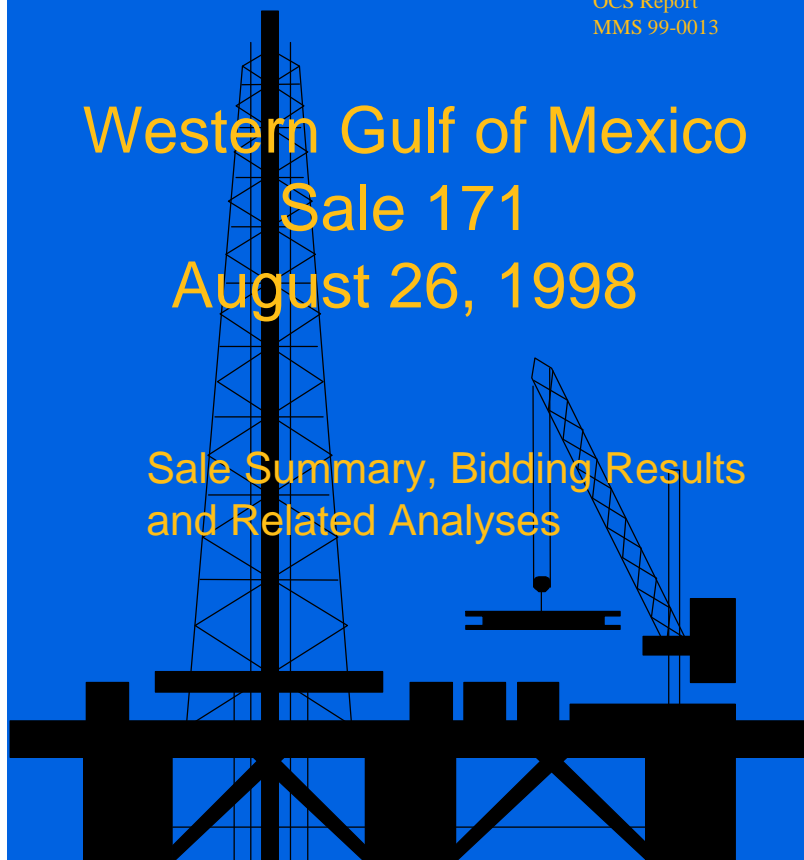


OCS Report  
MMS 99-0013

# Western Gulf of Mexico Sale 171 August 26, 1998

Sale Summary, Bidding Results  
and Related Analyses



Prepared by: Economics Division / MMS

Western Gulf of Mexico  
Sale 171  
August 26, 1998

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Sale 171

Western Gulf of Mexico

August 26, 1998

**Sale 171, Western Gulf of Mexico  
August 26, 1998**

Sale 171 in the Western Gulf of Mexico (WGOM) was the third sale in that planning area in which the "new lease" provisions of the Deep Water Royalty Relief Act of 1995 (DWRRA) were applied. In this sale 402 tracts received 486 bids (an average of 1.2 bids per tract) and 323 of those tracts were in water depths eligible for royalty relief.

Bidding Results

Sale 171, in terms of the number of tracts receiving bids, was half the size of WGOM Sale 168 that was held in 1997. Although Sale 171 had a large decrease in number of tracts receiving bids and number of bids received compared to Sale 168, the decrease in aggregate high bids was relatively small. In Sale 171, 402 tracts received 486 bids with high bids totaling \$553,435,908.

A contributing factor to the number of tracts in water depths of 200 meters or greater that received bids was the availability of DWRRA royalty suspension volumes (RSV) in deep water. Thus, 323 tracts in water depths of 200 meters or more received high bids of \$522,057,784. Bidding results by water depth zone are summarized in Table 1 and more complete details are presented in Appendix A.

Table 1. Bidding Activity by Water Depth Zone

Water Depth	Tracts with Bids	High Bids (\$ MM)	Number of Bids	Average Bids/Tract
< 200 m.	79	\$ 31.38	92	1.16
200 - 400 m.	14	\$ 4.89	17	1.21
400 - 800 m.	31	\$ 17.75	35	1.13
800+ m.	278	\$ 499.42	342	1.23
Total	402	\$ 553.44	486	1.21

Bidding activity in Sale 171 resulted in a decrease in the number of tracts receiving bids, number of bids, and aggregate high bids compared to the previous WGOM sale (Sale 168, August 27, 1997). In Sale 168, 804 tracts received 1,224 bids, whereas 402 tracts received 486 bids in Sale 171, resulting in decreases of 50 and 60 percent, respectively. In addition, the sum of high bids submitted on tracts receiving bids in Sale 171 decreased by about 10 percent compared to Sale 168 (\$553.44 million v. \$616.21 million). The decrease in tracts, number of bids, and aggregate high bids was due to the lower level of bidding activity in all water depth categories, especially those of less than 800 meters. The amount of competition for tracts was less than other post-DWRRA, WGOM lease sales. More than 86 percent of tracts received single-bids. This category of tract continues to represent the largest percent of total high bids (about 45 percent). Two-bid tracts accounted for the next highest percent of tracts receiving bids (about 10 percent).

A summary of aggregate bidding results by number of bidders for the sale is presented in Table 2 and bidding results by number of bids for the various water depth zones are presented in Appendix B.

Table 2. Bidding Results by Number of Bids Submitted

Bids	Tracts	Percent of Tracts	High Bids (\$ MM)	Percent of High Bids
1	347	86.32%	\$247.82	44.78%
2	40	9.95%	\$137.74	24.89%
3	5	1.24%	\$11.78	2.13%
4	6	1.49%	\$53.14	9.60%
5	4	1.00%	\$102.96	18.60%
Total	402	100.00 %	\$553.44	100.00 %

As opposed to many sales in the WGOM, in Sale 171, the majority of tracts (56 percent) received high bids of \$50 or more per acre. However, a sizeable minority of tracts (44 percent) received high bids of less than \$50 per acre, which represented about 6 percent of the total high bids received. In Sale 171, tracts with high bids greater than \$150 per acre accounted for more than 81 percent of aggregate high bids, an increase of more than 22 percent compared to Sale 168. A summary of bidding results by high bid per acre for the sale is presented in Table 3 and bidding results by high bid per acre for the various water depth zones are presented in Appendix C. In addition, a graphical presentation of bidding results is presented in Appendix D.

Table 3. Bidding Results by High Bid per Acre

High Bid per Acre	Tracts	Percent of Tracts	High Bids (\$ MM)	Percent of High Bids
< \$50	177	44.03%	\$33.17	5.99%
\$50 - \$74.99	58	14.43%	\$19.97	3.61%
\$75 - 99.99	34	8.46%	\$17.07	3.09%
\$100 - 149.99	47	11.69%	\$32.53	5.88%
\$150 +	86	21.39%	\$450.70	81.44%
Total	402	100.00 %	\$553.44	100.00 %

## Bidding on Royalty Suspension Volume Tracts

A total of 278 tracts in 800 meters or more that are eligible for DWRRA royalty suspension volumes of 87.5 million barrels of oil equivalent (MMBOE) received bids. These tracts accounted for 69 percent of the tracts in the sale receiving bids and 90 percent of the sale's high bids. To put the magnitude of this bidding activity in perspective, consider that although the number of tracts receiving bids in water depths of 800 meters or more in Sale 171 was 54 percent lower than in Sale 168, their associated high bids exceeded those received in Sale 168 by 7 percent. In the water depth categories with smaller royalty suspension volumes, bidding activity in Sale 171 lagged the level observed in Sale 168 for both tracts receiving bids and high bids. This decline in the shallower water depth categories likely was due, at least in part, to the relatively low number of tracts offered compared to those available in water depths of 800 meters or more as well as a lack of any one company bidding aggressively to acquire leases as was the case in the deepest water depth category.

In comparing the average high bid per acre by royalty suspension volume water depth category between Sales 171 and 168, only in the 800 meters or more category did the Sale 171 average exceed Sale 168's (\$313.01/acre v. \$135.39), but it was about 131 percent higher. For the other royalty suspension water depth categories, Sale 168 averages exceeded Sale 171's. In 200-400 meters, Sale 168's average was \$117.93/acre and Sale 171's was \$61.06/acre. In 400-800 meters or more, Sale 168's average was \$243.22/acre and Sale 171's was \$99.42/acre. These results suggest that industry perceives greater resource potential and value to exist in the deepest water depth category. Therefore, in the future sale designs, the portions of the WGOM sale area in water depths of 800 meters or more appear to be better candidates for alternative lease terms and conditions than the shallower water areas.

## Phase 1 Results

Following the revised post-sale evaluation procedures, which include a modified 3-bid rule, in Phase 1 of Sale 171, high bids were accepted on 34 tracts in water depths less than 200 meters and 116 tracts in water depths eligible for royalty relief. These Phase 1 accepted high bids accounted for about 43 percent of the tracts representing 27 percent of the high bids in water depths less than 200 meters and in water depths eligible for DWRRA new lease, royalty suspension volumes, about 36 percent of the tracts and 7.3 percent of the high bids. In terms of Phase 1 bid acceptances, Union Oil Company of California was the most successful company as 22 of its 84 high bids were accepted.

Phase 1 accepted high bids were in two categories of tracts: 147 were wildcat and confirmed tracts determined to be non-viable and three were wildcat and confirmed tracts with three or more qualified bids on which the third highest bid was at least 50 percent of the high bid (revised 3-bid rule). The Sale 171 Phase 1 results by number of bidders and high bid per acre are presented in Tables 4 and 5, respectively. All of the accepted high bids on tracts with three or more bids were accepted as a result of the revised 3-bid rule.

Table 4. Phase 1 Results by Number of Bids

Bids	Tracts	Percent of Tracts	High Bids (\$ MM)	Percent of High Bids
1	141	94.00%	\$43.74	69.68%
2	6	4.00%	\$2.92	4.65%
3+	3	2.00%	\$16.11	25.67%
Total	150	100.00 %	\$62.77	100.00 %

Table 5. Phase 1 Results by High Bid per Acre

High Bid per Acre	Tracts	Percent of Tracts	High Bids (\$ MM)	Percent of High Bids
< \$50	94	62.67%	\$17.54	27.94%
\$50 - 74.99	24	16.00%	\$8.53	13.59%
\$75 - 99.99	13	8.67%	\$6.64	10.58%
\$100 - 149.99	14	9.33%	\$9.99	15.92%
\$150 +	5	3.33%	\$20.07	31.97%
Total	150	100.00%	\$62.77	100.00 %

Revised Arithmetic Average Measure of Tract

The RAM is a secondary bid acceptance criterion that is used in Phase 2 of the Sale 171 bid evaluation process on multi-bid tracts that have high bids that do not exceed the Government's value of the tract (MROV).

For evaluating the high bids on multi-bid tracts that do not exceed the MROV, the RAM is applied to (a) drainage and development tracts having three or more qualified bids with the third highest bid being at least 25 percent of the tract's high bid and (b) confirmed and wildcat tracts having two or more qualified bids with the second highest bid being at least 25 percent of the tract's high bid. Only bids that are at least 25 percent of the high bid are considered in calculating the RAM. If the high bid exceeds the RAM, it is accepted, otherwise, the high bid is rejected.

Use of the RAM allows the MMS to continue to consider market factors in the evaluation of high bids without the distorting effects of the GAEOT, which often required MROV's well in excess of \$100 million for a high bid to be rejected. Using the RAM, the highest MROV required to

reject a high bid on a multi-bid tract in Sale 171 is about \$68 million. This value for a lease is not unreasonable relative to high bids observed in this sale.

In Sale 171, 12 tracts classified as wildcat and confirmed receiving three or more bids were passed to Phase 2 for evaluation. These tracts, potentially, could have their bid acceptance or rejection decision based on the RAM. After adjusting the number of bids to include only those that are at least 25 percent of a tract's high bid, 10 tracts could be eligible for a decision based on the RAM. Of those, three would require MROV's between \$1-5 million for rejection, three would require MROV's between \$5-10 million for rejection, and the remaining four would require MROV's in excess of \$10 million for rejection. Detailed tables of tracts receiving three or more bids by water depth zone are presented in Appendix E.

### Bidding Activity

The number of companies participating in Sale 171 decreased to 63 from 82 that were active in Sale 168, the previous WGOM sale. Two companies submitted bids (either solo or jointly) on 50 or more tracts, with Union Oil Company of California being the most active company in terms of bids submitted with 84. The most apparent high bids, 77, and highest total amount of high bids, \$ 184.8 million, were submitted by Union Oil Company of California as well.

With about 14 percent of the tracts receiving bids in the sale being multi-bid tracts, four firms that submitted ten or more bids were the high bidders on every bid they submitted. The most efficient bidder was Vastar Resources, which submitted 32 bids and was the high bidder on each.

The ten most active bidders in terms of total amount of high bids are listed in Table 6. Also listed in the table are the total number of bids and number of high bids submitted by the companies with their rank indicated in parentheses. Appendix F contains a summary of bids for all companies that participated in the sale.

In ranking companies by the high bids submitted, although some companies that were most active in WGOM Sale 168 (August 27, 1997) continued to be among the most active in Sale 171, a number of changes were apparent. For example, two companies (Exxon and BP) that were in the Sale 168 top ten were not ranked among the top 20 participants in Sale 171 and one Sale 168 top ten firm (Statoil Exploration) did not participate in Sale 171.

Appendix G presents a listing of bidding by the most active companies in Sales 171 and 168 (as well as 161).



Table 6. Most Active Bidders by Total Amount of High Bids  
(For number of bids and high bids, rank is in parentheses.)

Company	Total High Bids	Number of Bids	High Bids
Union Oil - CA	\$184,825,150	84 (1)	77 (1)
Texaco	\$48,750,959	72 (2)	61 (2)
Vastar Resources	\$39,975,118	32 (5)	32 (3)
Seagull Energy	\$21,149,716	18 (8)	11 (10)
Chevron	\$19,854,509	4 (38)	3 (36)
Burlington Resources	\$19,523,297	35 (4)	31 (4)
Amerada Hess	\$16,418,882	19 (6)	18 (6)
Amoco	\$16,365,771	6 (29)	5 (26)
Shell Deepwater	\$13,025,312	18 (8)	14 (8)
British-Borneo	\$12,492,664	15 (12)	8 (18)

#### Sale 171 v. Sale 168

The results of Sale 171 did not meet the results of Sale 168 in a number of categories with the exception of average high bid per acre. The average high bid per acre was \$241.44 in Sale 171 as compared to \$135.57 in Sale 168. In Sale 168, a WGOM record number of tracts (804) received a record number of bids (1,224), thus exceeding the 402 tracts that received 486 bids in Sale 171. In addition, the number of bids per tract declined from 1.5 in Sale 168 to 1.2 in Sale 171.

The amount of bidding activity in deep water in Sale 171 decreased greatly compared to Sale 168. Specifically, the number of tracts potentially eligible for DWRRA royalty suspension volumes (water depth of 200 meters or more) receiving bids decreased by 52 percent, however, the high bids on these tracts only decreased 5 percent, and, the average high bid per acre in this category increased 96 percent. Appendix H presents a graphical comparison of sale results.

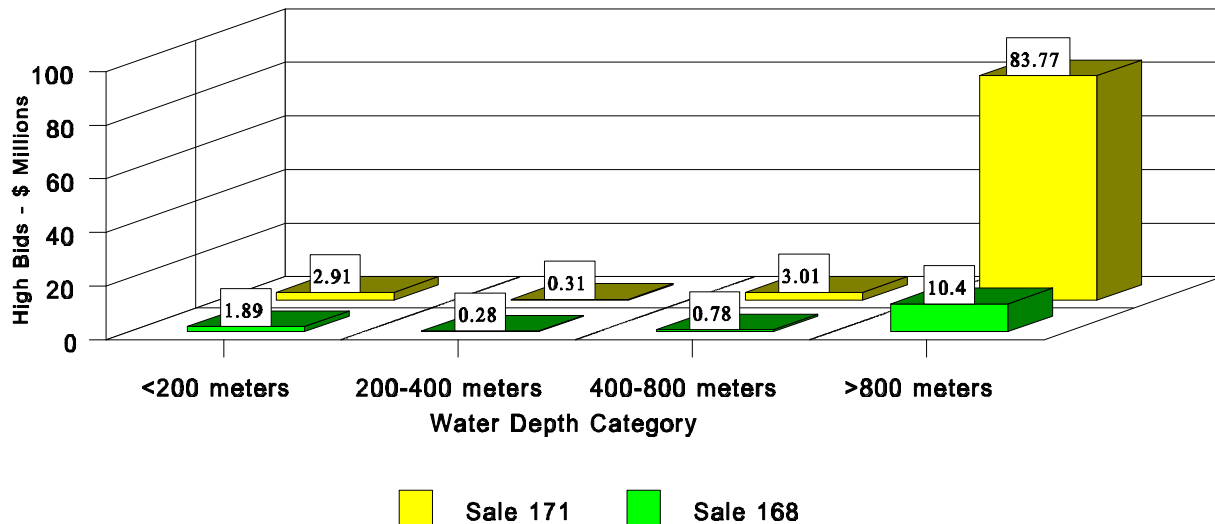
In Sale 171, 17 tracts that were rejected in Sale 168 received bids and nine Sale 168 rejected tract (with high bids of \$2,988,909) did not. The high bids on the 17 tracts increased from \$13,352,696 in Sale 168 to \$89,996,754 in Sale 171, an increase in high bids of 574 percent. The number of bids on these 17 tracts increased from 28 to 31, an increase of 11 percent. The potential to realize gains in high bids on tracts that were previously rejected highlights the importance of MMS's bid adequacy procedures.

## Sale 171 Rejections

High bids on 25 tracts were rejected in Sale 171. Twenty of the rejected blocks received one-bid, four were two-bid tracts, and one was a three-bid tract. By water depth category, the rejections were as follows: six in less than 200 meters; one in 200 to 400 meters; two in 400 to 800 meters; and 16 in 800 meters or more. Details about the high bids on rejected tracts are presented in Appendix I.

Sale 171 was the third sale to use the revised bid adequacy procedures in which the RAM replaced the Geometric Average Evaluation of Tract (GAEOT) as the secondary bid acceptance criterion. If the GAEOT was still in use for this sale, the high bid on one additional tract (G20783) would have been accepted. The modified procedures were published in the Federal Register on July 14, 1997 (62 FR 37589-37591) and are presented in Appendix J.

### Bid Comparison - Sale 168 Rejection v. Sale 171 High Bid



# Appendix A

Sale 171

Bidding Summary

Western Gulf of Mexico  
OCS Oil and Gas Lease Sale 171

Sale Day Statistics by Royalty Rate

	<u>16 2/3% Royalty</u>	<u>12 1/2% Royalty</u>	<u>Sale Total</u>
<u>Tracts Receiving Bids</u>	93	309	402
<u>Acres Receiving Bids</u>	518,145.41	1,774,123.92	2,292,269.33
<u>Sum of High Bids</u>	\$36,263,986	\$517,171,922	\$553,435,908
<u>Sum of All Bids</u>	\$41,407,329	\$700,447,718	\$741,855,047
<u>Total Number of Bids</u>	109	377	486
<u>Average Bids</u>	1.17	1.22	1.21
<u>Companies Bidding</u>	38	43	63
<u>Highest Bid per Tract</u>	\$2,202,300	\$37,406,500	\$37,406,500
Tract Number	20623	20882	20882
Number of Bids	2	5	5
<u>Highest Bid per Acre</u>	\$382.53	\$6,629.26	\$6,629.26
Tract Number	20623	20882	20882
Number of Bids	2	5	5
<u>Most Bids</u>	4	5	5
Tract Number	20656	20774, 20794 20876, 20882	20774, 20794 20876, 20882
Number of Tracts	1	4	4

Western Gulf of Mexico  
OCS Oil and Gas Lease Sale 171

Sale Day Statistics for 16 2/3% Royalty Rate Tracts

	<u>16 2/3% w/ROY<sup>1</sup></u>	<u>16 2/3% w/RS<sup>2</sup></u>	<u>16 2/3% Total</u>
<u>Tracts Receiving Bids</u>	79	14	93
<u>Acres Receiving Bids</u>	438,125.91	80,019.50	518,145.41
<u>Sum of High Bids</u>	\$31,378,124	\$4,885,862	\$36,263,986
<u>Sum of All Bids</u>	\$35,866,148	\$5,541,181	\$41,407,329
<u>Total Number of Bids</u>	92	17	109
<u>Average Bids</u>	1.16	1.21	1.17
<u>Companies Bidding</u>	33	10	38
<u>Highest Bid per Tract</u>	\$2,202,300	\$1,275,840	\$2,202,300
Tract Number	20623	20776	20623
Number of Bids	2	2	2
<u>Highest Bid per Acre</u>	\$382.53	\$221.50	\$382.53
Tract Number	20623	20776	20623
Number of Bids	2	2	2
<u>Most Bids</u>	4	2	4
Tract Number	20656	20681, 20683, 20776	20656
Number of Tracts	1	3	1

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<sup>1</sup> 16 2/3% w/ROY is that category of tracts in less than 200 meters of water with a royalty rate of 1/6 that is not eligible for DWRRA royalty suspension volumes.

<sup>2</sup> 16 2/3% w/RS is that category of tracts in 200 to 400 meters of water with a royalty rate of 1/6 that is potentially eligible for a DWRRA royalty suspension volume of 17.5 MMBOE.

Western Gulf of Mexico  
OCS Oil and Gas Lease Sale 171

Sale Day Statistics for 12 1/2% Royalty Rate Tracts

	<u>12 1/2% w/RS1<sup>3</sup></u>	<u>12 1/2% w/RS2<sup>4</sup></u>	<u>12 1/2% Total</u>
<u>Tracts Receiving Bids</u>	31	278	309
<u>Acres Receiving Bids</u>	178,560.00	1,595,563.92	1,774,123.92
<u>Sum of High Bids</u>	\$17,751,715	\$499,420,207	\$517,171,922
<u>Sum of All Bids</u>	\$20,848,055	\$579,599,663	\$700,447,718
<u>Total Number of Bids</u>	35	342	377
<u>Average Bids</u>	1.13	1.23	1.22
<u>Companies Bidding</u>	21	40	43
<u>Highest Bid per Tract</u>	\$3,008,888	\$37,406,500	\$37,406,500
Tract Number	20704	20882	20882
Number of Bids	2	5	5
<u>Highest Bid per Acre</u>	\$522.38	\$6,629.26	\$6,629.26
Tract Number	20704	20882	20882
Number of Bids	2	5	5
<u>Most Bids</u>	3	5	5
Tract Number	20783	20774, 20794 20876, 20882	20774, 20794 20876, 20882
Number of Tracts	1	4	4

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<sup>3</sup> 12 1/2% w/RS1" is that category of tracts in 400 to 800 meters of water with a royalty rate of 1/8 that is potentially eligible for a DWRRA royalty suspension volume of 52.5 MMBOE.

<sup>4</sup> 12 1/2% w/RS2" is that category of tracts in 800 or more meters of water with a royalty rate of 1/8 that is potentially eligible for a DWRRA royalty suspension volume of 87.5 MMBOE.

# Appendix B

Sale 171

Bidding by Number of Bids

## Sale 171

### All Tracts

<u>No. Of Bids</u>	<u>Tracts</u>	<u>Percent of Tracts</u>	<u>High Bids (\$MM)</u>	<u>Percent of High Bids</u>
1	347	86.32%	\$247.82	44.78%
2	40	9.95%	\$137.74	22.89%
3	5	1.24%	\$11.78	2.13%
4	6	1.49%	\$53.14	9.60%
<u>5</u>	<u>4</u>	<u>1.00%</u>	<u>\$102.96</u>	<u>18.60%</u>
Total	402	100.00%	\$553.44	100.00%

### Tracts with 1/6 Royalty Rate

<u>No. Of Bids</u>	<u>Tracts</u>	<u>Percent of Tracts</u>	<u>High Bids (\$MM)</u>	<u>Percent of High Bids</u>
1	80	86.02%	\$25.62	70.64%
2	11	11.83%	\$9.23	25.44%
3	1	1.08%	\$0.33	0.90%
4	1	1.08%	\$1.10	3.02%
<u>5</u>	<u>0</u>	<u>0.00%</u>	<u>\$0.00</u>	<u>0.00%</u>
Total	93	100.00%	\$36.26	100.00%

### Tracts with 1/8 Royalty Rate

<u>No. Of Bids</u>	<u>Tracts</u>	<u>Percent of Tracts</u>	<u>High Bids (\$MM)</u>	<u>Percent of High Bids</u>
1	267	86.41%	\$222.20	42.96%
2	29	9.39%	\$128.51	24.85%
3	4	1.29%	\$11.45	2.21%
4	5	1.62%	\$52.05	10.06%
<u>5</u>	<u>4</u>	<u>1.29%</u>	<u>\$102.96</u>	<u>19.91%</u>
Total	309	100.00%	\$517.17	100.00%



### Sale 171 by Water Depth Category

#### 1/6 Royalty (<200 meters; no RSV)

<u>No. Of Bids</u>	<u>Tracts</u>	<u>Percent of Tracts</u>	<u>High Bids (\$MM)</u>	<u>Percent of High Bids</u>
1	69	87.34%	\$22.61	72.05%
2	8	10.13%	\$7.35	23.42%
3	1	1.27%	\$0.33	1.04%
4	1	1.27%	\$1.10	3.49%
<u>5</u>	<u>0</u>	<u>0.00%</u>	<u>\$0.00</u>	<u>0.00%</u>
Total	79	100.00%	\$31.38	100.00%

#### 1/6 Royalty (200-400 meters; 17.5 mmboe RSV)

<u>No. Of Bids</u>	<u>Tracts</u>	<u>Percent of Tracts</u>	<u>High Bids (\$MM)</u>	<u>Percent of High Bids</u>
1	11	78.57%	\$3.01	61.58%
2	3	21.43%	\$1.88	38.42%
3	0	0.00%	\$0.00	0.00%
4	0	0.00%	\$0.00	0.00%
<u>5</u>	<u>0</u>	<u>0.00%</u>	<u>\$0.00</u>	<u>0.00%</u>
Total	14	100.00%	\$4.89	100.00%

**1/8 Royalty (400-800 meters; 52.5 mmboe RSV)**

<u>No. Of Bids</u>	<u>Tracts</u>	<u>Percent of Tracts</u>	<u>High Bids (\$MM)</u>	<u>Percent of High Bids</u>
1	28	90.32%	\$12.18	68.64%
2	2	6.45%	\$3.43	19.35%
3	1	3.23%	\$2.13	12.02%
4	0	0.00%	\$0.00	0.00%
<u>5</u>	<u>0</u>	<u>0.00%</u>	<u>\$0.00</u>	<u>0.00%</u>
Total	31	100.00%	\$17.75	100.00%

**1/8 Royalty (800+ meters; 87.5 mmboe RSV)**

<u>No. Of Bids</u>	<u>Tracts</u>	<u>Percent of Tracts</u>	<u>High Bids (\$MM)</u>	<u>Percent of High Bids</u>
1	239	85.97%	\$210.01	42.05%
2	27	9.71%	\$125.08	25.05%
3	3	1.08%	\$9.32	1.87%
4	5	1.80%	\$52.05	10.42%
<u>5</u>	<u>4</u>	<u>1.44%</u>	<u>\$102.96</u>	<u>20.62%</u>
Total	278	100.00%	\$499.42	100.00%

# Appendix C

Sale 171

Bidding by High Bid per  
Acre

## Sale 171

### All Tracts

<u>High Bid/acre</u>	<u>Tracts</u>	<u>Percent of Tracts</u>	<u>High Bids (\$MM)</u>	<u>Percent of High Bids</u>
< \$50	177	44.03%	\$33.17	5.99%
\$50 - 74.99	58	14.43%	\$19.97	3.61%
\$75 - 99.99	34	8.46%	\$17.07	3.09%
\$100 - 149.99	47	11.69%	\$32.53	5.88%
<u>\$150 +</u>	<u>86</u>	<u>21.39%</u>	<u>\$450.70</u>	<u>81.44%</u>
Total	402	100.00%	\$553.44	100.00%

### Tracts with 1/6 Royalty Rate

<u>High Bid/acre</u>	<u>Tracts</u>	<u>Percent of Tracts</u>	<u>High Bids (\$MM)</u>	<u>Percent of High Bids</u>
< \$50	49	52.69%	\$9.55	26.34%
\$50 - 74.99	20	21.51%	\$6.08	16.78%
\$75 - 99.99	6	6.45%	\$2.91	8.02%
\$100 - 149.99	8	8.60%	\$5.37	14.82%
<u>\$150 +</u>	<u>10</u>	<u>10.75%</u>	<u>\$12.35</u>	<u>34.04%</u>
Total	93	100.00%	\$36.26	100.00%

### Tracts with 1/8 Royalty Rate

<u>High Bid/acre</u>	<u>Tracts</u>	<u>Percent of Tracts</u>	<u>High Bids (\$MM)</u>	<u>Percent of High Bids</u>
< \$50	128	41.42%	\$23.62	4.57%
\$50 - 74.99	38	12.30%	\$13.88	2.68%
\$75 - 99.99	28	9.06%	\$14.16	2.74%
\$100 - 149.99	39	12.62%	\$27.16	5.25%
<u>\$150 +</u>	<u>76</u>	<u>24.60%</u>	<u>\$438.35</u>	<u>84.76%</u>
Total	309	100.00%	\$517.17	100.00%

### Sale 171 by Water Depth Category

#### 1/6 Royalty (<200 meters; no RSV)

<u>High Bid/acre</u>	<u>Tracts</u>	<u>Percent of Tracts</u>	<u>High Bids (\$MM)</u>	<u>Percent of High Bids</u>
< \$50	42	53.16%	\$8.17	26.02%
\$50 - 74.99	16	20.25%	\$4.87	15.51%
\$75 - 99.99	4	5.06%	\$1.90	6.06%
\$100 - 149.99	8	10.13%	\$5.37	17.12%
<u>\$150 +</u>	<u>9</u>	<u>11.39%</u>	<u>\$11.07</u>	<u>35.28%</u>
Total	79	100.00%	\$31.38	100.00%

#### 1/6 Royalty (200 - 400 meters; 17.5 mmboe RSV)

<u>High Bid/acre</u>	<u>Tracts</u>	<u>Percent of Tracts</u>	<u>High Bids (\$MM)</u>	<u>Percent of High Bids</u>
< \$50	7	50.00%	\$1.39	28.37%
\$50 - 74.99	4	28.57%	\$1.22	24.89%
\$75 - 99.99	2	14.29%	\$1.01	20.63%
\$100 - 149.99	0	0.00%	\$0.00	0.00%
<u>\$150 +</u>	<u>1</u>	<u>7.14%</u>	<u>\$1.28</u>	<u>26.11%</u>
Total	14	100.00%	\$4.89	100.00%

**1/8 Royalty (400 - 800 meters; 52.5 mmboe RSV)**

<u>High Bid/acre</u>	<u>Tracts</u>	<u>Percent of Tracts</u>	<u>High Bids (\$MM)</u>	<u>Percent of High Bids</u>
< \$50	20	64.52%	\$3.64	20.50%
\$50 - 74.99	2	6.45%	\$0.83	4.69%
\$75 - 99.99	0	0.00%	\$0.00	0.00%
\$100 - 149.99	3	9.68%	\$2.05	11.58%
<u>\$150 +</u>	<u>6</u>	<u>19.35%</u>	<u>\$11.23</u>	<u>63.24%</u>
Total	31	100.00%	\$17.75	100.00%

**1/8 Royalty (800 + meters; 87.5 mmboe RSV)**

<u>High Bid/acre</u>	<u>Tracts</u>	<u>Percent of Tracts</u>	<u>High Bids (\$MM)</u>	<u>Percent of High Bids</u>
< \$50	108	38.85%	\$19.98	4.00%
\$50 - 74.99	36	12.95%	\$13.05	2.61%
\$75 - 99.99	28	10.07%	\$14.16	2.84%
\$100 - 149.99	36	12.95%	\$25.10	5.03%
<u>\$150 +</u>	<u>70</u>	<u>25.18%</u>	<u>\$427.13</u>	<u>85.52%</u>
Total	278	100.00%	\$499.42	100.00%

# Appendix D

Sale 171

Bidding Results – Graphs

# Distribution of High Bids

## Sale 171 - WGOM

Prepared by:  
Economics Division, MMS

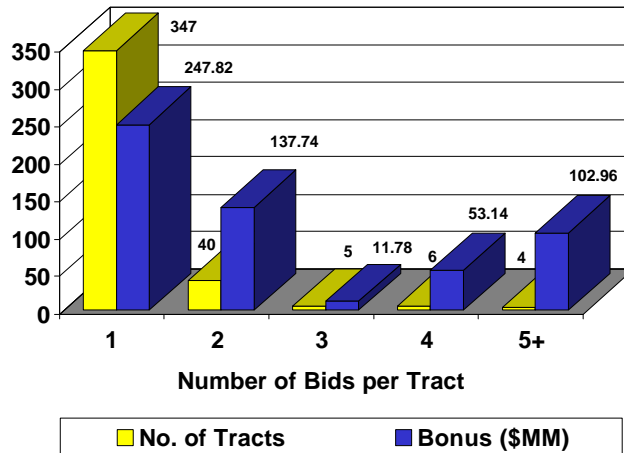
### Sale 171 (WGOM) - Bidding Results

- 402 tracts received 486 bids (1.2 bids/tract)
- High bids were \$553.4 MM
- Average high bid per acre was \$241.44
- 63 companies submitted bids
- 93 tracts in < 400 meters received bids
  - 23.13 % of tracts and 6.55 % of high bids
- 309 tracts in 400+ meters received bids
  - 76.87 % of tracts and 93.45 % of high bids



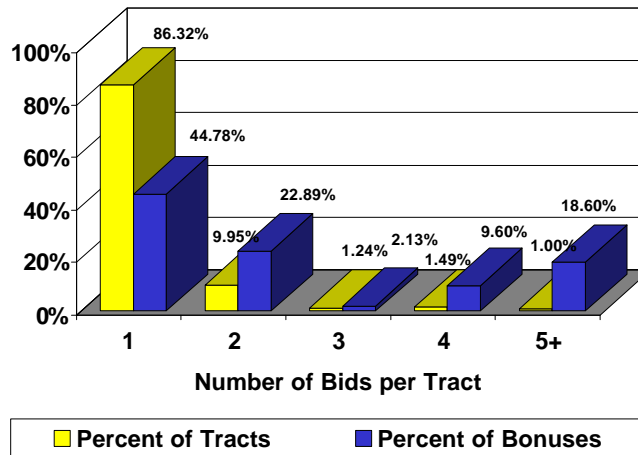
# Sale 171 - Aggregate

## Bidding Activity by Bids per Tract



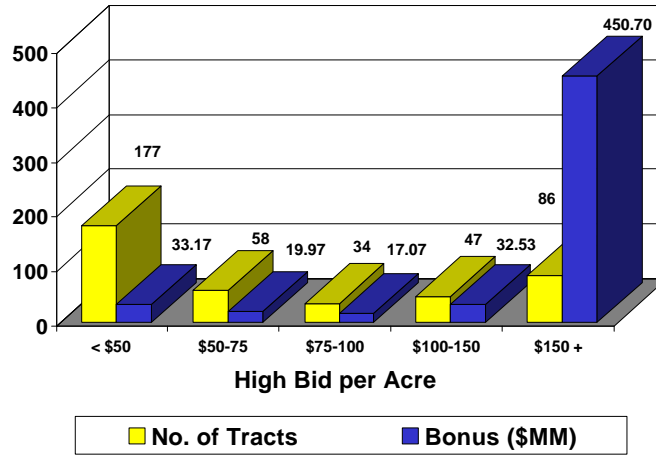
# Sale 171 - Aggregate

## Bidding Activity by Bids per Tract



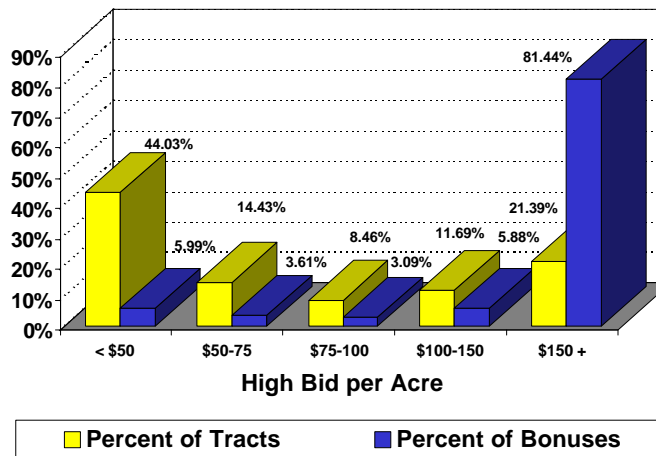
# Sale 171 - Aggregate

## Bidding Activity by High Bid per Acre



# Sale 171 - Aggregate

## Bidding Activity by High Bid per Acre



# Sale 171

## Bidding by Water Depth Category

Prepared by:  
Economics Division, MMS

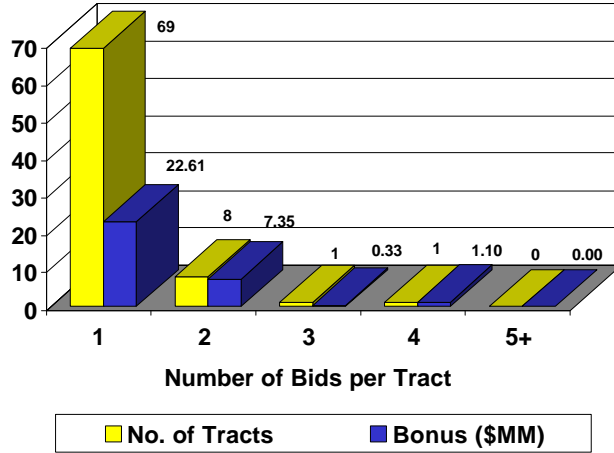
## Sale 171 (WGOM)

### Bidding by Water Depth Category

- 79 tracts in < 200 meters received 92 bids and high bids of \$31.38 MM (\$71.62/acre)
- 14 tracts in 200-400 meters had 17 bids and high bids of \$4.89 MM (\$61.06/acre)
- 31 tracts in 400-800 meters had 35 bids and high bids of \$17.75 MM (\$99.42/acre)
- 278 tracts in > 800 meters had 342 bids and high bids of \$499.42 MM (\$303.01/acre)

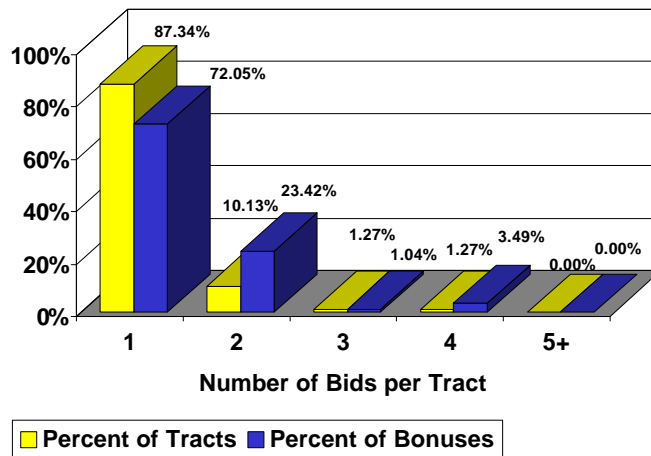
## Sale 171 - Tracts in < 200 Meters Water Depth

### Bidding Activity by Bids per Tract



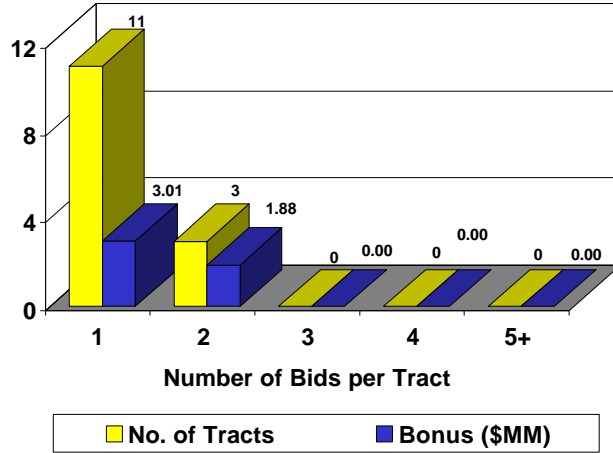
## Sale 171 - Tracts in < 200 Meters Water Depth

### Bidding Activity by Bids per Tract



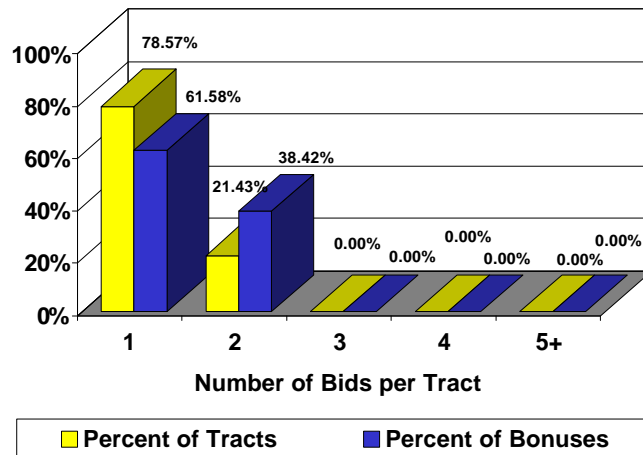
Sale 171 - Tracts in 200-400 Meters Water Depth

**Bidding Activity by Bids per Tract**



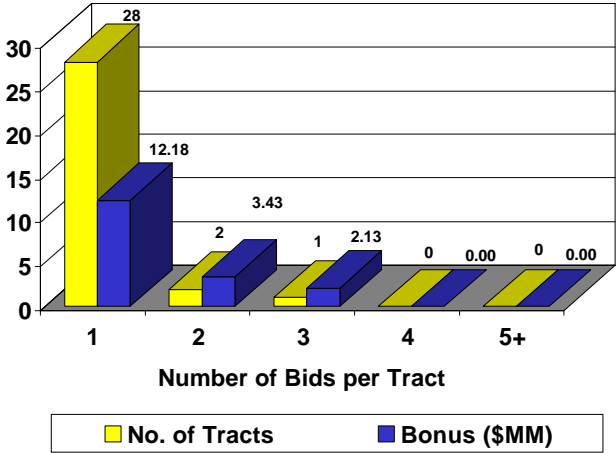
Sale 171 - Tracts in 200-400 Meters Water Depth

**Bidding Activity by Bids per Tract**



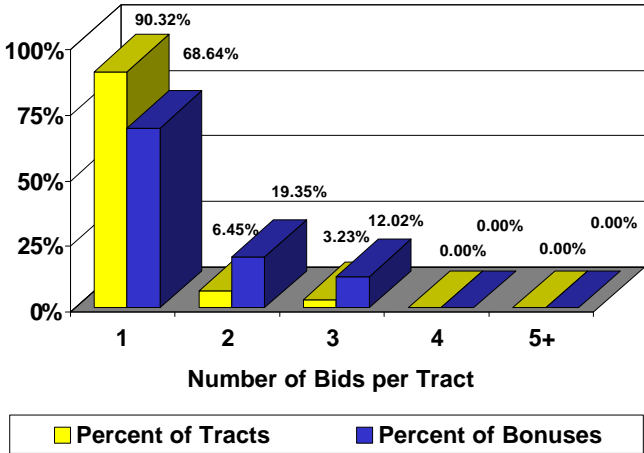
Sale 171 - Tracts in 400-800 Meters Water Depth

Bidding Activity by Bids per Tract



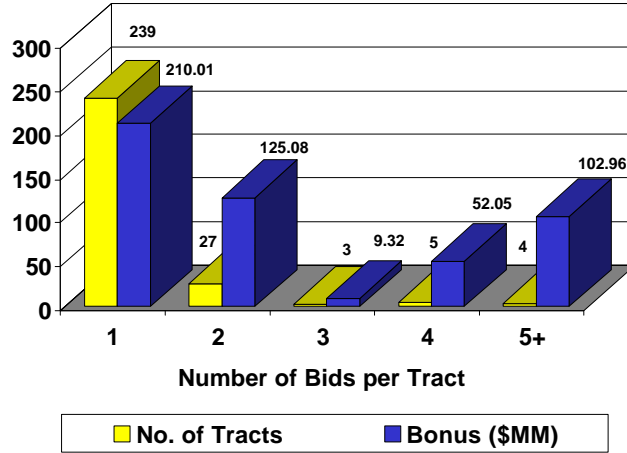
Sale 171 - Tracts in 400-800 Meters Water Depth

Bidding Activity by Bids per Tract



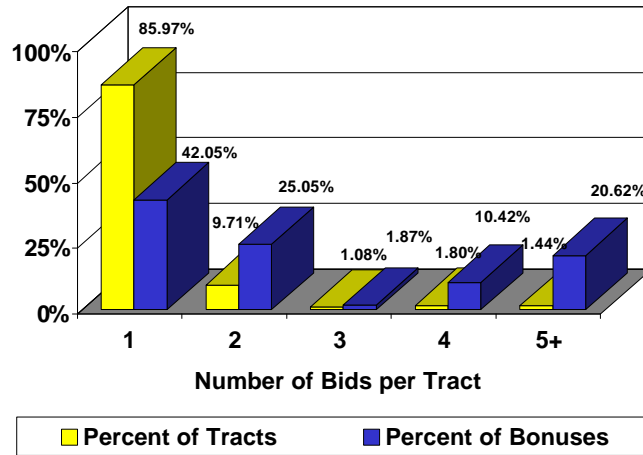
Sale 171 - Tracts in 800+ Meters Water Depth

Bidding Activity by Bids per Tract



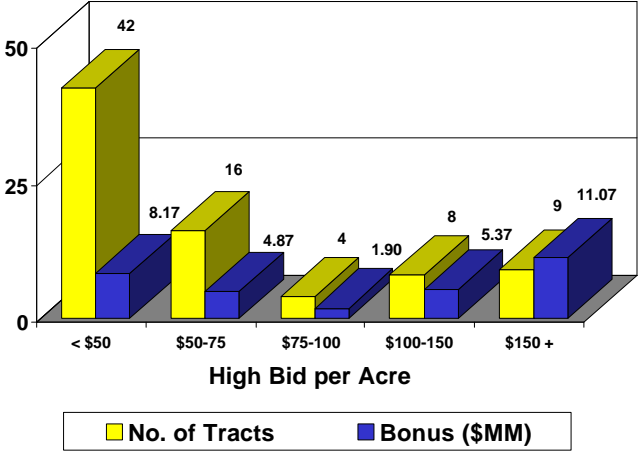
Sale 171 - Tracts in 800+ Meters Water Depth

Bidding Activity by Bids per Tract



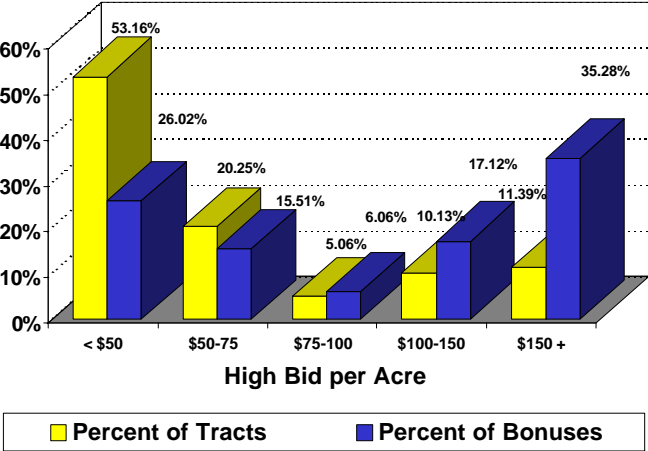
Sale 171 - Tracts in < 200 Meters Water  
Depth

Bidding Activity by High Bid per Acre



Sale 171 - Tracts in < 200 Meters Water  
Depth

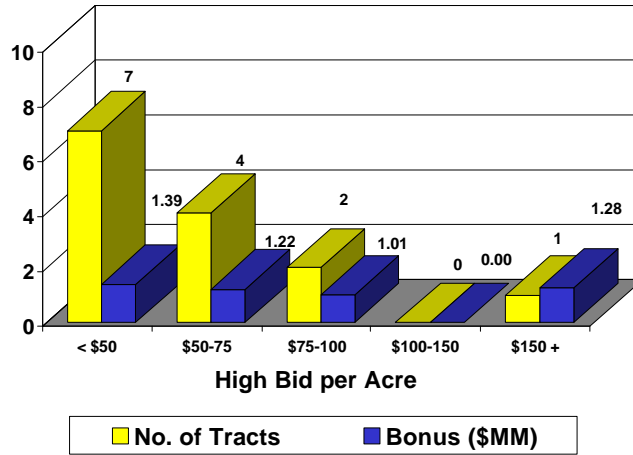
Bidding Activity by High Bid per Acre





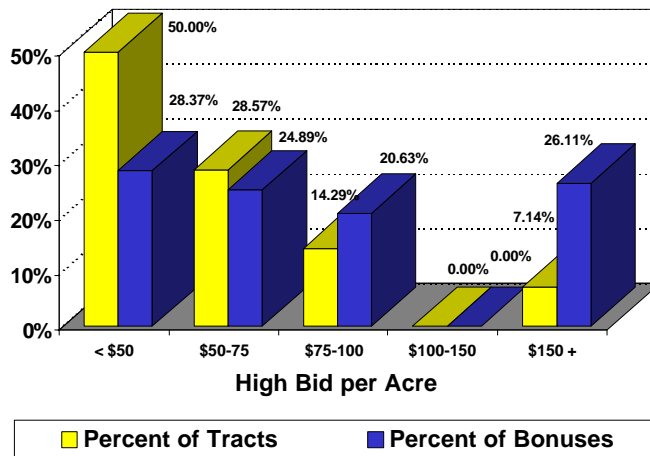
Sale 171 - Tracts in 200-400 Meters Water Depth

**Bidding Activity by High Bid per Acre**



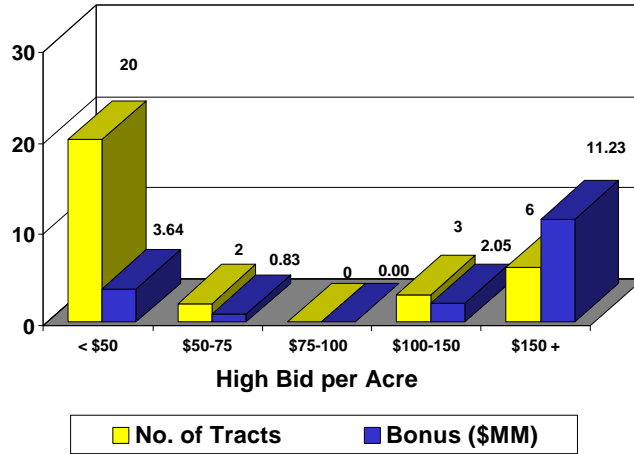
Sale 171 - Tracts in 200-400 Meters Water Depth

**Bidding Activity by High Bid per Acre**



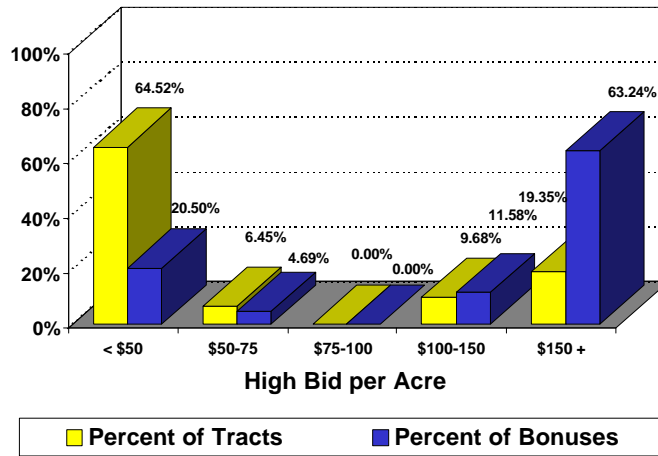
Sale 171 - Tracts in 400-800 Meters Water Depth

**Bidding Activity by High Bid per Acre**



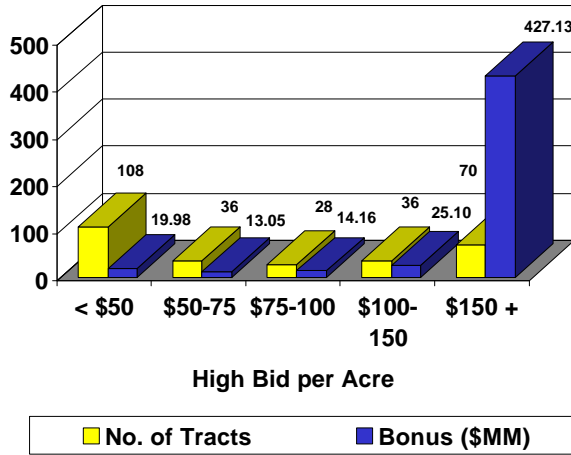
Sale 171 - Tracts in 400-800 Meters Water Depth

**Bidding Activity by High Bid per Acre**



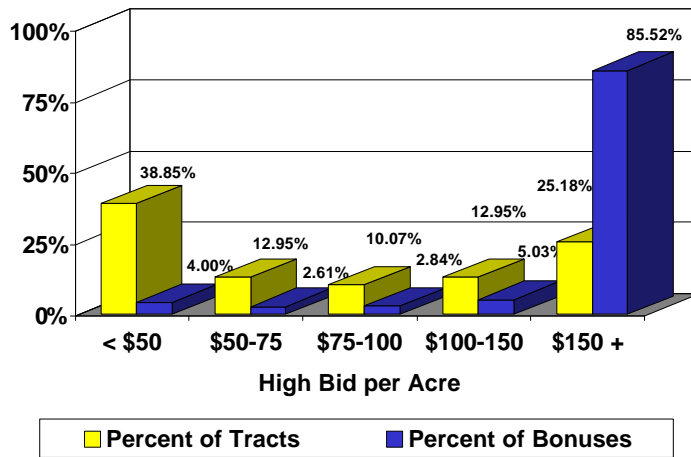
Sale 171 - Tracts in 800+ Meters Water Depth

Bidding Activity by High Bid per Acre



Sale 171 - Tracts in 800+ Meters Water Depth

Bidding Activity by High Bid per Acre



# Appendix E

Sale 171

RAM

### Sale 171 - Tracts with Three or More Bids

In Sale 171, three or more bids were received on 15 tracts, all confirmed or wildcat. The distribution of those bids by water depth category and third bid as a percent of high bid is presented in Table E1. Of the 15 blocks with three or more bids, one had a third bid within 25 percent of the high bid and 10 had third bids which were not at least 25 percent of the high bid.

Table E1. Percent Difference between a Tract's High Bid and Third Bid  
by Water Depth Category

Category	< 25 %	25 - 50 %	50 - 75 %	> 75 %	Total
< 200 m.	0	1	0	1	2
200 - 400 m.	0	0	0	0	0
400 - 800 m.	0	0	0	1	1
> 800 m.	1	1	2	8	12
Total	1	2	2	10	15

Sale 171 was the third sale in which the modified number of bids rule was used for Phase 1 acceptance of high bids on selected tracts receiving three or more bids. Under the rule, high bids on wildcat and confirmed tracts receiving three or more bids are accepted in Phase 1, if the third highest bid on the tract is at least 50 percent of the high bid. In Sale 171, the three tracts with third highest bids within 50 percent of the high bid were accepted in Phase 1.

Sale 171 was also the third sale in which a new Phase 2 averaging rule, the "Revised Arithmetic Average Measure" (RAM) of tract value was used. The RAM is a secondary bid acceptance rule that is used on multi-bid tracts if the Government's value of the tract (MROV) exceeds the high bid. The RAM is arithmetic average of a tract's high bid, MROV, and all other bids that are at least 25 percent of the high bid. If a bid on a tract is not at least 25 percent of the high bid, that bid is considered an outlier and not included in the RAM calculation. Thus, the adjusted number of bids on a tract for the RAM calculation can be less than the total number of bids that a tract receives.

For those tracts on which the RAM is used as the bid acceptance rule, if the RAM is less than the tract's high bid, the high bid is accepted and if the RAM exceeds the high bid, the high bid is rejected. The revised bid evaluation process was described in a notice of procedural changes relative to "Modifications in the Bid Adequacy Procedures" that was published in the Federal Register on July 14, 1997 (Volume 62, Number 134).

For the 12 tracts passed to Phase 2 for further evaluation that potentially could use the RAM as the bid acceptance decision rule, the MROV's that would be needed to reject a tract's high bid using the RAM were calculated. Using the RAM, three tracts need a MROV less than \$5 million

and four tracts need a MROV between \$5 million and \$10 million. With the RAM, the largest of the five MROV's in excess of \$10 million needed to reject a high bid was almost \$68 million. This is reasonable as the tract's high bid was more than \$30 million. These results are summarized in Table E2.

Table E2. MROV Needed to Reject a High Bid Using the RAM  
by Water Depth Category

Category	< \$1 MM	\$1-5 MM	\$5-10 MM	> \$ 10 MM	Total
< 200 m.	0	1	0	0	1
200 - 400 m.	0	0	0	0	0
400 - 800 m.	0	1	0	0	1
> 800 m.	0	1	4	5	10
Total	0	3	4	5	12

**Sale 171 - Tracts with Three or More Bids Passed to Phase 2**

Table E3. Tract in < 200 Meters; No Royalty Suspension Volume

<u>Tract</u>	<u>High Bid</u>	<u>No. Of Bids</u>	<u>3<sup>rd</sup> Bid as % of High Bid</u>	<u>Adjusted No. Of Bids</u>	<u>MROV to Reject w/ RAM</u>
20656	\$1,095,777	4	20.28%	2	\$1,369,220

Table E4. Tract in 400-800 Meters; 52.5 MMBOE Royalty Suspension Volume

<u>Tract</u>	<u>High Bid</u>	<u>No. Of Bids</u>	<u>3<sup>rd</sup> Bid as % of High Bid</u>	<u>Adjusted No. Of Bids</u>	<u>MROV to Reject w/ RAM</u>
20783	\$2,133,213	3	14.86%	2	\$3,544,988

Table E5. Tracts in > 800 Meters; 87.5 MMBOE Royalty Suspension Volume

<u>Tract</u>	<u>High Bid</u>	<u>No. Of Bids</u>	<u>3<sup>rd</sup> Bid as % of High Bid</u>	<u>Adjusted No. Of Bids</u>	<u>MROV to Reject w/RAM</u>
20757	\$19,384,760	4	16.45%	2	\$25,412,733
20774	\$31,021,760	5	35.24%	3	\$67,945,428
20792	\$5,683,000	4	22.00%	2	\$5,837,598
20794	\$12,781,200	5	33.42%	3	\$23,705,949
20795	\$4,532,656	4	16.01%	2	\$6,255,314
20796	\$2,424,960	3	10.55%	2	\$3,112,418
20870	\$6,350,000	3	18.11%	2	\$9,952,155
20876	\$21,754,200	5	10.71%	2	\$33,362,911
20877	\$7,207,891	4	12.17%	1	\$7,207,892
20882	\$37,406,500	5	17.10%	1	\$37,406,501

# Appendix F

Sale 171

Summary of Company Bids



**Sale 171 - Summary of Company Bids by Total Amount of High Bids**

<u>Rank</u>	<u>Company #</u>	<u>Company Name</u>	<u>Total</u>	<u>High</u>	<u>Losers</u>	<u>Total Exposed</u>	<u>Total High Bids</u>	<u>Total Unsuccessful</u>
1	3	Union Oil - California	84	77	7	\$193,058,785.00	\$184,825,149.80	\$8,233,635.20
2	771	Texaco Exploration and Production	72	61	11	\$57,604,096.18	\$48,750,959.27	\$8,853,136.91
3	1855	Vastar Resources	32	32	0	\$39,975,118.00	\$39,975,118.00	\$0.00
4	1956	Seagull Energy E&P	18	11	7	\$23,350,933.40	\$21,149,716.00	\$2,201,217.40
5	78	Chevron U.S.A.	4	3	1	\$30,000,000.00	\$19,854,509.00	\$10,145,491.00
6	1904	Burlington Resources Offshore	35	31	4	\$36,910,935.56	\$19,523,296.56	\$17,387,639.00
7	59	Amerada Hess	19	18	1	\$16,680,962.24	\$16,418,882.24	\$262,080.00
8	114	Amoco Production	6	5	1	\$17,281,720.18	\$16,365,771.27	\$915,948.91
9	2139	Shell Deepwater Development	18	14	4	\$21,971,829.64	\$13,025,312.45	\$8,946,517.19
10	1431	British-Borneo Petroleum	15	8	7	\$19,621,621.60	\$12,492,663.60	\$7,128,958.00
11	724	Marathon Oil	6	3	3	\$36,931,661.90	\$12,308,378.10	\$24,623,283.80
12	2219	Kerr-McGee	19	18	1	\$16,433,379.56	\$12,107,537.56	\$4,325,842.00
13	1022	Sun Operating	11	9	2	\$20,078,496.00	\$11,154,240.00	\$8,924,256.00
14	185	Samedan Oil	10	8	2	\$10,412,451.77	\$9,096,361.37	\$1,316,090.40
15	1138	Sonat Exploration GOM	37	30	7	\$10,376,500.00	\$9,078,400.00	\$1,298,100.00
16	818	Mariner Energy	11	8	3	\$14,554,080.00	\$8,199,360.00	\$6,354,720.00
17	1750	Pennzoil Exploration and Production	16	9	7	\$7,804,388.00	\$6,629,505.00	\$1,174,883.00
18	2117	Enterprise Oil Gulf of Mexico	5	4	1	\$6,292,881.46	\$6,002,687.06	\$290,194.40
19	2211	EEX Corporation	5	4	1	\$6,292,881.46	\$6,002,687.06	\$290,194.40
20	2169	Spinnaker Exploration	13	10	3	\$9,242,315.23	\$5,736,857.83	\$3,505,457.40
21	282	CNG Producing	10	7	3	\$12,656,178.40	\$5,670,363.40	\$6,985,815.00
22	2295	Exxon Asset Management Corp.	16	14	2	\$9,500,000.00	\$4,480,000.00	\$5,020,000.00
23	56	Phillips Petroleum	9	7	2	\$9,889,673.31	\$4,371,053.31	\$5,518,620.00
24	1958	Maxus (U.S.) Exploration	9	7	2	\$5,691,733.00	\$4,185,757.00	\$1,505,976.00
25	491	Coastal Oil & Gas Corporation	11	11	0	\$4,128,925.00	\$4,128,925.00	\$0.00
26	1046	The Houston Exploration Company	11	9	2	\$4,326,081.66	\$4,107,365.00	\$218,716.66
27	1500	Elf Exploration	9	6	3	\$12,268,836.68	\$4,044,000.00	\$8,224,836.68
28	2248	Agip Petroleum Exploration	6	6	0	\$4,022,351.82	\$4,022,351.82	\$0.00
29	1935	Pioneer Natural Resources	3	2	1	\$8,616,471.60	\$3,887,277.90	\$4,729,193.70
30	231	Pogo Producing	4	3	1	\$4,239,108.20	\$3,741,138.20	\$497,970.00

<u>Rank</u>	<u>Company #</u>	<u>Company Name</u>	<u>Total</u>	<u>High</u>	<u>Losers</u>	<u>Total Exposed</u>	<u>Total High Bids</u>	<u>Total Unsuccessful</u>
31	981	Anadarko Petroleum	10	10	0	\$3,346,096.00	\$3,346,096.00	\$0.00
32	2190	PanCanadian Gulf of Mexico	5	4	1	\$3,288,194.09	\$3,143,096.89	\$145,097.20
33	2079	CXY Energy Offshore	7	4	3	\$9,992,181.66	\$2,862,000.00	\$7,130,181.66
34	2025	Coastal Oil & Gas USA, L.P.	10	10	0	\$2,531,750.00	\$2,531,750.00	\$0.00
35	1482	Nippon Oil Exploration U.S.A.	5	3	2	\$3,997,544.02	\$2,519,689.82	\$1,477,854.20
36	1680	BP Exploration & Oil	5	4	1	\$4,036,229.00	\$2,232,403.00	\$1,803,826.00
37	481	Petrofina Delaware	4	1	3	\$9,035,181.66	\$1,905,000.00	\$7,130,181.66
38	2280	TOTAL Exploration Production USA	8	5	3	\$4,045,583.50	\$1,840,997.00	\$2,204,586.50
39	2018	Basin Exploration	3	3	0	\$1,521,786.00	\$1,521,786.00	\$0.00
40	560	Seneca Resources	3	1	2	\$1,684,656.00	\$1,171,552.00	\$513,104.00
41	1385	Chieftain International (US)	7	5	2	\$2,687,779.40	\$1,110,116.00	\$1,577,663.40
42	689	Shell Offshore	7	2	5	\$2,194,280.00	\$972,020.00	\$1,222,260.00
43	2058	LLOG Exploration Offshore	1	1	0	\$707,000.00	\$707,000.00	\$0.00
44	276	Exxon Corporation	2	2	0	\$646,000.00	\$646,000.00	\$0.00
45	1551	Santa Fe Energy Resources	2	1	1	\$1,337,250.00	\$615,810.00	\$721,440.00
46	1732	Cockrell Oil and Gas	2	2	0	\$615,143.00	\$615,143.00	\$0.00
47	1888	McMoRan Oil & Gas	1	1	0	\$548,564.80	\$548,564.80	\$0.00
48	565	Mobil Producing TX & NM	3	1	2	\$5,999,916.69	\$547,666.69	\$5,452,250.00
49	2246	King Ranch Energy	4	4	0	\$502,490.00	\$502,490.00	\$0.00
50	1790	Snyder Oil Corporation	2	2	0	\$474,394.00	\$474,394.00	\$0.00
51	1689	Murphy Exploration & Production	5	1	4	\$7,845,500.00	\$406,000.00	\$7,439,500.00
52	1663	Blue Dolphin Exploration	2	2	0	\$364,320.00	\$364,320.00	\$0.00
53	1001	IP Petroleum	2	1	1	\$1,110,422.00	\$288,086.00	\$822,336.00
54	222	Aviara Energy Corporation	1	1	0	\$288,086.00	\$288,086.00	\$0.00
55	216	Case-Pomeroy Oil	4	4	0	\$242,625.00	\$242,625.00	\$0.00
56	1832	Forcenergy	1	2	-1	\$355,194.00	\$203,562.00	\$151,632.00
57	1578	British-Borneo Exploration	1	1	0	\$196,800.00	\$196,800.00	\$0.00
58	48	Forest Oil	1	1	0	\$153,230.00	\$153,230.00	\$0.00
59	2070	Tri-Union Development Corp.	1	1	0	\$144,000.00	\$144,000.00	\$0.00
60	148	Union Pacific resources	1	0	1	\$656,717.00	\$0.00	\$656,717.00
61	1103	Enron Oil & Gas	1	0	1	\$515,103.00	\$0.00	\$515,103.00
62	1364	Newfield Exploration	2	0	2	\$453,000.00	\$0.00	\$453,000.00
63	105	Apache	1	0	1	\$123,633.34	\$0.00	\$123,633.34

# Appendix G

Sales 171, 168, and 161

Active Bidders

**Companies Participating in 15 or More Bids in Sale 171**

<u>Company</u>	<u>Co. Code</u>	<u>&lt; 200 m.</u>	<u>200-400 m.</u>	<u>400-800 m.</u>	<u>800 + m.</u>	<u>Total</u>	<u>Exposure (\$MM)</u>	<u>Exposure Rank</u>	<u>Exposure per Bid</u>
Union Oil - California	3	11	4	0	69	84	\$193.06	1	\$2,298,333
Texaco Exploration and Production	771	2	0	1	69	72	\$57.60	2	\$800,000
Sonat Exploration GOM	1138	5	0	6	26	37	\$10.38		\$280,541
Burlington Resources Offshore	1904	0	0	0	35	35	\$36.91	5	\$1,054,571
Vastar Resources	1855	8	0	6	18	32	\$39.98	3	\$1,249,375
Amerada Hess	59	0	0	0	19	19	\$16.68		\$877,895
Kerr-McGee	2219	0	0	0	18	18	\$16.43		\$912,778
Seagull Energy E&P	1956	1	0	2	15	18	\$23.35	7	\$1,297,222
Shell Deepwater Development	2139	0	0	1	17	18	\$21.97	8	\$1,220,556
Pennzoil Exploration and Production	1750	1	2	2	11	16	\$7.80		\$487,500
Exxon Asset Management Corp.	2295	0	0	1	15	16	\$9.50		\$593,750
British-Borneo Petroleum	1431	0	0	0	15	15	\$19.62	10	\$1,308,000
<b><u>Other Bidders of Note:</u></b>									
Marathon Oil	724	0	0	0	6	6	\$36.93	4	\$6,155,000
Chevron U.S.A.	78	0	0	0	4	4	\$30.00	6	\$7,500,000
Sun Operating	1022	0	0	0	11	11	\$20.08	9	\$1,825,455

**Companies Participating in 25 or More Bids in Sale 168**

<u>Company</u>	<u>Co. Code</u>	<u>&lt; 200 m.</u>	<u>200-400 m.</u>	<u>400-800 m.</u>	<u>800 + m.</u>	<u>Total</u>	<u>Exposure (\$MM)</u>	<u>Exposure Rank</u>	<u>Exposure per Bid</u>
Shell Deepwater Development	2139	0	0	19	199	218	\$102.23	1	\$468,945
BP Exploration	1680	0	0	2	128	130	\$75.47	2	\$580,538
Chevron	78	0	0	3	98	101	\$57.11	4	\$565,446
Union Oil of California	3	12	4	5	71	92	\$47.47	5	\$515,978
Texaco	771	5	1	6	76	88	\$38.61	6	\$438,750
Amoco	114	0	0	0	88	88	\$21.16		\$240,455
Exxon	276	0	0	0	84	84	\$72.50	3	\$863,095
Sun Operating	1022	13	1	2	38	54	\$29.36	9	\$543,704
Vastar Resources	1855	7	0	1	42	50	\$28.70	10	\$574,000
Amerada Hess	59	2	1	8	32	43	\$22.16		\$515,349
Statoil Exploration (US)	1247	0	0	0	41	41	\$26.70		\$651,220
Burlington Resources	1904	2	0	4	35	41	\$22.07		\$538,293
Murphy Exploration	1689	0	0	5	33	38	\$19.23		\$506,053
Elf Exploration	1500	0	0	3	33	36	\$25.83		\$717,500
Louisiana Land	83	1	0	0	33	34	\$15.09		\$443,824
Conoco	1	0	0	2	24	26	\$31.64	8	\$1,216,923
<b><u>Other Bidder(s) of Note:</u></b>									
Marathon	724	0	0	3	16	19	\$36.63	7	\$1,927,895

**Companies Participating in 25 or More Bids in Sale 161**

<u>Company</u>	<u>Co. Code</u>	<u>&lt; 200 m.</u>	<u>200-400 m.</u>	<u>400-800 m.</u>	<u>800 + m.</u>	<u>Total</u>	<u>Exposure (\$MM)</u>	<u>Exposure Rank</u>	<u>Exposure per Bid</u>
Shell	689	39	11	30	94	174	\$82.95	1	\$476,724
Chevron	78	1	2	3	66	72	\$12.57	9	\$174,583
Texaco	771	5	3	3	52	63	\$12.14	10	\$192,698
Vastar	1855	11	0	7	24	42	\$18.08	4	\$430,476
Conoco	1	0	1	4	37	42	\$15.69	7	\$373,571
Mobil	565	0	0	1	38	39	\$16.22	5	\$415,897
Zilkha	1138	26	4	6	2	38	\$12.06		\$317,368
Enron	1103	24	5	7	1	37	\$16.06	6	\$434,054
Phillips	56	0	0	1	35	36	\$5.58		\$155,000
Amoco	114	5	0	0	30	35	\$11.52		\$329,143
Amerada Hess	59	4	3	16	11	34	\$18.37	3	\$540,294
Chieftain International	1385	30	1	0	0	31	\$9.50		\$306,452
Exxon	276	0	0	2	28	30	\$8.04		\$268,000
Union Oil of California	3	4	4	5	16	29	\$10.07		\$347,241
British-Borneo Petroleum	1431	0	7	4	16	27	\$10.44		\$386,667
Sun Operating	1022	5	4	10	7	26	\$15.20	8	\$584,615
<b><u>Other Bidder(s) of Note:</u></b>									
Barrett Resources	2050	22	0	0	0	22	\$37.95	2	\$1,725,000

# Appendix H

Sales 171 and 168

Comparison of Sales - Graphs

# Sale 171 v. Sale 168

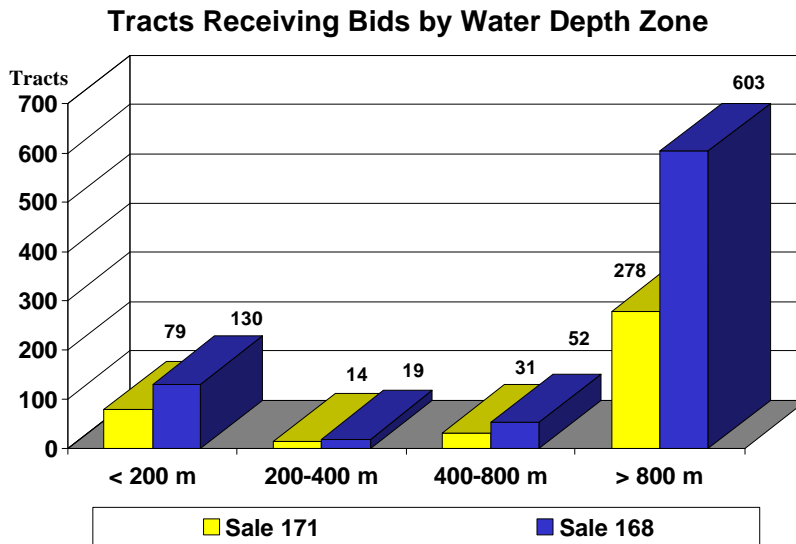
Prepared by:  
Economics Division, MMS

## Sale 171 - Sale 168 (WGOM) Comparison of Results

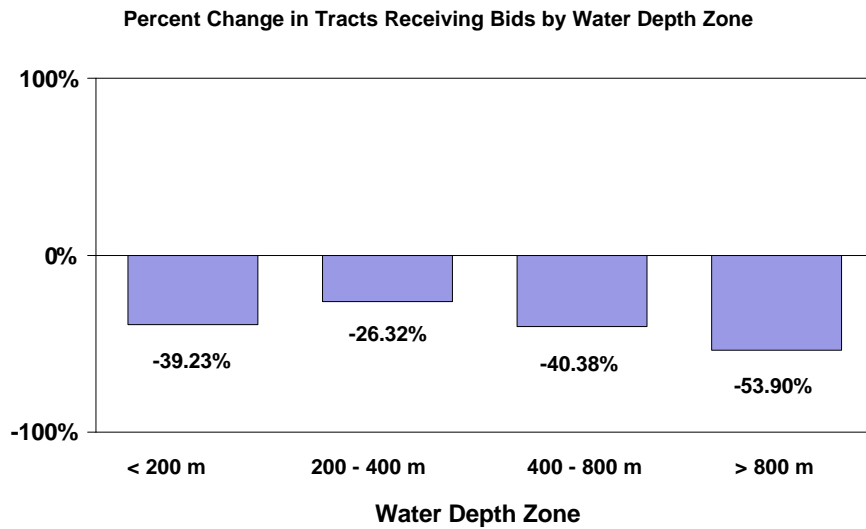
- In aggregate, 402 tracts received high bids of \$553.44 MM in Sale 171 and 804 tracts received high bids of \$616.21 MM in Sale 168
- Bids per tract declined from 1.5 to 1.2 in Sale 171
- Sale 171 had 79 tracts in < 200 m. receiving high bids of \$31.38 MM v. 130 tracts and high bids of \$65.85 MM in Sale 168
- Sale 171 had 323 tracts in > 200 m. receiving high bids of \$522.06 MM v. 674 tracts and high bids of \$550.36 MM in Sale 168



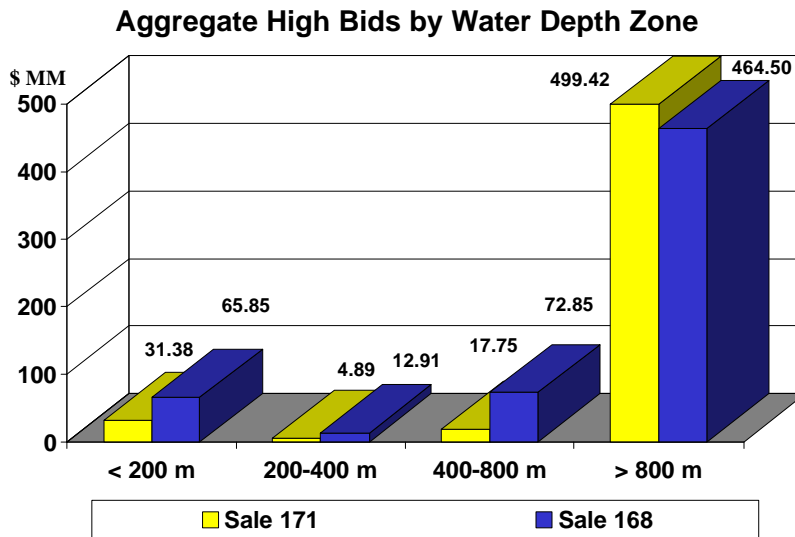
## Sale 171 v. Sale 168 - Tracts



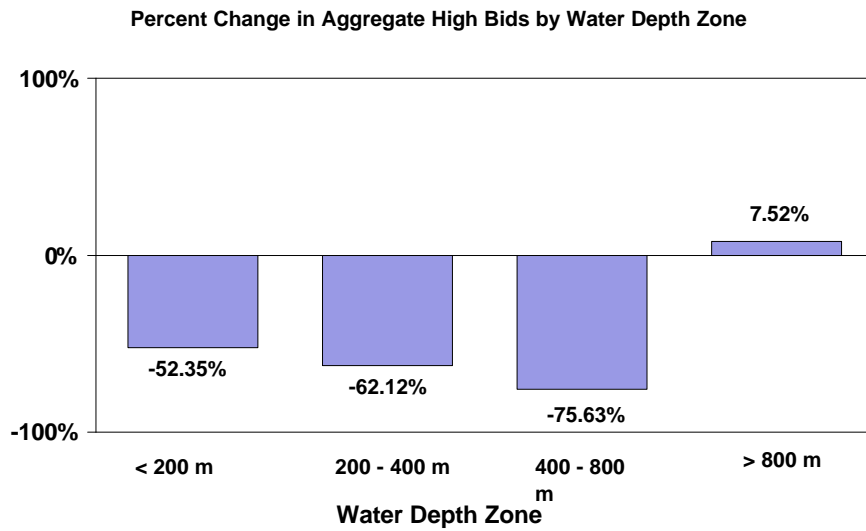
## Sale 171 v. Sale 168 - Tracts



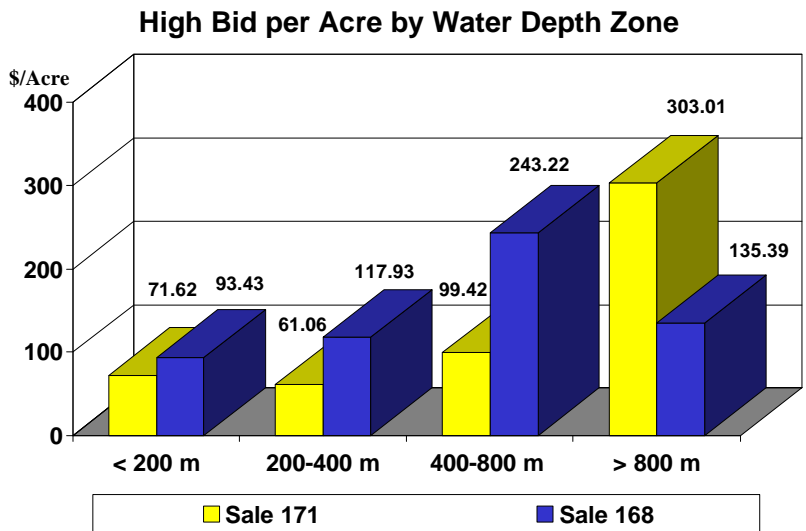
## Sale 171 v. Sale 168 - Bonuses



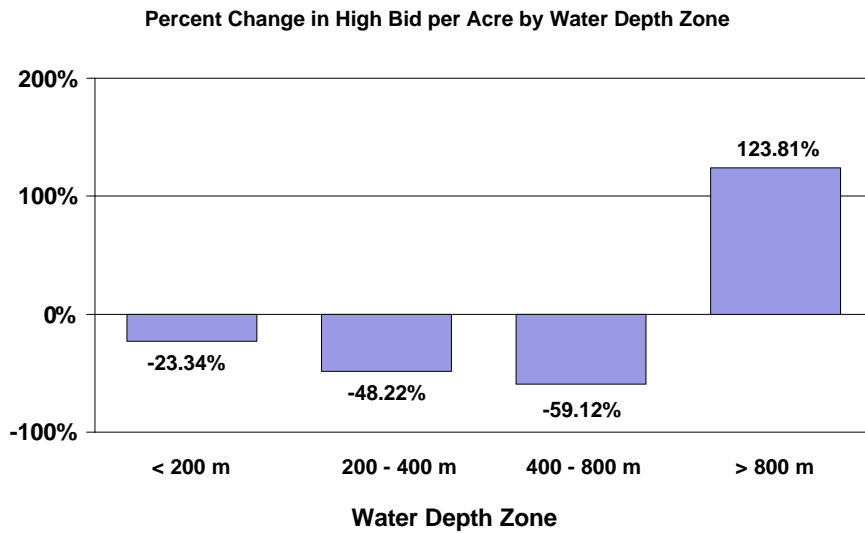
## Sale 171 v. Sale 168 - Bonuses



## Sale 171 v. Sale 168 - High Bid per Acre

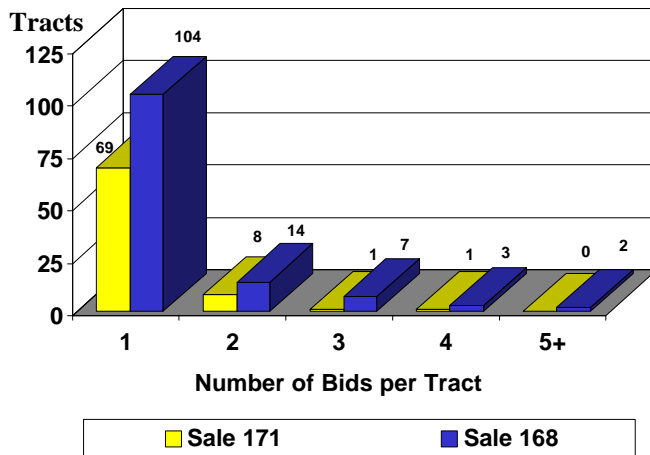


## Sale 171 v. Sale 168 - High Bid per Acre



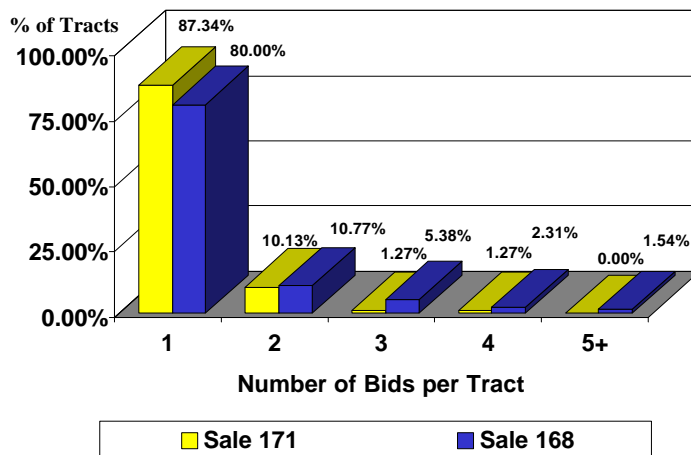
Sale 171 v. Sale 168 - Tracts in Less than 200 Meters Water Depth

**Bidding Activity by Bids per Tract**



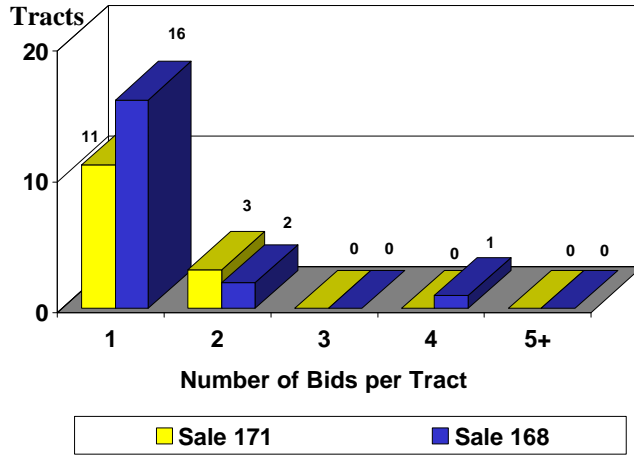
Sale 171 v. Sale 168 - Tracts in Less than 200 Meters Water Depth

**Bidding Activity by Bids per Tract**



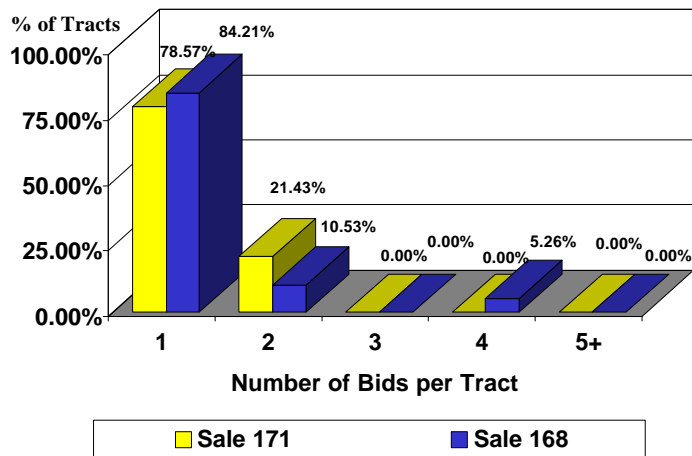
Sale 171 v. Sale 168 - Tracts in 200 to 400 Meters Water Depth

**Bidding Activity by Bids per Tract**



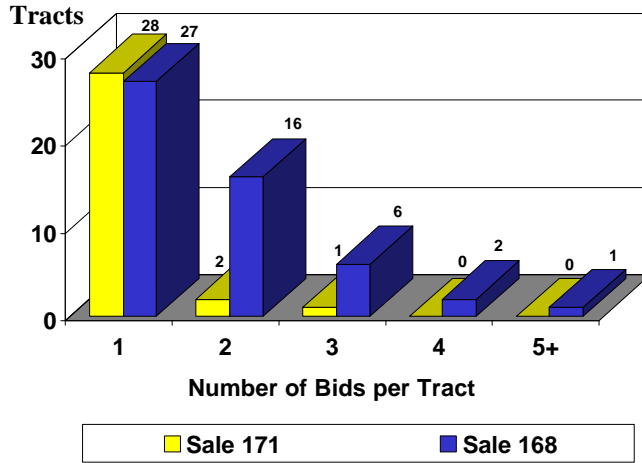
Sale 171 v. Sale 168 - Tracts in 200 to 400 Meters Water Depth

**Bidding Activity by Bids per Tract**



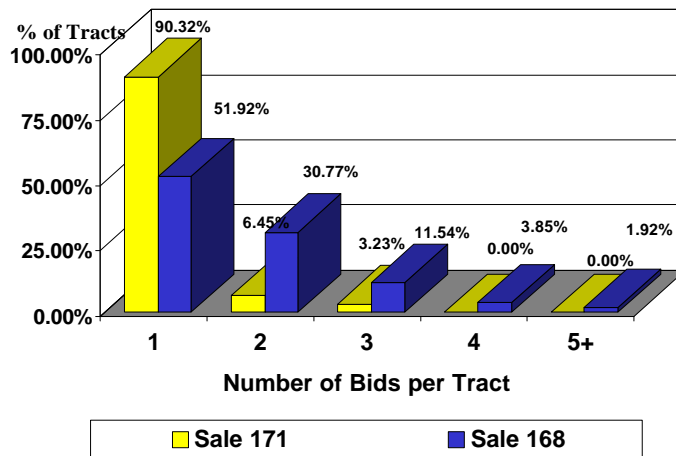
Sale 171 v. Sale 168 - Tracts in 400 to 800 Meters Water Depth

**Bidding Activity by Bids per Tract**

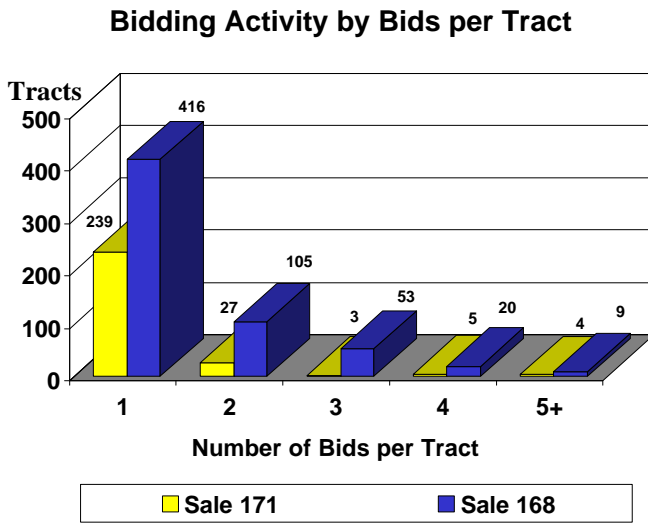


Sale 171 v. Sale 168 - Tracts in 400 to 800 Meters Water Depth

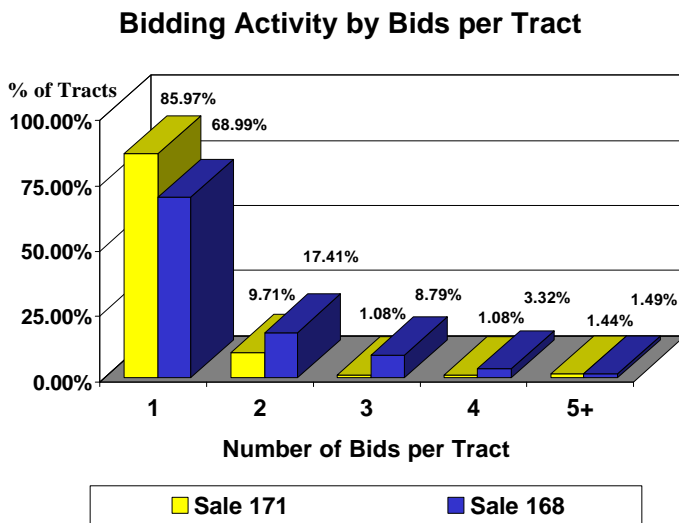
**Bidding Activity by Bids per Tract**



Sale 171 v. Sale 168 - Tracts in More than 800 Meters Water Depth

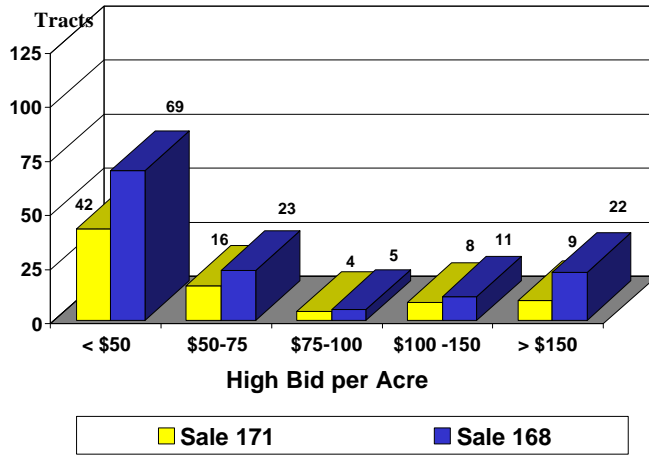


Sale 171 v. Sale 168 - Tracts in More than 800 Meters Water Depth



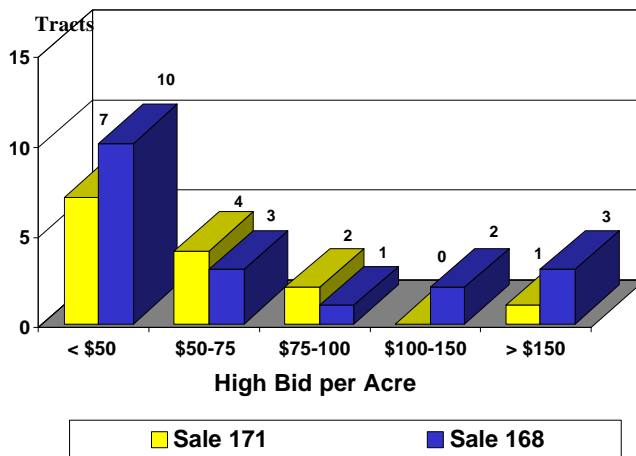
Sale 171 v. Sale 168 - Tracts in Less than 200 Meters Water Depth

**Bidding Activity by High Bid per Acre**



Sale 171 v. Sale 168 - Tracts in 200 to 400 Meters Water Depth

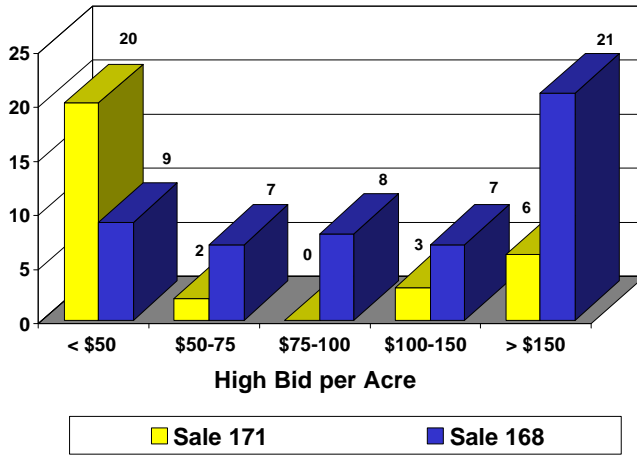
**Bidding Activity by High Bid per Acre**





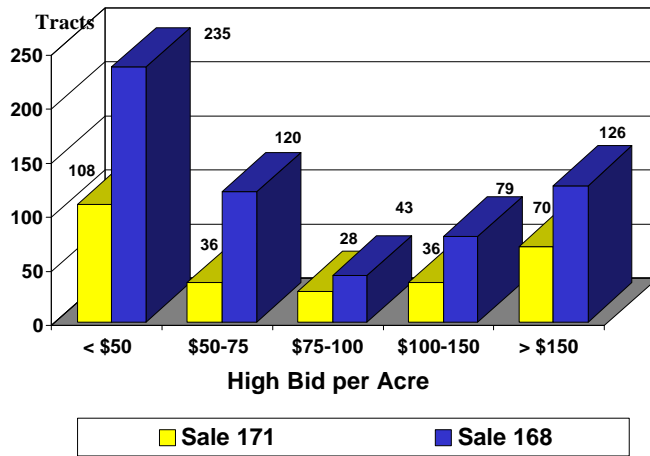
Sale 171 v. Sale 168 - Tracts in 400 to 800 Meters Water Depth

**Bidding Activity by High Bid per Acre**



Sale 171 v. Sale 168 - Tracts in More than 800 Meters Water Depth

**Bidding Activity by High Bid per Acre**



# Appendix I

Sale 171

High Bid Rejections

### Sale 171 Rejections

High bids on 25 tracts were rejected in Sale 171. Twenty of the rejected blocks received one-bid, four were two-bid tracts, and one was a three-bid tract. By water depth category, the rejections were as follows: six in less than 200 meters; one in 200 to 400 meters; two in 400 - 800 meters; and 16 in 800 meters or more.

Table II. Sale 171 Rejections in Water Depths Less than 200 Meters  
Royalty Rate = 1/6; No Royalty Suspension Volume

Tract No.	Bids	High Bid	MROV	RAM	GAEOT
20624	1	\$164,160	\$910,000	NA	NA
20644	1	\$258,156	\$810,000	NA	NA
20654	2	\$379,777	\$970,000	\$564,443	\$502,070
20657	1	\$315,363	\$840,000	NA	NA
20676	1	\$452,175	\$1,100,000	NA	NA
20775	1	\$205,298	\$1,800,000	NA	NA

Table I2. Sale 171 Rejection in Water Depths of 200 to 400 Meters  
Royalty Rate = 1/6; 17.5 MMBOE Royalty Suspension Volume

Tract No.	Bids	High Bid	MROV	RAM	GAEOT
20680	1	\$309,777	\$600,000	NA	NA

Table I3. Sale 171 Rejections in Water Depths of 400 to 800 Meters  
Royalty Rate = 1/8; 52.5 MMBOE Royalty Suspension Volume

Tract No.	Bids	High Bid	MROV	RAM	GAEOT
20782	2	\$425,705	\$3,900,000	\$1,574,568	\$871,001
20783	3	\$2,133,213	\$4,700,000	\$2,518,218	\$1,230,546

Table I4. Sale 171 Rejections in Water Depths 800 Meters or More  
 Royalty Rate = 1/8; 87.5 MMBOE Royalty Suspension Volume

Tract No.	Bids	High Bid	MROV	RAM	GAEOT
20735	1	\$202,000	\$2,300,000	NA	NA
20746	2	\$202,000	\$1,400,000	\$590,100	\$362,400
20770	1	\$322,560	\$2,200,000	NA	NA
20931	1	\$408,960	\$1,700,000	NA	NA
20936	1	\$201,600	\$550,000	NA	NA
20961	1	\$1,083,600	\$2,200,000	NA	NA
20962	1	\$907,760	\$2,700,000	NA	NA
20965	1	\$1,550,760	\$3,300,000	NA	NA
20966	1	\$405,760	\$4,500,000	NA	NA
20974	2	\$5,283,395	\$11,000,000	NA	NA
20975	1	\$916,760	\$1,600,000	NA	NA
20977	1	\$2,801,760	\$5,100,000	NA	NA
20978	1	\$1,602,760	\$6,100,000	NA	NA
20988	1	\$701,760	\$2,200,000	NA	NA
20999	1	\$807,870	\$1,800,000	NA	NA
21000	1	\$507,870	\$2,200,000	NA	NA

Sale 171 was the third sale to use the revised bid adequacy procedures in which the Revised Arithmetic-average Measure (RAM) replaced the Geometric Average Evaluation of Tract (GAEOT) as the secondary bid acceptance criterion. If the GAEOT was still in use for this sale, the high bid on one additional tract (20783) would have been accepted. The modified procedures were published in the Federal Register on July 14, 1997 (62 FR 37589-37591).

# Appendix J

Sale 171

Revised  
Bid Adequacy Procedures

[Federal Register: July 14, 1997 (Volume 62, Number 134)]  
[Notices]  
[Page 37589-37591]  
From the Federal Register Online via GPO Access [wais.access.gpo.gov]

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DEPARTMENT OF THE INTERIOR

Minerals Management Service

**Modifications to the Bid Adequacy Procedures**

**AGENCY:** Minerals Management Service (MMS), Interior.

**ACTION:** Notification of procedural changes.

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**SUMMARY:** The Minerals Management Service (MMS) has modified its existing bid adequacy procedures for ensuring receipt of fair market value on Outer Continental Shelf (OCS) oil and gas leases. In Phase 1 these procedures establish a new number of bids rule for acceptance of selected tracts. In Phase 2 these procedures expand the scope of tract evaluation; replace the geometric average evaluation of tract with a revised arithmetic average measure of the tract; eliminate the one-eighth rule for anomalous bids; and clarify the treatment of tracts identified as having unusual bidding patterns.

These changes were made following a review of bidding activity in OCS sales. The new number of bids rule relies more on market-determined factors to ensure receipt of fair market value. This new rule, along with expansion of evaluation procedures beyond only tract specific assessments, will allow for earlier acceptance on tracts that would be accepted later in the evaluation process. The revised average measure is designed to generate a better estimate of tract value when all bids fall below the Government's original estimate of tract value. The stricter screening rules associated with the revised average measure eliminate the need for the one-eighth rule. The Regional Director's expanded authority to handle [Page 37590] documented instances of unusual bidding patterns provides flexibility to modify certain acceptance rules and allows for a decision to reject the high bid on identified tracts.

**DATES:** This modification is effective July 14, 1997.

**FOR FURTHER INFORMATION CONTACT:**

Dr. Marshall Rose, Chief, Economics Division, at (703) 787-1536.

**SUPPLEMENTARY INFORMATION:** The following set of bid adequacy procedures incorporates the most recent changes. During the bid review process, MMS conducts evaluations in a two-phased process for bid adequacy determination. In Phase 1 we review the bid for legal sufficiency<sup>1</sup> and anomalies<sup>2</sup> to establish the set of qualified bids<sup>3</sup> to be evaluated.

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<sup>1</sup> Legal bids are those bids which comply with MMS regulations (30 CFR 256) and the Notice of Sale. Any illegal high bid will be returned to the bidder.

- (1) Phase 1 partitions the tracts receiving bids into three general categories:
- Those tracts which the MMS identifies as being nonviable<sup>4</sup> based on adequate data and maps;
  - Those tracts where competitive market forces can be relied upon to assure fair market value; and
  - Those tracts where opportunities for strategic underbidding, information asymmetry, collusion, and other noncompetitive practices are greatest and where the Government has the most detailed and reliable data.

Based on these categories, four Phase 1 rules are applied to all tracts receiving bids:

- Pass directly to Phase 2 for further evaluation all tracts that require additional information to make a determination on viability or tract type and all drainage and development tracts.

- Accept the highest qualified bid on confirmed and wildcat tracts receiving three or more qualified bids where the third highest such bid on the tract is at least 50 percent of the highest qualified bid.

- Pass to Phase 2 confirmed and wildcat tracts receiving either one or two qualified bids, or three or more qualified bids where the third highest such bid is less than 50 percent of the highest qualified bid.

- Accept the highest qualified bid on confirmed and wildcat tracts determined to be nonviable.

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<sup>2</sup> Anomalous bids include all but the highest bid submitted for a tract by the same company, parent or subsidiary (bidding alone or jointly). Such bids are excluded when applying the number of bids rule or any bid adequacy measure.

<sup>3</sup> Qualified bids are those bids which are legal and not anomalous.

<sup>4</sup> Nonviable tracts or prospects are those geographic or geologic configurations of hydrocarbons whose risk weighted most probable resource size is below the minimum economic field size for the relevant cost regime and anticipated future prices. The risk used is below the lowest level anticipated for any tract or prospect in the same cost regime.

In assuring the integrity of the bidding process, the Regional Director (RD) may identify an unusual bidding pattern<sup>5</sup> at any time during the bid review process, but before a tract is accepted. If the finding is documented, the RD has discretionary authority, after consultation with the Solicitor, to pass those tracts so identified to Phase 2 for further analysis. The RD may eliminate all but the highest of the unusual bids from consideration when applying any bid adequacy rule, may choose not to apply a bid adequacy rule, or may reject the tract's highest qualified bid.

Phase 1 procedures are generally completed simultaneously within three weeks of the bid opening.

(2) Phase 2 applies criteria designed to resolve bid adequacy assessments by analyzing, partitioning, and evaluating tracts in two steps:

- Further mapping and/or analysis is done to review, modify and finalize viability determinations and tract classifications.

- Tracts identified as being viable must undergo an evaluation to determine if fair market value has been received.

After completing these two steps, the following rules and procedures are used in Phase 2.

- Accept the highest qualified bid on all tracts determined to be nonviable.

- Accept newly classified confirmed and wildcat tracts having three or more qualified bids where the third highest such bid is at least 50 percent of the highest qualified bid.

- Determine whether any categorical fair market evaluation technique(s) will be used. If so:

- Evaluate, define and identify the appropriate threshold measure(s).

- Accept all tracts whose individual cash flow values, if estimated by MMS and used in the bid adequacy procedures, would result in satisfaction of the threshold categorical requirements.

- Conduct a full-scale evaluation, which could include the use of MONTCAR<sup>6</sup>, on all remaining tracts<sup>7</sup> passed to Phase 2 and still awaiting an acceptance or rejection decision.

Compare the highest qualified bid on each of these remaining tracts to two measures of bid adequacy: the Mean Range of Values (MROV)<sup>8</sup> and the Adjusted Delayed Value (ADV)<sup>9</sup>

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<sup>5</sup> Within the context of our bid adequacy procedures, the term "unusual bidding patterns" typically refers to a situation in which there is an excessive amount of coincident bidding by different companies on a set of tracts in a sale. Other forms of unusual bidding patterns exist as well, and generally involve anti-competitive practices, e.g., when there is an uncommon absence of competition among companies active in a sale on a set of prospective tracts.

<sup>6</sup> MONTCAR is a probabilistic, cash flow computer simulation model designed to conduct a resource-economic evaluation that results in an estimate of the expected net present value of a tract (or prospect) along with other measures.

<sup>7</sup> These include tracts not accepted by a categorical rule that are classified as drainage and development tracts and those classified as confirmed and wildcat tracts that are viable and received (a) one or two qualified bids, or (b) three or more qualified bids where the third highest such bid is less than 50 percent of the highest qualified bid.

<sup>8</sup> The MROV is a dollar measure of a tract's expected net present private value, given that the tract is leased in the current sale, allowing for exploration and economic risk, and including tax consequences including depletion of the cash bonus.



- Accept the highest qualified bid for those tracts where such a bid equals or exceeds the tract's ADV.
- Reject the highest qualified bid on drainage and development tracts receiving three or more qualified bids where such a bid is less than one-sixth of the tract's MROV.
- Reject the highest qualified bid on drainage and development tracts receiving one or two qualified bids and on confirmed and wildcat tracts receiving only one qualified bid where the high bid is less than the tract's ADV.

- Select from the outstanding tracts<sup>10</sup> those (a) drainage and development tracts having three or more qualified bids with the third highest such bid being at least 25 percent of the highest qualified bid and (b) confirmed and wildcat tracts having two or more qualified bids with the second highest such bid being at least 25 percent of the highest qualified bid. Compare the [Page 37591] highest qualified bid on each of these selected, outstanding tracts to the tract's Revised Arithmetic Average Measure (RAM).<sup>11</sup> For all these tracts:

- Accept the highest qualified bid where such a bid equals or exceeds the tract's RAM.
- Reject the highest qualified bid where such a bid is less than the tract's RAM.

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<sup>9</sup> The ADV is the minimum of the MROV and the Delayed MROV (DMROV). The DMROV is a measure used to determine the size of the high bid needed in the current sale to equalize it with the discounted sum of the bonus and royalties expected in the next sale, less the foregone royalties from the current sale. The bonus for the next sale is computed as the MROV associated with the delay in leasing under the projected economic, engineering, and geological conditions, including drainage. If the high bid exceeds the DMROV, then the leasing receipts from the current sale are expected to be greater than those from the next sale, even in cases where the MROV exceeds the high bid.

<sup>10</sup> These consist of those tracts having a highest qualified bid that does not exceed the MROV or the ADV, and are either (a) drainage or development tracts receiving three or more qualified bids with the highest such bid exceeding one-sixth of the tract's MROV, or (b) confirmed and wildcat tracts that are viable and receive two or more qualified bids.

<sup>11</sup> The RAM is the arithmetic average of the MROV and all qualified bids on the tract that are equal to at least 25 percent of the high bid.

- Reject the highest qualified bid on all leftover tracts, i.e., those that were in the “outstanding” set above but not selected for comparison to the RAM.

The Phase 2 bid adequacy determinations are normally completed sequentially over a period ranging between 21 and 90 days after the sale. The total evaluation period can be extended, if needed, at the RD's discretion (61 FR 34730, July 3, 1996).

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Dated: July 7, 1997.

Carolita U. Kallaur,

Associate Director for Offshore Minerals Management.

[FR Doc. 97-18291 Filed 7-11-97; 8:45 am]

BILLING CODE 4310-MR-P

