

Wallace E. Pratt: An Amazing Figure of 20th Century American Life and a True Petroleum Geologist*

Dana M. Jurick¹ and G. R. Keller²

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¹ConocoPhillips, Houston, Texas (Dana.M.Jurick@conocophillips.com)

²School of Geology and Geophysics, University of Oklahoma, Norman, Oklahoma

Abstract

Dr. Pratt played a critical role in the growth and success of the petroleum industry during its early evolution. His name and story are familiar to many AAPG members and he is well known outside of our industry for his wide-ranging interests and generosity to society. One of the founders of the American Association of Petroleum Geologists, Pratt was elected fourth president of the association in 1920. He was the first recipient of the AAPG's Sidney Powers Memorial Award in 1945. As a leading petroleum geologist, businessman, thinker and visionary, Pratt encouraged geologists, geophysicists and engineers to explore for and develop oil and natural gas resources with optimism, knowledge, energy, talent and the tools of science and technology. In the later stages of his career, as a reflective man, Pratt came to the realization that those engaged as geologists in the field of petroleum exploration and development have a responsibility to the oil and gas producing industry and to greater Society beyond our scientific contributions and advancements. He clearly believed that it is our responsibility to discharge social and civic responsibilities as professional men and women, to work for the greater good of our society through our participation as professionals within our industry and in civic life.

Well, how do we know that this was his belief? In 1965, Wallace E. Pratt, a long standing member of the AAPG also sought membership in the American Institute of Professional Geologists (AIPG), an organization still thriving today, which was and is dedicated to promoting geology as a Profession. In 1965, the AIPG chairman personally asked Pratt to speak to its Texas Section at their Annual Meeting in San Antonio. Pratt chose to speak on the subject of what it means to be a geologist, not only as a scientist, but in terms of what it means in terms of our professional responsibilities. He cast his subject matter in the form of an affirmation and entitled his speech: "Petroleum Geology Is a Profession". It is an insightful, perceptive and engaging speech that speaks to us even today, more than 50 years after its presentation! Wallace E. Pratt did indeed have a perceptive mind and clarity of vision that we can still learn from as professionals of the 21st century. An original typed written manuscript of his 1965 speech was recently located at U.T. El Paso and has been donated to the AAPG for professional curation and re-publishing.

Wallace E. Pratt

An Amazing Figure of 20th Century American Life
and a True Petroleum Geologist

Dana M. Jurick*
G. R. Keller



Presentation Outline

- **Recall**
 - Who was Wallace E. Pratt? What is his background? Where did he come from? What is his association with AAPG and the Oil and Gas Producing Industry?
- **List**
 - Examine his legacy of thought, ideas, innovation and expressions of optimism through his writing
- **Identify**
 - A special paper, the subject of this presentation
 - The Subject?
 - A 1965 unpublished speech that reflects upon the assertion that “Petroleum Geology is a Profession”
- **Define**
 - The context within which his speech was written and presented: Stage, Experience, Motivation.
- **Describe**
 - Thesis of the presentation
 - Main ideas presented to support his thesis
 - What are the take-aways
- **Explain**
 - Why his ideas are still relevant
 - What actions can we take in 2017? Some current issues of importance where we can have IMPACT.

Recall: Education and Field Work – Bondoc Philippines 1911 - 1913

MINING ENGINEER'S THESIS
UNIVERSITY OF KANSAS
OFFICE OF TRANSMUTUAL

THE GOVERNMENT OF THE PHILIPPINE ISLANDS
DEPARTMENT OF THE INTERIOR
BUREAU OF SCIENCE
MANILA

February 18, 1914.

To the Dean of the School of Engineering,
University of Kansas,
Lawrence, Kansas.

Through the
Chief, Division of Mines, Bureau of Science,



1912

Fig. 4. An outcrop of volcanic agglomerate.

PLATE X.

B.S. 1908
M.A. 1909
Work ('09-14)
Eng. of Mines
In Geology 1914



THE PHILIPPINE JOURNAL OF SCIENCE A. CHEMICAL AND GEOLOGICAL SCIENCES AND THE INDUSTRIES

VOL. VIII OCTOBER, 1913 No. 5

THE GEOLOGY AND PETROLEUM RESOURCES OF THE SOUTHERN PART OF BONDOL PENINSULA, TAYABAS PROVINCE, P. I.

By WALLACE E. PRATT AND WARREN D. SMITH
(From the Division of Mines, Bureau of Science, Manila, P. I.)
Ten plates, 1 text figure, and 1 map

CONTENTS

INTRODUCTION.	GEOLOGY—Continued.
General.	Stratigraphy—Continued.
Previous knowledge of the region	Vigo shale.
and sources of information.	Volcanic agglomerate.
Scope of the present work.	Structure.
Methods of field work.	General.
GEOGRAPHY.	Unconformities.
Situation.	Central anticline.
Transportation.	Region north of Central an-
Climate and vegetation.	ticline.
Population.	Malipa anticline.
GEOLOGY.	Bato anticline.
General statement.	Ayoni anticline.
Physiography.	Cudiapi syncline.
Orography.	Maglihi anticline.
Hydrography.	Banaba monocline.
Topographic control.	Geologic history.
Stratigraphy.	OCCURRENCE OF THE PETROLEUM.
Table of stratigraphy.	PHYSICAL AND CHEMICAL PROPERTIES
General geologic sections.	OF THE PETROLEUM.
Alluvium and travertine.	ORIGIN AND PROBABLE QUANTITY OF
Littoral deposits and recent	THE PETROLEUM.
coral reefs.	AREAS TO BE PROSPECTED.
Malumbang series.	CONCLUSIONS.
Canguinea sandstone.	

INTRODUCTION GENERAL

The existence of petroleum seeps on the lower end of Bondoc Peninsula, especially on Bahay River, was known among the natives at least, during the Spanish regime, but no steps were

122479

301

January 1911 – 2 weeks

Eddingfield and Pratt spent two weeks in a geologic investigation of the southern part of Bondoc Peninsula, and a short discussion based on this work was published later in that year.

Summer 1912 – 3 months

Pratt and Dalburg were engaged for nearly three months in geologic and topographic field work on Bondoc Peninsula.

February 1913 – 3 weeks

The results of this work were confirmed and amplified in three weeks of field work by Warren D. Smith and Wallace E. Pratt.

4+ Months of Field Work – The way it was in Bondoc Peninsula

“The time spent in the field would scarcely permit the detailed study of the area covered—700 square kilometers... even if the country were easily traversed and the geology clearly defined.”

“As it is, the lack of an accurate map, the absence of trails, the prevalence of jungle along the streams, and the heavy growth have made it impossible to include detailed or complete information in this report.”

... “The mere physical effort of cutting through a jungle or of “breaking trail” in the open, where the process involved is one of literally burrowing through the tall rank grass, frequently leaves the observer inefficient through exhaustion before his day's work is fairly begun.”

Wallace Pratt, ever the optimist....

However, the present work should serve as a basis for future investigation.

Source: <https://kuscholarworks.ku.edu/handle/1808/16198>

Recall Milestones in the Life of a Distinguished Leader

- 1917 – A founder of the Southwestern Association of Petroleum Geologists (a predecessor of AAPG)
 - 1918- Joined Humble Oil and Refining (First Geologist)
 - 1920- 4th President of AAPG
 - 1946- AAPG Distinguished Lecturer
 - 1957 – Elected Honorary Member of AAPG
-



- 1945- 1st recipient of Sidney Powers Medal
- 1948- Anthony F. Lucas Medal from American Institute of Mining and Metallurgical Eng.'s. - Distinguished Achievement in Petroleum Engineering
- 1950- James Forman Kemp Medal from Columbia University, bestowed by President Eisenhower
- 1954 – API Gold Medal Award for Distinguished Achievement
- 1969- Inductee to Hall of Fame of Permian Basin Museum in Midland
- 1972- AAPG Human Needs Award
- 1976- Named a “Grand Old Man” of Exploration by Tulsa’s Int’l Petroleum Exposition
- And numerous other recognitions and awards ...

List Publications- Legacy of Thoughts, Ideas, Innovation & Optimism

Geologic Structure and Producing Areas in North Texas Petroleum Fields Wallace E. Pratt AAPG Bulletin	1919	Memorial: Donald Clinton Barton (1889-1939) Wallace E. Pratt AAPG Non-Technical and Memorials	1939	Calculating Petroleum Reserves: DISCUSSION Wallace E. Pratt AAPG Bulletin	1950
The Present Excitement at Fort Stockton, Texas: GEOLOGICAL NOTES Wallace E. Pratt AAPG Bulletin	1921	The Basis of Proration in Texas Wallace E. Pratt AAPG Bulletin	1939	Calculating Petroleum Reserves Wallace E. Pratt AAPG Bulletin	1951
The Recent Discovery at El Dorado, Arkansas: GEOLOGICAL NOTES Wallace E. Pratt AAPG Bulletin	1921	Geology in the Petroleum Industry Wallace E. Pratt AAPG Bulletin	1940	A Philosophy of Oil-Finding: ABSTRACT Wallace E. Pratt AAPG Bulletin	1951
A Note on Supposed Evidence of the Volcanic Origin of Gulf Coast Salt Domes: GEOLOGICAL NOTES Wallace E. Pratt AAPG Bulletin	1921	Good Geologists Make Good Neighbors--A Study of the Role of American Geologists in Hemispheric Solidarity under the Good Neighbor Policy: ABSTRACT Wallace E. Pratt AAPG Bulletin	1942	A Philosophy of Oil-Finding: ABSTRACT Wallace E. Pratt AAPG Bulletin	1951
A New Gulf Coast Salt Dome: GEOLOGICAL NOTES Wallace E. Pratt AAPG Bulletin	1922	Good Geologists Make Good Neighbors Wallace E. Pratt AAPG Bulletin	1942	Toward a Philosophy of Oil-Finding Wallace E. Pratt AAPG Bulletin	1952
Oil at Luling, Caldwell County, Texas: GEOLOGICAL NOTES Wallace E. Pratt AAPG Bulletin	1923	Memorial: William McCormick Reid (1911-1943) Wallace E. Pratt AAPG Non-Technical and Memorials	1943	Memorial: Max Waite Ball (1885-1954) Wallace E. Pratt AAPG Non-Technical and Memorials	1955
Faulting and Petroleum Accumulation at Mexia, Texas Wallace E. Pratt, F. H. Lahee AAPG Bulletin	1923	Distribution of Petroleum in the Earth's Crust Wallace E. Pratt AAPG Bulletin	1944	Oil According to Hoyle: GEOLOGICAL NOTES Wallace E. Pratt AAPG Bulletin	1956
Oil and Gas in the Texas Panhandle Wallace E. Pratt AAPG Bulletin	1923	Geology is a Way of Life Wallace E. Pratt AAPG Bulletin	1945	Geologist's Long-Term Forecast of Petroleum Supply and Demand: ABSTRACT Wallace E. Pratt AAPG Bulletin	1957
Two New Salt Domes in Texas: GEOLOGICAL NOTES Wallace E. Pratt AAPG Bulletin	1926	Petroleum on the Continental Shelves Wallace E. Pratt Tulsa Geological Society	1947	Whence Came the Hydrocarbons?: DISCUSSION Wallace E. Pratt AAPG Bulletin	1957
Some Questions on the Cause of the Subsidence of the Surface in the Goose Creek Field, Texas: DISCUSSION Wallace E. Pratt AAPG Bulletin	1927	Petroleum on Continental Shelves Wallace E. Pratt *dagger AAPG Bulletin	1947	Memorial: Frank Walbridge DeWolf (1881-1957) Wallace E. Pratt AAPG Non-Technical and Memorials	1958
Hydrogenation and the Origin of Oil: Part II. Origin and Evolution of Petroleum: Group 3. Variation in Physical Properties Wallace E. Pratt AAPG Special Volumes	1934	Pioneers in Geology: DISCUSSION Wallace E. Pratt AAPG Bulletin	1949	Memorial: Arthur Iddings (1891-1957) Wallace E. Pratt AAPG Non-Technical and Memorials	1958
Discovery Rates in Oil Finding Wallace E. Pratt AAPG Bulletin	1937	Memorial: John Elmer Thomas (1892-1949) Wallace E. Pratt AAPG Non-Technical and Memorials	1950	Large-Scale Polygonal Jointing: GEOLOGICAL NOTES Wallace E. Pratt AAPG Bulletin	1958
		Variations in History of Continental Shelves: DISCUSSION Wallace E. Pratt *dagger	1950	Memorial: Alexander Deussen (1882-1959) Wallace E. Pratt AAPG Non-Technical and Memorials	

Most famous paper!

“Wallace Pratt wrote very well – lucidly, gracefully; he had the unusual ability of treating the most scholarly subjects in simple, direct and understandable prose.”

- *Memorial to W.E. Pratt, AAPG V66, 1982.*

“Where oil is first found, in the final analysis, is in the minds of men”. *WE Pratt, AAPG, 1952*

Petroleum Resources in Basement Rocks: DISCUSSION Wallace E. Pratt AAPG Bulletin	1961
Memorial: Eugene Holman (1885-1962) Wallace E. Pratt AAPG Non-Technical and Memorials	1963
Petroleum on Continental Shelves: GEOLOGICAL NOTES Wallace E. Pratt AAPG Bulletin	1965
Arville Irving Levorsen: GEOLOGICAL NOTES Wallace E. Pratt AAPG Bulletin	1966
Certification of Professional Geologists: GEOLOGICAL NOTES Wallace E. Pratt AAPG Bulletin	1966
Certification of Professional Geologists--Correction: GEOLOGICAL NOTES Wallace E. Pratt AAPG Bulletin	1966
Introduction Wallace E. Pratt AAPG Special Volumes	1975
Toward a Philosophy of Oil-Finding Wallace E. Pratt Houston Geological Society Bulletin	1981
Memorial: Morgan J. Davis (1898-1979) Wallace E. Pratt, Dean A. McGee AAPG Non-Technical and Memorials	1981

Identify and Define a Work of Great Interest: Petroleum Geology Is A Profession

PETROLEUM GEOLOGY IS A PROFESSION.

By Wallace E. Pratt

A paper read before the Texas Section, American
Institute of Professional Geologists, at its
Annual Meeting, September 17 and 18, 1965,
San Antonio, Texas

ABSTRACT

Although they have long devoted themselves zealously to their scientific society, American Association of Petroleum Geologists, many geologists employed by the oil industry have remained indifferent in their attitude toward their profession. Only within recent months, with the semi-centennial of the founding of AAPG almost upon them, have these geologists begun to realize that they also constitute a profession, the welfare of which is of paramount importance to them, and so merits their ardent support.

In some part at least, this unfortunate dereliction has grown out of the reluctance of the geologist to subject himself to the government regulations membership in a legally organized profession must involve. The tendency of the petroleum geologist to avoid, so far as possible, government

(1) Consulting Geologist,
P. O. Box 1209
Carlsbad, New Mexico

Context: 1965 Invited Presentation in San Antonio, Texas
To: American Institute of Professional Geologists
Original type written manuscript located at U.T. El Paso
Manuscript donated for curation and re-publishing

Authorship: Wallace Pratt was 80 years old & retired for 20 years.
He was living in McKittrick Canyon, Guadalupe Mountains
A Consulting Geologist in Carlsbad NM
(He often flew to work in his private plane!)

Theme: "Let us (as Petroleum Geologists) render to our Profession the same allegiance that we do to our Science."

Thesis: "In the past, petroleum geologists have not adequately discharged their responsibilities to their profession or to the oil producing industry."
We have responsibilities larger than applying our science to an industry.



Describe Pratt's Thesis that "Petroleum Geology is a Profession"

- Ethics matter & are a matter for Professionals and Professional Societies to address
- A petroleum geologist is not purely a scientist. Inherent in the Profession are other responsibilities
- His speech strongly affirms the idea that "Geology is also a Profession", not merely an application of Science to Industrial purposes and Business.
- Pratt argues that in the current setting of the day - 1965, that there is a reluctance towards organized and/or government regulated professional licensing, certification or registration as a Professional Geologist. Why?
 - Early 20th Century oil industry composed of people with a spirit of "rugged individualism"; history prevailed in attitudes
 - Industry often held a 20th century perspective on the pursuit of "Unrestricted free enterprise"
 - Provides examples of industry opinions on Government regulations & law: gas flaring; field unitization; 27 1/2 % depletion allowance; taxation; tariffs and protectionism and Interstate Oil Compact (anti-trust issues).
- Public Image- "Frightening to Contemplate". An issue for Professionals to "fix" through action and attitude.
 - Example: Establishment of Guadalupe National Park – only public opposition was by an Oil Industry (company) representative. This presented a poor public image of oil companies.

His analysis on the Upshot of Oil Industry Actions and Attitudes of 1965:

- *"Achievement of short term political objectives may become a barrier between it and its longer term social and economic welfare."*

Upon reflection.... Wallace Pratt made these key observations

- Social, Political, Economic, Business Conditions in 1965 were “vastly different” than when the oil industry was young and in its early days. Thus,
- Now, he argues that “some” government mediation appears to be imperative.
- As to the participation and contribution of Professional Geologists to National Issues, Government Affairs and Public Policy:
 - ...After all, it is our government (US). Let us make it a government worthy to lead and to administer the most advanced, the most enlightened nation on earth.
 - ...Let us who are in the oil industry, then, assume the appropriate share of responsibility that devolves on big business...
 - ...Let those of us in industry, concern ourselves more extensively than we have with our social and civic responsibilities....Let us do our part

Final Reflections

- In summary, petroleum geologists confront many issues- professional, social, ethical, political and industrial.
 - The solution to these problems is more properly the concern of geologists as a profession rather as a scientist.
- “At long last I have come to realize that I have a profession to cherish as well as a science And
- Upon reflection, I chose to cast my thoughts on this subject as an affirmation
Petroleum Geology is a Profession.”

Explaining The Relevance of Wallace E. Pratt's Words in 2017

Pratt encourages Petroleum Geoscientists to recognize that beyond the love of their science, they have responsibilities to the Profession of Petroleum Geology.

Wallace Pratt speaks to us today, clearly and with relevance, 132 years after his birth, 100 years after the founding of AAPG and 52 years after penning his important speech; INDEED we need to recognize and act upon the many opportunities for ENGAGEMENT that lay before us and to act upon those as Professionals.



A Legacy of Wallace E. Pratt - Guadalupe Mountains National Park

Closing: Issues the Petroleum Geologist Can Potentially Impact in 2017

- Energy Abundance – Supply
- Groundwater Aquifer Protection
- Fresh Water usage in HF Operations
- Onshore Well Integrity
- Triggered Seismicity
- GHG Emissions from flaring and Fugitive methane
- Smart Unc Reservoir Development
- Stakeholder Engagement
- Sustainable Environmental Solutions
- Onshore US Oil and Gas Regulation

