Insert shows the stratigraphic position of the Montney Formation in west central Alberta. The Montney Formation was deposited along the western margin of the supercontinent Pangea in the Peace River Embayment (also known as the Peace River Basin; Davies et al., 1997). This margin marked the eastern shore of the Panthalassa paleo-ocean.

However, whole rock concentrations of both aluminum and silicon in the Montney Formation are affected by the presence of large amounts of quartz and feldspars cements and ...

Interpretation: The most common habit of Montney OM, i.e., filling original interparticle pore space between framework grains and enclosing authigenic minerals, ...



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Through the application of an integrated laboratory workflow on two diverse drill cuttings sample suites differing in geological properties (Montney, Duvernay), the variation in rock fabric, ...

His Montney half-day short course, Montney Rock and Fluid Properties: An Introduction, has been attended by hundreds of geoscientists and engineers. Jim has been a volunteer for ...

This study investigates the rock mechanics and anisotropic properties of the Montney Formation, Alberta, through two sets of experiments: unconfined compressive ...

The combination of horizontal drilling and multistage hydraulic fracturing technology has unlocked production of petroleum from tight/shale rock. Prediction of single or multistage ...

Depositional fabrics in drill-cores acquired from unconventional shale and tight hydrocarbon reservoirs have been extensively investigated in ...

Future Exploitation The application of horizontal drilling with aggressive build sections has allowed the borehole greater access to target ...

This module provides foundational knowledge about the oil and gas drilling industry, covering essential concepts such as drilling techniques, rig types, and components. It serves as the first ...

Geofluids - 2021 - Woo - Effect of Lamination on Shale Reservoir Properties Case Study of the Montney Formation Canada - Free download as PDF File (.pdf), Text File (.txt) or read online ...

a. Location of the studied vertical well (100/13-23-068-05W6/00) with drill-core from the Doig and Montney formations in the Alberta portion of ...

Conclusions Complementary thin-section, field emission scanning electron microscopy (FESEM) and organic petrology studies of drill-core samples show that organic ...

In Canada, tight and shale plays such as the Montney, Bakken, and Duvernay (to mention but a few) have over the past decade become the focus of exploration and development activities. ...

He also teaches a popular short course: "Montney Fluid and Rock Properties: An Introduction". More recently, his work in helium exploration has contributed to ...

The Lower Triassic Montney Formation is an areally extensive unconventional resource in northeastern British Columbia, Canada with ...

PDF | On Aug 15, 2022, Victoria Chevrot and others published Application of migration modeling to unconventional reservoirs: An example from the ...



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Both dolostone and sandstone reservoirs are located in siltstone. That meant that exploration companies had to wait until 2005 when advances ...

This open file report presents the proceedings of the online workshop "Hydrogen sulfide (H₂S) in the Montney Formation - investigating a ...

The following section provides an overview of what development drilling in the Montney looks like so far in the three subareas that provide most of the Montney's current production, and what ...

The oil and gas sector is undergoing a significant transformation, with increasing attention on unconventional reservoirs across Canada. These plays, while rich ...

Shifting Trends Shifts in Montney target trends occurred in tandem with advances in drilling and completion technology, as well as step changes in geological interpretations and concepts ...

Source-rock characteristics of Lower Triassic Montney Formation presented in this study shows the total organic carbon (TOC) richness, thermal maturity, ...

These induced structural features reflect the complex interplay of core drilling and retrieval with rock type and in-situ stress.

The full-length paper presents the evolution of well construction in the Montney play, technical and economic challenges, and the new synergy developed between drilling and ...

Over the past few decades, exploration and development was mainly in conventional Montney reservoirs with production of petroleum from sandstone. More recently, exploration ...

A major unconventional oil and gas operator and a directional drilling service provider have partnered to consistently extend lateral section lengths over 5 km and to drill the ...

The Montney Formation is dominated by fine-grained lithologies, primarily siltstone and very fine-grained sandstone. Regionally pervasive hydrocarbon saturation and a ...

In previous topics we have covered the Montney formation in two parts: Introduction & A Closer Look. A younger formation, above the Montney, known as Charlie ...

Highlights o Integrated geochemistry of core and produced oils from Doig-Montney Fm., Canada. o Oil migration from external source rocks of the Doig Fm. into underlying ...

Currently, there are few effective approaches to characterize multistage hydraulic fracturing in tight rock



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reservoirs. In this paper, we use a three-dimensional tight rock simulator ...

The Lower Triassic Montney Formation of the Western Canada Sedimentary Basin (WCSB) is a world-class unconventional hydrocarbon resource in North ...

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