

ALASKA LEGISLATURE COMMITTEE FILES 1981-1982 86/2

1878 SRES NATURAL RES. BRIEFING 1/22.8? - 5 YR LEASING ✓✓✓

January 5, 1982

Re: Status of Miscellaneous  
Land Use Permit Regulations  
Litigation

In the meantime, on September 2, 1981, Exxon Corporation filed a complaint in superior court for declaratory and injunctive relief to adjudicate the validity of the MLUP regulations. Exxon v. Katz, Alaska Superior Court No. 3AN 81-6041 CIV. In its complaint, and through its memoranda, Exxon seeks the invalidation of the MLUP regulations on the same grounds addressed by the superior court's final judgment in Chevron v. LeResche, with the additional claims that: (a) the MLUP regulations were not adopted in accordance with the procedures established in the Alaska Administrative Procedures Act; and (b) the MLUP regulations constitute an impermissible taking without just compensation under the Alaska and United States constitutions. Exxon also filed a motion for preliminary injunction seeking to permanently enjoin the state defendants from enforcing these regulations. The briefing in Exxon v. Katz, has been completed and oral argument has been scheduled for January 8, 1982.

Less than two months after Exxon's complaint, on October 29, 1981, Union Oil Company of California ("Union") also filed a complaint in the superior court for declaratory and injunctive relief seeking a declaration that the same amendments to the miscellaneous land use permit regulations challenged by Exxon and the conditions attached to Union's permits requiring the submission of certain geophysical exploration data and information are invalid. Union is also seeking an injunction against the Department's enforcement of these regulations. Union Oil Company of California v. State, Alaska Superior Court No. 3AN 81-7473 CIV.

In its complaint, Union seeks the invalidation of the MLUP regulations on four basic grounds: 1) they are outside the scope of the authority delegated to the Department of Natural Resources; 2) they are inconsistent with statutes relied upon for their adoption; 3) they were not properly noticed to the public under the Alaska Administrative Procedures Act; and 4) they were retroactively applied to Union's permit.

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The state defendants have denied Union's claims and have filed a third party complaint against ARCO Oil and Gas Company and ARCO Exploration Company for declaratory judgment because the ARCO companies and Union jointly conducted geophysical exploration under state permit which is subject to data submission requirements of the MLUP regulations. In their third party complaint, the state is seeking a judicial validation of the MLUP regulations on the same grounds Union has raised as bases for invalidation of the regulations, and other grounds.

Finally, on December 17, 1981, the Department of Natural Resources filed a complaint in the superior court for declaratory judgment against Shell Oil Company, Geophysical Service Incorporated, and Mobil Oil Corporation.<sup>1/</sup> The Department's complaint seeks a declaration that amendments to the MLUP regulations and the conditions attached to the defendants' permits requiring the submission of certain geophysical exploration data and information are valid. In its action, the Department is seeking a judicial validation of the MLUP regulations on the same grounds now at issue in all of the above litigation.

Due to the near identity of issues raised by the parties in Exxon v. Katz, Union v. State, State v. ARCO, and State v. Shell, the state parties in those actions moved to consolidate those actions. Following an in-chambers conference with Judge Daniel Moore, only the Union v. State, State v. ARCO, and State v. Shell cases were ordered consolidated. (Judge Moore is assigned to all the MLUP cases in the superior court.) The Exxon v. Katz action will proceed inde-

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<sup>1/</sup> Only these parties were named because of their refusal to submit geophysical data and information acquired under state permit unless required to do so by a court. At the time this complaint was filed, the Department was unaware of any other companies refusing to comply with the MLUP regulations.

John W. Katz, Commissioner

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January 5, 1982

Re: Status of Miscellaneous  
Land Use Permit Regulations  
Litigation

pendently of these cases, with oral argument to be held as scheduled on January 8, 1982.

Judge Moore indicated that a decision would be rendered in the Exxon v. Katz action within two weeks of oral argument. In the remaining consolidated actions, a motion for full summary judgment will be filed by the state parties during the week of January 11, 1982. If briefing occurs under the timing provisions of the Civil Rules, it is possible that oral argument may be held during the first or second week of February. Hopefully, these cases will reach the Alaska supreme court so that the court may consider them in tandem with the Chevron v. LeResche appeal before the court recesses for the summer.

FISHERIES

BRIEFING

1-28-81

# Alaska State Legislature

BETTYE FAHRENKAMP, CHAIRMAN  
VIC F. SCHER, VICE-CHAIRMAN  
BRAD BRADLEY  
DICK ELIASON  
DON GILMAN  
BOB MULCAHY  
ARLISS STURGULEWSKI



POUCH V  
STATE CAPITOL  
JUNEAU, ALASKA 99811  
(907) 465-3834  
(907) 465-3835

## Senate

### Committee on Resources

January 28, 1981  
2:00 p.m.

Beltz Room  
211 Capitol

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#### MEMBERS PRESENT

SENATOR FAHRENKAMP  
SENATOR FISCHER  
SENATOR GILMAN  
SENATOR MULCAHY  
SENATOR STURGULEWSKI  
SENATOR BRADLEY

#### MEMBERS ABSENT

SENATOR ELIASON

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The Committee was briefed on Fisheries by Roger Painter, Executive Director of United Fishermen of Alaska and Richard B. Lauber, Alaska Manager, Pacific Seafood Processors Association.

Roger Painter, indicated that there have been some problems in the marketing of fish because the volume of fish caught has more than doubled and there has been a shift to frozen salmon. Japan is the primary purchaser of Alaska's seafood therefore, their economic difficulties effect Alaska. He also pointed out that the cost of fuel for fishermen and processors has increased causing them further economic difficulties. He further indicated that the marketing of Alaska's seafood needs to be expanded in the United States. He suggested that the strike in Bristol Bay last season was the result of information not being provided to the fishermen about market conditions. He suggested that the State should provide unbiased information to the fisherman which might help avoid another strike.

In discussing the Board of Fisheries, he indicated that the issues they are dealing with are increasingly complex, and the work is demanding. Their last meeting lasted 2 1/2 months. Since their work load is so staggering, he suggested that alternatives should be studied to help the board become more effective.

He said there are serious problems with the processing of fish tickets. Until recently there was a two year lag in processing the tickets. At present, the processing of

tickets is less than a year behind.

He said he would like to see a better definition of subsistence users. He did not want to see the subsistence law repealed because the Federal government might then take the opportunity to assume the management of fisheries.

He indicated that some of the factors inhibiting fisheries development in Alaska are the lack of dock facilities, lightering facilities and transportation systems.

Richard B. Lauber told the Committee that probably the largest problem confronting the seafood processing industry is government regulation. In many instances, the enforcement of these regulations seems to be inconsistent. The attitude of those interpreting the original laws is a severe problem. Government agencies make little effort to follow the original legislative intent.

In describing ARRC he indicated that he felt that a state agency should not control a substantial part of a private enterprise. ARRC should only be a lending agency.

He further testified that he was looking forward to the reorganization of the Department of Commerce and Economic Development because their past performance has not been of a great benefit to the industry.

FIVE YEAR  
LEASING  
SCHEDULE

# Alaska State Legislature

PETTYE FAHRENKAMP, CHAIRMAN  
VIC FISCHER, VICE-CHAIRMAN  
BRAD BRADLEY  
DICK ELIASON  
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Senate

## Committee on Resources

February 26, 1982  
1:40 p.m.

Butrovich Room  
Room 205 - Capitol

### MEMBERS PRESENT

Senator Fahrenkamp  
Senator Mulcahy  
Senator Sturgulewski

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### Briefing The State's 5-Year Oil and Gas Leasing Plan

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Dick Wilson, Manager, Alaska/Pacific Exploration Division, Exxon, expressed support for the State's 5-year program and suggested that the scheduling of State sales be coordinated with adjacent federal sales. Exxon opposes any requirement that G & G (geological and geophysical) data from unleased State acreage be provided to the State prior to a lease sale, or that G & G data be used by the State to determine a tract's value. Rather, selection of tracts for lease should be based on nomination by interested parties. Exxon prefers cash bonus bidding, which acts as an incentive for exploration, and disagrees with the current seasonal drilling restrictions.

Bob Kropschot, Exploration Manager for Alaska for Chevron, expressed support for the State's 5-year program, but sees the state-imposed November to March drilling window as a problem. Chevron prefers the cash bonus bidding with royalties of 1/8 or 1/6, with the industry nominating tracts they wish to bid on. Kropschot feels dis-incentives must be removed to improve the efficiency of exploration and development to help compensate for the Prudhoe Bay decline.

Roger Herrera, Sohio, finds the State's 5-year program reasonable and rational. He urged contemporaneous state and federal sales, and labeled the seasonal drilling restriction a dis-incentive.

Senate Resources Committee  
February 26, 1982  
Page 2

Larry Vavra, Union Oil of California, finds the present permitting system cumbersome, and urged passage of SB 84.

The meeting was adjourned at 3:00 p.m.

Please find attached the written comments of Chevron, ARCO, and Exxon.

AGO 886392

# Alaska State Legislature

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## Senate

### Committee on Resources

February 5, 1982

Dan Hinckle  
Division Attorney  
Marathon Oil Company  
P. O. Box 2380  
Anchorage, Alaska 99510

Dear Dan:

On February 8th John Katz, Commissioner of the Department of Natural Resources, will be briefing the Committee on the State's Five-Year Oil and Gas Leasing Program.

As I am very concerned that this plan meets the needs of industry as well as the concerns and obligations of the State, I am inviting your written detailed comments on the Program.

Additionally, I am holding a hearing to gather this information and would like to ask you to brief the Committee. The date we have set is February 26, 1982, at 1:30 p.m., in the Beltz Room - 211 Capitol. Specifically, we would like your company's thoughts on:

1. The Five-Year Oil and Gas Leasing Program;
2. Specifics on the procedures and permitting process being utilized;
  - a) What is of benefit and working;
  - b) What is cumbersome and/or bureaucratic; and,
3. The State's leasing policy.

TESTIMONY  
ALASKA 5-YEAR OIL & GAS LEASING PROGRAM  
R. E. KROPSCHOT  
FEBRUARY 26, 1982

*Medene Chairman  
Committee Members*

Thank you for the opportunity to testify in your "5-Year Oil & Gas Leasing Program" hearings. My name is Bob Kropschot and I am Exploration Manager for Alaska for Chevron. I have spent the last 26 years exploring for oil for Chevron, beginning with the early days of exploration on the Kenai Peninsula through various parts of the United States and the world.

My comments will cover two areas:

1. The first concerning the 5-year schedule as presented to the legislature, and
2. The second to present Chevron's comments relative to some of the questions that were raised by the Committee members during the hearing on February 8, 1982.

Following are comments concerning the proposed schedule:

1. We feel the strategy of mixing the higher risk frontier areas with areas near proven oil fields and having lower risk is appropriate. Such a mix provides opportunities for all segments of industry, large and small, to participate as well as spread their capital between mature and frontier areas.
2. The Department should be complimented for its emphasis on the need to establish a predictable sale schedule to assist in meeting the needs of Alaska and the Nation.

3. Adding the Camden Bay sale in 1986 may pose problems. The offsetting Federal Arctic National Wildlife Refuge cannot be leased prior to late-1986 due to the terms of the Alaska National Interest Lands Conservation Act. Assuming normal slippage of sales, it would probably be advisable to schedule the state sale about one year later in 1987. An alternate strategy would be to encourage federal legislative change to accelerate the assessment of the Refuge's potential and move that possible sale ahead. The 1986 Camden Bay sale could then be left as proposed.

I was fortunate to be able to attend the Commissioner's presentation of his proposed 5-year plan to the Resources Committee on February 8, 1982. I would like to present Chevron's thoughts on some of the questions that came up at that meeting:

Those questions included:

1. How does activity by independent operators in Alaska compare with the Lower 48?
2. What are policy roadblocks holding up evaluation of present leases?
3. What is the outlook for production when Prudhoe Bay begins to decline in about 1988?
4. What are the effects of different types of leasing systems on future production?

5. What is the situation on seismic data release?

These are difficult questions to answer and I don't presume we can fully do it but I would like to present some facts that may give some insight.

Let me start with the first question: "How does the activity by independent operators in Alaska compare with the Lower 48?" The independent operator is not as active in Alaska as in the Lower 48 due to the high costs and risk and long delay time to first production. There is no shortage of drilling rigs or seismic crews at the present time. The costs to work in most areas of Alaska are very high. Chevron has drilled four dry holes on our Arctic Slope Regional Corporation leases in the foothills of the Brooks Range. They cost over \$140 million. We fortunately had partners in some of them to share the cost. We are currently drilling a fifth well. Needless to say, truly wildcat areas like this and some of your sale areas are not the kind of project an organization with relatively limited capital would undertake. Seismic crews on the slope cost some \$2 million a month. Production of 50 to 100 miles a month reflects costs of \$20,000 to \$40,000 per mile. This cost is also similar to shallow water and mud flat data we gathered in the Cook Inlet prior to the recent state sales. Costs for similar depth wells and seismic in the Lower 48 are \$2.5 million/<sup>per well</sup> and \$10,000 per mile. The exceptional costs in Alaska make it difficult for the independent to operate alone. I would add though we did bid with an independent operator on some of the Cook Inlet tracts. I think you will find that many majors include responsible smaller operators in their OCS and state bidding. Competing companies do need a very large resource base to sustain them for the long period between initial exploration and production. Prudhoe Bay was discovered in 1968 and a period of 9 years went by until the first production in 1977.

I would like to address the second question next, which asks "What are the policy roadblocks holding up the elevation of present leases?" The acreage leased in the 1979 Beaufort Sea sale is worth examining. Two factors have delayed the evaluation of those leases. The first is the matter of the suit before the State Supreme Court to invalidate those leases, which really isn't a policy roadblock. It is difficult to invest any significant sum of money in evaluating the leases when the possibility exists that they would be judged invalid. We have taken the risk and participated with Sohio in the Challenge Island well and are drilling with our partners a well on Jeanette Island. Other companies have taken the risk also. The second problem relates to the state-imposed drilling window from November 1 through March 31. It is difficult to plan drilling operations for only that five month winter drilling period. Even if discoveries are made, delays in developing may make the projects uneconomic. We are hopeful this onerous and in our opinion unnecessary provision will be eliminated in the near future.

Now I would like to address the third question, which relates to the outlook for production when Prudhoe Bay begins to decline in 1987-89, as currently forecasted. It is quite typical of basins worldwide to find only one huge oil field and many fields of far lesser magnitude. As production from the major field begins to decline, it is extremely difficult to keep the total production up. In the Central Sumatra area of Indonesia, the huge Minas field produced at a level approaching 500,000 barrels a day for several years and by adding the smaller nearby discoveries the production reached 1 million

barrels a day, but shortly thereafter Minas, the major controlling factor, began to decline and no matter how many more nearby discoveries were made production has never reached the million barrel a day figure again. The production in that area now has dropped to approximately 700,000 barrels a day and can be expected to continue its gradual decline.

In Alaska the problem of keeping the production level up is compounded by the remoteness of so many areas, and the long lead times required to bring a discovery on production. I think the chances of finding another Prudhoe Bay size field on Alaska controlled lands on the North Slope are extremely slight. Therefore, if the state's current production is to be maintained, it will be necessary to provide for early evaluation of the remaining prospective areas. There is no better way to do this than by encouraging industry to aggressively explore the Alaska lands. Perhaps my discussion on questions 4 and 5, which follows, will shed more light on this subject.

Concerning question four, "What are the effects of different types of leasing systems on future production", this subject was studied by the federal government and their results were published in the January 26, 1982 Federal Register. That study examines 22 OCS sales where four different bidding systems were used.

The federal government's goal is to utilize systems that "encourage expeditious exploration of frontier areas and which provide adequate incentives for efficient and diligent production in developed regions." They also include objectives such as assuring fair market value, maintaining competition, and protecting the environment.

In reviewing the past sale results, they compared the customary one-sixth royalty with the bid variable being the bonus bid against:

1. Fixed bonus, royalty variable.
2. Fixed 1/3 royalty, bonus variable.
3. Sliding scale royalty, bonus variable.
4. Fixed net profit share, bonus variable.

Their preliminary conclusions state that:

1. Most alternates showed no meaningful differences in competition.
2. No indication that the government share of the expected economic return on tracts leased will increase with the alternate systems.
3. Royalty bidding gave the sharpest contrast, but it was decided to discontinue that system because:
  - a. Rates of some winning royalty bids were "sufficiently high to make substantial production losses very likely." A high royalty bid means the minimum economically developable field size must also be higher.

- b. Investment at risk may be so low that "tract owners will have greatly reduced incentives to explore and develop those tracts."
4. The fixed 1/3 royalty may result in frontier area tracts not receiving bids. They do not intend to use it in frontier areas because of the urgent need to avoid dis-incentives.
5. The sliding scale royalty system is difficult to design due to the uncertainty of price changes. It was not being recommended because it could provide a dis-incentive to the investments needed to achieve higher production.
6. The fixed net profit share system might have some merit in assuring competition in higher cost areas by reducing front-end investment if the lessor could earn a normal profit before sharing returns with the government. However, the benefits can be "offset by administrative and accounting burdens on both lessees and the government."

The federal government is suggesting comments on bidding systems for various OCS areas and in Alaska is proposing cash bonus bidding as the variable with royalties of 1/8 or 1/6. In some of the high cost areas, the fixed net profit share with a cost recovery program may be used in place of the 1/8 royalty with bonus bidding recommendation.

In summary, the trend in federal leasing appears to be away from systems that can provide dis-incentives to early and aggressive exploration and development,

back to the standard bonus bid variable with lower fixed royalties. Their experience indicates that generally non-bonus bidding and high royalties discourage timely exploration and development of potentially productive acreage.

The final question, concerning seismic data release, relates to the whole subject of oil and gas exploration. Even though the major companies normally have more data available to them than the smaller operators, more than one-half of the discoveries<sup>in the lower 48</sup> are made by the "independents" without the large data bank. It is not just the data bank available that finds oil but rather the opportunity for various ideas to be brought to bear on the subject. I feel that the State of Alaska runs a real chance of slowing rather than expediting the assessment of its oil and gas potential when it undertakes a major effort to determine the potential of its exploratory areas and then tailors a bidding system and sale schedule based on those results.

On this subject, I would like to mention another review under way by the federal government. This relates to a February 5, 1982, Federal Register Notice about pre-sale evaluation of tracts in the OCS to insure that bidders pay fair market value. The Notice states that:

1. There are gains to the government if the costs of tract evaluation can be reduced.
2. The economic efficiency of exploration and development can be improved by relying more fully on the leasing market and less on government decision making to determine which tracts are leased.

I would recommend that you consider letting industry do some of the costly and highly inexact pre-sale work for you by letting them nominate tracts they wish to bid on and then letting their high bid by the bonus bid fixed royalty system determine the tract value. This system takes the cost and risk out of the hands of the taxpayer and provides a favorable climate to encourage early evaluation and development.

In summary, I would suggest that items 3 and 4 of the State Leasing Strategy which is on page 12 of <sup>The 1982 Five-year leasing program</sup> be carefully reviewed in light of the information I have mentioned. Long-term fiscal planning is a very necessary process and should be based on proven and potential reserves. The possible discoveries cannot be reliably quantified. However, by providing a climate that encourages industry to make that evaluation at an early date, the future production projections will be more reliable.

Thank you for this opportunity to address you. I will try to answer any questions you have.

ARCO Exploration Company  
Post Office Box 360  
Anchorage, Alaska 99510  
Telephone 907 265 6515  
  
G. T. Wilkinson  
Vice President  
Exploration Operations - Alaska



February 24, 1982

Senator Bettye Fahrenkamp  
Chairman, Resources Committee  
Alaska State Legislature  
Pouch V (MS-3100)  
Juneau, AK 99811

Dear Senator Fahrenkamp:

ARCO Exploration Company has reviewed the State Five-Year Oil and Gas Leasing Program, dated January 1982. As the Program states at several junctures, all Alaskans benefit from a fixed and predictable leasing program. As you are aware, this predictability is integral to an effective exploration program, and we are heartened by the Department of Natural Resources sharing of this concern. In this regard, the Department has been more responsive in adhering to the sale schedule.

The Five-Year Leasing Program represents a commitment on the part of the state to allow systematic and consistent exploration of the most promising areas in the state. In order to help ensure successful exploration efforts, especially in remote, high-cost, high-risk areas, we feel that the Department of Natural Resources should offer ten-year leases with cash bonus bidding and, to the extent feasible, coordinate federal OCS sales with state near-shore sales. We also urge the Department to replace the Chukchi Sea sale (No. 44) on the schedule. While it is recognized that operating conditions in this area are harsh, the near-shore area may be considerably easier for exploratory operations than tracts in deeper water scheduled to be leased by the federal government (OCS Sale No. 85, scheduled for February of 1985).

Again, we are encouraged by the efforts of the Department of Natural Resources to develop and adhere to the Five-Year Leasing Program.

Thank you for the opportunity to comment.

Very truly yours,

G. T. Wilkinson

cc: Mr. John Katz - Commissioner - Dept. of Natural Resources  
Ms. Beverly Ward  
Mr. Dave Harbour

TESTIMONY ON  
FIVE-YEAR OIL AND GAS LEASING PROGRAM  
AND THE STATE OF ALASKA'S LEASING POLICY

BY  
RICHARD D. WILSON  
MANAGER  
ALASKA/PACIFIC EXPLORATION DIVISION  
EXXON COMPANY, U.S.A.

BEFORE THE  
  
STATE OF ALASKA  
SENATE RESOURCES COMMITTEE

JUNEAU, ALASKA  
FEBRUARY 26, 1982

MADAME CHAIRMAN AND MEMBERS OF THE COMMITTEE, I AM DICK WILSON, MANAGER OF EXXON'S ALASKA/PACIFIC EXPLORATION DIVISION LOCATED IN HOUSTON. I AM RESPONSIBLE FOR ALL OF EXXON'S EXPLORATION ACTIVITIES IN THE PACIFIC OFFSHORE AND IN ALL OF ALASKA, BOTH ONSHORE AND OFFSHORE. I APPRECIATE THE OPPORTUNITY TO BE HERE TODAY AND PRESENT THE VIEWS OF MY COMPANY ON THE STATE OF ALASKA'S FIVE-YEAR LEASING PROGRAM AND THE LEASING POLICY OF THE STATE.

EXXON SUPPORTS AND HAS SUPPORTED IN PREVIOUS TESTIMONY BEFORE THIS BODY AND IN COMMENTS TO THE DEPARTMENT OF NATURAL RESOURCES, THE CONCEPT OF THE FIVE-YEAR OIL AND GAS LEASING PROGRAM. A FIRM PROGRAM ALLOWS COMPANIES TO PLAN THE MOST EFFICIENT USE OF LIMITED AMOUNTS OF MANPOWER AND RESOURCES IN PREPARING FOR LEASE SALES. MOREOVER, WITH SUFFICIENT PLANNING TIME, THE STATE WILL BE ASSURED OF HAVING THE MAXIMUM NUMBER OF PARTICIPANTS IN A SALE. THIS INCREASES THE STATE'S REVENUE, ENSURES THE RECEIPT OF FAIR MARKET VALUE FOR THE LEASES, AND ACCELERATES EXPLORATION. IF A FIVE-YEAR LEASING PROGRAM IS TO BE OF SIGNIFICANT BENEFIT TO PROSPECTIVE BIDDERS AND TO THE STATE OF ALASKA, THE STATE MUST ADOPT A SCHEDULE AND THEN STICK TO IT.

WITH RESPECT TO THE FIVE-YEAR LEASING PROGRAM ITSELF, EXXON BELIEVES THAT THE MOST EFFECTIVE AND EFFICIENT SCHEDULING OF STATE SALES IS WHEN THEY ARE COORDINATED WITH ADJACENT FEDERAL SALES. WHERE APPROPRIATE, JOINT STATE/FEDERAL LEASE SALES SHOULD BE CONDUCTED. LACK OF COORDINATION WILL RESULT IN

DUPLICATION OF EFFORT AND CAN CREATE SIGNIFICANT OPERATIONAL PROBLEMS IN THE EXPLORATION AND DEVELOPMENT OF ADJACENT STATE AND FEDERAL AREAS. THIS IS PARTICULARLY TRUE IF THE SAME PROSPECTIVE GEOLOGICAL STRUCTURES UNDERLIE BOTH AREAS. IN ADDITION, BASED ON OUR PAST EXPLORATION EXPERIENCE, THERE IS A HIGH CHANCE OF THE STATE'S SALE AREA BEING CONDEMNED IF ADJACENT FEDERAL ACREAGE IS LEASED AND DRILLED BEFORE THE STATE SALE IS HELD. THIS SIMPLY REFLECTS THE HIGH RISK OF FINDING ANY OIL AND GAS IN A PARTICULAR AREA.

IN WRITTEN COMMENTS TO THE DNR LAST NOVEMBER ON THE PROPOSED REVISION OF THE FIVE-YEAR OIL AND GAS LEASING PROGRAM, EXXON PROVIDED COMMENTS ON SPECIFIC SALES WHICH I WILL NOT REITERATE AT THIS TIME. FOR THE CONVENIENCE OF THE COMMITTEE, YOU WILL FIND A COPY OF THOSE COMMENTS ATTACHED TO EACH COPY OF TODAY'S PRESENTATION WHICH I HAVE FURNISHED TO YOU.

I WOULD ALSO LIKE TO BRIEFLY DISCUSS THE STATE'S OIL AND GAS LEASING POLICY, AS IT RELATES TO THE STATE'S PERCEIVED NEED TO ACQUIRE GEOLOGICAL AND GEOPHYSICAL DATA (G&G DATA) PRIOR TO A LEASE SALE.

EXXON OPPOSES ANY REQUIREMENT THAT G&G DATA FROM UNLEASED STATE ACREAGE BE PROVIDED TO THE STATE PRIOR TO A LEASE SALE. WE BELIEVE THAT AN ANALYSIS OF G&G DATA BY THE STATE WILL NOT PRODUCE AN ACCURATE ESTIMATE OF THE VALUE OF A TRACT. RATHER, INTERPRETATIONS OF G&G DATA PROVIDE SPECULATIVE ESTIMATES OF

TRACT RESOURCE POTENTIAL. THESE ESTIMATES CAN VARY WIDELY AMONG QUALIFIED EXPLORATIONISTS AS EVIDENCED BY THE WIDE RANGES IN BIDS SUBMITTED IN STATE AND FEDERAL LEASE SALES. THERE IS NO PRECISE WAY, SHORT OF DRILLING, TO DETERMINE THE VALUE OF A TRACT. FOR A GIVEN TRACT, IN DECIDING WHETHER TO BID, AND AT WHAT LEVEL, WE CONSIDER A VARIETY OF FACTORS IN ADDITION TO G&G INFORMATION INCLUDING COSTS, TECHNOLOGY, ECONOMIC AND PRICE FORECASTS, TIMING AND TRANSPORTATION SYSTEMS. BECAUSE THE CHANCES OF ACHIEVING COMMERCIAL PRODUCTION FROM AN AREA DECREASE AS EXPLORATION AND DEVELOPMENT COSTS INCREASE, AN ESTIMATE OF RESOURCE POTENTIAL CANNOT BE THE SOLE BASIS FOR BID DECISIONS. AN EXAMPLE OF THE FEDERAL GOVERNMENT'S FAILURE TO CONSIDER ADEQUATELY ALL CRITICAL FACTORS IN REJECTING LEASE SALE BIDS OCCURRED IN OCS LEASE SALE NO. 59 HELD LATE LAST YEAR. IN THIS MID-ATLANTIC SALE, THE LARGE DISPARITY BETWEEN THE GOVERNMENT'S AND INDUSTRY'S EVALUATION OF TRACTS CAUSED THE USGS TO REJECT ALMOST HALF OF THE 98 HIGH BIDS. THE REJECTIONS IN THAT SALE AND THE RESULTING DELAY OF EXPLORATION, CAUSED CONSIDERABLE CONCERN TO EVERYONE INVOLVED, INCLUDING THE GOVERNMENT.

SINCE G&G DATA ALONE CANNOT PROVE THE PRESENCE OF OIL AND GAS ON A PARTICULAR TRACT, IT SHOULD NOT BE USED BY THE DNR DURING THE LEASE SALE PROCESS TO DETERMINE TRACT SELECTIONS, THE BIDDING SYSTEM EMPLOYED, NOR THE ADEQUACY OF A BID FOR A SPECIFIC TRACT.

THE SELECTION OF TRACTS TO BE OFFERED IN A LEASE SALE SHOULD BE BASED ON NOMINATIONS BY INTERESTED PARTIES. WE HAVE ALWAYS BEEN WILLING TO NOMINATE TRACTS WHEN GIVEN THE OPPORTUNITY. A SELECTION PROCESS IN WHICH INDUSTRY NOMINATES TRACTS AND THE DNR, AFTER CONSIDERATION OF RELEVANT ENVIRONMENTAL FACTORS, MAKES THE FINAL TRACT SELECTION BASED ON THESE NOMINATIONS BENEFIT BOTH THE STATE AND THE BIDDERS AT A LEASE SALE. SUCH AN APPROACH TO LEASE SALE TRACT SELECTION WOULD ELIMINATE THE STATE'S NEED TO CONDUCT COSTLY AND TIME-CONSUMING ANALYSES OF G&G DATA PRIOR TO THE SELECTION OF TRACTS. THE FREQUENCY OR INFREQUENCY WITH WHICH INDIVIDUAL COMPANIES NOMINATE A GIVEN AREA WOULD PROVIDE THE STATE A GOOD INDICATION OF THE COMPANIES' INTEREST IN THE VARIOUS PROPOSED SALE AREAS. ALSO, EXPLORATION AND DEVELOPMENT OF THE STATE'S OIL AND GAS RESOURCES WOULD BE EXPEDITED THROUGH THE TIMELY LEASING OF THOSE TRACTS IN WHICH INDUSTRY EXHIBITED A HIGH INTEREST.

TURNING NOW TO BIDDING SYSTEMS, WE URGE THE STATE TO RETURN TO THE USE OF CASH BONUS BIDDING, TO THE EXCLUSION OF SYSTEMS WHICH EMPLOY NET PROFIT SHARE OR ROYALTY AS THE BID VARIABLE. THIS WOULD ELIMINATE THE STATE'S NEED FOR G&G DATA TO DETERMINE WHICH BIDDING SYSTEM TO EMPLOY. IT IS EXTREMELY UNLIKELY THAT THE STATE'S ULTIMATE REVENUES FROM NET PROFIT SHARE LEASES WILL EQUAL OR EXCEED THE RETURN WHICH WOULD HAVE BEEN GENERATED BY USE OF CASH BONUS BIDDING FOR THESE LEASES. IN RECOGNITION OF THIS PROBABILITY, THE FEDERAL GOVERNMENT HAS NEVER USED NET PROFIT SHARE AS THE BID VARIABLE. IN FACT, OCS LEASES AWARDED

IN FRONTIER AREAS SINCE 1973 HAVE GENERATED IN EXCESS OF FOUR BILLION DOLLARS IN BONUS REVENUE. TO DATE, NO PRODUCTION HAS RESULTED AND ONLY ONE POTENTIALLY COMMERCIAL DISCOVERY HAS BEEN MADE ON THESE FRONTIER LEASES. THUS, IT APPEARS THAT THE PUBLIC WOULD HAVE OBTAINED ESSENTIALLY NO RETURN HAD A CONTINGENCY PAYMENT BIDDING METHOD BEEN EMPLOYED INSTEAD OF CASH BONUS BIDDING.

EXXON VIEWS THE STATE'S CONTINUED USE OF BIDDING SYSTEMS WHICH EMPLOY NET PROFIT SHARE OR ROYALTY AS THE BID VARIABLE AS A MAJOR HINDRANCE TO THE EXPEDITIOUS EXPLORATION AND DEVELOPMENT OF THE STATE'S NATURAL RESOURCES. THESE CONTINGENCY PAYMENT SYSTEMS REDUCE THE INCENTIVES TO EXPLORE UNTESTED TRACTS AND ULTIMATELY TO DEVELOP MARGINAL FIELDS. THEY INVOLVE A RELATIVELY SMALL "UP-FRONT" FINANCIAL COMMITMENT BY BIDDERS AND PROVIDE A REDUCED PROFIT EXPECTATION TO LESSEES. THE NET PROFIT SHARE SYSTEM, IN PARTICULAR, PLACES MAJOR ADMINISTRATIVE AND ACCOUNTING BURDENS ON BOTH LESSEES AND THE STATE.

THE ECONOMIC AND ADMINISTRATIVE DISADVANTAGES INHERENT IN THE USE OF THESE CONTINGENCY PAYMENT SYSTEMS ARE IN CONTRAST TO THE NUMEROUS ADVANTAGES OF CASH BONUS BIDDING. FIRST, THE DESIRE TO MAXIMIZE THE RETURN ON THE CASH BONUS INVESTED PROVIDES A STRONG INCENTIVE TO THE SUCCESSFUL BIDDER TO RAPIDLY, EFFICIENTLY AND ECONOMICALLY EXPLORE AND DEVELOP ITS LEASE. SECOND, CASH BONUS BIDDING PLACES THE RISK, THAT HYDROCARBONS IN COMMERCIAL QUANTITIES WILL NOT BE FOUND, ON INDUSTRY WHERE

IT BELONGS, RATHER THAN ON THE STATE. WITH NET PROFIT SHARE BIDDING, THE STATE BEARS A MAJOR PORTION OF THE EXPLORATION RISK BECAUSE THE FAILURE TO MAKE A DISCOVERY OF HYDROCARBONS IN COMMERCIAL QUANTITIES MEANS NO COMPENSATION TO THE STATE. WE BELIEVE THAT SUCH RISK-TAKING, WITH ITS RESULTANT REWARDS OR LOSSES, IS MORE PROPERLY THE PROVINCE OF PRIVATE ENTERPRISE THAN IT IS THE STATE'S. FINALLY, THE CASH BONUS SYSTEM IS SIMPLE AND INEXPENSIVE TO ADMINISTER.

WITH RESPECT TO THE DETERMINATION OF BID ADEQUACY, WE BELIEVE THAT COMPETITIVE BIDDING BY COMPANIES ASSURES THE STATE'S RECEIPT OF FAIR MARKET VALUE. WE ARE IN THE BUSINESS OF EVALUATING RESOURCE POTENTIAL AND RISKING LARGE AMOUNTS OF MONEY BASED ON SUCH EVALUATIONS. COMPETITION WITHIN A SALE AREA, RATHER THAN THE STATE'S ARBITRARY EVALUATION BASED ON PRE-SALE G&G DATA, SHOULD BE THE PRIMARY DETERMINANT OF THE ADEQUACY OF A BID. SUCH COMPETITION WILL ENSURE THE STATE A FAIR RETURN FOR ITS POTENTIAL OIL AND GAS RESOURCES.

THERE ARE ADDITIONAL FACTORS WHICH CONTRIBUTE TO DELAYING A TIMELY EXPLORATION AND DEVELOPMENT PROGRAM IN THE STATE OF ALASKA. ONE MAJOR OBSTACLE TO THIS GOAL CURRENTLY UNDER REVIEW BY COMMISSIONER KATZ IS THE PRESENT SEASONAL DRILLING RESTRICTIONS ON EXPLORATION ACTIVITIES. EXXON BELIEVES THAT A DECADE OF SAFE OPERATIONS IN THE ARCTIC DEMONSTRATES THE ABILITY TO OPERATE IN A SAFE AND ENVIRONMENTALLY ACCEPTABLE MANNER.

ALASKA IS STILL ESSENTIALLY A FRONTIER AREA WHERE LITTLE EXPLORATORY DRILLING HAS OCCURRED. THE SHORTENED DRILLING SEASON NECESSITATES A LONGER TIME FRAME FOR THE DRILLING OF EXPLORATORY WELLS AND THE SUBSEQUENT DELINEATION OF ANY DISCOVERY MADE. THIS FURTHER DELAYS THE DEVELOPMENT AND PRODUCTION PHASE OF OIL AND GAS OPERATIONS. SUCH DELAYS WILL HAVE A SIGNIFICANT IMPACT ON THE STATE ECONOMY BY REDUCING THE STATE'S CASH FLOW.

IN CLOSING, I WOULD LIKE TO EMPHASIZE THAT EACH OF THE ISSUES WE HAVE DISCUSSED TODAY - THE FIVE-YEAR LEASING PROGRAM; THE STATE'S LEASING POLICY AS IT RELATES TO THE USE OF G&G DATA IN MAKING TRACT SELECTIONS, CHOOSING A BIDDING SYSTEM AND DETERMINING THE ADEQUACY OF A BID; AND SEASONAL DRILLING RESTRICTIONS - ALL WILL HAVE A SIGNIFICANT IMPACT ON THE TIMING OF FUTURE EXPLORATION AND DEVELOPMENT AND SUBSEQUENT REVENUES TO THE STATE OF ALASKA. ONE OF THE MAJOR PURPOSES OF ESTABLISHING A FIVE-YEAR LEASING SCHEDULE WAS TO PROVIDE A PLAN WHICH WOULD FACILITATE THE ORDERLY AND EXPEDITIOUS INVENTORY AND DEVELOPMENT OF ALASKA'S PETROLEUM RESOURCES. OUR PROPOSALS WOULD HELP ACHIEVE THIS PURPOSE.

I APPRECIATE THE OPPORTUNITY TO EXPRESS SOME OF EXXON'S VIEWS ON THE FIVE-YEAR OIL AND GAS LEASING PROGRAM AND THE STATE OF ALASKA'S LEASING POLICY. I WILL BE HAPPY TO ANSWER ANY QUESTIONS YOU MAY HAVE AT THIS TIME OR SUBMIT FURTHER WRITTEN COMMENTS TO THE COMMITTEE. THANK YOU FOR YOUR ATTENTION.



# Alaska State Legislature

## SENATE Resources Committee

POUCH V  
STATE CAPITOL  
JUNEAU, ALASKA 99811  
(907) 465-3834  
(907) 465-3835

### Official Business

BETTYE FAHRENKAMP, Chairman  
VIC FISCHER, Vice-Chairman  
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BOB MULCAHY  
ARLISS STURGULEWSKI

TO: Senate Resources Committee  
FROM: Senate Resources Committee Staff  
RE: State's 5-Year Oil and Gas Leasing Program  
DATE: March 29, 1982

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Please find attached further information received from Marathon Oil Company in response to our invitation for comments on the State's 5-Year Oil and Gas Leasing Program.

AGD 886413 +

K. Daniel Hinkle  
Division Attorney  
Production, U.S. & Canada

**Marathon  
Oil Company**

P.O. Box 2380  
Anchorage, Alaska 99510  
Telephone 907/274-1511

March 23, 1982

Senator Bettye Fahrenkamp  
Senate Resources Committee  
Alaska State Legislature  
Pouch V (MS 1300)  
Juneau AK 99812

Re: Alaska 5-Year Oil and Gas Leasing Program  
Attachments to Marathon Oil Company Comments

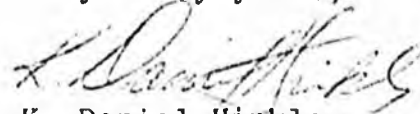
Dear Senator Fahrenkamp:

The attached enclosures listed below were inadvertently omitted from Marathon Oil Company's written comments on the Alaska 5-Year Oil and Gas Leasing Program, submitted to the Senate Resources Committee by letter dated March 19, 1982.

1. Request for Comments on the Outer Continental Shelf Bidding System of Oil and Gas Lease Sales, Federal Register, Vol. 47, No. 17, January 26, 1982, pp. 3613-3621.
2. Letter from Marathon Oil Company's Vice President R. R. Burke, dated 23 February 1982 to the Department of Interior re Comments on OCS Bidding Systems for Oil and Gas Lease Sales.
3. Secretary Watt's February 5, 1982 Release and Notice of Request for Recommendations on Fair Market Value of OCS Leases. (You already have been supplied a copy of Mr. Burke's reply, dated 3 March 1982.)
4. Letter to Secretary Watt from R. R. Burke, dated 18 September 1981 re Rejection of Bids in Recent South Atlantic OCS Sale No. 56.

Again, we thank you for the opportunity to submit comments and trust you will pardon the omission of the enclosed material.

Very truly yours,



K. Daniel Hinkle

KDH:mr  
Encs.

xc w/encs.: John Katz, Commissioner  
Department of Natural Resources

AGO 886414

4310-84

Department of the Interior  
Assistant Secretary, Land and Water Resources

Request for Comment on Outer Continental Shelf  
Bidding Systems for Oil and Gas Lease Sales

SUMMARY

Specific comments are requested on the concept of a proposed planning guideline for Outer Continental Shelf (OCS) bidding systems. The Department of the Interior (DOI) is pursuing a policy which encourages expeditious exploration of frontier (wildcat) areas and which provides adequate incentives for efficient and diligent production in developed regions. Other objectives include the provision of incentives to improve technology, the assurance of receipt of fair market value by the government, the maintenance of competition, and the protection of the environment. An example of a proposed bidding systems guideline, in matrix form, distinguishes each geographic and geologic cost area in recognition of the variance of relative bidding system performance. This inquiry is directed towards bidding systems for sales starting in mid 1982 and thereafter which follow past and planned experiments with the alternative systems established in regulations promulgated by the Department of Energy (DOE). If a final guideline is issued, experimentation with certain systems may be discontinued while others would be tested further. The guideline concept would be consistent with the Department's new "streamlining" approach of offering larger areas for lease. More time would be available for planning purposes and a bidding system design would be provided for large groups of tracts within an entire region as opposed to individual tract designations.

PURPOSE AND SCOPE

The choice of bidding systems potentially affects (1) the receipt of fair market value, (2) the economic efficiency and physical recovery of resources, (3) the level of competition, (4) the distribution of risks between lessee and lessor, and (5) administrative costs to the lessee and the lessor. The bidding systems differ in the manner in which perceived risks are shared between lessee and lessors. There are two basic risks: geologic (the probability that hydrocarbons exist) and economic (the probability that hydrocarbons can be developed at a profit to lessee). The bidding systems have one or more fixed components and one variable component. The bidding variable may be a cash bonus, a work commitment or a contingency percentage (royalty, net profit share). The relationship between the initial payment and the contingency percentage influences the distribution of risks between the lessee and lessor, and the distribution of revenues obtained from production.

Experiments for alternative bidding systems have been conducted in 22 OCS lease sales. Four of the six systems established by DOE regulation have been tested. Future tests are planned for the remaining OCS sales in calendar year 1981 and early 1982. A summary of past and future experiments is presented in a following section. The Department recognizes the need to announce the initial phases of experimentation and direct future tests toward those systems which offer the greatest promise to meet the goals prescribed in the OCS Land Act (OCFLA). Moreover, a consistent, reliable policy is necessary for prudent investment planning by industry.

The next phase of testing seeks to avoid a random diffusion of numerous, unproven systems which may be incompatible for the purposes of utilization of adjacent tracts. Certain systems may be eliminated from future testing because either, (1) past experiments indicate the expected costs do not justify possible

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gains, or (2) untested systems may be determined to present undue risks to the objectives of the OCS Lands Act.

It should be noted that a final analysis of the impacts of the tested alternative systems must ultimately await an observation of the effects on exploration, development, and production decisions. However, this does not mean that tests should continue until a final analysis is complete. It may be desirable to discontinue testing after an initial sample is deemed sufficient. If, in the future, the analysis concludes that a particular system enhances our achievement of the goals cited above, it may be determined that further leasing under that system is beneficial. The Department of the Interior currently plans to have substantially completed some testing of the most promising alternative systems by the end of calendar year 1981. At that time a sufficient sample size for those systems may have been offered for lease so that statistically significant results could be obtained. The analysis of the untested systems is continuing and the Department will inform interested members of the public of the results as they become available.

The purpose of this inquiry is to focus on the next phase of bidding system development for sales starting in mid 1982 and thereafter. A matrix of systems which offer the greatest contribution to our goals will be developed as a guideline for planning purposes. An example of a matrix is included in this notice. After receipt of comments, we plan to publish a final matrix which will serve as a policy base for specific sale designs. We recognize that specific conditions or new information and analysis may warrant the selection of different systems than those outlined. However, every effort will be made to inform interested

parties of our bidding system plans. The goals of this approach are to provide adequate information to the public and to share the necessary expertise in order that consistent and efficient systems are selected.

#### BACKGROUND INFORMATION

The OCS Lands Act provides the Secretary of the Interior with the authority to issue oil and gas leases by competitive bidding on the submerged lands of the OCS. Bidders submit bids in response to a lease sale offering for particular tracts under the terms and conditions specified in a Notice of Sale and published in the Federal Register. The bidding system used determines the method by which successful high bidders pay the United States for the lease.

The bidding system or systems used by DOI in each OCS lease sale are chosen from those authorized by the OCSLA and prescribed by Department of Energy (DOE) regulation (10 CFR Part 376). The Secretary of Energy also has the authority to disapprove the proposed bidding systems selected by DOI prior to issuance of the final Notice of Sale.

Section 8(a) of the OCSLA provides that bidding shall be by sealed bid and, at the discretion of the Secretary of the Interior, on the basis of the following types of systems:

- (A) cash bonus bid with a royalty at not less than 12-1/2 per centum fixed by the Secretary in amount or value of the production saved, removed, or sold;
- (B) variable royalty bid based on a per centum in amount or value of the production saved, removed, or sold, with either a fixed work commitment based on a dollar amount for exploration or a fixed cash bonus as determined by the Secretary, or both;

(C) cash bonus bid, or work commitment bid based on a dollar amount for exploration with a fixed cash bonus, and a diminishing or sliding royalty based on such formulae as the Secretary shall determine as equitable to encourage continued production from the lease area as resources diminish, but not less than 12-1/2 per centum at the beginning of the lease period in amount or value of the production saved, removed, or sold;

(D) cash bonus bid with a fixed share of the net profits of no less than 30 per centum to be derived from the production of oil and gas from the lease area;

(E) fixed cash bonus with the net profit share reserved as the bid variable;

(F) cash bonus bid with a royalty at no less than 12-1/2 per centum fixed by the Secretary in amount or value of the production saved, removed, or sold and a fixed per centum share of net profits of no less than 30 per centum to be derived from the production of oil and gas from the lease area;

(G) work commitment bid based on a dollar amount for exploration with a fixed cash bonus and a fixed royalty in amount or value of the production saved, removed, or sold; or

(H) subject to the requirements of paragraph (4) of this subsection, any modification of bidding systems authorized in subparagraphs (A) through (G), or any other systems of bid variables, terms and conditions which the Secretary determines to be useful to accomplish the purpose and policies of this Act, except that no such bidding system or modification shall have more than one bid variable."

The Department of Energy has issued regulations for the following systems:

- (1) Cash bonus bid, fixed royalty;
- (2) Royalty bid, fixed cash bonus;
- (3) Cash bonus bid, sliding scale royalty;
- (4) Cash bonus bid, fixed net profit share;
- (5) Net profit share bid, fixed cash bonus; and
- (6) Work commitment bid, fixed cash bonus, fixed royalty.

The statute requires that at least 20 percent, but not more than 60 percent of the total area offered each year be alternatives to a cash bonus bid, fixed royalty system (system A in the OCS Lands Act).

#### RECORD OF EXPERIMENTATION

A. Statistics for past sales The use of bidding systems other than the conventional cash bonus bid, fixed 16-2/3 percent royalty system began with OCS Sale 36 in the central Gulf of Mexico (GOM) in 1974, and testing has been conducted in a total of 22 OCS lease sales as of December 4, 1981. The following table displays this record of experimentation by bidding system.

**Some cooperative statistics of tract offerings for these 22 sales**

are as follows:

Bidding System	Tracts Offered		Tracts Bid On		Tracts Leased	
	No.	% Offered	No.	% Offered	No.	% Offered
Cash Bonus Bid, Fixed 16-2/3% Royalty	2,246	1,096	48.8	995	44.3	
Cash Bonus Bid, Fixed 12-1/2 % Royalty	85	38	44.7	33	38.8	
Royalty Bid, Fixed Cash Bonus	56	38	67.9	38	67.9	
Cash Bonus Bid, Fixed 33-1/3% Royalty	34	47	87.0	41	75.9	
Cash Bonus Bid, Sliding Scale Royalty						
Sliding Scale Formula 1	96	50	52.1	41	42.7	
Sliding Scale Formula 2	304	172	56.6	163	53.6	
Sliding Scale Formula 3	113	64	56.6	58	51.3	
Sliding Scale Formula 4	69	50	72.5	38	55.1	
Sliding Scale Formula 5	32	3	9.4	3	9.4	
Sliding Scale Formula 6	35	22	61.1	19	52.8	
Cash Bonus Bid, Fixed Net Profit Share	384	157	40.9	139	36.2	
<b>TOTAL</b>	<b>3,473</b>	<b>1,737</b>	<b>50.0</b>	<b>1,568</b>	<b>45.1</b>	

**B. Preliminary Analyses**

The results from these tests are currently being analyzed with much attention being devoted to more detailed data disaggregations (e.g., comparisons between bidding system results for individual sales as well as tracts with similar resource, cost, or net worth expectations). Preliminary indications

Alternative Bidding System  
Royalty Bid, Fixed Cash Bonus

Cash Bonus Bid, Fixed 33-1/3% Royalty

Cash Bonus Bid, Sliding Scale Royalty 1/  
Sliding Scale Formula 1

Sliding Scale Formula 2

Sliding Scale Formula 3

Sliding Scale Formula 4

Sliding Scale Formula 5

Sliding Scale Formula 6

Cash Bonus Bid, Fixed Net Profit Share 2/

Sale Name, Area, and Date  
Sale 36, Central COH, 10/16/74  
Sale C1, Lower Cook Inlet, 10/27/77

Sale 35, Southern California, 12/11/75  
Sale 40, Mid-Atlantic, 8/17/76  
Sale A62, Central COH, 9/30/80  
Sale 62, Western COH, 11/18/80  
Sale 53, California, 5/25/81

Sale 43, South Atlantic, 3/28/78  
Sale 45, Central & Western COH, 4/25/78

Sale 65, Eastern COH, 10/31/78  
Sale 51, Central & Western COH, 12/19/78  
Sale 48, California, 6/29/79

Sale 58, Central & Western COH, 7/31/79  
Sale 58A, Central & Western COH, 11/27/79  
Sale 58, Beaufort Sea, 12/11/79

Sale 49, Mid-Atlantic, 2/28/79  
Sale 42, North Atlantic, 12/18/79

Sale A62, Central COH, 9/30/80  
Sale 62, Western COH, 11/18/80

Sale 55, Gulf of Alaska, 10/21/80  
Sale 53, California, 5/23/81

Sale A62, Central COH, 9/30/80  
Sale 55, Gulf of Alaska, 10/21/80  
Sale 62, Western COH, 11/18/80  
Sale A66, Central & Western COH, 7/21/81  
Sale 56, South Atlantic, 8/4/81  
Sale 66, Lower Cook Inlet, 9/29/81  
Sale 66, Central COH, 10/30/81

1/ The specific formulas cited herein include:

- Formula 1:  $R = 13.16667 \cdot V$
- Formula 2:  $R = 10 \ln W/2.5$
- Formula 3:  $R = 9 \ln W/2.5$
- Formula 4:  $R = 13 \ln W/3.0$
- Formula 5:  $R = 9 \ln W/3.5$
- Formula 6:  $R = 11 \ln W/3.5$

Where W equals the quarterly value of production, adjusted for inflation, in millions of dollars, and R equals the percent royalty that is due and payable on the unadjusted value of production saved, removed, or sold. Also, there are lists for R which are used in each formula. In formula 1, 16-2/3 - R = 50, while in all other formulas, 16-2/3 - R = 65. The symbol "ln" denotes a conversion to natural logarithms.

2/ Sales A62 and 62 provided a capital recovery factor of 1.00, while the design for Sale 55 permitted a 1.30 capital recovery factor. Sales A62 and 62 involved a 30 percent net profit share rate, while Sale 55 fixed a 40 percent rate. Sale A66 provided capital recovery factors (CRF's) ranging from 0.25-1.00. Sale 36 had CRF's of 0.50 and 1.30. Sale 60 had a CRF of 0.75, and Sale 66 had CRF's of 0.25 and 0.50. Sale A66 and 66 had a 30 percent net profit share rate, Sale 56 had profit share rates of 30 and 4.7 percent, and Sale 60 had a profit share rate of 40 percent.

from these detailed analyses, which might not be readily apparent from the aggregate data shown above, suggest that most of the alternative bidding systems have produced no statistically meaningful differences in industry competition in comparison to the conventional cash bonus, fixed 16-2/3 percent royalty system. Also, there have been no indications that these alternative bidding systems have resulted in an increased government share of the expected economic returns on tracts leased. The preliminary findings for each bidding system regarding industry competition and effects on exploration, development, and production are further discussed in the following paragraphs. The intention of each of these systems is to increase competition by requiring higher contingency payments and reducing front-end bonuses. No effect on the government share of the expected economic profit has been observed and is not addressed.

1. Royalty Bidding. Of the alternative systems tested by DOI thus far, the royalty bidding system results appear to depict the sharpest contrast to the conventional OCS leasing system. On the surface, significant increases in competition for tracts offered under this system were evident, particularly in Sale 36 which required only nominal bonus payments. However, there are concerns regarding this system, which have resulted in our proposal to discontinue its use. First, the royalty rates submitted by winning bidders in Sales 36 and CI were sufficiently high to make substantial production losses very likely. A high royalty means the minimum economically developable field size must be higher in order for exploration and development to proceed and for marginal fields to be developed. Second, the winner of a royalty bid tract, particularly in the case of only a nominal fixed cash bonus, has little investment at risk compared to other successful bidders under alternative systems for similar tracts. Such risk may be so low that tract owners will have

greatly reduced incentives to explore and develop these tracts. The lessee is likely to delay exploration for many reasons, including speculation, or hopes that another developer on a nearby tract will prove or disprove resources of the royalty bid tract. Because the expected losses in production from these effects are likely to be substantial, it is not anticipated that this system will be used in future OCS sales.

2. Fixed 33-1/3% Royalty. Preliminary findings from actual tests indicate that this system may have only modest beneficial effects on competition for OCS leases. Furthermore, simulation analysis has shown that the use of this system for lower valued tracts or for tracts in frontier areas may result in tracts not receiving bids and may yield significant production losses due to the higher royalties. Because of the geologic uncertainty associated with most of the areas to be offered in future OCS lease sales, it is anticipated that the use of this system will be limited to the tracts with lower costs and better resource prospects where higher risk sharing is desirable. At present, we do not wish to test this system in 1982 sales because of the urgent need to avoid production and exploration disincentives.

3. Sliding Scale Royalty. In general, this system has had no significant statistical effect on competition in comparison to the conventional fixed 16-2/3 percent royalty system. This has probably resulted from the conservative specifications of the sliding scale formulae used thus far, in order to reduce potential production effects. Thus, prospective bidders may have assessed a low probability that the majority of tracts offered under this system would produce quantities of oil and gas sufficient to incur a royalty rate higher than the 16-2/3 percent minimum rate. In this case, they would have conceived this system to be identical to the

geologic uncertainty and moderate to high tract values. However, such benefits are offset by administrative and accounting burdens on both lessees and the government.

In addition, the determination of the parameters of a fixed profit share bidding system are critical in determining subsequent exploration, development and production strategies. The fixed capital recovery factors which have been used in the past in conjunction with the fixed profit share bidding system present some problem areas because of the ex ante assumptions regarding both a necessary rate of return and the appropriate timing of capital expenditures. Incorrect estimates could result in large revenue losses to the government or companies and could cause large inequities creating misallocations of resources. Therefore, the Department is taking into consideration using an Investment Accounts System in addition to the Fixed Capital Recovery System in its consideration of fixed profit share bidding. It is anticipated that this system will continue to be tested in future OCS offerings, but with important attempts to eliminate the uncertainties previously experienced. In this manner, it is hoped that significant increases in competition and exploration incentives may be realized.

C. Alternative System Plans for Upcoming Sales

There are two additional tests of alternative bidding systems either completed or scheduled. Proposed bidding system designs have been published in the Federal Register as part of each offering's proposed or Final Notice of Sale.

These offerings are as follows:

Sale Name, Area, Expired Date	Number of Tracts by Bidding System
59, Mid-Atlantic, 12/81	Cash Bonus Bid, Fixed 16-2/3% Royalty - 4 Tracts Cash Bonus Bid, Fixed 12-1/2% Royalty - 166 Tracts Cash Bonus Bid, Fixed Profit Share - 83 Tracts
67, CON, 2/82	Cash Bonus Bid, Fixed 16-2/3% Royalty - 223 Tracts Cash Bonus Bid, Fixed Profit Share - 13 Tracts

conventional one-sixth royalty system. Recent OCS sales have incorporated a sliding scale formula which is more aggressive. However, when such a formula is used there is a risk that production may be delayed in order to avoid higher royalty payments. In addition, an aggressive formula reduces the lessee's payoff from exploration if large discoveries are made and thus may dampen investment in exploration. Finally, it is difficult to design a proper schedule given the uncertainty of real price changes which greatly influence effective royalty rates. Thus, it may be advisable to defer further use of this system.

4. Fixed Net Profit Share. Data on tests of this system show no statistically significant effects of this bidding system on industry competition in comparison to the conventional bidding system. It is probable, however, that this result may have been highly influenced by the uncertainty surrounding this new leasing system, which is significantly different from the more common cash bonus, royalty payment combination. Perhaps the most important test result on this system is that the geometric means of bids and high bids submitted for profit share leases were significantly lower than the same variables examined for similar fixed 16-2/3 percent royalty leases. Thus, front-end requirements for firms appear lower. An appropriately defined profit share system may be capable of generating modestly improved production incentives if the lessee is allowed to earn a normal profit before sharing returns with the government. A greater number of tracts may be explored and developed as compared to use of a royalty system since that system extracts payments on production regardless of the costs incurred by lessees. The fixed net profit share system may be preferable especially in frontier areas where large-scale production is necessary to cover the unusually high costs of exploration and development. Fixed net profit share bidding reduces the bidder's risks in areas of high

Of these bidding systems, the Cash Bonus Bid, Fixed 12-1/2 percent royalty system has only been used in one previous OCS sale, Sale 56.

The use of this system has been recommended for certain deep water tracts for Sale 56 and Sale 59. These tracts are expected to require substantially higher exploration, development, and production costs, as well as longer times before initial production, in comparison to shallow water tracts. DOI analyses indicate that the minimum developable discovery on a tract in such deep water areas under a fixed 12-1/2 percent royalty system would be about 14 percent less than for the same tracts under a fixed 16-2/3 percent royalty system. As a result, more tracts may be explored and developed. In addition, the lower royalty rate system is expected to yield more rapid production rates and higher economic profits. It is not anticipated, however, that the slightly larger cash bonus bids associated with a lower royalty rate will significantly reduce competition, since the higher costs for exploration and development are the primary restraints to competition.

Of the remaining tests planned for 1981 and early 1982, the Cash Bonus Bid, Fixed Profit Share tests include specific variations in design. These are:

Sale	Formula
59	NPSR = 30%; CRF = 1.50
67	NPSR = 50%; CRF = .50, and NPSR = 40%; CRF = 1.00

These tests will permit a broader analysis on the performance of this system.

### C. Untested Systems

The DOE has promulgated regulations on the following alternative systems which have not been tested and are, at present, not planned for future testing.

1. Net Profit Share Bid, Fixed Cash Bonus A possible benefit of this system is the encouragement of competition because of its lower cash bonus, but it may also produce profit share bids that are excessively high. This problem may result from an improperly defined cost recovery feature, and because a

bidder can increase his chance of obtaining a tract by submitting higher bids with little financial commitment. At high profit share rates, the incentive to explore is relatively low and should production ensue, it will generally occur at too slow a pace. All of the strengths and weaknesses already discussed on the fixed net profit share system are also applicable to a variable net profit share approach in addition to the problems just mentioned. Finally, if the recovery factor is too high relative to the profit share rate, there may be an incentive for firms to make uneconomical expenditures to take advantage of the recovery feature.

2. Work Commitment Bidding, Fixed Bonus, Fixed Royalty The major goal of experimentation with alternative systems is to encourage increased competition through reduced front-end bonuses. The purpose of this system is to achieve such an improvement in competition by mitigating risk-averse behavior. However, firms must commit an expenditure equal to the estimated cash bonus plus expected exploration costs. Payments would be deferred until costs are expended or until the account is voluntarily closed before the commitment is satisfied.

Another objective of this system is to expedite exploration by permitting credits for actual expenditures and thereby forcing intensive exploration. However, this creates an incentive for firms to waste expenditures to avoid payments to the government. The result would be a serious misallocation of valuable resources. In order to prevent such an outcome Section 8(a) (7)(B) of the OCSLA provides that only 50 percent of qualifying exploration expenditures be included to satisfy the commitment. Despite this provision, our analysis indicates a potential for the drilling of exploratory wells which would otherwise be economic.

**MATRIX OF BASE SYSTEMS**

The following example matrix is to serve as a guideline for the selection of bidding systems in each geographic area. A key variable in the determination of the appropriate system is the relevant cost function for the area involved. Exploration, development, and production decisions, as well as bid submission, are based on the relationship of the cost function with respect to an expected revenue profile. The contingency component of the bidding system can be viewed as a direct addition to the cost curve and thus influences the optimal private levels of investment in exploration and development and resulting rates of production. In frontier and deep water areas, costs may be at such extreme levels that substantial resources may go undeveloped if contingency payments are added at the margin. In the more developed and low cost areas, most resources will be developed irrespective of the contingencies since revenues usually allow higher contingencies to be added before production is affected or before the minimal economic field size is increased. In addition, there is some theoretically optimal percentage of profits which may be extracted before production losses are generated. If it is a goal of our bidding system to avoid negative impacts to production, it becomes necessary to design systems which yield the government this optimal fraction of profits. Thus, the analysis must concentrate on cost and revenue functions.

For these reasons we propose a matrix which differentiates bidding systems by generalized cost areas and water depth. After analysis of the comments received, a final guideline may be published if the matrix is deemed to be a useful planning tool.

**Example Bidding System Matrix \***

Geographic Area*	Water Depth			
	0-50 meter	50-200 meter	200-400 meter	400+ meter
Central, Western, and Eastern Gulf of Mexico	Cash Bonus Bid Fixed 1/6 Royalty	Cash Bonus Bid Fixed 1/6 Royalty	Cash Bonus Bid Fixed 1/6 or 1/8 Royalty	Cash Bonus Bid Fixed 1/8 Royalty Fixed Profit Share
Northern and Southern Calif.	Cash Bonus Bid Fixed 1/6 Royalty	Cash Bonus Bid Fixed 1/6 Royalty	Cash Bonus Bid Fixed 1/6 Royalty	Cash Bonus Bid Fixed 1/6 or 1/8 Roy Fixed Profit Share
Portion of North Atlantic - Northern Georges Bank	Cash Bonus Bid Fixed 1/6 Royalty	Cash Bonus Bid Fixed 1/8 Royalty	Cash Bonus Bid Fixed 1/8 Royalty Fixed Profit Sh.	Cash Bonus Bid Fixed 1/8 Royalty Fixed Profit Share
Mid. South and North Atlantic (except Northern Georges Bank)	Cash Bonus Bid Fixed 1/6 Royalty	Cash Bonus Bid Fixed 1/6 Royalty	Cash Bonus Bid Fixed 1/6 or 1/8 Royalty Fixed Profit Sh.	Cash Bonus Bid Fixed 1/8 Royalty Fixed Profit Share
South Alaska (Includes Cook Inlet, Shumagin, Kodiak, Gulf of Alaska)	Cash Bonus Bid Fixed 1/6 Royalty	Cash Bonus Bid Fixed 1/6 Royalty	Cash Bonus Bid Fixed 1/6 or 1/8 Royalty	N/A
N. Aleutian, Hawaiian, and Norton Basins	Cash Bonus Bid Fixed 1/6 Royalty	Cash Bonus Bid Fixed 1/8 Royalty	Cash Bonus Bid Fixed 1/8 Royalty	Cash Bonus Bid Fixed 1/8 Royalty Fixed Profit Share
Beaumont Field	Cash Bonus Bid Fixed 1/6 Royalty	Cash Bonus Bid Fixed 1/8 Royalty Fixed Profit Share	Cash Bonus Bid Fixed 1/8 Royalty Fixed Profit Share	N/A
Barrow Arch & Hope Basin	Cash Bonus Bid Fixed 1/8 Royalty	Cash Bonus Bid Fixed 1/8 Royalty Fixed Profit Share	Cash Bonus Bid Fixed 1/8 Royalty Fixed Profit Share	N/A

\* Notes: Where the profit share system is listed it may also be used in combination with a fixed royalty (System F in the OCS Lands Act, as amended).

\* These areas correspond to those designated on the July, 1981 Proposed 5-Year OCS Oil and Gas Leasing Schedule.

In addition to water depth, there are several factors which may affect the level of oil and gas exploration, development, and production costs for each OCS area. These include distance to shore, physical field dimensions, production characteristics, quality of oil and gas, geologic surface conditions, and climatic elements. These influences have been considered in the bidding system recommendations shown in the above matrix and included in the analysis wherever possible.

#### SPECIFIC QUESTIONS

To assist in this determination of policy direction regarding bidding systems, the following questions are presented to all interested persons. Respondants are invited to offer comments on these specific issues, or any other topics germane to bidding systems which may be appropriate to use in future OCS lease sales.

1. Is the publication of a base case matrix useful as a means of informing the public on policy direction?
2. Are there any additional systems not discussed above which should be considered for future sales?
3. As indicated in the bidding system matrix, the bidding systems recommended for use are a function of water depth and location. Is this

approach acceptable? What specific alternative form should a matrix follow? Are the specific area and water depth delineations we propose considered adequate to distinguish cost features?

4. What changes should be made to the specific bidding systems proposed in this matrix?
5. Should bidding systems recommended be a function of wildcat, development, or drainage type on a tract-by-tract basis?
6. Our proposal relies upon the continued testing of a fixed net profit share system in high cost areas as a means of promoting exploration and development, without the risk of contingency payments being obligated before costs are recovered. Is this a viable system? What are the administrative costs associated with this system?
7. What profit share parameters are suited to each region?

#### DATE AND ADDRESS

Information must be submitted by March 5, 1982 to the Assistant Secretary, Land and Water Resources, Attention David Russell, Department of the Interior, Washington, D.C. 20240.

#### FOR FURTHER INFORMATION

Questions concerning this request should be referred to either Thomas Readinger on (202) 343-5121 or H. Theodore Heints on (202) 343-7258.

Garrey E. Carruthers

Assistant Secretary for Land and Water Resources

JAN 1 1982

Certified to be a true copy of the original

*Edward Miles*  
Certifying Officer

(FPA Doc 82-1868 Filed 1-25-82 8:45 am)  
BILLING CODE 4310-84-C



Marathon  
Oil Company

Findlay, Ohio 45840  
Telephone 419/422-2121

February 23, 1982

Assistant Secretary, Land and Water Resources  
Department of the Interior  
Washington, D.C. 20240

ATTENTION: David Russell

RE: Comments on Outer Continental Shelf Bidding Systems for Oil and Gas Lease Sales

Dear Sir:

This letter constitutes the comments of Marathon Oil Company ("Marathon") in response to the Department of the Interior's ("Department") request for comment on Outer Continental Shelf bidding systems for oil and gas lease sales ("Request for Comment"), 47 Fed. Reg. 3613-3621 (January 26, 1982). Marathon welcomes the opportunity to comment and commends the Department's efforts to abandon experimentation with bidding systems that contain serious deficiencies. We also commend the Department's efforts to provide early guidelines as to the bidding systems to be used for a large group of tracts within a region as opposed to designating bidding systems on an individual tract basis.

#### General Comments

In the Record of Experimentation section of the Department's Request for Comment, the Department outlines the serious deficiencies inherent in various "alternative" bidding systems. Marathon agrees that these bidding systems are seriously deficient and supports the Department's preliminary decision to abandon future experimentation with them. Furthermore, Marathon urges that the following systems not be used in future sales:

1. Royalty Bidding
2. Fixed 33 1/3% Royalty
3. Sliding Scale Royalty
4. Net Profit Share Bid, Fixed Cash Bonus
5. Work Commitment Bidding, Fixed Bonus, Fixed Royalty

With respect to Fixed 33 1/3% Royalty, the Department states: "At present, we do not wish to test this system in 1982 sales because of the urgent need to avoid production and exploration disincentives." Marathon urges that this bid system not be used beyond 1982. The urgent need to expedite oil and gas exploration and production will not be materially decreased in only one year. In addition,

use of a bidding system which is a disincentive to oil and gas exploration and production will contribute to fewer discoveries and less production of oil and gas, thus resulting in higher prices to the public. Finally, significant use of this bidding system in the OCS could set a "standard" which may be applied to lands other than the OCS, resulting in greatly exaggerated exploration and production disincentives throughout the nation.

#### Specific Comments

1. Publication of a base case matrix.

We support the publication of a base case matrix and believe it will provide more time to efficiently plan for exploration activities and prudent investment schedules.

2. Use of additional bidding systems.

We do not consider systems other than those included in the base case matrix to be worthy of future use.

3. Bidding systems as a function of water depth and location.

We support the concept that bidding systems be, in part, a function of water depth and location. We further support the area and water depth delineations proposed. We strongly urge the Department to apply these criteria in a flexible manner, however, using the same bidding system on contiguous tracts as much as possible to promote joint exploration and unitization of tracts.

4. Suggested changes in the proposed bidding systems.

We suggest that the Department use a 1/8 royalty for water depths of 200-400 meters in Northern and Southern California and South Alaska. Furthermore, we suggest that the royalty should not exceed 1/8 in all water depths exceeding 400 meters.

5. Bidding systems as a function of acreage type.

We do not support the concept of choosing bidding systems on a tract by tract basis as a function of whether acreage is of the wildcat, development, or exploratory type. We believe this could create production delays and problems in unitization, particularly in frontier areas.

6. Viability of fixed net profit share system.

We agree that a cash bonus bid/fixed net profit share system may promote exploration and production, particularly in deep water and in hostile environments, provided the net profit share percentage and capital recovery factor are set at appropriate levels. We agree in general with the base case matrix as stated.

None of Marathon's fixed net profit share leases is as yet a producing lease. Marathon, therefore, does not have actual experience with the administrative costs arising out of the fixed net profit share accounting regulations. Marathon agrees, however, that efforts should be made to minimize the administrative burdens on lessees and the government.

In addition, Marathon believes that the cash bonus bid should be eligible for capital recovery, particularly in water depths exceeding 400 meters (such water depths probably will require untried production systems other than normal bottom-fixed platforms) and in ice areas of northern waters. The National Petroleum Council's report on "U.S. Arctic Oil and Gas", December, 1981, contains estimates that in Arctic areas at least 9 to 14 years will be required between a lease sale and commencement of production. This report states that regional transportation systems are very sensitive to the actual economic consequences of each Arctic region; hence, this time factor could be even longer for initial discoveries in given regions. These long delays before any recovery of initial investment, i.e., cash bonus bid, could deter exploration and development unless the initial investment is eligible for capital recovery.

Also, we suggest that the capital recovery factor be applicable to all platforms, and development plan wells on all platforms, in addition to the first platform. Without this change in the system, it is probable that the first platform may be economically attractive but subsequent platforms may not be. This could greatly deter complete development of individual fields and could be a significant disincentive to the economic justification of regional transportation systems in a given region.

7. Profit share parameters suited to each region.

We believe the following net profit share parameters are appropriate, provided the capital recovery factor is applicable to the cash bonus paid and all platforms and development plan wells on those platforms.

<u>Geographic Area</u>	<u>Water Depth (Meters)</u>			
	<u>0 - 50</u>	<u>50 - 200</u>	<u>200 - 400</u>	<u>400+</u>
Gulf of Mexico				50% CRF 1.0
Northern and Southern Calif.				40% CRF 1.5
N. Georges Bank			40% 1.5	40% CRF 2.0
Atlantic except N. Georges Bank			40% 1.5	40% CRF 1.5
N. Aleutian, Navarin and Norton Basins				30% CRF 2.5
Diapir Field		30% CRF 3.0	30% CRF 3.0	
Barrow Arch and Hope Basin		30% CRF 3.0	30% CRF 3.0	

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We appreciate the opportunity to comment on these matters and again wish to compliment the Department's efforts to accomplish the goal of expediting exploration and development of the nation's OCS resources.

Yours very truly,

A handwritten signature in cursive script, appearing to read "RRB".

RRB:WKS:bg

#3

OFFICE OF THE SECRETARY

For Release February 5, 1982

SECRETARY WATT ANNOUNCES REQUEST FOR RECOMMENDATIONS ON FAIR MARKET

VALUE FOR OUTER CONTINENTAL SHELF OIL AND GAS LEASES

Secretary of the Interior James Watt announced today a call by the newly created Minerals Management Service for recommendations on procedures to be utilized by the Department in evaluating bidding on the Outer Continental Shelf (OCS) to ensure receipt by the American public of fair market value for lands leased by the Department.

The request was published in today's Federal Register describing the procedures followed by the Department in the past and a range of options including three alternative methods for assuring fair market value for OCS tracts.

Comments are to be submitted no later than 12:00 noon on March 8, 1982. The notice also requested comments on proposed special bid acceptance criteria that would be applicable in frontier areas of the OCS.

"The equitable and efficient determination of fair market value of bids for OCS tracts is a major step involved in streamlining our OCS leasing program," said Secretary Watt. "I believe we will profit from the views and recommendations of the public, the regulated industry and Federal, State, and local governmental entities, all of whom I encourage to respond to the call for advice," the Secretary said.

The evaluations of OCS tracts would be performed by the Department's Minerals Management Service (MMS), which was established by the Secretary on January 19, 1982, to replace the former Conservation Division of the U.S. Geological Survey.

Comments on the Secretary's proposals should be forwarded to Mr. William P. Pandley, Acting Director, Minerals Management Service, Room 6651, Main Interior Building, 18th and C Streets, N.W., Washington, D.C. 20240.

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UNITED STATES  
DEPARTMENT OF THE INTERIOR  
Minerals Management Service  
Tract Evaluation Procedures to Assure Receipt of  
Fair Market Value for Outer Continental Shelf  
Oil and Gas Leases

AGENCY: Minerals Management Service, Interior.

ACTION: Request for comments.

SUMMARY: The Department seeks to identify the most efficient, practicable, and reliable method or methods of tract evaluation for purposes of assuring receipt of fair market value of lands it leases for oil and gas exploration and development on the Outer Continental Shelf (OCS) pursuant to the OCS Lands Act 43 U.S.C. 1801 et seq. This solicitation is necessary to obtain comments and recommendations from representatives of Federal, State, and local governmental agencies, industry, and the public. Current tract evaluation procedures and three options are presented for comment.

DATES: Comments must be submitted in writing and received in Room 6651, Main Interior Building by 12:00 noon, EST, March 8, 1982.

ADDRESSES: Comments may be mailed or delivered to Mr. William P. Pendley, Acting Director, Minerals Management Service, Room 6651, Main Interior Building, 18th and C Streets N.W., Washington, D. C. 20240.

FOR FURTHER INFORMATION CONTACT: Mr. Robert L. Rioux, (703) 860-7581, (FTS) 928-7581, or Mr. James N. Parrish, (703) 860-7835, (FTS) 928-7835.

CURRENT TRACT EVALUATION PROCEDURES: The Secretary of the Interior is required by law to assure that the Federal Government receives fair market value for the lands leased and the rights conveyed when leasing OCS resources. See 43 U.S.C. 1344(a)(4)(Supp. II 1978). Under past procedures all high bids received for OCS leases are examined to determine whether or not they constitute fair market value. The high bids submitted are compared with the presale estimate of value assigned to each tract by the Minerals Management Service (MMS), (formerly the Conservation Division of the U.S. Geological Survey).

MMS utilizes a "Monte Carlo Analysis Method" to obtain a "range of values" to determine MMS' presale estimate of value for each tract. The Monte Carlo simulation method has been considered appropriate for the evaluation of oil and gas exploratory prospects because of the uncertainty of the data which must be used in the evaluations. The following is a description of the Monte Carlo method:

1. MMS estimates the range and distribution of possible values of each variable that will affect the ultimate outcome of the oil and gas venture.
2. One value from the estimated distribution of each variable is selected at random and the tract value is computed using this combination of variables. This computation determines one point in the final distribution of possible tract values. A second value from the distribution of each of the variables is then selected at random, and the resulting tract value is computed to determine the second point in the distribution of possible tract values.

3. This process is repeated, each time with a set of values selected from the estimated distribution of each variable.

The mean of these values and the dry hole costs are then subjected to a risk factor to determine the presale estimate of value for a tract. The risk factor reflects the quality and quantity of the data used in determining the characteristics of the prospect, as well as the past successes and failures encountered in the geologic trend. Thus, while the quality and quantity of data available to evaluate offshore tracts are important, the Monte Carlo simulation method of evaluation provides a means for determining a reliable presale estimate of value even in the case of uncertainty regarding the precise measure of a particular variable.

The Department of the Interior (DOI) currently uses three major criteria for determining the adequacy of bids. The Monte Carlo simulation method provides two presale estimates of value for each tract--the mean range of values (MROV) and the discounted mean range of values (DMROV). The MROV represents the Government's presale estimate of value for a given tract. The DMROV represents a value estimate reflecting revenue delays to the Government if the bid is rejected, i.e., it represents the present value of leasing the tract at a later time. The third criterion, which is prepared by the Bureau of Land Management (BLM), is the average evaluation of tract (AEOT), which is the average of all bids received on a tract, including the Government's presale estimate of value. The

AEOT is the mechanism whereby market prices and competition are implicitly considered. If a bid exceeds the MROV or the DMROV, the bid is almost always accepted. If the bid is below both the MROV and DMROV, the bid is then compared to the AEOT. In determining whether the AEOT is a reliable criterion to assess the receipt of fair market value in a particular instance, MMS and BLM consider, among other things, (1) the number of bids on a tract, (2) the reliability of the evaluation data, and (3) the existence of an anomalously low bid on the tract.

The current procedure for tract evaluation is, in essence, an attempt to provide a separate, additional nonmarket, and hence artificial, estimate of the value of each tract offered. Tract value estimation involves geophysical and geological mapping and analysis coupled with an elaborate and complex, and by its nature arbitrary, computer program. An established procedure has been developed for the use of such tract value estimates in recommending bid acceptance or rejection. These procedures, in part, adjust for the information contained in other bids to reduce the chances that bids will be rejected, not because they are too low, but because the tract value estimate is too high. The inherent uncertainty in any nonmarket, and hence artificial, estimate of a tract's value raises serious questions about the wisdom and effectiveness of a strategy that incurs substantial costs for tract value estimates in an attempt to determine what specific high bids do not constitute fair market value.

STREAMLINED EVALUATION APPROACHES: One of the proposals for streamlining and accelerating the OCS leasing process is to increase reliance on the marketplace and the presence of competitive bidding for offered tracts, rather than to rely on a Government established presale evaluation on every tract, as the primary means of assuring receipt of fair market value. There are clear gains in the internal efficiency of the Department's leasing activities if the costs of tract evaluation can be reduced. More importantly, the economic efficiency of exploration and development can be improved by relying more fully on the leasing market and less on Government decisionmaking to determine which tracts are leased. Greater reliance on the free market and competitive bidding for assurance of receipt of fair market value reduces the likelihood that exploration of a prospect will be unnecessarily delayed because of a bid rejection that was based on artificial and uncertain assumptions.

However, the tract evaluation system may have added an additional deterrent to discourage systematic underbidding and collusion by, in effect, introducing the Government as an additional bidder. This assurance while subject to the same deficiencies has been considered important on drainage, proven, or development tracts on which one bidder has potentially superior information.

Although a strong case can be made that the lease market itself assures receipt of fair market value, there would appear to be a benefit from continuing an appropriately sized and designed effort

to review at least some of the bids received. Substantial changes in bidding patterns or the limited availability of information on resource prospects could provide opportunities for some bidders to gain from underbidding or collusion. An evaluation process is needed that will provide assurance that fair market value will be received for leases even if such opportunities should arise. A review procedure that provides a credible and cost-effective deterrent against underbidding and collusion would effectively meet this need.

In the OCS program, the market value of "the lands leased and rights conveyed" clearly depends on the oil and gas prospects of the tracts, the expected prices of oil and gas, the costs of OCS operations, the supply of leases and substitutes, and the financial, market, and technological characteristics of potential bidders. The market value of leases is not the market value of the oil and gas eventually discovered or produced, but the value of the right to explore, and, if there is a discovery, develop and produce, subject to a wide array of constraints. The market value of a lease is its value at the time it is offered, given conditions at that time. It is not necessarily the same as the value of the lease at a later time.

In summary, to assure receipt of fair market value for the rights conveyed by an OCS lease, the Secretary must determine that the payment received for the lease is the price that it, or would be, set by a market which is sufficiently competitive to yield fair transactions between buyers and sellers. We define fair market value as the amount at which property would change hands between a willing buyer and a willing seller, neither being under any compulsion to buy or sell and both having reasonable knowledge of the relevant facts. We believe the following guidelines should be reflected in any procedure adopted:

1. In deciding how to assure receipt of fair market value, the Secretary should consider and weigh a variety of objectives and factors enumerated in the OCS Lands Act as amended, including costs, administrative burdens, and delays in exploration.
2. Bid rejection decisions should be based on evaluations so as to be defensible as not arbitrary and capricious.
3. Tract evaluations should be done postsale to avoid the excessive and unnecessary workload involved in evaluating tracts on which bids are not received.
4. Competition in the lease market should be used as a principal basis for accepting bids as fair market value.
5. Random selection of tracts for evaluation should be used in establishing a deterrent against underbidding and collusion.

The DOI is in the final stages of developing a procedure to conduct postsale evaluation of a portion rather than all tracts receiving bids. A consideration in designing this procedure will be the effect on Government revenues for a given evaluation technique.

In designing a system, the costs of tract evaluation and bid rejection must be weighed against the benefits. Two types of costs are being considered. The first is the cost of the evaluation procedure itself. The second is the cost of the delay in resource exploration and development that results when a high bid is rejected. The income expected to be generated by the development of the resources of a tract must be discounted to reflect the effects on the productivity of the economy of delaying the availability of valuable resources. The extent of the delay caused by rejection of a bid depends on the timing of the next sale, assuming of course that it will be bid on and leased at that time.

OPTIONS: The DOI is in the final stages of reviewing options with regard to evaluation practices for OCS lease sales. Three options are under active consideration which present a range of considerations. Option 1 reflects reliance upon competition at a three or more bid level for bid acceptance with perhaps no sampling; or a 5 percent random sample of these bids combined with a 30 to 60 percent sample of one and two bid tracts which could be random, or part random and part based on predetermined criteria. Analysis of tracts sampled could be based partially on comparative analysis.

Option 3 would place more reliance upon Monte Carlo quantitative evaluations for a sample of prospects sufficient to cover about 60 percent of the tracts receiving bids.

Option 2 would combine elements of Options 1 and 3 through a phased screening process. DOI analysis to date has focused on this option. An initial screen would provide for acceptance of all high bids on structures having tracts which receive three or more valid bids, unless they contain drainage, proven or development tracts, or are selected for further evaluation by MMS and BLM in a 25 percent sample using predetermined criteria or selected in an additional 5 percent random sample. Subsequently, an evaluation of sampled tracts may be made using comparative analyses. A final screen would employ Monte Carlo techniques.

A description of proposed procedures to implement each of these three options is presented in the following section. Respondents should consider the following problems in commenting on any of the three options:

- (1) Workload implications with resultant Government expense of proposed sample sizes.
- (2) Difficulty in applying comparative analyses that are credible and yield consistent predictable results without simply adding an element of layering between use of competition and quantitative analysis.
- (3) Most of the technical effort involved is employed in mapping to define the nature of the prospect or structure and in developing

input for the Monte Carlo model. Increased reliance on competition avoids these two high workload areas. Comparative analyses are dependent on quantitative evaluations to identify possible candidates for rejection.

(4) Evaluations of one tract on a structure or prospect will require mapping of the entire structure or prospect. Sample size should therefore reflect all tracts on a structure or prospect basis.

EXAMPLES: The following are examples of proposed procedures for each of the three options under consideration. Various combinations are of course possible. Respondents may address each of the three options and/or any other evaluation procedures they choose to recommend.

### Option I - Primary Reliance on Competition

This option focuses on evaluating few-bid tracts and relying on competition shown on many-bid tracts to give confidence of receipt of fair market value.

This option employs the following steps:

- Step 1 - Apply "noise bid" criteria to all bids received to discount for anomalously low, speculative, or random bids.
- Step 2 - Accept 100 percent of the high bids on tracts receiving three or more valid bids. Alternatively, subject all tracts receiving three or more bids to a 5 percent random sample.
- Step 3 - All tracts on a structure or prospect containing a tract receiving three or more bids, unless randomly selected in Step 2, would be deemed to be competitively bid and accepted.
- Step 4 - Subject a sample of 30 to 60 percent of all tracts receiving one or two bids to a comparative (qualitative) evaluation. All tracts on a structure or prospect would be included in the sample.
- Step 5 - Accept bids on all structures not selected above for sampling. Accept bids where there is no identifiable structure or prospect associated with tracts receiving at least minimum bids.
- Step 6 - If the structure or prospect is evaluated, accept all high bids if the sum of all tract (or structure) evaluations done by MMS does not exceed the sum of the high bids for the structure or prospect value.

## Questions:

1. Should the Government rely on the market alone to assure receipt of fair market value (i.e., accept high bids on tracts without evaluation) or should it review (evaluate) a sample of tracts receiving bids?
2. Should tracts be selected for evaluation randomly or according to predetermined criteria (selective)? Should the sample be split between random and selective tracts? If so, how?
3. How large a sample should be selected for evaluation? Should it be between 25-60 percent of all tracts bid on? Is a 5 percent random sample sufficient to prevent and/or detect collusion and systematic underbidding?
4. If selectively sampled, what, if any, of the following or other criteria should be used?
  - a. The adequacy and availability of geological and geophysical data for further evaluation of certain tracts in a timely and cost-effective manner.
  - b. MMS interpretations of geological and geophysical data which are available may clearly indicate that certain tracts or groups of tracts can be judged to have no identifiable structure. These tracts would not be included in the sample.
  - c. Competition for certain tracts or competition for the sale in general may be deemed sufficient to warrant that the structure(s) not be included in the joint sample. A greater reliance can be placed on the market especially if the number of bids is high, even if it is possible that an independent evaluation would generate a high value. Where possible, competition should be judged relative to available MMS data.

- d. The history of a tract as evidenced by past offering, leasing, rejection, and exploration may be the basis for nonselection. Past high bids and past evaluations may be considered in conjunction with current high bids.
- e. Unique bidding patterns specific to a sale may indicate that companies view geologic trends in a different manner than MMS, and therefore, MMS may wish to carefully review possible alternate interpretations. In addition, where specific bidders may differ substantially from other bidders further evaluations may be recommended. Structures containing a pattern of anomalously bid tracts would be selected for further evaluation.
- f. Selection will focus a greater proportion of the evaluation on tracts receiving fewer bids. If systematic underbidding is to be deterred, percentage guidelines for each bid category would be flexible and permit sale specific considerations. Generally, unless predetermined departmental criteria indicate a necessity for further evaluation, structures containing tracts receiving three or more bids will be considered to represent adequate competition and will be deemed to be acceptable.
- g. Present value delays in Government receipts associated with the time consumed by an evaluation will be considered. Structures

containing tracts receiving high front-end bonuses will be more carefully compared to other selection criteria than lower bid tracts, if all other factors are equal.

5. Should all tracts selected be evaluated on a structure or prospect basis?
6. At what level should the bid cutoff point indicating adequate competition be? At three bids? Higher? Lower?
7. Would one or two bids be adequate competition for assuring receipt of fair market value if there is a particular number of bidders in a sale? For example, if there were 20 active bidders in a sale and only one bid is received on a tract or structure, does this represent a zero bid by all other participants? If yes, how many bidders would constitute a competitive sale? What combination of number of bids received on a tract with the number of bidders in a sale assures receipt of fair market value? Should the number change from frontier areas to developed areas or not?
8. If a comparative evaluation process is used to recommend acceptance or rejection of bids on tracts selected for evaluation, what methods could be employed? The use and efficacy of such methods should be discussed.
9. Would a comparative evaluation process be sufficient as a basis for bid rejection or should a comprehensive economic, resource (quantitative) evaluation be done?

10. Should the high bids on the tracts on a structure or prospect be accepted if the sum of the high bids received exceeds the Government's value for the entire structure or prospect?
11. On which basis should the Government attempt to assure receipt of fair market value--(1) on each tract leased, (2) each structure leased, or (3) for the entire sale area taken as a whole?
12. What is the value of and the potential problems associated with having the high bidder(s) on one tract, in effect, subsidize the high bid(s) on other tracts, as would happen when all the high bids on a structure are accepted if the sum of the high bids exceeds the sum of the tract values on the structure?
13. If at least one tract on a structure is determined to be competitively bid, should the high bid on all other tracts on the structure or prospect be accepted?
14. How should a "structure" or "prospect" be defined? Closing contour? Reasonable development and operating unit? Other?

Option 2 - Intermediate option using a phased screening process

Preliminary Evaluation

- Step 1. Apply noise bid criteria to bids received in sale to discount speculative or random bids.
- Step 2. Accept all high bids on structures having tracts which received three or more bids unless the structures contain drainage, proven, or development tracts or are selected for further evaluation by MMS and BLM in a 25 percent sample of all tracts receiving bids selected on the basis of predetermined criteria (see Option I, question 4) or selected in an additional 5 percent random sample. The selection of tracts for further evaluation will be made on a structure or prospect basis, i.e., all tracts on a sampled structure or prospect will be further evaluated.

The following definitions apply to these tracts:

- Drainage Tract - A tract which has a nearby well which is capable of producing oil or gas, and the tract could suffer if and when such a well is placed on production. The reservoir is interpreted to extend under the drainage tract to some extent.
- Proven Tract - A previously leased tract which is now expired but contains known oil and/or gas reserves. Volume of reserves may or may not be known.

Development Tract - A tract which has nearby wells with indicated hydrocarbons and which is not indicated to have a productive reservoir extending under the tract. There should be some indication that some part of the tract is on the same general structure as the proven productive well or wells.

#### Comparative Evaluation

Step 1. All tracts not recommended for acceptance in the initial phase may be considered for a comparative evaluation. These will include all tracts receiving bids on (1) structures containing tracts identified as drainage, proven, or development; (2) structures having no tracts receiving three or more bids; and (3) structures selected on the basis of predetermined criteria or as part of a random sample. The comparative screening process is designed to expeditiously and efficiently identify tracts for which bid acceptance recommendations are appropriate without the need for a detailed engineering and economic discounted cash flow evaluation. This testing process involves comparison of the high bid value with acceptable bids on tracts on comparable structures and/or resource economic values calculated presale for hypothetical tracts with similar geologic and other physical characteristics such as resource potential, areal extent of potential reservoirs, depth to potential reservoirs, probable producing characteristics, water depth, and distance from shore.

If, based upon this comparison, the high bid for a tract is favorable, it will be recommended for acceptance. Failure of a high bid to meet comparative evaluation criteria will not result in a bid rejection recommendation, but in a further quantitative evaluation.

Step 2. All high bids on a structure or prospect will be accepted if they exceed the value or value judgment placed upon the structure or prospect as determined by this comparative evaluation.

#### Quantitative Evaluation

All tracts not previously recommended for acceptance will undergo a detailed Monte Carlo type discounted cash flow analysis. Bid acceptance rejection decisions will be based upon the MROV, DMROV, and AEOT.

#### Questions

1. (a) What are the appropriate techniques for sampling tracts or structures to be evaluated?
  - (b) Advantages and disadvantages of selective vs. random sampling?
  - (c) What are appropriate selection criteria?
  - (d) What is a sufficient sample size to deter and/or detect collusion and systematic underbidding?
2. Should all bid acceptance/rejection decisions on a structure or prospect be based upon the same criteria, such as sufficient competition, a comparative analysis, or a quantitative evaluation?
3. How should a "structure" or "prospect" be defined? Closing contour? Reasonable development and operating unit? Other?

4. On which basis should the Government attempt to assure receipt of fair market value--(1) on each tract leased, (2) each structure leased, or (3) for the entire sale area taken as a whole?
5. What is the value of and the potential problems associated with having the high bidder(s) on one tract, in effect, subsidize the high bid(s) on other tracts, as would happen when all the high bids on a structure are accepted if the sum of the high bids exceeds the sum of the tract values on the structure?
6. If at least one tract on a structure is determined to be competitively bid, should the high bid on all other tracts on the structure or prospect be accepted?

Option 3 - Reliance on quantitative evaluation employing Monte Carlo techniques on tracts covering a sample of prospects.

This option would employ two steps:

Step 1. A sample of tracts would be selected to be evaluated utilizing predetermined criteria developed by MMS and BLM (see Option 1, question 4). All tracts on a prospect or structure would be included in the sample to be evaluated. The sample would equal about 60 percent of the tracts receiving bids. The sample would be drawn in a manner that includes a substantial portion of tracts receiving three or four bids, even if that means a slight reduction in the sample of tracts receiving one bid.

Step 2. Complete a Monte Carlo type quantitative evaluation of each tract included in the sample.

#### Questions

1. (a) What are the appropriate techniques for sampling tracts or structures to be evaluated?
  - (b) Advantages and disadvantages of selective vs. random sampling?
  - (c) What are appropriate selection criteria?
  - (d) What is a sufficient sample size to deter and/or detect collusion and systematic underbidding?
2. Should the percentage be varied with bid level? If so, how should it vary?

3. Should the sample be entirely selective? Part selective and random, or totally random?

ALTERNATIVE BID ACCEPTANCE CRITERIA FOR FRONTIER AREAS: Applicable to all of the above options is the consideration of special bid acceptance criteria for frontier areas in the OCS.

Three of the purposes of the OCS Lands Act are: (1) to make OCS resources available to meet the Nation's energy needs as rapidly as possible, (2) to balance orderly development with environmental protection, and (3) to insure that the extent of oil and natural gas resources is assessed at the earliest practical time. Since as much as one-third of the Nation's undiscovered oil and gas resources are estimated to underlie the OCS and much of the OCS is in frontier areas where little detailed geological information exists because it is available only through the drilling of boreholes, it is critical that new frontier areas be quickly explored. A principal return obtained by leasing these tracts expeditiously is the information gained from increased exploration and the resultant reduction in risks in subsequent offerings. In addition, decisionmaking is enhanced due to improved data. Finally, orderly development will be enhanced in the OCS which increases efficiency and Government receipts. The following potential alternative methods for incorporating the goals relating to expeditious and orderly exploration and development into our fair market value criteria are offered for comment.

1. Reduce the reservation price by an estimate of the value of information. Since this value is greater in frontier areas, these tracts are more likely to be accepted. This reduction would be based on accepted, nonarbitrary methods of estimating the decrease in risk of subsequent offerings and the alternative costs of obtaining such information.

2. Reduce the reservation price by the efficiency benefits due to orderly development. The rejection of a bid may have a negative impact on the efficient development of adjacent tracts. Production may not be feasible unless a large group of tracts are leased. Government revenues may be reduced if efficient development is impaired. Delays in development of entire units may be attributable to individual tracts. These types of costs would be subtracted from our MROV's.

3. Incorporate the uncertainty of MMS information in frontier areas into the criteria. A distinguishing feature of frontier areas is the greater range of the estimated resource values and exploration and development costs for a given tract compared to the more developed regions. This is largely due to the greater uncertainty for many of the parameters. At present, a reliability rating is provided for each tract but this rating has not been used as a bid acceptance or rejection criterion since it is based on subjective interpretations of the MMS definitions for each rating. An explicit method of incorporating this uncertainty into our criteria could be developed and evaluations in frontier areas where information is tenuous would

receive less weight. One technique would be to assign an uncertainty based on the standard deviations of the MMS values and use this to weight the MROV within the AEOT. This would provide a greater weight to the market in frontier areas. Other techniques include use of the median range of values or use of specific statistical intervals around the MROV.

GENERAL QUESTION To assist in the determination of policy direction regarding OCS tract evaluation procedures, each respondent is requested to offer comments with regard to each of the three options presented, any additional options that may be offered, and alternative frontier area bid acceptance criteria. Respondents may wish to recommend options beyond those described as currently under consideration by the Department in this notice. In describing or recommending options other than those presented in this notice, respondents are requested to provide sufficient details so that distinctions can be made between the options involved, and so that all the options can be fully evaluated. Respondents are specifically requested to address the following general questions with regard to each option:

1. What bid level is an adequate indicator of competition?
2. What sample size should be employed for evaluation purposes?
3. What credible comparative or qualitative analyses could be employed for use under each option?

4. What affect would adoption of each option have on:

- (a) Bidding strategies or patterns?
- (b) Bid amounts?
- (c) Competition?
- (d) Exploration?
- (e) Development and Production?
- (f) Governmental Revenues?
- (g) Administrative burdens?
- (h) Detection of systematic underbidding and collusion?

5. Contingency payments represent a related problem in determining tract values, especially where comparative methods are employed. How should such contingent payments be taken into account in determining fair market value?

6. What is an appropriate minimum submissible per acre bid for OCS lease tracts? Should that bid vary by region, by evaluation approach, by contingency payment, or by any other factor?

\_\_\_\_\_  
Acting Director  
William P. Pendley

\_\_\_\_\_  
Date

#4.

R. R. Burke  
Vice President  
Production Exploration, U.S. & Canada



Marathon  
Oil Company

Findlay, Ohio 45840  
Telephone 419/422-2121

September 18, 1981

James Watt  
Secretary of the Interior  
Department of the Interior  
Interior Building  
Washington, D.C. 20240

Subject: Rejection of Bids in Recent South Atlantic OCS  
Sale No. 5b

Dear Mr. Watt:

Marathon has commented in the past on the Department of Interior's ("Department") practice of rejecting legitimate high bids for OCS tracts because the amount of the bid is too low when compared with the Department's evaluation of that particular tract. Marathon has opposed this practice and has urged the Department to abandon it. Because of the recent rejection of seven high bids in the Department's South Atlantic Sale No. 5b, including one on which Marathon was a joint bidder, Marathon feels compelled to again comment on this practice and urge the Department to abandon it.

Apparently, the Department of Interior's reason for evaluating tracts and rejecting bids based on those evaluations is "to insure the public a fair and equitable return on the resources of the Outer Continental Shelf" as mandated by Congress in section 102 of the Outer Continental Shelf Lands Act Amendments (43 U.S.C. §1802). Marathon, however, believes that Department of Interior evaluations are unnecessary to insure the public a fair and equitable return. Also, rejection of bids based on those evaluations is unfair and could impede development of the nation's OCS resources. Finally, rejection of high bids could result in the nation receiving less for its OCS resources than if all legitimate high bids were accepted.

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1 Letter from R. R. Burke, Vice President, Production Exploration, U.S. and Canada to Director, Office of OCS Program Coordination, Office of Assistant Secretary -- Policy, Budget, and Administration, Department of the Interior, dated May 22, 1981.

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The fact that a high bid is lower than the Department's evaluation simply does not mean the bid does not represent fair market value for the tract. The only true assessment of fair market value of a particular OCS tract is the value given it by expert oil and gas explorationists forced to place a value on it in a free market, competitive bid situation after evaluation of the tract.<sup>2</sup> In such an environment, there is simply no reason whatsoever for tract evaluations or rejections of bids. Indeed, to reject a bid as too low is tantamount to asking as many as 50 or more experts for their opinion of an item's worth, having them agree that it is not worth over a certain sum, and then rejecting their assessment as too low because one other expert, no more qualified, believes a higher assessment is more accurate.<sup>3</sup> Of course, this simply does not make sense.

The ultimate value of any tract is never known prior to actual exploration and development. The presale value of a tract is nothing more than a scientific estimate. Even when numerous potential bidders utilize essentially the same geological and geophysical raw data prior to a lease sale, the interpretation of that data and hence the estimated presale value of each tract varies widely among potential bidders. A cursory review of bidding in other sales indicates that differences in presale evaluations by potential bidders cause some tracts to receive bids from some companies while other potential bidders do not bid on these tracts at all. The inaccuracy of presale evaluations

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- 2 Marathon notes that the sale of OCS leases does not take place in an environment of true free-market competition. While there are many bidders for OCS leases, the United States government is the only seller of those leases. The government, therefore, has a monopoly on OCS leases. This may explain to a large degree why, as indicated at pages 8 through 10, below, the government has been able to extract more than fair market value for its OCS leases.
- 3 Although a tract may receive only one bid in any given sale, this does not mean that only one expert has evaluated that tract. Many more experts have evaluated the tract. The fact that only one company chose to bid means that the other experts set the relative value of the tract so low as to not warrant submission of bid.

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is even more vividly demonstrated by the extremes of bid levels placed on the same tract. Frequently the same tract will receive dollar bids ranging from hundreds of thousands to tens of millions. In addition, an independent study made under contract for the U.S.G.S. analyzed 1,223 leases in the Gulf of Mexico issued in 17 OCS lease sales held over the years 1954 - 1969. The study determined that of the 1,223 individual leases, 62% were abandoned without production and another 15% were productive but unprofitable.<sup>4</sup> The inescapable conclusion is that the successful bidders' presale evaluations were totally wrong with respect to nearly two-thirds of the leases issued. Seventy-seven percent of presale evaluations were greatly in error since those evaluations resulted in bids for leases which proved to be either worthless or failed to provide a profit.

The facts surrounding the Department's recent rejection of bids in South Atlantic Sale No. 56 once again illustrate that evaluation of tracts and bid rejections are unnecessary and unfair. In that sale, the U.S.G.S. estimated the total value of the tracts receiving bids at \$216,026,656.<sup>5</sup> The total sum of the high bids for those tracts, was \$363,829,953.80.<sup>5</sup> Viewed as a whole, the Department received high bids for those tracts far in excess of its own evaluation. In spite of this, it singled out seven tracts (Nos. 022, 026, 027, 064, 065, 096, and 097) and rejected the high bids for those tracts. Marathon was a high joint bidder on Tract No. 022. Although the Department does take into account the average of all bids plus its evaluation in determining whether to reject a bid, in each case the Department's higher evaluation was the determinative factor with respect to the bid rejection.

As with other OCS sales, however, there is simply no reason to assume that the Department's evaluations are any

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<sup>4</sup> "Competition and Performance in OCS Oil and Gas Lease Sales and Lease Development, 1954-1969," Walter J. Mead and Phillip E. Sorenson, March 1, 1980, under U.S.G.S. Contract No. 14-08-001-16552.

<sup>5</sup> Letter of "Notification to High Bidders, Outer Continental Shelf Lease Sale No. 56," of H. P. Sleverding, Acting Manager, New Orleans Outer Continental Shelf Office, dated August 14, 1981.

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more accurate than industry's evaluations of those tracts. In fact, a review of the bidding in Offshore Lease Sale No. 56 points out the tenuous nature of presale lease evaluations. This review shows that the amount by which high bids for tracts exceeded the next highest bid ranged from \$76,124,000 on Tract 017 to \$17,000 on Tract 072.

That portion of the sale receiving the most bids and the highest evaluation (by both bidders and the Department) consisted of 22 contiguous tracts (Tracts 006 through 027) on a single geologic structure as shown in the attached Map One. Marathon evaluated the entire geologic structure and; with two other companies, bid on eight tracts. The Marathon group was high bidder on five of the tracts, with its high bids totalling \$225,765,000. This was almost double the Department's \$121,252,609 total evaluation of the same five tracts. The Department nevertheless singled out one of these tracts, Tract 022, and rejected the Marathon group's bid for that tract as too low.

Tract 022 received the following four bids, placed by eight companies.

Mobil	\$6,721,000
Amerada Hess	
Marathon	
Union	4,613,000
Conoco Inc.	
Tenneco Oil	1,490,000
Gulf	615,453
Amoco	

The bids averaged \$3,359,863. No other company bid on Tract 022, even though other companies bid on nearby tracts and of necessity evaluated Tract 022. The Marathon group's high bid was nevertheless rejected because the Department valued the tract at an astounding \$32,970,736. There is simply no reason, however, to assume that the Department's

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6 The data in this letter regarding Offshore Lease Sale No. 56 is taken from the Offshore Oil Scouts Association's "Offshore Lease Sale No. 56 Preliminary" and "Offshore Lease Sale No. 56 Company Bid Summary," both issued in August, 1981.

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evaluation is more accurate than the evaluations of the eight companies which submitted bids and the other companies which apparently decided that Trac' 022 was not attractive enough to warrant any bid. Clearly, the Department's interpretation is out of step with the interpretation upon which Marathon's bid was based and the interpretations of other companies evaluating Tract 022.

By comparison Tract 017, located three miles north on the same structure, received the following seven bids, placed by fourteen companies.

Mobil Amerada Hess Marathon	\$103,775,000
Chevron Union Conoco Inc.	27,651,000
Shell Cities S-Co.	21,887,000
Getty	1,109,000
Gulf Amoco	615,453
Murphy Odeco O & G Co.	237,888
Tenneco Oil	144,849

The Department valued Tract 017 at \$29,049,168. Here the high bid was far higher than the Department's. The Department accepted the bid.

The bid distributions on Tracts 022 and 017 clearly show the tenuous nature of presale evaluations. Certainly the bid distributions do not indicate enough accuracy to warrant rejection of legitimate high bids submitted in a competitive environment because the Department's evaluation of a particular tract is higher than industry's.

The bid rejections are even more disturbing when one compares the high bids on the most valuable tracts on the

geologic structure<sup>7</sup> (Tracts 012 - 019, 021 - 024, 026, and 027) to the Department's evaluation of those tracts. This review shows that industry undervaluation of the geologic structure represented by these tracts was not the real cause of the bid rejections. Industry submitted high bids for those tracts totalling \$305,278,000, compared to a total Department evaluation of \$162,597,293. Rather, the real cause of the bid rejections was that the industry's perceived relative value of individual tracts on the large geologic structure was different from the Department's.

The attached Maps One and Two show this to be the case. These show that the Department interpreted the geologic structure and assigned values to individual tracts based on that interpretation. Industry, as a part of the bidding process, did exactly the same thing and submitted high bids totalling much more than the Department's evaluation of the entire geologic structure. These evaluations are dependent on the seismic data coverage and geometry, application of various computer processing and analytical techniques, and the resulting interpretations utilizing sound geologic principles. The many variables involved in this process cause significant differences in the relative values placed on individual tracts even though the general area of a large geologic structure may be quite similar among the various interpretations. It is unreasonable, therefore, to assume that the single Department interpretation is "more accurate and correct" than those made by industry.

As Map Two clearly shows, the interpretation made by the Department placed the high value tracts south and east of the industry's interpretations. For example, industry placed less relative value on Tracts 019, 022, 024, 026, and 027. Consequently, industry bid less for those tracts than the Department's evaluation. By comparison, industry perceived the tracts to the north and west (Tracts 012, 013, 014, 015, 016, 017, 018, 021, and 023) as having more relative value than did the Department. Consequently, industry high bids for those tracts far exceeded the Department's evaluations. In short, the Department received high bids for the entire structure far in excess of what it could have hoped for, but at different locations than it expected. Different interpretations as to location, not undervaluation, was the cause of the bid rejections.

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7 Those tracts on the structure which received a high bid or Department evaluation in excess of \$1,000,000.

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Because of the many variables involved, in any off-shore sale interpretations as to the detail of each and every tract will vary greatly, even though interpretations as to the overall character of a large geologic structure may be quite similar. In turn, the estimated relative values of the individual tracts based on these interpretations will also vary greatly. In fact, there will be as many different estimated values as there are different interpretations. Industry, through the process of interpreting data, evaluating tracts, and submitting bids or deciding not to submit bids, arrives at a collective evaluation of specific tracts through the competitive bidding process. There is no reason not to accept this collective evaluation, the high bid, in each and every case.

Apparently, the Department currently assumes its single interpretation of a large geologic structure, and its estimated relative values of individual tracts based thereon, is essentially "correct", as evidenced by the rejection of bids in Offshore Lease Sale No. 56. As long as the Department continues in this assumption, it can be expected that in future sales bids for certain tracts will be accepted while bids for certain other tracts on the same geologic structure will be rejected, not because industry has undervalued the structure taken as a whole, but simply because different interpretations of data have resulted in the Department's distributing the entire structure's value among the individual tracts differently than industry does through the competitive bidding process. In short, if a high bidder is lucky, the Department's interpretation will place a lower relative value on the tracts that bidder perceives as having higher relative values. If a high bidder is unlucky, the Department's interpretation will place a higher relative value and reject the high bids for the tracts that bidder, and the rest of the companies evaluating those tracts, perceives as having lower relative values. Chance, more than anything else, will determine whether a high bid is rejected or accepted. The Department's system of tract evaluation and bid rejection, therefore, simply does not operate in a manner designed to insure receipt of fair market value and is unnecessary and unfair.

The Department's unnecessary rejection of bids could even reduce the amount of money the Department, and ultimately the public, receives for the structure involved in Offshore Lease Sale No. 56. If, the structure is drilled before Tract 022 is leased and such drilling indicates

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Tract 022 is not valuable, the government will have lost \$6,721,000 simply because it refused to accept as indicating fair market value a legitimate high bid submitted in a competitive environment. In fact, the government may very well accept less even before exploratory drilling occurs. For example, in Offshore Lease Sale No. 62, held November 18, 1980, Marathon and its joint bidders submitted a bid of \$3,811,963 for Tract 62-66. This was the only bid submitted. It was rejected because the Department valued the tract at \$21,703,136. In Offshore Lease Sale No. 066, held July 21, 1981 before any nearby drilling had occurred, the Department reoffered the same tract and accepted a bid placed by another company of \$2,230,000. The Department had reduced its evaluation from \$21,703,136 to \$2,058,474.

In the initial sale the industry interpreted Tract 62-66 and placed a value on it in a competitive environment. The Department duplicated the industry's efforts and placed a far higher value on the tract. In the end, however, apparently the Department realized its former evaluation was far too high. It did so too late, however, and cost the public \$1,581,963. In short the Department's system of tract evaluation simply duplicates industry efforts, and does not insure the public fair market value for the nation's OCS resources.

Also, the Department's unnecessary rejection of bids could impede exploration of this structure. This structure, located in 3500 feet of water, will logically be explored jointly by the contiguous lease owners. This minimizes costs and risks, in accordance with good oil field practices. The lessees of the contiguous tracts are now faced with the choice of deferring drilling until Tract 022 is leased or conducting exploratory drilling which evaluates this tract, as well as their own, at no cost to the ultimate owner of Tract 022. If drilling is delayed, the end result will be slower and less efficient development of the nation's OCS oil and gas resources.

Finally, section 102 of the Outer Continental Shelf Lands Act Amendments (43 U.S.C. §1802) states that one of the Amendments' purposes is "to insure the public a fair and equitable return on the resources of the Outer Continental Shelf." However, this does not mean that the Department of Interior must obtain the maximum amount of revenue it can from each and every lease viewed as a single entity. Rather, the Department is charged with insuring a fair and equitable return from the entire OCS taken as a whole. The mandate surely does not require tract-by-tract evaluation and bid rejection which, as indicated above,

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could result in the public's receiving less than if all legitimate high bids were accepted by the Department.

In addition, the tract-by-tract approach ignores the normal operation of oil and gas exploration and development. It must be recognized that when the oil industry bids on OCS leases, it is not the same as bidding on a tangible good the value of which can be readily assessed in terms of its potential return on investment. When a manufacturing company invests in capital goods, it fully expects to earn a profit on each individual investment. However, when an oil company invests in OCS leases, it cannot readily assess the potential return on each individual investment. In fact, an oil company can expect that a majority of its individual OCS investments will be total losses. The oil company must rely on high profits from some individual investments to pay for the losses on the others.

A few tracts may ultimately be highly profitable, which would result in an unusually high rate of return when calculated on a single lease. But it is just such an expectation that constitutes the economic justification for any company to participate in exploration of the OCS. High profits from a successful lease are needed to absorb the costs, both lease bonus paid to government and exploratory costs, for the vast majority of leases that fail to be profitable. It is only the high profit lease that can provide an adequate rate of return calculated on the aggregate of any company's OCS exploration efforts, both successes and failures. The fact that a company achieves a high rate of return on one lease does not mean, therefore, that the United States is not receiving "a fair and equitable return on the resources of the Outer Continental Shelf [taken as a whole]."

In fact, the Mead and Sorenson study referred to at page 3 indicates that the federal government has captured much more than "fair market value" for OCS leases in the Gulf of Mexico. As indicated earlier, Mead and Sorenson analyzed 1223 leases issued in 17 OCS lease sales in the Gulf of Mexico held over the years 1954 - 1969. The study determined that 62% of all leases were abandoned without production and another 15% were productive but were not economic. For all 1223 leases, the average internal rate of return was 11.43% before corporate income tax. This return is far below the average return (1954-1976) of all U.S. manufacturing corporations of 19.81%. Of course, oil and gas exploration and development in the OCS entails much more risk than manufacturing operations. This study

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reveals that industry has made an inadequate rate of return on the OCS and that the federal government, therefore, has captured much more than its "fair market value."

All of these Gulf of Mexico sales were conducted in areas which were offshore extensions of the existing producing areas onshore Texas and Louisiana. Greater presale geologic data was available; hence, these sales had much less risk than those in frontier areas such as the South Atlantic. The table below indicates that only one out of 50 or more leases in frontier areas can be expected to be profitable. Exploratory drilling results in these areas conclusively show that industry has thus far obtained a negative return on investment.

<u>Frontier Areas</u>	<u>Date of Sale</u>	<u>No. of Leases Issued</u>	<u>Bonus Paid to Government (\$MM)</u>	<u>Results of Drilling to 8-1-81</u>
Eastern Gulf of Mexico	1973	87	1,490	No Production Found
California	1975	56	417	Only 3-4 Leases May be Profitable
Gulf of Alaska	1976	76	559	No Production Found
Mid-Atlantic	1976	93	1,127	3 Leases May Be Profitable
Lower Cook Inlet, Alaska	1977	87	398	No Production Found
South Atlantic	1978	43	100	No Production Found
TOTALS	-	442	4,092	6-7 Leases May Be Profitable

In summary, the record shows that tract evaluation and bid rejection are unnecessary to insure the public fair market value for OCS oil and gas resources. In fact, the public has received more than fair market value for those resources. In addition, bid rejection is unfair and could deter early exploration of tracts if lessees are faced with the choice of evaluating unleased land in which they own no interest or deferring exploration until the unleased

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land is leased at a subsequent sale. Finally, because of the inconclusive and highly speculative nature of tract evaluations, as indicated by the record, such evaluations are simply a waste of valuable Department resources and time.

Marathon believes the recent South Atlantic sale again clearly points out the unnecessary and arbitrary nature of Department of Interior tract evaluations and bid rejections based on those evaluations. Marathon respectfully urges the Department to abandon this practice and to accept all legitimate high bids for OCS tracts in the future.

Sincerely,



R. R. Burke  
Vice President  
Production Exploration  
United States and Canada

cc: H. P. Sleverding  
Acting Manager  
Bureau of Land Management  
New Orleans Outer Continental Shelf Office  
Hale Boggs Federal Building  
500 Camp Street  
New Orleans, Louisiana 70130

AGO 886463

6	7
217,000	456,000
142,848	142,848

8	9
217,000	456,000
142,848	142,848

10	11
515,000	623,000
142,848	142,848

12	13
2,340,000	6,840,000
142,848	142,848

14	15
8,120,000	28,512,000
142,848	7,554,877

16	17
16,600,000	103,775,000
431,150	29,049,168

7 bids with 14 companies

18	19
26,374,000	33,130,000
2,175,935	39,569,312

20	21	22	R
650,000	53,627,000	6,721,000	
142,848	12,108,516	32,970,736	

4 bids with 8 companies

23	24
3,600,000	7,515,000
142,848	19,549,824

25	26	R	27	R
217,000	4,800,000		3,324,000	
142,848	5,757,685		12,858,698	

LEGEND

X	R
\$xxxxx	
\$xxxxx	

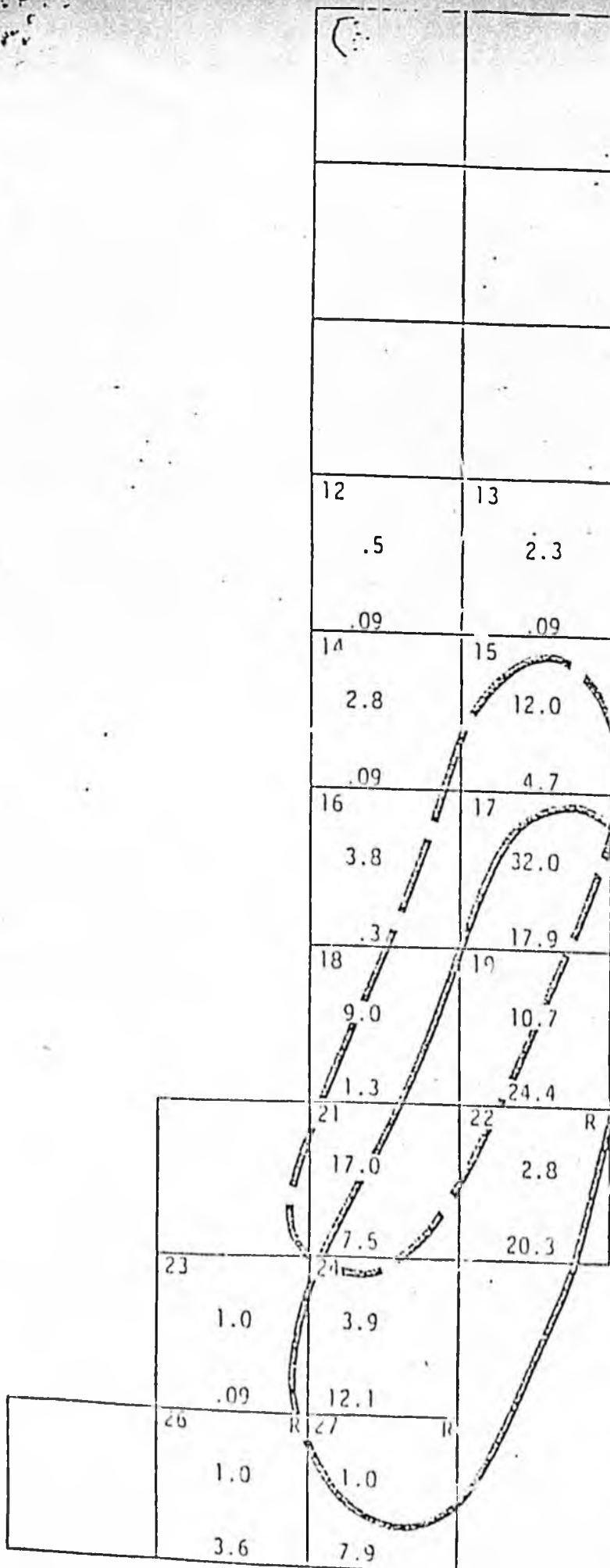
X = Tract No. R = Rejected

High bid

U.S.G.S. Mean Range of Values

Total Industry bids on 14 listed tracts = \$486,316,571

Total USGS Evaluation on 14 listed tracts - \$162,597,293



← Encompasses those tracts that Industry evaluated as at least 10% of total geologic structure.

← Encompasses those tracts that USGS evaluated as at least 10% of total geologic structure.

LEGEND

AGO 886465

- X = Tract No.
- R = Rejected
- † Industry tract bids to total industry bids on 14 tracts.
- ‡ USGS Evaluation to total USGS Evaluation of 14 tracts.

dist 3-1-82

THE BEAUFORT SEA SALE DRILLING RESTRICTION

-- INFORMATION FOR A REEVALUATION --

January 15, 1982\*

Sohio Alaska Petroleum Company  
Pouch 6-612  
Anchorage, Alaska 99502

\* NEW MATERIAL ADDED: FEBRUARY 12, 1982.

### III. SUMMARY AND CONCLUSIONS

As documented in this paper, two very different rationales were used to support the imposition of a restriction disallowing drilling from March 31 to November 1 on leases obtained by oil companies and Alaska Native Regional Corporations in the 1979 Federal/State of Alaska Beaufort Sea Lease Sale. For the Federal government, it was a concern for the endangered bowhead whale. Specifically the government wanted more information about the bowheads' migration routes in the spring and fall in relation to the lease sale area and more knowledge about the interaction of bowhead whales and oil activity.

Extensive research has been conducted in the past two years to address these two important concerns. Again, as documented herein, the results of the research show that the lease area is not critical to the continued existence of the bowhead whale. During the spring migration, the bowhead whales follow a far-offshore route, remote from the lease sale area by approximately 60 miles. In the summer, they feed among the drill ships and gravel islands where exploration is being conducted in Canada's Beaufort Sea. During September and October, the bowhead whales migrate north of the lease sale area in waters of 10 fathoms and deeper. A total of only six bowheads were observed in the lease area in 1979, and only three bowheads were sighted within the lease area in 1980. Significantly, during the fall migration, bowheads are also relatively insensitive to sound.

Further, there is no evidence that bowheads can not or do not adapt to operations on a gravel island. The evidence from research conducted in the Beaufort Sea in Canada during the summer shows instead that bowheads are neither attracted to nor repelled by the physical presence of an artificial island nor are they apparently disturbed by the sounds that are produced from operations on and around a gravel island. The activities on and around the islands included the operation of a large suction dredge, a barge camp, tug boats and crew boats. These research results from the Bureau of Land Management studies in Canada cannot be dismissed on the grounds that bowheads may be more sensitive while migrating in the fall than they are while feeding prior to the fall migration. Feeding and migration are both important. Neither Inupiat whaling using motor boats or commercial whaling in the past has caused the bowheads in the Arctic to alter their traditional course during the fall migration.

There is also relevant new information cited herein indicating that the bowhead population may be indeed healthier than previously thought. Additionally, the evidence shows that whales do not vacate areas because of sounds produced by boats or by seismic operations, though if a boat is deliberately steered into a pod of whales, they will separate but then regroup in a matter of several hours. In summary, this paper presents and documents the extensive research that has been conducted to answer the concerns about the bowhead whale, and the results show that there is no reason to continue the drilling restriction on account of the bowhead whale.