(Feb. 12, 1959) 2-13-59 13

For United States Government Use Only

REPORT ON OIL AND GAS MATTERS AND OWNERSHIP STATUS OF PADRE ISLAND

1958

In accord with Mr. Thompson's request of November 6, Messrs. Arnberger and Wykert spent the period December 2-10 in Texas checking county, state and oil company records to determine oil, gas and other mineral ownership, leasing information, map coverage, production potential, extractive procedures, and other information having a bearing on the Padre Island proposal.

Ownership and Leasing Matters

One significant conclusion reached was that the compilation of completely accurate and legally acceptable surface and sub-surface ownership status will require the services of an experienced and highly competent land and title specialist. The major part of Padre Island has not been surveyed nor subdivided for purposes of locating the various ownerships. Accurate land descriptions and acreage figures are generally not available even from county records. The ownership tracts are usually described in terms of numbers of acres lying above or below a certain county line or above or below another tract of land described in equally nebulous terms. The acreage figures themselves can be little more than an approximation due to the difficulty in establishing a definite line separating state submerged lands from the privately owned emergent land. Although such a line appears to have been surveyed there is no evidence that actual surveys have been made to establish accurate acreage figures for all the various ownerships. In view of this situation the information on the accompanying maps relating to the size and location of the various tracts of privately owned land, as well as to the size and location of tracts on the island under lease, can be regarded as tentative only. In contrast, the locations of oil and gas wells and fields, and the subdivision and mineral leasing of submerged lands are based upon accurate records.

Information platted on the accompanying maps was obtained from the Texas General Land Office (leases on and subdivisions of submerged land areas), Texas Railroad Commission (placement of wells fields and production figures) and from county records in Kleberg, Kenedy, Willacy, and Cameron Counties. Other sources of information contacted included Dr. Ross Maxwell, Bureau of Economic Geology at the University of Texas; Dr. W. Armstrong Price, Consulting Geologist and Oceanographer in Corpus Christi, and local offices of Pan American Petroleum Company, and Sun and Humble Oil Companies, also in Corpus Christi.

Nueces County

The Nueces County portion of the island has and should continue to be excluded from any proposed boundary for the Padre Island Seashore Area. This due to the amount of development which has occurred at the north end of the island and the need for leaving at least the ends of the island in private ownership to provide for visitor accommodations, private subdivision, etc.

Kleberg County

All but a small portion of the island in Kleberg County is included within the suggested boundary. County records indicate a total of 23,216 acres on Padre Island on the tax rolls divided among 5 or 6 owners. Included in this total is a 1455 acre tract which has been counted twice as ownership appears to be claimed by two individuals and both pay taxes on the disputed tract. Correcting this, would result in a total of 21,761 acres of Padre Island in Kleberg County. However, to give a further idea of the difficulty in arriving at any firm acreage figure, it was disclosed that an acreage computation made by Kleberg County in 1937 from aerial photos resulted in a 44,580 acre total.

The late Albert R. Jones of Kansas City was owner of by far the largest portion of Padre Island in Kleberg County. Before his death, a one-half undivided interest in his holdings was acquired January 1, 1957, by the Laguna Madre Corporation, S. H. Ransom, President. This is the name the so-called "McCall Group" is operating under in Kleberg County. Upon Mr. Jones death his remaining one-half undivided interest was divided equally between his daughter Virginia Jones Mullen and Laurence R. Jones.

The surface owners have granted leases as shown on the accompanying maps for directional drilling sites, sites for oil storage and distribution systems to loading facilities on the Laguna Madre, target areas for navy use, and grazing leases to Messrs. Burton Dunn and David M. Coover. The principal owners entered into a lease agreement on June 1, 1957, with Coastways Inc. signed by L. E. Rawalt for Coastways. The nature of the activity granted by this lease could not be determined but we theorize it may legalize the presence of some shacks on the island to prevent acquisition of so-called "squatters rights".

The mineral rights apparently reside with Dunn et al. On August 24, 1936, the Sun Oil Company acquired a 20 year oil and gas lease on the property. The lease showed the lessors (Dunn et al.) to consist of the following:

P. F. Dunn
Mrs. Eddie White McCampbell

John S. McCampbell & Mildrid C.
Edwin A. McCampbell & Elizabeth
Eddie McCampbell Schandel & E. R.
Coleman McCampbell
Anna McCampbell Pore & Clyde
Eva McCampbell Anderson & T. A.
Ada Wheeler Weil & Moise
Ella Wheeler Carter
Harold L. Snyder
Ward McCampbell & Edith
Attee McCampbell
W. B. McCampbell
Fred Lovenskiold & Annie Lee

It could not be definitely confirmed, either by the Sun Oil Company Branch Office in Corpus Christi or by county records, that the Sun Oil Company lease was still in effect. However, it seems probable that the lease has been renewed.

On July 1, 1956, Dunn et al. granted a mineral lease to Columbia Southern Chemical Corporation for the upper 100 feet (except for oil, gas, coal, gold, silver, coins, artifacts and uranium) of the Kleberg County portion of Padre Island. Presumably, titanium was the mineral of principal interest. However, county records disclose this lease was released July 1, 1957.

Kenedy County

County records indicate at total of 33,500 acres of Padre Island in Kenedy County. The late Albert R. Jones formerly owned the entire tract. The "McCall Group", here known as the Baffin Bay Corporation, is the owner of a one-half undivided interest in this tract, with the remainder being divided evenly between Virginia Jones Mullen and Laurence R. Jones.

The document conveying the one-half undivided interest in the Kenedy County portion of Padre Island from Albert R. Jones, et al. to the Baffin Bay Corporation is of interest, and pertinent portions of it are quoted below:

> It conveys, "an undivided half of Padre Island within Kenedy County exclusive of mineral interests and leases of mineral interests subject to:
>
> 1. All rights of the United States of America covering target sites etc.
> 2. All rights of Sun Oil Company, its successors or assigns.

3. All rights of Sun Pipeline Company, its successors or assigns.

4. Any exceptions and notations as might be reflected by an accurate survey.

Grantors herein make no representations as to the area of lands covered by this instrument or the location thereof. Neither do the grantors make any representation as to the location of, or the area of any lands covered by or the terms of any agreements relating to paragraphs 1, 2, and 3 above.

"There is excluded from this conveyance all mineral interests and leases of mineral interests on the lands herein conveyed or under present or future accretions, relictions or other alluvial additions to such land.

"There is reserved to the Grantors, their heirs and assigns, perpetual right to take all usual, necessary or consentient means for the mining, drilling, exploring, operating for or producing all minerals, including the right to build roads, lay pipe lines, build telephone lines, and other structures thereon to produce, save, sell and take care of all minerals and to remove same from said lands."

Surface rights to two tracts with a combined acreage of approximately 12 acres were leased to Sun Oil Company by Jones et al. on January 22, 1953, for a period of 30 years for storage, loading and operating facilities etc. There is also a lease with Coastways Inc. as described for Kleberg County.

Mineral rights appear to belong to Dunn et al. It is believed that oil and gas is under lease to Sun Oil Company although no recorded lease could be located. On July 11, 1956, Columbia Southern Chemical Corporation obtained a ten year lease on the upper 100 feet of the Kenedy County portion of the island. This lease is apparently still in effect.

Willacy County

Ownership of both surface and minerals is believed to reside in Gilbert Kerlin. Surface ownership was obtained by Kerlin through deed of conveyance from Albert R. Jones and Josephine Van Leer Jones under the will of Frank E. Jones on December 14, 1942. Kerlin's ownership is divided into three tracts on the tax rolls with a total of 13,647 acres.

The records relating to oil and gas leases in Willacy County are extremely confusing. However, after many additions and subtractions of various lease and county acreage figures our best guess is that the northern 1,592 acres may not presently be leased, the central 6,554.44 acres may be leased to the Pan American Petroleum Company and the southern 5,500 acres may be under lease to Magnolia.

Cameron County

The southern part of Padre Island has undergone more development and subdivision than any other section of the island. The surface of the northern portion of the island in Cameron County is shown on the accompanying map and is divided among the following: Kerlin, Virginia Jones Mullen, Atwood and Fisher (Chicago), South Padre Inc., and the South Padre Island Investment Company.

The nature of South Padre Inc., a Corpus Christi firm, was not determined. The South Padre Island Investment Company, holding title to two tracts totaling 3,649.56 acres, is of particular interest. These tracts have been completely subdivided into a total of 82 lots, each having a Gulf frontage of about 350 feet and continuing straight across the island to the Laguna Madre. Promotional material received several weeks ago stated that all lots had been sold except for four or five. Records dated 1956 indicate the owner of Tract 1 (3,149.56 acres) to be Jonathan F. Conrow with Gilbert Kerlin shown as a lien holder. Although it is difficult to pinpoint these tracts on the map, it is believed they lie south of the suggested boundary and outside of the proposed seashore area. If not, the suggested boundary should be relocated to exclude these subdivided tracts. Copies of advertisements for the South Padre Island Investment Company which recently appeared in the "Wall Street Journal" are attached.

The mineral rights on the major portion of the Cameron County Padre Island lands are believed to belong to Mr. Kerlin. However by an assignment dated October 31, 1958, Kerlin assigned one-half of the mineral interests on 1,100.5 acres of an undivided 3,300.11 in Tract A and on 2000 acres in Tract B to Alice A. and Edwin K. Atwood and Ruth P. and Thomas H. Fisher.

Pan American Petroleum Company apparently has an oil and gas lease on 1379.56 acres at the north end of the Cameron County stretch of island. According to the previously mentioned assignment, it appears that the remainder of the island in Cameron County, except the Tompkins subdivisions, was leased to Gulf Oil Company by Kerlin on July 15, 1958. However, a recorded copy of this lease was not found in the county records.

General Ownership Information

The submerged lands of the Laguna Madre and a portion of the Gulf are owned and controlled by the State of Texas. There is no question of state ownership in the Gulf to the three mile limit. The area from 3 miles to 27 miles is apparently being contested as to state or federal ownership with the leasing presently being handled by the State.

A determination of the line at which private ownership stops and state ownership begins along coastal areas has recently been a hot issue in the Texas courts. The accepted line for many years has been the point of highest tide, but a decision by the Texas Supreme Court in 1958 placed the line at the point of mean high tide. This new definition means that the beach available for public use has been narrowed, and private property owners may extend their fences much closer to the water.

Oil and Gas Matters

The impression was gained that Padre Island is going through a period of relative inactivity as far as oil and gas exploration is concerned. This does not mean to imply that wells are not being drilled and petroleum products being extracted - only that discussions with oil and gas people suggested that Padre Island was not a particularly "hot" location. This may in part be due to a present oversupply of petroleum products or perhaps to the higher cost of island and submerged land exploration and production.

The accompanying maps present current and accurate information as to location of oil and gas fields, individual producing wells, dry holes, drilling sites etc., as well as names of lessees and date of lease for various subdivisions of state submerged lands. The leases from the state are for a period of five years.

Oil and gas production for the Padre Island area is shown in the following tables. Source - Annual Report of the Oil and Gas Division, 1957, published by the Texas Railroad Commission.

For 1957

Oil Fields

Field	Reservoir Name	Discovered	Depth	1957 Prod. Bbls.	Cumulative to 1/1/58 Bbls.
Portrero Lopena		1952	7440	17,398	138,328
Bird Island		1939	7235	41,140	263,831
Bird Island	Zone 10-A Seg. A		7218	4,225	4,225
Chevron	'A-3' Frio	1955	7661	31,001	83,241
Chevron	'A-13' Frio	1956	7876	36,600	62,223
Chevron	'A-19' Frio	7/25/57	8060	19,020	19,020
Chevron	'B-3' Frio	7/24/57	8414	16,387	16,387
Chevron	7760' Frio Sand	1954	7760	133,092	343,953

Gas Fields

Field	Reservoir Name	Total Wells End of Year	Producing Wells End of Year	Gross Gas Production M.C.F.	Hydrocarbon Liquid Bbls.
Penascal		2	1	332,094	369
Penascal		1	0	0	0
Murduck Pass		15	15	1,820,044	0
Portrero Lopena	Marginulina	1	0	0	0
Portrero Lopena	Frio	1	0	0	0
Bird Island	10-D	1	0	0	0
Bird Island	7200' Frio	1	0	0	0
Bird Island	16-A	1	1	28,280	511
Chevron	'A-1' Frio	8	8	1,002,605	7,772
Chevron	'B-3' Frio	1	1	82,598	693
Chevron	'B-11' Frio	1	1	32,228	270
Chevron	'M-3' Miocene	4	4	112,271	942
Chevron	'M-33' Miocene	1	1	58,400	490
Sprint	9100' Marginulina	1	0	0	0

Extraction Methods

The Chevron Field in the Gulf near the north end of the island is the only large scale offshore operation. It includes several large permanent platforms, each serving several wells -- both oil and gas. Petroleum is piped to storage and distribution facilities on the

island from where it is piped to a loading point on the Laguna Madre for transfer to barges.

The Sprint Field is of particular interest since the wells are located right on the gulf beach of the island. These are directional wells which reach out a short distance into the gulf to tap petroleum resources on state submerged land. The companies involved have simply leased a small tract of the surface on the island on which to locate drilling and pumping apparatus.

With regard to the suggestion that directional oil and gas drilling be done offshore rather than on the island to tap petroleum resources under the island, this appears to be neither practicable nor desirable. Discussions of the subject have led to the conclusion that such a procedure would be unacceptable to the oil companies.

Offshore directional drilling back under the island is entirely unsound economically. The following, quoted from "The Continental Shelf - A Petroleum Frontier" which appeared in the May 1958 issue of Business Review may give some appreciation of the mammoth capital expenditures required by offshore operations:

> "Although transportation and weather difficulties do exist, the major offshore problem currently is economic. The cost of drilling and equipping a well in the gulf is about eight times greater than the national average. Not only must the well be much deeper, but the cost per foot drilled is three times that on land. The offshore rig must be larger and more powerful and, consequently, requires five times as much steel. The rentals for drilling units vary from $3,000 a day for a platform rig to $8,000 per day for a mobile unit, while the capital expenditure required to purchase a mobile platform ranges from $2 million to $7 million."

That the above is true is attested by the fact that oil companies are now using exactly the opposite procedure on Padre Island - i.e. at the Sprint Field they are directionally drilling from the island a short distance out under the gulf to tap petroleum resources. The reason is simply that it is cheaper and more efficient.

From an engineering standpoint there is another serious limiting factor to offshore directional drilling. The distance such drilling may be offset is largely determined by the depth of the well. The people with whom the matter was discussed were reluctant to state a maximum offset distance that could be attained for the 7,000 to 9,000 foot wells that are the rule in the Padre Island area. However, offhand estimates ranged from a minimum of less than one-half mile to a maximum of not more than a mile. Even if economically feasible, drilling and pumping rigs located no farther offshore than this could not help but appear as large, objectionable features as viewed from the island.

On the other hand, an oil well on the land requires only a "pump jack" (photo attached) and / or a simple pipe and valve installation known as a "Christmas tree", both of which are relatively inconspicuous. In comparison, offshore installations use huge, ungainly platforms, often more than 100 feet square, which may tower 50 feet or more above the water. Such installations may be visible for 20 miles or more. Certainly such platforms less than a mile off the gulf beach of the island would be highly objectionable.

Perhaps much of the objection to wells on the island stems from the memory of early oil fields literally covered with unsightly derricks. This is no longer the case as derricks are removed after drilling and a relatively inconspicuous "pump jacks" are installed.

This leads to the conclusion that it would be both impractical and undesirable to assume that oil and gas will be extracted from offshore sites where onshore mineral withdrawal processes are possible. It is believed that the most practical approach to the problem will be through cooperative efforts with the oil companies to find ways of minimizing interference of petroleum activity with scenic and recreational values.

Oil and Gas Potentialities

In regard to oil and gas prospects on Padre Island and adjacent offshore areas there is simply no single pat answer. Each person queried had differing opinions as to the petroleum outlook for the area in the future. The facts seem to bear this out for as leases expire or are released, other oil companies always seem ready to pick them up. It seems unlikely that this would be the case if there were agreement that the prospects were either good or bad.

There is some agreement, and this was confirmed by Dr. W. Armstrong Price, consulting geologist and oceanographer of Corpus Christi, that the oil and gas prospects were increasingly poorer as one moves southward and gulfward. This is principally due to the fact that the oil bearing formations tend to break up and "tongue out" along the south Texas coast. The result is that successful oil and gas exploration becomes more and more unpredictable. This does not, by any means, preclude the possibility of striking productive pockets of petroleum in the lower Padre Island area, but this becomes an increasingly hit or miss proposition southward and gulfward.

There follows an interesting general summary of the offshore oil and gas outlook taken from the aforementioned article in Business Review:

"The development of the submerged area will be inhibited by the same factors which have recently created problems for

the domestic petroleum industry generally - namely, the oversupply situation and the competition of imports and foreign exploration. The expectation is that production allowables will continue at reduced levels, and there might be declines in the extra allowables permitted offshore wells.

"In addition, certain other problems may become important to the offshore developments. For example, the high success ratio will probably diminish after the choicest locations have been explored and developed, although the ratio is likely to remain above that on land. The depth of wells, now averaging 9,500 feet (or 2 1/3 times deeper than onshore), is expected to become even deeper; and drilling will move into greater depths of water. Consequently, costs will increase, equipment will require further adaptation, and new methods - such as underwater completions - will have to be promoted.

"The gain in production is expected to be greater than the substantial rise in drilling, since wells that have been shut in will be brought into use as transmission and gathering lines are extended. Besides, the reserves are so large relative to current output that substantial increases in production are not closely tied to further discoveries.

"The brightest economic factor appears to be the prospect for accelerated sales of natural gas. Although gas has only been responsible for about 10 percent of offshore revenue, receipts from this urgently demanded product promise to increase sharply. In 1957, total offshore gas production showed a marked gain over the prior year, while output off Texas rose to almost seven times the 1956 rate. Since natural gas sales are negotiated by large-scale contracts, gas production will probably expand faster than crude oil output.

"The submerged area has greatly improved Louisiana's status as a petroleum state. Offshore discoveries are largely responsible for the State's addition of 420 million barrels of proved oil reserves in 1956 and the gain of 182 million barrels in 1957. The Texas submerged area poses special problems, as its performance has been disappointing thus far. Not only is the success ratio below that in the Louisiana region, but the fields discovered and reserves proved have been much smaller. Therefore, drilling and production have been at low levels. Operators often attribute this unfortunate experience to the prevailing Miocene sands, which have not performed well onshore in Texas. Off Louisiana, thick rich sands alternate with shale; but in the Texas

submerged area, the formations are massive sand sections with no shale layers or are sands only a few hundred feet thick alternating with broad shale layers that get even thicker seaward. Faults appear to be characteristic, in contrast to the prolific salt domes of the Louisiana reion. Consequently, the structural pattern appears to be the major cause of the lag in Texas discoveries."

Additional Addresses

The following addresses of individuals and Corporations should be added to those listed in our memorandum report of November 21, 1958:

1. Mr. Burton Dunn
   Box 301
   Corpus Christi, Texas

   Mr. Dunn and Mr. David Coover held a grazing lease on Padre Island.

2. Mr. Jonathan H. Conrow
   First National Bank Building
   Brownsville, Texas

   Mr. Conrow is owner of the South Padre Island Investment Company. His New York City address has previously been supplied.

3. Mr. Gilbert Kerlin
   20 Exchange Place
   New York 5, New York

   or

   Box 512
   Brownsville, Texas

4. South Padre Inc.
   510 Jones Building
   Corpus Christi, Texas

5. Baffin Bay Corporation (Kenedy County)
   Laguna Madre Corporation (Kleberg County)
   1501 Mercantile Securities Building
   Dallas, Texas

   The so-called "McCall Group" operates under these corporation names.

Leslie P. Arnberger, Regional Chief
National Park System Planning

Paul V. Wykert
Acting Recreation Planner