

**OIL AND GAS CONSERVATION
IN
MICHIGAN**

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STATE OF MICHIGAN
DEPARTMENT OF CONSERVATION
Gerald E. Eddy, Director

GEOLOGICAL SURVEY DIVISION
William L. Daoust, State Geologist

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OIL AND GAS CONSERVATION
IN
MICHIGAN

BY
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FOREWORD

*To the Director and Commissioners of the Michigan
Department of Conservation:*

Gentlemen:

Much of the work of the Supervisor of Wells has been delegated to the trained geologists and petroleum engineers of the Michigan Geological Survey. For more than nineteen years Mr. Lee S. Miller has been devotedly associated in the work but is now retiring. He has kept a record of the activities of the Supervisor of Wells, of the Advisory Board, and of the Interstate Oil Compact Commission, and from 1947 to April 1954, was Secretary of the Advisory Board.

It seems appropriate that at this time the Survey should publish as an historical document Mr. Miller's history of the first fifteen years of the administration of the "Oil and Gas Act"—Act No. 61, Public Acts of the State of Michigan, 1939, as amended.

Respectfully submitted,

William L. Daoust
State Geologist
May, 1954

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OIL AND GAS CONSERVATION
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Since 1939 oil and gas have been produced in Michigan under the provisions of Act 61, Public Acts of 1939 which, with other conservation measures, provides for a Supervisor of Wells and an Advisory Board. The following pages present a resume from May 3, 1939 to April 30, 1954, of the responsibilities and activities of the Supervisor of Wells who administers the Act, and of the Advisory Board which has cooperative responsibility with the Supervisor for the formulation of policies and procedures and for specific action with reference to individual field or statewide problems.

It is appropriate to review the activities of Mr. P. J. Hoffmaster, first Supervisor of Wells who served from the time of the passage of Act 61 until his death on March 19, 1951.

Mr. Hoffmaster was appointed Director of Conservation for the State of Michigan in October, 1934, after twelve years of previous service in the Department. He was a forestry graduate from Michigan State College in 1918, and except for service in the United States Army during World War I, had spent his entire student and later working career in activities directly concerned with conservation of natural resources. Nationwide recognition has been accorded his accomplishments. In the State of Michigan he is given high rank for outstanding public service.

Although Mr. Hoffmaster had been Supervisor of Wells under legislation antedating Act No. 61, Public Acts, 1939, his responsibilities had been confined to regulation of the locating, drilling, casing, plugging, and abandonment of oil and gas wells to prevent harmful contamination of underground fresh water, brine water, oil or gas resulting from their intermingling, and to prevent pollution of surface waters or damage to other surface resources or properties resulting from oil and gas operations. Act No. 61 expanded his authorities and responsibilities in all of these matters and added two specific functions: (1) To fix the spacing of wells drilled for oil; and (2) to control rates of oil production from individual wells or fields so that physical or market waste should be avoided.

Mr. Hoffmaster became Supervisor of Wells under Act No. 61 at a time when the broad field of crude oil and gas conservation

was in a pioneering stage not only in Michigan but throughout the United States. Legislative and administrative procedures were not well developed in any of the oil producing states, and validity of statutes and of rules, regulations and orders promulgated thereunder by administrative authorities had not been subjected to extensive judicial scrutiny. The Supervisor himself had not been schooled in the exploration for and production of crude oil.

Under the provisions of the new legislation, the Supervisor became responsible for a certain measure of control over a substantial natural resource and also for many of the activities of an important segment of a large and publicly vital industry. Rapid expansion of military facilities and activities began shortly after passage of the Act and the country was actually at war nineteen months later. Petroleum assumed a critical place in the war economy. Mr. Hoffmaster carried most creditably the responsibilities of regulation under the Act, and in addition, joined with the industry in representing to federal authorities Michigan's potentialities for public service, its problems, and its needs for materiel. Under his guidance, and with the cooperation of the Advisory Board, the State of Michigan accomplished as full a measure of conservation in oil and gas production as did any section of the country, and at the same time maintained the friendly respect and full cooperation of the industry. The Supervisor's policies and programs were of education, guidance, and cooperation rather than of compulsion. A large measure of Michigan's crude oil conservation effort is now voluntary on the part of operators. This cooperation and the cordial relationships are a tribute not only to Mr. Hoffmaster's integrity of purpose and understanding public relationships, but also to the same characteristics and attitudes in the management of the industry with which he dealt.

The Director of the Department of Conservation had delegated to Dr. R. A. Smith, State Geologist, the responsibility of working with oil producers in the Saginaw and Muskegon fields in the earliest attempts, between 1926 and 1929, to formulate legislation and encourage legislative action to control waste in drilling for and production of oil and gas in Michigan. Beginning in 1926 and continuing until passage of presently effective legislation in 1939, Dr. Smith, as State Geologist, worked with all of the various interests involved, including legislative committees, in the formulation of legislation that would provide for conservation of the crude oil and natural gas resources of the State and at the same time so adjust

conservation to the economics of the producing industry that its expansion would be encouraged. He directed the formulation of rules and regulations to implement legislation and also the development of a staff of geologists and engineers who could work with the industry to assure observation of the laws. The first recognition of the value of Dr. Smith's plan and of the need for conservation regulations came with passage of legislation in 1927 after flagrant waste of gas in the Muskegon Field so impressed legislators who visited the field at Dr. Smith's suggestion that Act No. 65, P. A. 1927 to control waste in drilling, plugging, and abandonment of oil and gas wells was passed and became effective on May 26, 1927. The Director of the Department of Conservation was designated Supervisor of Wells to administer the Act. A field organization was established, but the law was neither specific nor strong, and control was not particularly effective. The legislation and such control as was accomplished, through diplomatic and educational effort rather than through legal authority, did furnish encouragement for public control. In 1929 new legislation repealed the Act of 1927 and strengthened control of drilling, plugging, and abandonment of wells. Control of well locations was added to the authority of the Supervisor of Wells. Amendments in 1931 gave further strength to the 1929 Act by requiring operators of either oil or gas wells to furnish performance bonds to assure conformance with the law in drilling, plugging, and abandoning wells. With this 1931 legislation, final public responsibility and authority for control over location, drilling, plugging, and abandonment of both oil and dry natural gas wells was accomplished. Legislation of 1929 placed production of dry natural gas under control of the Public Utilities Commission. This control was continued by new natural gas legislation in 1937, but control of locating, drilling, plugging, and abandoning of dry gas wells was continued under the Supervisor of Wells. And excepting production into gas lines operated as public utilities all control over physical waste in gas production remained with the Supervisor of Wells.

The present effective legislation is Act No. 61, Public Acts of 1939, as amended. The Act repealed Act 15, P. A. 1929, as amended. The bill was formulated and was sponsored in the Legislature by the Department of Conservation in cooperation with the Oil and Gas Association of Michigan and individual operators, and by the affiliated transportation and refining industries. In framing the bill Conservation Department officials studied the oil control statutes and administrative procedures in other states, referred to

state and federal court actions and judicial decisions, and formulated statutory provisions they believed would accomplish the conservation control desired and also merit judicial support if necessary. The bill retained the desirable features of the older Michigan legislation and added several new provisions. Principal new control provisions provide for regulation of oil well spacing and for proration control of oil production to avoid physical and market waste. A share by industry in official control is assured by the creation of an advisory board whose members shall be managing representatives of oil producers operating in the state.¹

When Dr. Smith retired as State Geologist in 1946, a smoothly integrated structure of legislation, rules, regulations, and procedural processes had been developed. This most gratifying situation is in large measure a tribute to Dr. Smith's professional skill, patience and wisdom, and reflects the full cooperation of representatives of industry with whom he worked and of his own staff of assistants to whom he has always given credit. Among these assistants were Mr. F. R. Frye, who was principal administrative assistant to the State Geologist in oil and gas matters from 1929 until his death in 1947, and Mr. William L. Daoust, one of the earliest oil field geologists and State Geologist as this report is prepared.

After the death of Mr. Hoffmaster, Mr. Gerald E. Eddy, who had succeeded R. A. Smith as State Geologist, was appointed Director of Conservation and thus as Director became Supervisor of Wells on June 7, 1951. His background of training and experience fits Mr. Eddy admirably for the office of Supervisor. His appointment was most gratifying to those who understand the intricacies of the oil and gas producing industry and its needs in the matter of conservation guidance. The State of Michigan and the oil and gas industry have the benefit of the same wise cooperative control that existed during Mr. Hoffmaster's administration.

Twenty-two oil industry representatives have served on the Advisory Board. In chronological order of appointment they are: Mr. H. M. McClure, Sr., Mr. W. P. Clarke, Mr. E. F. Claggett, Mr. C. A. Smith, Jr., Mr. Russell L. Furbee, Mr. Kurt H. deCousser, Mr. James C. Graves, Mr. Edward Stewart, Mr. Theodore G. Bowler, Mr. Glen Bish, Mr. Edward J. Bouwsma, Mr. C. C. Irby, Mr. Chas. W. Teater, Mr. James D. Wheeler, Mr. Don F. Rayburn,

Mr. R. B. Newcombe, Mr. Guy E. Chapman, Mr. Clarence Knollenberg, Mr. Charles Myler, Mr. I. W. Hartman, Mr. T. Glenn Caley, Mr. Marshall R. Joy. Messrs. deCousser, Knollenberg, Myler, Hartman, Caley, and Joy serve in 1954.

Four members, Messrs. E. F. Claggett, J. C. Graves, T. G. Bowler, and E. J. Bouwsma died during their terms of office. Two others, Mr. Edward Stewart and Mr. H. M. McClure, Sr., passed away after leaving office.

Twelve of the twenty-two members who have served have been independent oil and gas producers or administrative officers of independent companies. Ten have been administrative representatives of major companies. Each was selected following recommendations by the Oil and Gas Association of Michigan, and each has had long experience in the petroleum business.

The individual capabilities and unselfish and public spirited work of these men is attested by Michigan's outstanding accomplishments in oil and gas conservation.

The wisdom of having such a cooperative structure as an advisory board to work with a Supervisor of Wells has been demonstrated, and has won frequently expressed approval from federal and state government officials and from industry leaders throughout the country.

The good offices and the constructive influence of the Oil and Gas Association of Michigan in correlating the ideas of the industry and in representing the industry in working with the Supervisor and the Board commands special recognition. Presidents of the Association, in order, beginning in 1935, have been: Mr. Howard Atha, Mr. Floyd A. Calvert, Mr. Harold M. McClure, Mr. George W. Myers, Mr. Kurt deCousser, Mr. James C. Graves, Mr. W. P. Clarke, Mr. C. W. Teater, Mr. George B. Talbot, Mr. Theodore G. Bowler, Mr. James C. Foster, Mr. I. W. Hartman, Mr. J. V. Wicklund and Mr. T. Glenn Caley, the present incumbent. Mr. Atha and Mr. Calvert headed the Association previous to the passage of Act No. 61, Public Acts, 1939. Both enthusiastically encouraged voluntary conservation preceding control by legislative authority and both helped to bring about passage of the Act.

Mr. William G. Palmer, present Executive Secretary of the Association, like his predecessors, is most active in his cooperation.

¹A detailed history of legislation affecting the oil and gas industry of Michigan is included in this report.

The Oil and Gas Act and the Advisory Board

A Bill designed as a conservation control of one of the State's non-renewable natural resources—oil and gas—was introduced to the Michigan Legislature of 1939 by Representatives Thompson (Midland County), McKay (Ogemaw County), and Hampton (Osceola County).

The measure was passed as Act 61, P. A. 1939, and given immediate effect upon signing by Governor Dickinson on May 3, 1939. Its title description is:

"An Act to provide for a Supervisor of Wells; to prescribe his powers and duties; to provide for an advisory board and an appeal board; to prescribe their powers and duties; to provide for the prevention of waste and for the control over certain matters, persons and things relating to the conservation of oil and gas, and for the making and promulgation of rules, regulations and orders relative thereto; to provide for the enforcement of such rules, regulations and orders and of the provisions of this Act, and to provide penalties for violations thereof; to provide for the assessment and collection of certain fees; and to repeal Act No. 15 of the Public Acts of 1929, as amended."

The Act designates the Director of Conservation as the Supervisor of Wells and provides that he shall appoint an advisory board of 6 members. It specifies that 3 members shall be chosen from independent oil and gas producers, or operators or their representatives, whose operations are chiefly in Michigan and 3 members from among oil and gas producers or their representatives whose operations are chiefly interstate and who are engaged as producers in 5 or more states, including Michigan. The members in the two classifications are popularly referred to as "independents" and "majors". Terms of members are for 3 years. Of the 6 members first chosen 2 were to serve for one year, 2 for two years, and 2 for three years. Subsequent appointments have been for 3 years, or to serve out regular 3-year terms when vacancies have occurred before expiration of regular terms. Appointments to the Board require approval by the Conservation Commission.

The Act requires that the Supervisor shall consult with the Oil and Gas Association of Michigan, as representative of the oil or gas operators, and secure its recommendations in the appointment of board members.

The statute provides for regular monthly meetings of the Board, and for a regular annual meeting at which a chairman and a vice-

chairman shall be elected. Four members constitute a quorum to transact business. It has been the practice of the Board to select, with the approval of the Supervisor, an employee of his office to serve as secretary of the Board.

The Supervisor has designated the Geological Survey Division of his department as the principal agency to assist him in the administration of the Act. The Field Administration Division assists the Supervisor in the control of fire, fresh water, and other surface hazards or sources of waste.

The Advisory Board joins with the Supervisor in all public hearings relating to conservation of oil and/or of gas produced with oil. Problems most frequently before the Board are problems of drilling units and well spacing patterns for individual fields, of proration, or oil production control for individual fields. Excepting emergency orders, which may be effective for not more than 21 days, the Supervisor may not issue any rule, regulation, or order without first holding a public hearing and receiving a recommendation from the Board. He is under no compulsion to concur in the Board's recommendations. It is notable that on very few occasions has the judgment of the Supervisor and his departmental advisors failed to agree with recommendations of the Board.

General regulations issued by the Supervisor under authority of the Act require approval by the Conservation Commission. Under the provisions of the State's Administrative Code, general regulations must also be approved by the Attorney General and the Governor. Spacing and proration orders may, after public hearing, be issued by the Supervisor without further official approval.

Under the Act the Conservation Commission is constituted as an appeal board. The Advisory Board or any producer or owner may appeal to the Commission for relief from any rule, regulation, order, or requirement of the Supervisor. Only two such appeals have been made since the Act became effective.

For a very short time after the legislation became effective a small segment of the industry, objecting to any measure of production control, offered opposition by deliberate violation of the orders of the Supervisor. Suits against producers of oil and against one pipe line purchaser shortly after the legislation became effective resulted in convictions in Circuit Court. No appeals were made. Few subsequent violations of rules, regulations, or orders of the Supervisor have been deliberate.

One case involving proration control of oil production was

appealed to the Conservation Commission. The findings of the Supervisor were upheld. Another appeal involved the refusal of the Supervisor to issue a unitization order on the ground that he lacked jurisdiction. The Commission upheld the Supervisor. The Supreme Court of Michigan, on appeal by the applicant for unitization, overruled the Supervisor and the Commission, holding that the Supervisor did have jurisdiction. The unitization application was subsequently withdrawn without further attention by the Supervisor. No spacing order by the Supervisor has ever been formally questioned.

The oil producing industry and all crude oil purchasing agencies have consistently supported the statute, the Supervisor and the Advisory Board to the extent that they have generally become fully cooperating conservationists.

Dr. R. A. Smith, State Geologist, served as the Supervisor's principal assistant in enforcement of the Act until the time of his retirement on July 31, 1946. Mr. G. E. Eddy succeeded Dr. Smith as State Geologist and as principal assistant to the Supervisor. Mr. Franklin G. Pardee succeeded to office as State Geologist when Mr. Eddy became Director of Conservation in June, 1951. Mr. William L. Daoust was appointed Acting State Geologist when Mr. Pardee resigned on October 15, 1952, and State Geologist May 10, 1954.

It has been the practice of the Supervisor, the State Geologist, and one or more of their administrative or technical assistants to be present at meetings of the Advisory Board. Either the Supervisor or the Chairman of the Board has presided at public hearings. When his presence has been desirable to give legal guidance or advice, an assistant attorney general has been present at board meetings and hearings. Mr. Harry W. Jackson, Mr. Robert L. Arnold, Mr. Kenneth Prettie, Mr. Maurice M. Moule, Mr. Peter E. Bradt, Mr. D'Arcy O'Brien, Mr. Nicholas V. Olds, and Mrs. Florence Booth, all Assistant Attorneys General, have at various times acted as advisors to the Supervisor and the Board.

The first meeting of the Advisory Board was held at the office of the Supervisor of Wells at Lansing on May 17, 1939; and therefore, May was adopted for the time of the annual meeting. In addition to board members, Director Hoffmaster, State Geologist Smith, and Mr. F. R. Frye, the Department's Chief Petroleum Engineer, attended. Mr. McClure was elected Chairman and Mr. Clarke, Vice-Chairman. Mr. Frye was chosen Secretary of the

Board. He served in this capacity until his death on August 3, 1947.

The Advisory Board has held 180 regular monthly meetings and 10 special meetings from May 17, 1939, to April 9, 1954, inclusive; has participated in 68 public hearings and was in attendance at the hearing before the Conservation Commission on February 3, 1944, at which time the Commission, as an appeal board under the statute, heard appeals from a proration order of the Supervisor of Wells.

ADVISORY BOARD MEMBERSHIPS

May 17, 1939 to June 10, 1940

Mr. H. M. McClure, Chairman	Mr. Kurt H. deCousser
Mr. W. P. Clarke, Vice Chairman	Mr. Russell L. Furbee
Mr. E. F. Claggett	Mr. C. A. Smith, Jr.

June 10, 1940 to May 12, 1941

Mr. H. M. McClure, Chairman	Mr. Kurt H. deCousser
Mr. W. P. Clarke, Vice Chairman	Mr. James C. Graves (n)
Mr. E. F. Claggett	Mr. C. A. Smith, Jr.

(n) New appointee at beginning of year to replace Mr. Furbee, retired.

May 12, 1941 to May 26, 1942

Mr. H. M. McClure, Chairman	Mr. James C. Graves
Mr. W. P. Clarke, Vice Chairman	Mr. C. A. Smith, Jr.*
Mr. E. F. Claggett	Mr. Edward Stewart**
Mr. Kurt H. deCousser	

*Resigned October 2, 1941.

**Appointed October 4, 1941, to replace Mr. Smith.

May 26, 1942 to May 18, 1943

Mr. H. M. McClure, Chairman	Mr. Kurt deCousser
Mr. W. P. Clarke, Vice Chairman	Mr. James C. Graves
Mr. E. F. Claggett	Mr. Edward Stewart

May 18, 1943 to May 24, 1944

Mr. H. M. McClure, Chairman	Mr. Edw. J. Bouwsma***
Mr. W. P. Clarke, Vice Chairman	Mr. Theodore G. Bowler (n)
Mr. E. F. Claggett*	Mr. James C. Graves
Mr. Glen Bish**	Mr. Edward Stewart****

(n) New appointee at beginning of year, replacing Mr. deCousser, retired.

*Deceased November 7, 1943.

**Appointed December 7, 1943, to succeed Mr. Claggett.

***Appointed December 7, 1943, to replace Mr. Stewart.

****Resigned November 29, 1943.

May 24, 1944 to May 28, 1945

Mr. H. M. McClure, Chairman	Mr. Theodore G. Bowler
Mr. W. P. Clarke, Vice Chairman	Mr. Edw. J. Bouwsma
Mr. Glen Bish	Mr. James C. Graves

May 28, 1945 to June 25, 1946

Mr. H. M. McClure, Chairman	Mr. Theodore G. Bowler
Mr. W. P. Clarke, Vice Chairman	Mr. Edw. J. Bouwsma
Mr. Glen Bish*	Mr. James C. Graves

*Resigned May 24, 1946.

June 25, 1946 to May 27, 1947

Mr. H. M. McClure, Chairman	Mr. Edw. J. Bouwsma
Mr. W. P. Clarke, Vice Chairman	Mr. James C. Graves
Mr. Theodore G. Bowler	Mr. C. C. Irby*

*Appointed August 12, 1946, to succeed Mr. Bish, resigned during previous year.

May 27, 1947 to June 18, 1948

Mr. H. M. McClure, Chairman	Mr. Edw. J. Bouwsma
Mr. W. P. Clarke, Vice Chairman	Mr. Kurt H. deCousser (n)
Mr. James C. Graves*	Mr. Charles W. Teater**
Mr. Theodore G. Bowler	

*Deceased June 27, 1947.

**Appointed September 25, 1947, to succeed Mr. Graves.

(n) Reappointed at beginning of year (after retirement in May, 1944), replacing Mr. Irby, retired.

June 18, 1948 to June 13, 1949

Mr. Kurt H. deCousser, Chairman	Mr. R. B. Newcombe****
Mr. Edw. J. Bouwsma, Vice Chairman	Mr. Don E. Rayburn (N)
Mr. Theodore G. Bowler*	Mr. Charles W. Teater*****
Mr. Guy E. Chapman**	Mr. James D. Wheeler*****
Mr. Clarence Knollenberg***	

*Deceased October 28, 1948.

**Appointed September 2, 1948, replacing Mr. Teater.

***Appointed November 8, 1948, to succeed Mr. Bowler.

****Appointed September 2, 1948, replacing Mr. Wheeler.

*****Resigned August, 1948.

*****Resigned August, 1948.

(n) New appointee at beginning of year, replacing Mr. McClure, retired.

June 13, 1949 to May 12, 1950

Mr. Kurt H. deCousser, Chairman	Mr. Charles E. Myler**
Mr. Edw. J. Bouwsma, Vice Chairman*	Mr. R. B. Newcombe
Mr. Guy E. Chapman	Mr. Don E. Rayburn
Mr. Clarence Knollenberg	

*Deceased July 10, 1949.

**Appointed November 8, 1949, to succeed Mr. Bouwsma.

May 12, 1950 to May 28, 1951

Mr. Kurt H. deCousser, Chairman	Mr. Clarence Knollenberg
Mr. R. B. Newcombe, Vice Chairman	Mr. Charles E. Myler
Mr. Guy E. Chapman	Mr. Don E. Rayburn

May 28, 1951 to June 19, 1952

Mr. Kurt H. deCousser, Chairman	Mr. Clarence Knollenberg
Mr. Robert B. Newcombe, Vice Chairman	Mr. Charles E. Myler
Mr. Guy E. Chapman*	Mr. Don E. Rayburn
Mr. I. W. Hartman**	

*Resigned October 31, 1951.

**Appointed December 7, 1951, replacing Mr. Chapman.

June 19, 1952 to May 25, 1953

Mr. Kurt H. deCousser, Chairman	Mr. Charles E. Myler
Mr. Robert B. Newcombe, Vice Chairman	Mr. Don E. Rayburn*
Mr. I. W. Hartman	Mr. T. Glenn Caley**
Mr. Clarence Knollenberg	

*Resigned January 1, 1953.

**Appointed January 9, 1953, replacing Mr. Rayburn.

May 25, 1953 to May 10, 1954

Mr. Kurt H. deCousser, Chairman	Mr. Clarence Knollenberg
Mr. Charles E. Myler, Vice Chairman	Mr. Robert B. Newcombe*
Mr. I. W. Hartman	Mr. T. Glenn Caley***
Mr. Marshall R. Joy**, ***	

*Resigned July 1, 1953.

**Appointed October 16, 1953, replacing Mr. Newcombe.

***Reappointed April 12, 1954.

ADVISORY BOARD MEMBERS

The active time of service of members of the Board is of interest in view of the service they rendered the State. In the list the dates of appointment are dates of approval by the Conservation Commission.

1. Mr. H. M. McClure, Sr.—(Independent Producer)—Alma.
Appointed May 12, 1939, for full 3-year term.
Reappointed May 12, 1942, and again May 7, 1945.
Service terminated in May 1948, at own request at end of third full term.
Deceased March 9, 1951.
Chairman of Board throughout term of office.
2. Mr. W. P. Clarke—Gulf Refining Company (Major)—Saginaw.
Appointed May 12, 1939, for full 3-year term.
Reappointed May 12, 1942, and again May 7, 1945.
Service terminated in May, 1948, at own request at end of third full term.
Vice Chairman of Board throughout term of office.
3. Mr. E. F. Claggett—The Pure Oil Company (Major)—Saginaw.
Appointed May 12, 1939, for 2-year term.
Reappointed May 9, 1941, for full 3-year term.
Deceased November 7, 1943, before expiration of term.
Succeeded by Mr. Glen Bish to fill out unexpired term.
4. Mr. C. A. Smith, Jr.—Smith Petroleum Company (Independent)—Grand Rapids.
Appointed May 12, 1939, for 2-year term.
Reappointed May 9, 1941, for 3-year term.
Resigned October 2, 1941.
Replaced by Mr. Edward Stewart to fill out unexpired term.
5. Mr. Russell L. Furbie—The Gordon Oil Company (Independent)—Mt. Pleasant.
Appointed May 12, 1939, for 1-year term.
Service terminated at own request, May, 1940.
6. Mr. Kurt H. deCousser—Socony-Vacuum Oil Co. (Major)—Lansing.
Appointed May 12, 1939, for 1-year term.
Reappointed May 10, 1940, for full 3-year term.
Service terminated in May, 1943, at own request.
Reappointed May 16, 1947, replacing Mr. Cecil Irby, whose term had expired.
Reappointed May 11, 1950, and again May 11, 1953.
Chairman of the Board beginning in June, 1948.
7. Mr. James C. Graves—Basin Oil Company (Independent)—Saginaw.
Appointed May 10, 1940, replacing Mr. Furbie, for full 3-year term.
Reappointed May 11, 1943, and again May 20, 1946.
Deceased June 27, 1947, before expiration of term.
Succeeded by Mr. Chas. W. Teater to fill out unexpired term.
8. Mr. Edward Stewart—Stewart Oil Company (Independent)—Mt. Pleasant.
Appointed October 4, 1941, replacing Mr. Smith, resigned, to fill out term to expire in May, 1944.
Resigned November 29, 1943. Replaced by Mr. Edward J. Bouwsma to fill out term.
Deceased April 20, 1944.
9. Mr. Theodore G. Bowler—Sun Oil Company (Major)—Mt. Pleasant.
Appointed May 11, 1943, replacing Mr. deCousser for full 3-year term.

- Reappointed May 20, 1946.
Deceased October 28, 1948, before expiration of term.
Succeeded by Mr. Clarence Knollenberg to fill out unexpired term.
10. Mr. Glen Bish—The Ohio Oil Company (Major)—Mt. Pleasant.
Appointed December 7, 1943, succeeding Mr. Claggett, deceased, to fill out term to expire in May, 1944.
Reappointed May 8, 1944, for full 3-year term.
Resigned May 24, 1946, upon leaving and giving up residence in Michigan.
Replaced by Mr. C. C. Irby to fill out unexpired term.
11. Mr. Edward J. Bouwsma—Muskegon Development Co. (Independent)—Muskegon.
Appointed December 7, 1943, replacing Mr. Stewart, resigned, to fill out term to expire in May, 1944.
Reappointed May 8, 1944, and again May 16, 1947.
Deceased July 10, 1949, before expiration of term.
Succeeded in November, 1949, by Mr. Charles E. Myler, to fill out unexpired term.
Vice Chairman of Board June, 1948, to July, 1949.
12. Mr. C. C. Irby—Sohio Petroleum Company (Major).
Appointed August 12, 1946, replacing Mr. Bish, resigned, to fill out term to expire in May, 1947.
Term expired in May, 1947, and not reappointed because of removal from Michigan.
13. Mr. Chas. W. Teater—(Independent Producer)—Saginaw.
Appointed September 15, 1947, succeeding Mr. Graves, deceased, to fill out term to expire in May, 1949.
Resigned in August 1948, upon leaving Michigan. Replaced by Mr. Guy E. Chapman to fill out unexpired term.
14. Mr. James D. Wheeler—Ohio Oil Company (Major)—Grand Rapids.
Appointed June 16, 1948, for full 3-year term, replacing Mr. Clarke, whose term had expired.
Resigned August 26, 1948, upon leaving and giving up residence in Michigan.
Replaced by Mr. R. B. Newcombe to fill out unexpired term.
15. Mr. Don F. Rayburn—(Independent Producer)—Standish.
Appointed June 16, 1948, for full 3-year term, replacing Mr. McClure whose term had expired.
Reappointed June 7, 1951, for full 3-year term to expire May, 1954.
Resigned January, 1953, because of other pressing affairs.
Replaced by Mr. T. Glenn Caley to fill out unexpired term.
16. Mr. R. B. Newcombe—The Superior Oil Company (Major)—Grand Rapids.
Appointed September 2, 1948, replacing Mr. Wheeler, resigned to fill out term to expire in May, 1951.
Reappointed June 7, 1951, for full 3-year term to expire May, 1954.
Resigned July 1, 1953, upon leaving and giving up residence in Michigan.
Vice Chairman of Board November 23, 1949, to May 25, 1953.
17. Mr. Guy E. Chapman—Chapman Oil Company (Independent)—Mt. Pleasant.
Appointed September 2, 1948, replacing Mr. Teater, resigned, to fill out term to expire in May, 1949.
Reappointed May 27, 1949.
Resigned October 31, 1951, because of removal of major business interests from state.
Replaced by Mr. I. W. Hartman to fill out unexpired term.
18. Mr. Clarence Knollenberg—Sun Oil Company (Major)—Mt. Pleasant.
Appointed November 8, 1948, succeeding Mr. Bowler, deceased, to fill out term to expire in May, 1949.
Reappointed May 27, 1949, and again June 12, 1952.

19. Mr. Charles E. Myler—Muskegon Development Co. (Independent)—Muskegon.
Appointed November 8, 1949, succeeding Mr. Bouwsma, deceased, to fill out term to expire in May, 1950.
Reappointed May 11, 1950, and again on May 11, 1953.
Vice Chairman of Board beginning May 25, 1953.
20. Mr. I. W. Hartman—(Independent Producer)—Mt. Pleasant.
Appointed December 7, 1951, replacing Mr. Chapman, resigned, to fill out term to expire May, 1952.
Reappointed June 12, 1952.
21. Mr. T. Glenn Caley—Basin Oil Company (Independent)—Saginaw.
Appointed January 9, 1953, replacing Mr. Rayburn, resigned, to fill out term to expire May, 1954.
22. Mr. Marshall R. Joy—Brazos Oil & Gas Company (Major)—Mt. Pleasant.
Appointed October 16, 1953, replacing Mr. Newcombe, resigned, to fill out term to expire May, 1954.

REGULAR ADVISORY BOARD MEMBERSHIP TERMS, AND MEMBERS WHO SERVED DURING THESE TERMS

Start of Term	End of Term	Names of Members	
May	May	Independent	Major
1939	1940	(5) Furbee	(6) deCousser
1939	1941	(4) Smith	(3) Claggett
1939	1942	(1) McClure	(2) Clarke
1940	1943	(7) Graves	(9) Bowler
1941	1944	(8) Stewart (r) (11) Bouwsma	(3) Claggett (d) (10) Bish
1942	1945	(1) McClure	(2) Clarke
1943	1946	(7) Graves	(9) Bowler
1944	1947	(11) Bouwsma	(10) Bish (r) (12) Irby
1945	1948	(15) Rayburn	(2) Clarke
1946	1949	(7) Graves (d) (13) Teater (r)	(9) Bowler (d)
		(17) Chapman	(18) Knollenberg
1947	1950	(11) Bouwsma (d) (19) Myler	(6) deCousser
1948	1951	(15) Rayburn	(14) Wheeler (r)
			(16) Newcombe
1949	1952	(17) Chapman (r) (20) Hartman	(18) Knollenberg
1950	1953	(19) Myler	(6) deCousser
1951	1954	(15) Rayburn (r) (21) Caley	(16) Newcombe (r) (22) Joy
1952	1955	(20) Hartman	(18) Knollenberg
1953	1956	(19) Myler	(6) deCousser

Numerals in parentheses refer to chronological order of original appointments as identified in next preceding section of this record.
d—deceased; r—resigned.

PUBLIC HEARING DATES

Sixty-nine public hearings have been held by the Board. More than one subject has been given formal consideration at most hearings. Usually two to five subjects have been discussed.

1939	1943	1947	1951
June 5	January 27	April 8	March 19
June 15	May 19	May 27	April 30
August 7	September 24	August 19	July 13
August 9	November 22	October 14	August 29
September 6			November 13
October 25	1944	1948	
	May 24	May 14	1952
1940	August 30	July 8	January 11
January 22		September 9	February 15
March 15	1945	1949	April 14
April 8	January 10	February 2	June 26
September 9	June 28	March 30	October 15
	September 14	April 29	
1941	October 9	May 25	1953
January 13	December 6	June 13	January 26
July 1		July 11	June 16
August 25	1946	September 7	August 3
October 27	February 14	November 23	September 18
December 29	May 14		
	October 3	1950	1954
1942		January 25	February 15
January 27		April 14	April 9
March 24		August 23	
May 26		October 17	
August 4		November 13	

A Chronological Record of Michigan Legislation
Affecting Crude Oil and Natural Gas
Production, Transportation
and Refining

Act 29, P. A. 1889
Repealed by Act 19, P. A. 1929.

The Act authorized the incorporation of pipe line companies for transportation of oil, petroleum, and gas.

This Act is Michigan's first legislation recognizing oil and natural gas as one of the State's resources. Prospecting and very minor discoveries near Port Huron started in 1886 but production justifying construction of pipe lines as an industry was not sufficient until 1925.

Act 65, P. A. 1927
Approved January 2, 1927.
Repealed by Act 15, P. A. 1929.

The Act designated the Director of Conservation as Supervisor of Wells, with the duty of preventing waste in the sinking, drilling, and abandoning of oil, gas, or test wells. It required operators to secure drilling permits from the Supervisor, to secure approval before plugging and abandoning wells, and to file logs of all wells drilled if called for by the Supervisor. Failure to comply with the law or with orders of the Supervisor of Wells was declared a misdemeanor.

Act 15, P. A. 1929
Approved March 27, 1929.
Amended by Act 185, P. A. 1931.
Repealed as amended by Act 61, P. A. 1939.

The Director of Conservation was again designated as Supervisor of Wells. His duties were to prevent waste in locating, drilling, casing, deepening, sealing, and operating of oil and gas wells. Permits for drilling wells and approval of abandonment operations were required. It was also required that well logs should be filed with the Supervisor. Act 65, P. A. 1927 was repealed.

Act 9, P. A. 1929
Approved March 19, 1929.
(Reaffirmed by Act 326, P. A. 1937).
Repealed Act 29, P. A. 1889.

This is a dry natural gas pipe line law. Control of production and transportation of natural gas as a public utility was placed

under the Michigan Public Utilities Commission. Both purchasers and receivers of produced natural gas were prohibited from producing or receiving more than 25 per cent daily of the natural daily open flow of any well with the exception that the Commission could for good cause either raise or lower this percentum. Act 29, P. A. 1889 was repealed.

Act 16, P. A. 1929
Approved March 27, 1929.

This is the crude oil common carrier or purchaser and pipe line law under which such lines are controlled by the Michigan Public Utilities Commission.

Act 185, P. A. 1931
An amendment to Act 15, P. A. 1929.
Repealed (with Act 15, P. A. 1929) by Act 61, P. A. 1939.

This Act requires a performance bond to assure compliance with law, regulations, or orders to prevent waste in drilling, casing, sealing, operating, or plugging oil or gas wells.

Act 326, P. A. 1937
Approved July 24, 1937.
Amended by Act 216, P. A. 1951.
Repealed Act 15, P. A. 1929 as amended insofar as is applied to dry natural gas wells.

The Act redesignates the Director of Conservation as Supervisor of Wells and assigns to him the responsibility of preventing waste in the locating, drilling, casing, sealing, and operating of gas wells. It provides for drilling permits from the Supervisor for the drilling of natural gas wells and requires permittees to file performance bonds. It provides for either permissive or compulsory pooling of properties to make up full drilling or proration units. The Supervisor is given control of all gas production except that withdrawn from wells by gas utilities pipe lines. Act 15, P. A. 1929, as amended, was repealed insofar as it applied to dry natural gas wells.

Act 61, P. A. 1939
Approved May 3, 1939.
Amended by Act 190, P. A. 1951.
Repealed Act 15, P. A. 1929, as amended.

The Act redesignates the Director of Conservation as Supervisor of Wells. It establishes an advisory board of 6 members, made up of representatives of the oil and gas producing industry. The duty of the Supervisor is to prevent physical waste, either

surface or underground, in the spacing, drilling, producing, plugging, or abandoning of oil wells, geological test wells, or wells drilled for secondary recovery projects or wells for brine disposal, to prevent intermingling of underground fresh water or brine water and to prevent surface damage to surface waters, properties, or fish or animal life because of oil and gas drilling, producing, or handling of crude oil or gas. It provides for the issuance by the Supervisor of Wells of permits for drilling oil wells, and requires bonds by operators of oil wells to assure compliance with the laws, rules, regulations, and orders of the Supervisor of Wells. The Act gives the Supervisor control of drilling geological test wells. He is authorized to fix the spacing of oil wells. He has authority to restrict production from any field or pool to prevent either physical or market waste, and is required to prorate equitably among the wells, the allowable production from any field so restricted.

The pooling of properties to make up full drilling units is provided for. A privilege fee of $\frac{1}{8}$ of 1 cent per barrel on oil produced, payable to the Michigan Tax Commission, and deposited in the General Fund of the State, is provided for. Act 15, P. A. 1929, as amended, was repealed.

Act 190, P. A. 1951
Approved June 8, 1951.
An amendment to Act 61, P. A. 1939.

Permits entry to property and authorizes the Supervisor of Wells to case, plug, or repair any abandoned test holes or wells drilled for oil if the owner or operator has failed to do so, and to assess costs against the well owner or operator. It provides for penalties against owners or operators who fail to properly plug and abandon any oil well or test hole after production is abandoned or full test data is secured.

Act 216, P. A. 1951
Approved June 14, 1951.
An amendment to Act 326, P. A. 1937.

Permits entry to property and authorizes the Supervisor of Wells to case, plug, or repair any abandoned test holes or wells drilled for gas if the owner or operator has failed to do so, and to assess costs against the well owner or operator. It provides for penalties against owners or operators who fail to properly plug and abandon any gas well or test hole after production is abandoned or full test data is secured.

MICHIGAN MEMBERSHIP IN THE INTERSTATE OIL COMPACT COMMISSION

"An Interstate Compact to Conserve Oil and Gas" was entered into by the states of Oklahoma, Texas, New Mexico, Illinois, Colorado, and Kansas on February 16, 1935. The Compact, a voluntary association of states dedicated to the conservation of oil and gas, received the sanction of the Seventy-fourth Congress of the United States by Public Resolution No. 64, House Joint Resolution No. 407, approved August 27, 1935. The agreement provided for membership by any oil producing states when authorized by the Legislatures of such states.

The State of Michigan joined the Compact by authority of House Resolution No. 40, concurred in by the Senate in May, 1939. Membership was continued by authority of Act 137, P. A. 1947. Fifteen other oil producing states are members of the Compact. Full membership in the Compact is held by twenty-two states producing oil and gas. Associate membership is granted four states and Alaska which have favorable geological conditions indicating oil or gas traps.

The purpose of the Compact is to conserve oil and gas by prevention of physical waste thereof from any cause and to obtain the greatest recovery of oil. Compacting states cooperate in making studies, investigations, and reports on control of oil and gas operations to prevent physical waste. The Commission may make recommendations to the states in matters of regulation, but has no functions other than the exchange of information and making of recommendations. Compacting states are not committed to follow such recommendations.

The original term of the Compact was for two years. It was renewed with the sanction of Congress in 1937, 1939, and 1941, for a two-year term each time. In 1943, 1947, and 1951, it was renewed for four years each time. The 1951 renewal was sanctioned by Senate Joint Resolution 42 on August 23, 1951, the House of Representatives having consented on August 21.

One original compact and the original of each renewal was signed by the Governors of all of the compacting states and deposited in the archives of the United States Department of State.

The 27 compacting states are Alabama, Alaska (a territory), Arizona, Arkansas, Colorado, Florida, Georgia, Illinois, Indiana, Kansas, Kentucky, Louisiana, Michigan, Mississippi, Montana,

Nebraska, Nevada, New Mexico, New York, North Dakota, Ohio, Oklahoma, Pennsylvania, Tennessee, Texas, Washington, and West Virginia. All but five are full voting members. Alaska, Arizona, Georgia, Nevada, and Washington are associate members.

The Governors of the member states constitute the Commission. They may appoint a qualified alternate who is official representative. The representatives, the governors, and/or representative, constitute the deliberative body. Most of the governors have appointed one or more alternate representatives. An executive board of eleven members selected from among the state representatives is the governing body in management of Commission affairs.

Governor Johnson Murray of Oklahoma is Chairman of the Commission for 1954.

The office of the Commission is at Oklahoma City, Oklahoma. Mr. Earl Foster, an attorney-at-law, is full time Executive Secretary.

Work of the Commission is done by several standing committees, each made up of representatives from all or most of the compacting states; so that Compact findings and recommendations are based on joint studies by all of the states.

The full Compact Commission holds three meetings annually in various sections of the country, always in response to an invitation by a state governor. The Summer Meeting in 1952 was held in Canada. The purpose of these meetings is to exchange and coordinate ideas on the subject of conserving oil; to hear and discuss Committee reports, and outstanding addresses and papers delivered by state and government officials and representatives of the industry. An open forum is always a feature of the meetings. Meetings are attended by official representatives from the various states. As they are open to anyone interested, they are usually attended by representatives of domestic and foreign industries. Various departments of the United States Government are usually represented at the meetings as well as representatives from non-member states. Canada, Mexico, and several South American republics have accepted invitations to send observers to the "Oil Compact" meetings.