Record Nr. UNINA9911007182103321 Autore Wood David Titolo Sustainable Natural Gas Drilling: Technologies and Case Studies for the **Energy Transition** Pubbl/distr/stampa San Diego:,: Elsevier Science & Technology,, 2024 ©2024 **ISBN** 9780443134210 0443134219 Edizione [1st ed.] Descrizione fisica 1 online resource (629 pages) The Fundamentals and Sustainable Advances in Natural Gas Science and Collana **Eng Series** Altri autori (Persone) CaiJianchao Disciplina 622.3381 Soggetti Drilling and boring Natural gas Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Front Cover -- Sustainable Natural Gas Drilling -- Copyright Page --Nota di contenuto Contents -- List of contributors -- Preface -- About the Fundamentals and Sustainable Advances in Natural Gas Science and Engineering Series -- About this volume: Sustainable Natural Gas Drilling: Technologies and Case Studies for the Energy Transition --ONE. Drilling techniques tailored to meet the challenges -- 1 Natural gas drilling: an overview of sustainability challenges -- 1.1 Introduction --1.2 Fundamentals and theory --1.2.1 The complexity of drilling operations and their management --1.2.2 Aboveground and belowground drilling-rig components --1.2.3 Fuel efficiency --1.2.4 Drill cuttings waste treatments and disposal 1.2.5 Naturally occurring radioactive materials present in some drilling cuttings --1.2.6 Impact of offshore drilling on the marine environment --1.2.7 Impact statements and triple-bottom-line aspirations --1.3 Advanced concepts --1.3.1 Integrated environment simulation training and rig automation --1.3.2 Technology advances have reduced environmental impacts of onshore 1.3.3 Wellbore suspension and decommissioning impacts on the environment --1.3.4 Devasting impacts of some land-based well blowouts --1.3.5 Multiple adverse consequences

of well blowouts associated with offshore drilling -- 1.3.6 Future drilling in sensitive, remote, and harsh marine environments -- 1.3.7 Risk/opportunity management and mitigation of drilling sustainability issues -- 1.4 Case studies: European Union gas markets -- 1.4.1 Case study 1: Synthetic polymers additives in drilling fluids -- 1.4.2 Case study 2: Nanoparticle additives in drilling fluids

## Sommario/riassunto

This book, 'Sustainable Natural Gas Drilling,' edited by David A. Wood and Jianchao Cai, explores advanced drilling techniques and technologies for natural gas extraction, with a focus on sustainability and energy transition. It discusses various drilling methods, including deep and horizontal drilling, and addresses the challenges of water management and wellbore stability. The book also covers innovations in drilling fluids and the environmental impacts of gas extraction. Case studies from various regions, such as the European Union, Permian Basin, and Appalachian Basin, are included to illustrate practical applications and challenges in the field. Intended for professionals and researchers in the energy industry, it aims to provide insights into optimizing drilling performance and developing sustainable practices.

Record Nr. UNINA9911028660003321 Yang Yang Autore Titolo Positioning and Sensing over Wireless Networks Pubbl/distr/stampa Cham:,: Springer,, 2025 ©2025 **ISBN** 3-031-99162-1 Edizione [1st ed.] Descrizione fisica 1 online resource (286 pages) Collana Wireless Networks Series Altri autori (Persone) ChenMingzhe LiuFan MaoShiwen Disciplina 621.384 Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Sommario/riassunto This book covers the principles, methods, and state-of-the-art applications of positioning and sensing across both ground-based and aerial wireless networks. The first two chapters introduce key

tools.

performance metrics and measurement techniques along with enabling