

OIL AND GAS CONSERVATION COMMISSION
1624 West Adams - Suite 202
Phoenix, Arizona

Minutes of Meeting
November 17, 1965
Room 257, Student Union Building
University of Arizona, Tucson

Present:

Mr. Lynn Lockhart, Chairman
Mr. Lucien B. Owens, Member
Mr. George T. Siler, Member
Mr. Hiram S. Corbett, Member
Mr. John Bannister, Executive Secretary
Mr. J.R. Scurlock, Geologist
Dr. J.D. Forrester, Dean, College of Mines, University of Arizona
Dr. Wesley Peirce, Arizona Bureau of Mines
Dr. Willard Pye, Geology Department, University of Arizona
Honorable Priscilla Hayes, Arizona House of Representatives
Honorable Darrell F. Smith, Attorney General, State of Arizona
Mr. Keith Walden
Mr. Loren Buck
Mr. Carl Richards
Mr. Arthur Chambers
Mr. Ray Jones, ArkLa Exploration Company
Mr. Darby Hand
Mr. J.D. Hurt
Mr. J.B. Terrell
Mrs. John Bannister
Mrs. Lucien B. Owens
Mrs. George T. Siler
Mrs. Marjorie Rushton

Chairman Lockhart called the meeting to order at 9:50 a.m. He welcomed Mr. Corbett as a new member of the Commission and then commented upon the association and cooperation of the Commission and the College of Mines and Bureau of Mines.

Mr. Owens stated he had gone over the minutes of the Meeting of October 27, 1965 and moved that these minutes be approved. The motion passed.

Report of the Executive Secretary and Geologist were accepted and approved.

Mr. Bannister requested direction as to the disposition of the recording tapes which are made during Commission meetings. He pointed out that by law the Commission is required to keep its Rules, Regulations, and orders only and that this information is to be available to the public during working hours. Mr. Bannister further stated that the Attorney General's office has advised him that the

tape has no official status as a record and that it would be no more than a stenographer's shorthand notes, that the official records are the written minutes once made.

After discussion by both Mr. Siler and Mr. Owens, the Commission directed that after a tape has been transcribed and the written minutes approved and signed, the tape is to be immediately erased for re-use. The Commission further directed Mr. Bannister to dispose of the old accumulation of tapes.

So as not to conflict with Christmas activities, the date of the December meeting was set for December 15, 1965, at the Commission's office in Phoenix.

Chairman Lockhart introduced Dr. Forrester, Dean of the College of Mines and Director of the Bureau of Mines. Dean Forrester, extended greetings of the President of the University and the ^{Vice President for University} ~~Executive Vice~~ ^{Relations} ~~President~~, and welcomed this opportunity to explain the method and purposes of promoting the mineral industry within the State.

He stated that the University contains two agencies which devote their efforts to the State's mineral industry. Both are educational in nature. The College of Mines duties are those of giving instruction and of research in fields of various metals. The College trains young people to enable them to enter industry as engineers or as scientists. The student may, of course, upon completion of the basic college courses enter graduate studies.

Dean Forrester further stated that by virtue of his being Dean of the College of Mines he was also Director of the Bureau of Mines, a service agency of the State, rendering service to the citizens of Arizona as to the nature and occurrence of the various mineral deposits. The service is not restricted to metals, but to all minerals.

He also stated that the College has special studies for persons with special aptitudes and interests. Each field of study is comprehensive. The College offers training in Geology, Geophysics, ^{Geochemistry} ~~and~~ ^{and mining} ~~hydrology~~ ^{hydrology}, ^{geological engineering} ~~chemical engineering~~, ^{and} ~~metallurgical engineering~~ ^{and mining engineering}. The College of Mines has an academic reputation which makes it nationally competitive with similar schools.

The courses of specialization in oil and gas in general are under the direction of Dr. Willard Pye of the College's Geology Department.

Dean Forrester stated that the Bureau of Mines interests encompass all minerals found in Arizona; that each of Arizona's fourteen counties produces some form of mineral wealth and that as a result of the work of the College of Mines and the Bureau of Mines some thirty-three additional minerals are now being produced within the State.

Well over ~~\$5,000,000~~ ^{\$500,000,000} of new wealth by way of mineral substances was created in Arizona during the last year. Hydrocarbon substances and water are exceedingly important to the State.

Dr. Peirce of the Bureau of Mines devotes much time to studies and analysis of oil and gas within the State. As the result of the cooperation with the Oil and Gas Conservation Commission the Bureau of Mines maintains a central repository, and has catalogued and put into workable records the results encountered in the drilling of 1,866 wells in the State. Of this, 249 are oil wells and 1,617 are deep water wells. 150,000 separate samples are in this central repository.

Dean Forrester stated that Dr. Peirce has developed the composite geological map of Arizona here displayed for the Commission, and it is in wide use throughout the State and Nation. Dr. Peirce, in addition to cataloging well records and samples, is engaged with the Commission in preparing a program of well information concerning oil, gas and helium in Arizona. Through the cooperation with the Oil and Gas Conservation Commission Dr. Peirce now has available loan samples on many of the State's oil, gas and helium wells.

Dean Forrester expressed his appreciation of the Commission's monetary contribution which he pointed out is used to help defray the costs of storing and cataloging well samples maintained by the College.

Dean Forrester further stated that the services rendered by the College of Mines and by the Bureau of Mines accommodates the interests of the citizens of this State but are not pursued in conflict with private industries.

One of the services Dean Forrester pointed out as offered by the Bureau of Mines is the preparation and publication of bulletins giving authoritative information. The bulletins are available to residents of Arizona at no costs and on a cost basis to non-residents.

Another service is the classification and identification of rocks which may include spectrum analysis; and, in cooperation with industry, the Bureau maintains a laboratory and pilot plant testing facilities. Dean Forrester stated that in his opinion the mapping service performed by the programs under his direction have brought to our State a most comprehensive mapping development perhaps better than any available in any other state.

In response to a question from Mr. Bannister, Dean Forrester pointed out that the Bureau of Mines has no regulatory functions but that such functions are performed by other State agencies.

Chairman Lockhart thanked Dean Forrester and called on Dr. Pye for any remarks.

Dr. Pye indicated that four ingredients must be present before oil and gas are found: (1) a source bed, (2) a reservoir, (3) a trap,

and (4) a cover.

He stated that only the central part of the State shows evidence of lacking the four natural ingredients.

As to the northwest portion of the State he indicated that while there is a thick section of marine rocks for a source bed, the Grand Canyon has undoubtedly allowed an escape of some of the minerals. However, he feels that the potential of this area is great.

In southwest Arizona the favorable areas are in general covered with debris making this area difficult to interpret. However his belief is that southwest Arizona is favorable for oil and gas production.

Southeast Arizona, too, is a potential area of production. Here the mountains and valleys under which we cannot see make this area unknown.

The northeast section of the State has all the necessary ingredients and it is here of course that at present oil, gas, and helium are being produced.

In Dr. Pye's opinion the big problem facing the oil and gas industry of the State is the lack of geological information. He pointed out, as mentioned by Dean Forrester, that the College of Mines and the Bureau of Mines, in cooperation with the Oil and Gas Conservation Commission, are doing all in their power to help overcome this lack of information, but that much actual drilling must of necessity be done to answer the question of Arizona's future as an oil and gas producing State.

Dr. Pye stated that the Geology Department functions primarily to train students to go into various fields of geological work. He pointed out the necessity of practical field experience for these geologists and that the University was interested in securing as much as possible of this type of work for each student.

Dr. Pye stated that Arizona is ideally suited for wildcat venture in that drilling for oil and gas in most of the State will not have to be too deep or too costly in comparison to depth and costs of drilling currently going on in surrounding states. He further pointed out that as drilling activity in the State does increase the drilling costs will decrease.

Dr. Pye commented that in his opinion the Oil and Gas Conservation Commission is, in addition to being a regulatory body, an agency that should disseminate information concerning the full range of oil and gas exploration and production. He feels that the Commission has a definite role in informing the State and individuals within the State of both the benefits and the pitfalls which could be encountered in exploration.

Dr. Pye Pye stated that through the Geology Department students develop much information which could be disseminated through both the University outlet and through the Commission's outlet to currently increase the industry's knowledge of the geological potential of Arizona.

Chairman Lockhart acknowledged Dr. Pye's presentation and then called upon Dr. Wesley Peirce for any comments.

Dr. Peirce stated that he felt that the remarks of both Dean Forrester and Dr. Pye well summed up his feeling concerning the State as well as the cooperation between the University and the Oil and Gas Conservation Commission. He expressed his appreciation of the growing cooperation between the University and the Oil and Gas Conservation Commission.

At this point Dr. Pye expressed his feeling that the Commission constitutes one of the most important efforts of the State and that the far-sighted view of the Commissioners and the staff has placed Arizona in the position of being able to orderly control any development of oil and gas or helium which may come to the State.

Chairman Lockhart asked if any visitors wished to make any comments.

Mr. Darby Hand questioned the Commission as to its policy for collecting well samples. He was informed that the policy of the Commission is to request and take samples from any and all wildcat wells exploring for oil and gas within the State.

In response to a question from Chairman Lockhart, Dean Forrester replied that within an area of 125 miles radius from Tucson, more than one-half of the nation's copper production is to be found. He further stated that while copper is the number one mineral industry with the State, that the number two industry is the production of sand and gravel. He pointed out that appreciable quantities of gold, silver, and molybdenum are a by-product of operations.

Dr. Pye commented upon Arizona's water problem and pointed out that improper well completions results in the loss of much valuable water and he urged that the Commission use all its influence to insist that each water producing formation be properly sealed off and protected.

Meeting adjourned at 11:10 a.m.

APPROVED



Lynn Lockhart, Chairman

12-15-65
date