

HISTORICAL DICTIONARY *of the*

**PETROLEUM
INDUSTRY**



MARIUS S. VASSILIOU

SECOND
EDITION

**HISTORICAL DICTIONARIES OF
PROFESSIONS AND INDUSTRIES**

Jon Woronoff, Series Editor

Journalism, by Ross Faman, 2009.
U.S. Maritime Industry, by Kenneth J. Blume, 2012.
Librarianship, by Mary Ellen Quinn, 2014.
Japanese Business, Second Edition, by Stuart D. B. Picken, 2016.
Fashion Industry, Second Edition, by Francesca Sterlacci and Joanne Arbuckle, 2017.
Petroleum Industry, Second Edition, by Marius S. Vassiliou, 2018.

**Historical Dictionary of
the Petroleum Industry**

Second Edition

Marius S. Vassiliou

ROWMAN & LITTLEFIELD
Lanham • Boulder • New York • London

Published by Rowman & Littlefield
An imprint of The Rowman & Littlefield Publishing Group, Inc.
4501 Forbes Boulevard, Suite 200, Lanham, Maryland 20706
www.rowman.com

Unit A, Whitacre Mews, 26-34 Stannary Street, London SE11 4AB


Copyright © 2018 by Marius S. Vassiliou

All rights reserved. No part of this book may be reproduced in any form or by any electronic or mechanical means, including information storage and retrieval systems, without written permission from the publisher, except by a reviewer who may quote passages in a review.

British Library Cataloguing in Publication Information Available

Library of Congress Cataloging-in-Publication Data

Name: Vassiliou, Marius S., author.
Title: Historical dictionary of the petroleum industry / Marius S. Vassiliou.
Description: Second edition. | Lanham : Rowman & Littlefield, 2018. | Series: Historical dictionaries of professions and industries | Includes bibliographical references.
Identifiers: LCCN 2017061840 (print) | LCCN 2018001876 (ebook) | ISBN 9781538111604 (electronic) | ISBN 9781538111598 (hardcover : alk. paper)
Subjects: LCSH: Petroleum engineering—History—Dictionaries. | Gas engineering—History—Dictionaries. | Petroleum industry and trade—History—Dictionaries.
Classification: LCC TN865 (ebook) | LCC TN865 .V38 2018 (print) | DDC 338.2/728203—dc23
LC record available at <https://lcn.loc.gov/2017061840>

 The paper used in this publication meets the minimum requirements of American National Standard for Information Sciences Permanence of Paper for Printed Library Materials, ANSI/NISO Z39.48-1992.

Printed in the United States of America

*To my wife, Cynthia K. Vassiliou,
to my mother, Avra S. Vassiliou,
and
to the memory of my father, Simos G. Vassiliou.*

Chronology

c. 1875 BC References to an oil trade in ancient Sumeria appear in official records of King Hammurabi's government.

c. 450 BC Greek historian Herodotus describes oil and salt production from springs and wells in Persia.

c. 400 BC Bamboo pipes wrapped with waxed cloth are used to transport natural gas for lighting in China.

211 BC Natural gas is discovered in Chi-lui-ching, Szechuan, China, while drilling for salt and is used for heat and light.

c. 50 BC Greek historian Diodorus records roaring gas seeps at Kirkuk and presence of large quantities of asphalt in Babylonia.

347 Wells are percussion-drilled in China using bamboo poles with attached bits. Depths of almost 800 feet are achieved. Some of these are salt wells with incidental oil discoveries.

642 Byzantine emperor Heraclitus destroys a number of temples near Baku where locals worship before burning gas wells.

885–886 Premodern oil industry in Azerbaijan and the North Caucasus. Caliph of Baghdad grants revenues from oil springs to the citizens of Darband (Derbent).

1132 Wells in China reach 3,000 feet in depth.

1184 Ibn Jubayr records large oil seeps near Mosul.

1188 Giraldus Cambrensis describes rocks in Wales that appear to be oil bearing and speculates on the possibility of extracting oil from them somehow.

1298 Marco Polo observes the exploitation of oil from surface seeps on the Abseron Peninsula. He notes that the oil is used for fuel and medicinal purposes and is transported on camels.

1460 Francisco Ariosto writes of surface oil springs near Modena, Italy. The oil is used for medicinal purposes.

1526 G. Fernández de Oviedo y Valdéz uses pitch to caulk his ships near Havana, Cuba.

xxv

xxvi • CHRONOLOGY

1539 Spanish ship *Santa Cruz* transports a barrel of Venezuelan oil to Spain, reportedly to help treat King Charles I's gout.

1543 Hernando de Soto describes oil seeps in Mexico.

1545 Georgius Agricola mentions oil seeps near Hanover, Germany, near the site of the modern oil fields of Reitling and Hänigsen. He describes the use of oil for illumination, lubrication, and waterproofing.

1594 An inscription inside a 115-foot oil well in Balakhany on the Abseron Peninsula identifies the proprietor as Allah Yar Mammad Nuroghlu.

1595 Walter Raleigh observes the pitch lake in what is now Trinidad and Tobago.

1596 Jan Huygen van Linschoten reports oil seeps and a primitive oil industry in Sumatra.

1625 Johan Volck discusses possible uses of oil in the Pechelbronn district of Alsace, but no commercial development occurs.

1636 German diplomat Adam Oleari observes 30 oil wells in the Baku area and remarks that some of them are gushers.

1683 Engelbert Kaempfer, secretary of the Swedish embassy in Persia, visits Baku and observes the extraction, use, transport, and export of Abseron Peninsula oil.

1702 Russian Tsar Peter I (the Great) orders oil samples to be sent to him from Siberia and orders further exploration of the vast region.

1717 Tsar Peter I's physician Gottlieb Schober describes oil sources in Russia's Volga-Urals area.

1732 A small rudimentary refinery is built at Baku. Its products serve the local area.

1734 Jean-Théophile Hoeffel completes a doctoral thesis in which he describes the results of distilling light fractions from Pechelbronn bitumen and oil sands in Alsace.

1737 Fifty-two hand-dug wells are producing oil at the site of the present-day giant Balakhany field on the Abseron Peninsula.

1746 Louis Pierre Ancillon de la Sablonnière and Jean d'Amascène Eyrénis begin mining oil sands in the Pechelbronn area of Alsace. Oil sands are brought to the surface, and the oil is washed out of them. An oil company is formed, with 40 shares issued. Fyodor Pryadunov builds a rudimentary installation to collect oil from the surface of the Ukhta River in Russia's Timan-Pechora area.

CHRONOLOGY • xxvii

1748 Peter Kalm of Sweden publishes a map showing oil seeps in Oil Creek, in what is now Pennsylvania.

1788 Peter Pond reports that natives in the area of the Athabasca oil sands (present-day Alberta) use bitumen to caulk their canoes.

1795 M. A. Symes visits the Yenangyaung oil field in Burma, a country with a large oil industry that has existed perhaps for centuries by this time. He describes the export of oil via boat.

1806 David and Joseph Ruffner drill a salt well using a spring pole, drive pipe, casing, and tubing near the Kanawha River in western Virginia (today West Virginia) and strike oil instead.

1813 Manual research drilling is conducted at the Pechelbronn field in Alsace to depths of 640 feet to guide development of the oil sands mining operation.

1815 Oil is remarked as an undesirable by-product from Pennsylvania brine wells.

1821 A natural gas well is drilled in Fredonia, New York, and some local residences are served with gas for lighting.

1825 An order from Russian finance minister Yegor Kankrin places all oil wells under the control of the state.

1827 British geologist John Crawford investigates the Yenangyaung oil field in Burma. He describes the hand-dug wells as shafts about four feet square, cribbed with wood. Crawford estimates annual output at the equivalent of 250,000–300,000 barrels. He notes seeing about 200 boats waiting to load oil. Oil is used in the area for many purposes, including illumination, preserving wood, and boat building.

1830 Johann Lenz investigates the Baku oil industry for the Imperial Academy of St. Petersburg. He reports annual production equivalent to 30,145 barrels from 80 wells or springs.

1833 Benjamin Silliman (Senior) performs an experimental distillation of crude oil.

1835 Nikolai Ivanovich Voskoboynikov of the Corps of Mining Engineers in Baku designs and implements a ventilation system to improve the efficiency and safety of hand-dug oil pits.

1836 Gian Bianconi studies the geology of oil and gas in Italy. Natural gas is used to light the baths at Poretta.

Explore Litigation Insights

Docket Alarm provides insights to develop a more informed litigation strategy and the peace of mind of knowing you're on top of things.

Real-Time Litigation Alerts



Keep your litigation team up-to-date with **real-time alerts** and advanced team management tools built for the enterprise, all while greatly reducing PACER spend.

Our comprehensive service means we can handle Federal, State, and Administrative courts across the country.

Advanced Docket Research



With over 230 million records, Docket Alarm's cloud-native docket research platform finds what other services can't. Coverage includes Federal, State, plus PTAB, TTAB, ITC and NLRB decisions, all in one place.

Identify arguments that have been successful in the past with full text, pinpoint searching. Link to case law cited within any court document via Fastcase.

Analytics At Your Fingertips



Learn what happened the last time a particular judge, opposing counsel or company faced cases similar to yours.

Advanced out-of-the-box PTAB and TTAB analytics are always at your fingertips.

API

Docket Alarm offers a powerful API (application programming interface) to developers that want to integrate case filings into their apps.

LAW FIRMS

Build custom dashboards for your attorneys and clients with live data direct from the court.

Automate many repetitive legal tasks like conflict checks, document management, and marketing.

FINANCIAL INSTITUTIONS

Litigation and bankruptcy checks for companies and debtors.

E-DISCOVERY AND LEGAL VENDORS

Sync your system to PACER to automate legal marketing.