



United States Department of the Interior



MINERALS MANAGEMENT SERVICE
ROYALTY MANAGEMENT PROGRAM
P.O. BOX 25165
DENVER, COLORADO 80225

IN REPLY
REFER TO:
MMS-RVS-OG
Mail Stop 3520

Memorandum

To: Deputy Associate Director for Valuation and Audit
From: Chief, Royalty Valuation and Standards Division *Original signed by
William K. Dief*
Subject: Kauley Settlement Agreement (Agreement)

In December 1991, the subject Agreement was accepted by the Federal District Court for the Western District of Oklahoma. Under the Agreement, the Royalty Management Program committed to undertake certain actions related to royalty accounting for Indian allottees who own an interest in oil and gas leases on lands located within the Anadarko Area. Items 18 and 19 of the Agreement pertained to the determination of estimated majority prices to be considered in the valuation of natural gas for royalty purposes. The attached report details work performed by the Royalty Valuation and Standards Division (RVSD) to calculate the estimated majority prices envisioned by the Agreement.

The Agreement provided for the calculation of estimated majority prices beginning with the production month January 1986. Six different methodologies were agreed upon to calculate estimated majority prices. The methodologies varied depending on the detail of information maintained by the State of Oklahoma that was to be used for computation purposes. Upon completion of the processing and analysis of the Oklahoma data, we concluded that Method 6 is the best estimator of a median value upon which to establish a minimum royalty value in the Anadarko Area. Method 6 provides for the aggregation of all available gas sales data for a given field and month in calculation of the median value.

The RVSD is proceeding on the basis that Method 6 will be acceptable and has begun to identify discrepancies between these estimated median values and the royalty values reported to Minerals Management Service for the Anadarko Area leases, beginning with the January 1986 production month. We anticipate completing the comparison of reported royalty values to calculated median values by the first week in June.

Attachment

MAJOR PORTION ANALYSES REPORT
ANADARKO AREA LEASES

Purpose

The purpose of this report is to provide a background and discuss the results of a major portion analyses study concerning gas production from allotted Indian leases in the Anadarko Area of Oklahoma recently undertaken the Royalty Valuation and Standards Division (RVSD) of the Royalty Management Program of the Minerals Management Service (MMS).

Background

The Department of the Interior has been involved in litigation concerning the allotted Indian leases issued by the Bureau of Indian Affairs (BIA) Anadarko Area Office. This case is referred to as the Kauley litigation. One issue addressed in the Kauley litigation settlement is the determination of natural gas values for royalty purposes with consideration of the highest price paid for a majority of like-quality gas in the same field (major portion analyses). This issue is specifically addressed in Item Numbers 18 and 19 of the settlement wherein the parties agree to the following major portion methodology:

- a. For each field or area by Natural Gas Policy Act (NGPA) category MMS will determine the statistical best estimates of majority price using the best available data. For each NGPA category, and each month, this value will constitute the minimum royalty value for gas production.
- b. Where data on NGPA categories is insufficient to determine separate estimated majority prices for each category, data will be aggregated and a single estimated majority price will be established.
- c. Value will be the higher of the single estimated majority price (to the extent it does not exceed the maximum lawful price for any gas production under the NGPA), or gross proceeds accruing to the lessee.

d. Where sufficient data do not exist to establish majority prices, under either methodology established in "a" or "b" above, value will be calculated according to the applicable gas valuation rules, without regard to the major portion analyses.

e. Calculated minimum values will be communicated to payors with the directive to recalculate and submit any additional royalties and late payment charges.

f. This methodology will be applied to the plaintiff class leases, within the current audit strategy, using data from the Oklahoma Tax Commission. Values derived by this methodology will also be compared to all values reported to MMS from January 1986 to the date of settlement.

Major Portion Methodology

Regulations governing the royalty valuation of natural gas require a majority price to be determined by summing individual sales volumes, listed in descending price order, of a particular quality of gas in a given field. The price associated with the volume that causes the cumulative volume, summed beginning with the volume associated with the highest price (lowest price beginning March 1, 1988), to exceed 50 percent of the total sales volume is deemed to be the majority price. Like quality gas has been defined by MMS as gas of similar physical, chemical, and legal (Natural Gas Policy Act (NGPA) category) characteristics. Sales prices are prices per Mcf at 14.73 psia and 60° F and based upon 1,000 Btu/cu. ft.. Reimbursements for severance taxes and/or production related costs are not included when calculating majority prices. Under the settlement agreement, gas sales data from the Oklahoma Tax Commission (Commission) will be used to perform the major portion analyses described above. Previous analyses of the Commission data indicated that NGPA categories and Btu content were not available with any consistent reliability. Therefore, the settlement agreement stipulated that if the data needed to perform the analyses at that level of detail is insufficient, the data will be aggregated and a single majority price will be established.

Because the method to aggregate data was not specified in the settlement

agreement and because different aggregations could yield a majority price using a methodology closer to the "ideal" methodology prescribed under the regulations, RVSD created 6 different data sets from which majority prices were calculated. Each data set is described below and are identified throughout the report as calculation methods.

Calculation Method 1

Calculation method 1 utilizes all records that have a valid NGPA category and also have a reported Btu content. Values are adjusted to reflect a Btu content of 1,000 Btu/cu. ft. and majority prices are calculated in \$/MMBtu by NGPA category. This calculation method is the same as required by the valuation regulations.

Calculation Method 2

Calculation method 2 utilizes all records with a reported NGPA category regardless if the Btu content was reported. Majority prices are calculated in \$/Mcf by NGPA category.

Calculation Method 3

Calculation method 3 utilizes all records with an invalid NGPA category and a valid Btu content and then eliminates all values below the spot market price for the Anadarko Basin. Majority prices are calculated in \$/MMBtu.

Calculation Method 4

Calculation method 4 utilizes all records without a NGPA category designation regardless if the Btu content was reported and calculates a majority price in \$/Mcf. This method also eliminates all values below the spot market price.

Calculation Method 5

Calculation method 5 use all records with a valid Btu content and calculates majority prices in \$/MMBtu. This data set equals the records used in method 1 plus records used in method 3.

Calculation Method 6

Calculation method 6 uses all records and calculates majority prices in \$/Mcf.

Calculation methods 1 and 2 calculate a majority price by month and by NGPA category for each field. Calculation methods 3, 4, 5, and 6 only provide one majority price for each field in a month.

Data Collection

Once the methods of aggregating the data and calculating the majority prices were established, RVSD requested the necessary gas sales information from the Commission as reported to them on the Gross Production Monthly Tax Report, Report ID: OTC 300-R-7-81, resulting in the receipt of over 3,000,000 individual gas sales records. The RVSD next obtained a list of leases from the MMS's Auditing and Financial System database that had a fund code corresponding to leases issued by the BIA Anadarko Area Office. The Oklahoma field descriptions, as defined by the Oklahoma-Kansas Nomenclature Committee, were then researched to determine the fields in which each of the leases were located. The list of leases and the corresponding fields are provided on Table 1. The gas sales information pertaining to the fields containing Anadarko Area leases was then extracted from the Commission data. Due to a variety of reasons, not all of the fields containing Anadarko Area leases had associated gas sales data from the Commission. Table 2 provides a list of fields and the number of leases in each field and whether data was received from the Commission. As can be seen by Table 2, data was received on only 62% of the 160 fields, but the number of leases in these fields represented 88% of the total leases (1,367).

Majority Price Calculations

RVSD next created the 6 different data sets and proceeded to perform the 6 different major portion analyses. Table 3 provides the statistics for each of the calculation methods including the volume of gas and the number of records used in each method and the number of majority prices calculated. Although 3,000,000 records were provided by the Commission, only 667,000 records were found in fields containing the Anadarko Area leases. The percentages provided on Table 3 were calculated on the assumption that calculation method 6 represents 100 percent of the total volume and records. Upon calculation of over 42,000 majority prices, RVSD was now able to analyze the majority prices to determine which calculation method yielded the most reasonable values.

Evaluation of the Majority Prices

In order to determine which calculation method consistently yielded the most reasonable value for royalty purposes, RVSD performed many different evaluations. These evaluations attempted to determine if a calculation method yielded reasonable majority prices and if a representative volume of gas was used in the calculation. Because manpower restraints made it impossible to review and analyze each of the over 42,000 majority prices calculated during the study, an average majority price by calculation method and month was calculated. This "average" majority price is considered to be representative of the calculation method and month combination and references to a majority price in the following discussion of the different evaluation procedures refer to this "average" majority price.

Effects of Btu Content on the Majority Price

The first analysis was to determine the effect of adjusting the prices for Btu content, as done in calculation methods 1, 3, and 5, as compared to calculating a price per Mcf without adjustment for Btu content as done in methods 2, 4, and 6. Figures 1 and 2 plot the average majority prices by month for calculation methods 3 and 4 (Figure 1) and methods 5 and 6 (Figure 2) and show that the prices are very similar. Because of this similarity, it can be assumed that the quality of the gas used in methods 3 and 5 was very close to 1,000 Btu/cu. ft.. The similarity also leads RVSD to conclude that

adjusting the prices to a \$/MMBtu basis has little effect on the majority price. Based on this conclusion, calculation methods 3 and 5 were eliminated from the study because they had similar prices to calculation methods 4 and 6 and used considerably less volumes in the calculations (see Table 3).

A similar analysis on the effect of the Btu content was performed on calculation methods 1 and 2 and again showed corresponding values. In comparing calculation methods 1 and 2, the volumes were much closer to each other than in the other Btu vs. Mcf calculation methods (Table 3). Based on this fact, it appears that those parties that reported a valid NGPA category also reported a valid Btu content. Because of the comparable values and volumes in calculation methods 1 and 2, and because calculation method 1 uses data as prescribed by the regulations, calculation method 2 was eliminated from consideration.

After evaluating the majority prices for the effects of including the Btu content of the gas in the major portion analyses, 3 calculation methods were eliminated leaving calculation methods 1, 4, and 6 to be further evaluated.

Effect of Eliminating Below Spot Prices

Calculation method 4 uses all data without a valid NGPA category and a value greater than the monthly spot price. It was thought that values below market sensitive levels would represent price-regulated old gas, section 104, 105, and 106, which would have been sold at maximum lawful prices. Once these values were eliminated, the calculated majority prices would be representative of the values for gas sold under conditions influenced more by market forces and less by legal characteristics. As it turned out, this assumption was not totally correct due to the Commission's reporting requirements. The Commission required that a NGPA category be reported when the company was receiving a maximum lawful price which means that the lower price gas would have been put in the data sets with valid NGPA categories assuming the reporting requirements were followed. Therefore, it is conceivable that the prices lower than the spot which were eliminated were actually sold under market influenced rather than regulatory dictated conditions ~~was~~ and should not have been eliminated. This probably accounts for the fact that

calculation method 4 used only 37 % of the volume that was used in calculation method 6.

The comparison of the majority prices for calculation methods 4 and 6 provided on Figure 3 shows the expected result of calculation method 6 resulting in consistently lower prices than calculation method 4 because all values below the spot price were removed from calculation method 4. The purpose for creating calculation method 4 was to give majority prices which were more sensitive to market pricing rather than regulatory pricing but as can be seen from the spot prices provided on Figure 4, the market established spot prices are consistently lower than calculation method 4 majority prices.

This evaluation eliminated calculation method 4 because of the low volumes used and because we had no assurance that data set created contained only prices which were derived from the market place rather than through legal mechanisms.

Calculation Method 1 Analysis

Because calculation method 1 most closely approximates the method required by the valuation regulations, extensive review was given to the majority prices calculated using the data set with valid NGPA categories and valid Btu contents. The only NGPA categories found in calculation method 1 were sections 102, 103, and 104, meaning that the other NGPA categories were not identified when reported to the Commission during the study's time frame. This may be because the reporting requirements of the Commission were to report a NGPA category only when the maximum lawful price (MLP) was received. It can be assumed that the value for the other categories of gas was being determined by market forces.

To determine some indication of the volume of gas that was utilized in calculation method 1, RVSD used gas purchase information obtained from the Department of Energy's Energy Information Agency (EIA). The EIA collects gas purchase information from all interstate pipeline companies on the Purchased Gas Adjustment report. EIA had earlier provided this information to RVSD in an unrelated project for the time period of 1984 through 1987. RVSD extracted

all of the fields containing Anadarko Area leases from the EIA data and compiled the volumes by NGPA category. These volumes were compared to the volumes used in calculation method 1 and can be found on Table 4. This Table show that for those categories that were reported to the Commission, the volumes were less than those reported to EIA as sold in interstate commerce, not even considering that the EIA data only includes purchases made through 1987. Table 4 also shows that over 30 % of the gas reported to EIA were for NGPA categories not reported to the Commission.

The RVSD also summed the volumes reported to the Commission by NGPA category for three sample months (Table 5). This demonstrate^s that the volume of gas used in calculation method 1 greatly declined over time. This is consistent with the natural gas market throughout the late 1980's where more and more gas was being purchased through short-term contracts at a price reflective of market conditions rather than under long-term contracts at regulated prices.

Realizing that the very low volumes used in calculation method 1 might rule out the use of this method, RVSD attempted to determine if any individual field in the study had a percentage of gas by NGPA category that was greater than the percentage implied for the universe of fields. It was thought that some individual fields might have a large enough volume reported by NGPA category that calculation method 1 majority prices would be reasonable values for royalty purposes. Volumes used to compute majority prices for the higher cost, section 102 and 103 gas were totalled for every field that reported those NGPA categories. These volumes were compared to the total volume reported for the field, represented by calculation method 6 volumes. This comparison is provided on Table 6 and shows that the fields which have a high percentage of calculation method 1 volume also have very low volumes. Therefore, even selective use of calculation method 1 for those fields which use a representative percentage of the total volume would effect a very small percentage of the total gas produced from the Anadarko Area leases.

Though the calculation method 1 volume analysis indicated this method may have insufficient volumes to be considered representative, RVSD continued the evaluation of calculation method 1 by examining the calculated majority

prices.

The calculated majority prices for sections 102 and 103 gas were compared to the Oklahoma spot prices in Figures 5 and 6. These Figures show that the majority prices for section 102 gas began to mirror the spot price in mid-1987 and in mid-1986 for section 103 gas. Figure 6 also plotted the MLP for section 103 gas and shows that the majority price closely followed the MLP up until 1986 and then dropped down to the spot price levels. NGPA section 104 contains 9 different subcategories of gas with section 104A (Post 1974 gas) having the highest regulated price. Therefore, we plotted the section 104A majority prices against the MLP in Figure 7 which shows the two values follow the same trend. The majority prices for the other subcategories of section 104 gas also followed their respective MLP's.

Although the majority prices calculated for calculation method 1 appear to be reasonable, especially for NGPA categories 102 and 103 which are above spot market levels in the early years when more gas was being sold at regulated prices and then dropping down to spot levels as the natural gas market moved towards market level pricing, the volume of gas used to calculate these majority prices was very low and in the later years can almost be considered insignificant.

Calculation Method 6 Evaluation

During our previous evaluation, it was noted that calculation method 6 used all of the records and volume in a given field to calculate majority prices. Obviously, this calculation method used a volume representative of total field production so the only analysis needed is a review of the majority prices. The calculation method 6 majority prices were plotted against the spot market prices in Figure 8. From 1984 through mid-1987, the majority prices are consistently above the spot market price but follow the same general trend. This would be expected because during this time frame, a significant quantity of gas was still being sold under long-term contracts at regulated prices which were higher than market levels. From mid-1987 forward, the majority prices began to mirror the spot price which was a further reflection of the

natural gas market moving towards short-term market sensitive gas sales contracts.

Conclusions

After completing our review of the six different calculation methods, RVSD believes that calculation method 6 is the best estimator of a median value in a given field. The majority prices were shown to be reflective of the natural gas market during the time period of the study and the confidence level in using these prices is very high considering that 100 percent of the volume reported for each field was used the calculation. Calculation method 1 was found to calculate reasonable majority prices but used such a small percentage of the total volume, that the ability to substantiate and defend these values is very untenable.

The RVSD feels that the use of the majority prices determined in calculation method 6 as an indicia of the value upon which royalty is due is equitable to the Anadarko Area Allottees and to the royalty payors and should be adopted per the terms of the Kauley litigation Settlement Agreement.

Figure 1

MAJORITY PRICE COMPARISON

Calculation Methods 3 and 4

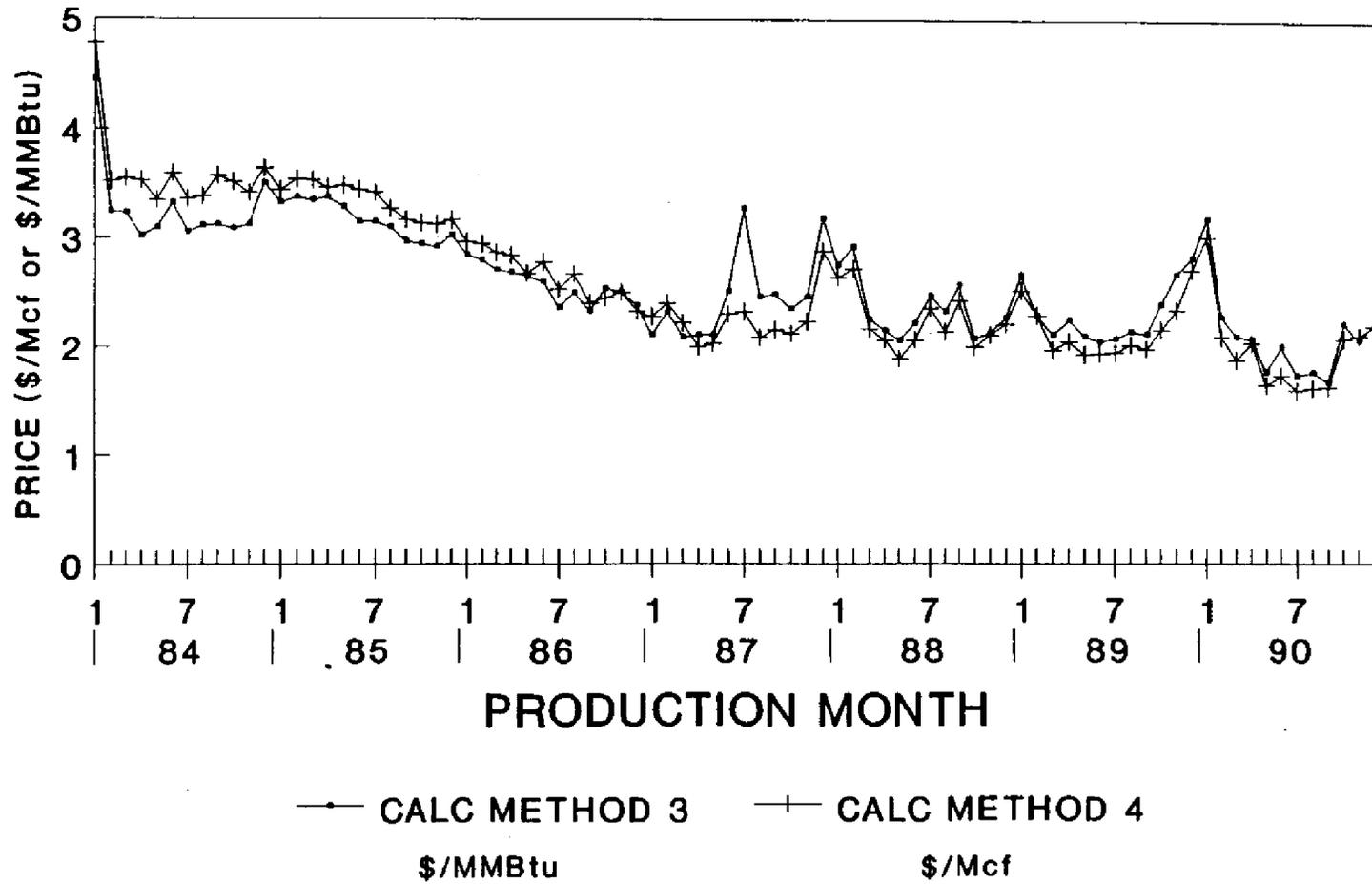


Figure 2

MAJORITY PRICE COMPARISON

Calculation Methods 5 and 6

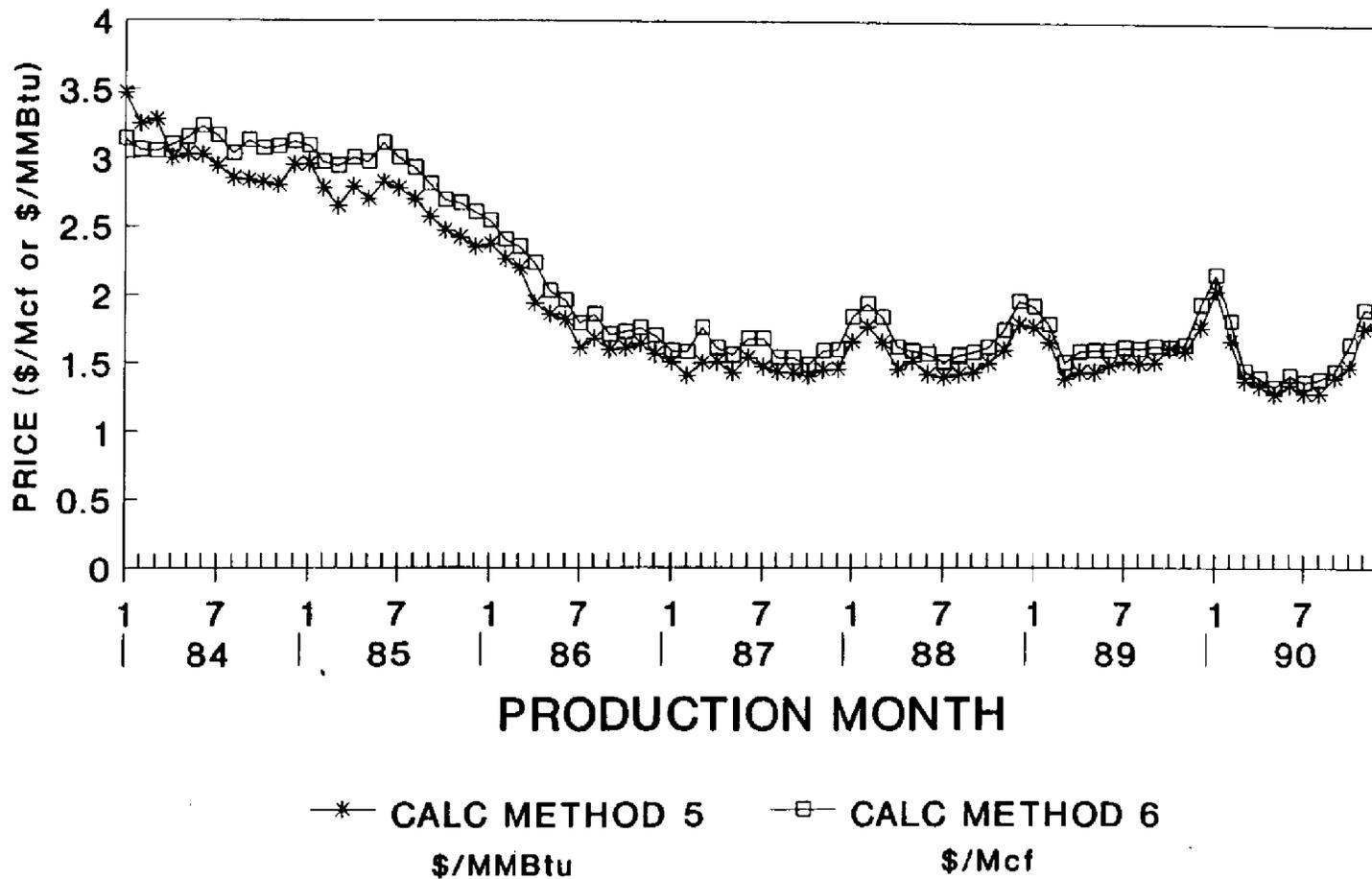


Figure 3

MAJORITY PRICE COMPARISON

Calculation Methods 4 and 6

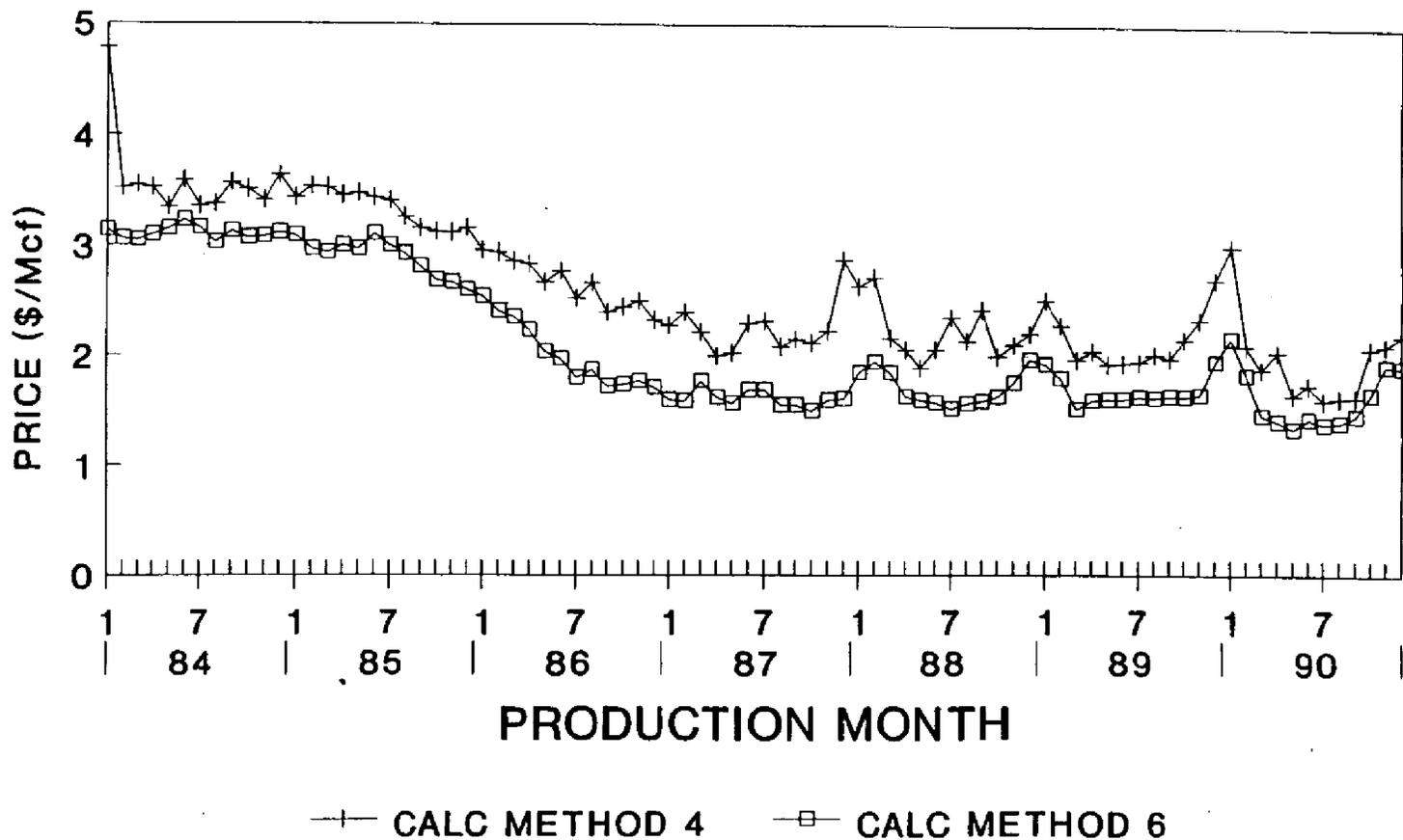


Figure 4

MAJORITY PRICE COMPARISON

Calculation Method 4 and Spot Price

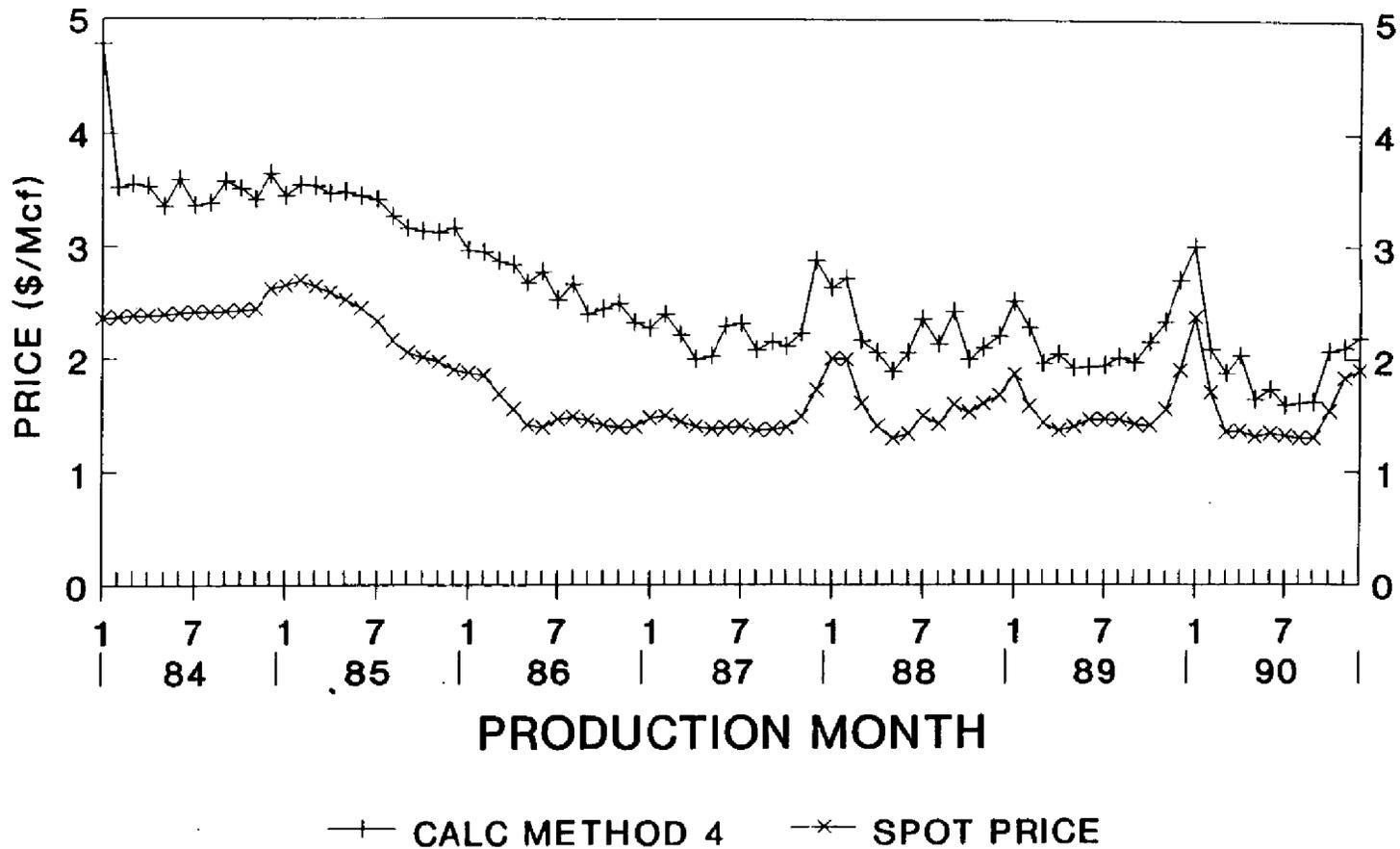


Figure 5

CALCULATION METHOD 1 COMPARISON 102 Majority Price and Spot Price

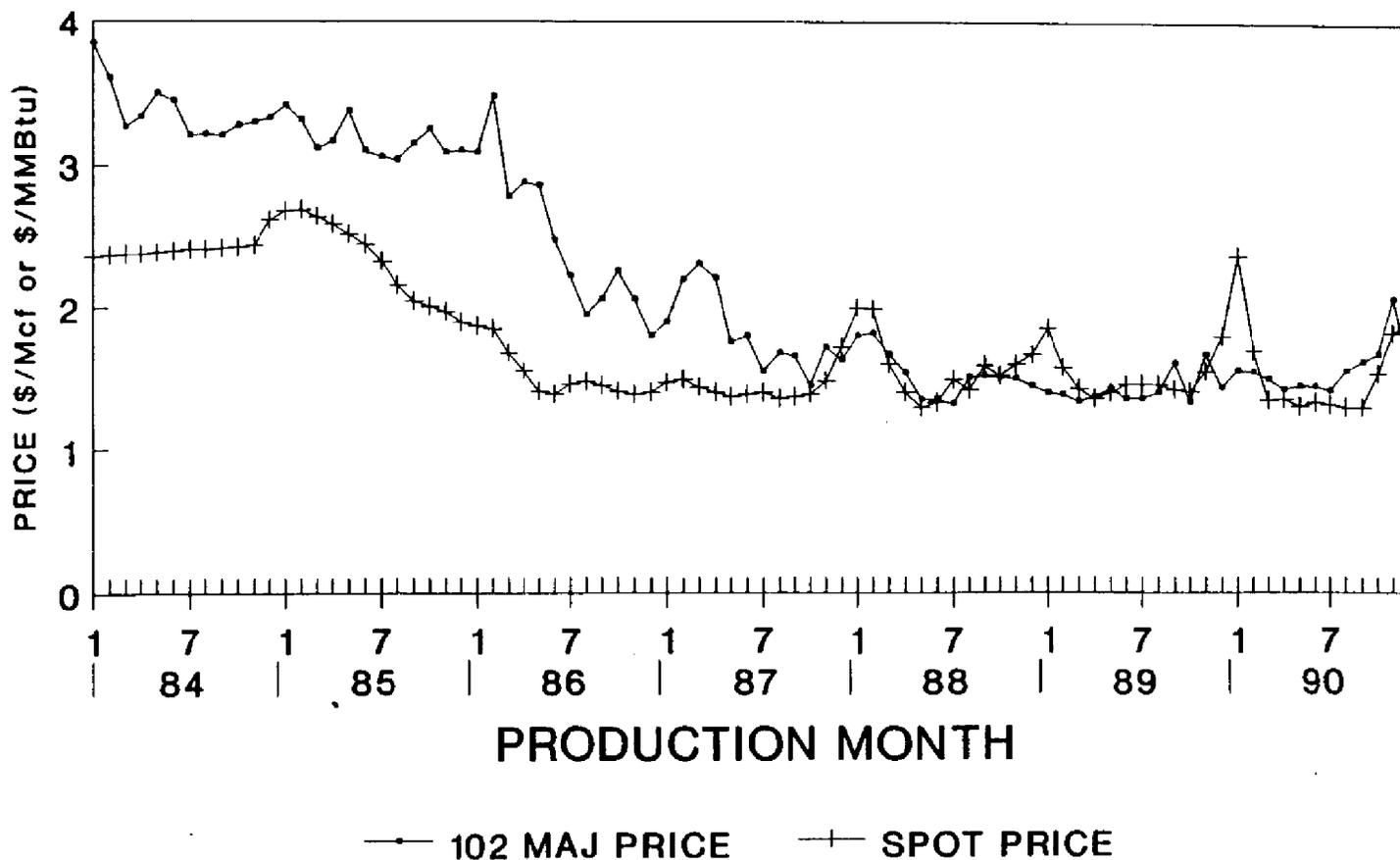


Figure 6

CALCULATION METHOD 1 COMPARISON

103 Maj. Price, 103 MLP, and Spot Price

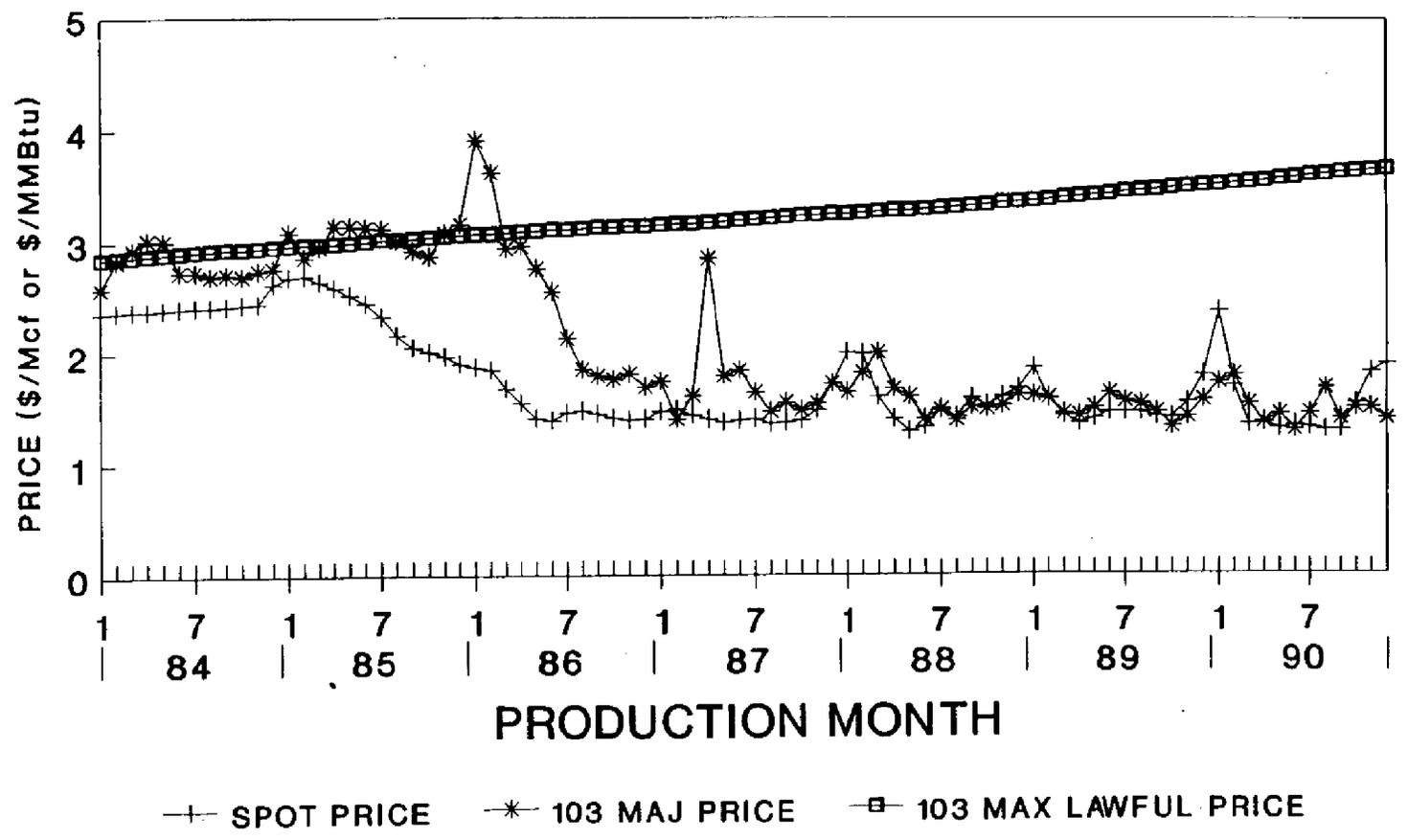


Figure 7

CALCULATION METHOD 1 COMPARISON

104A Majority Price and 104A MLP

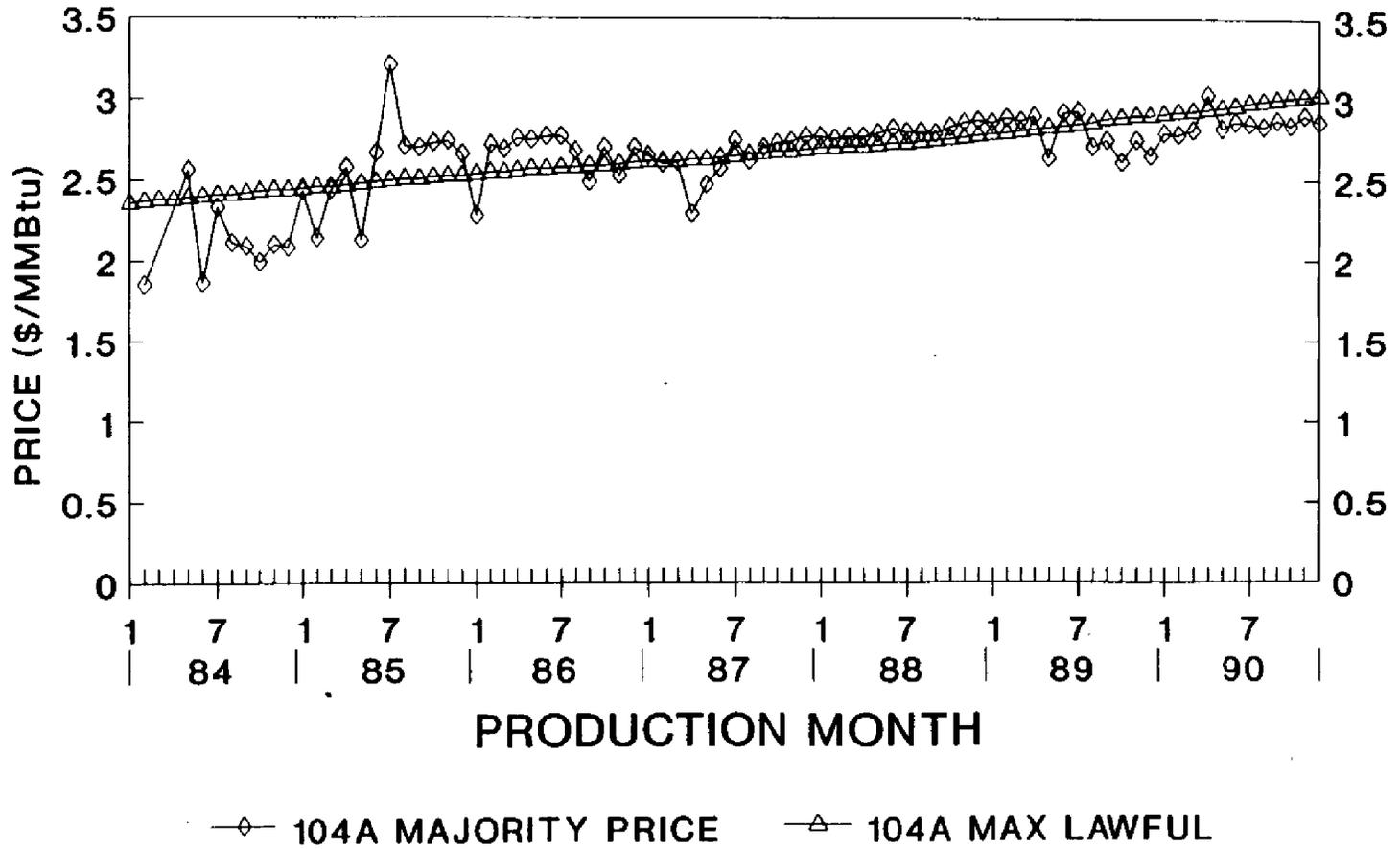
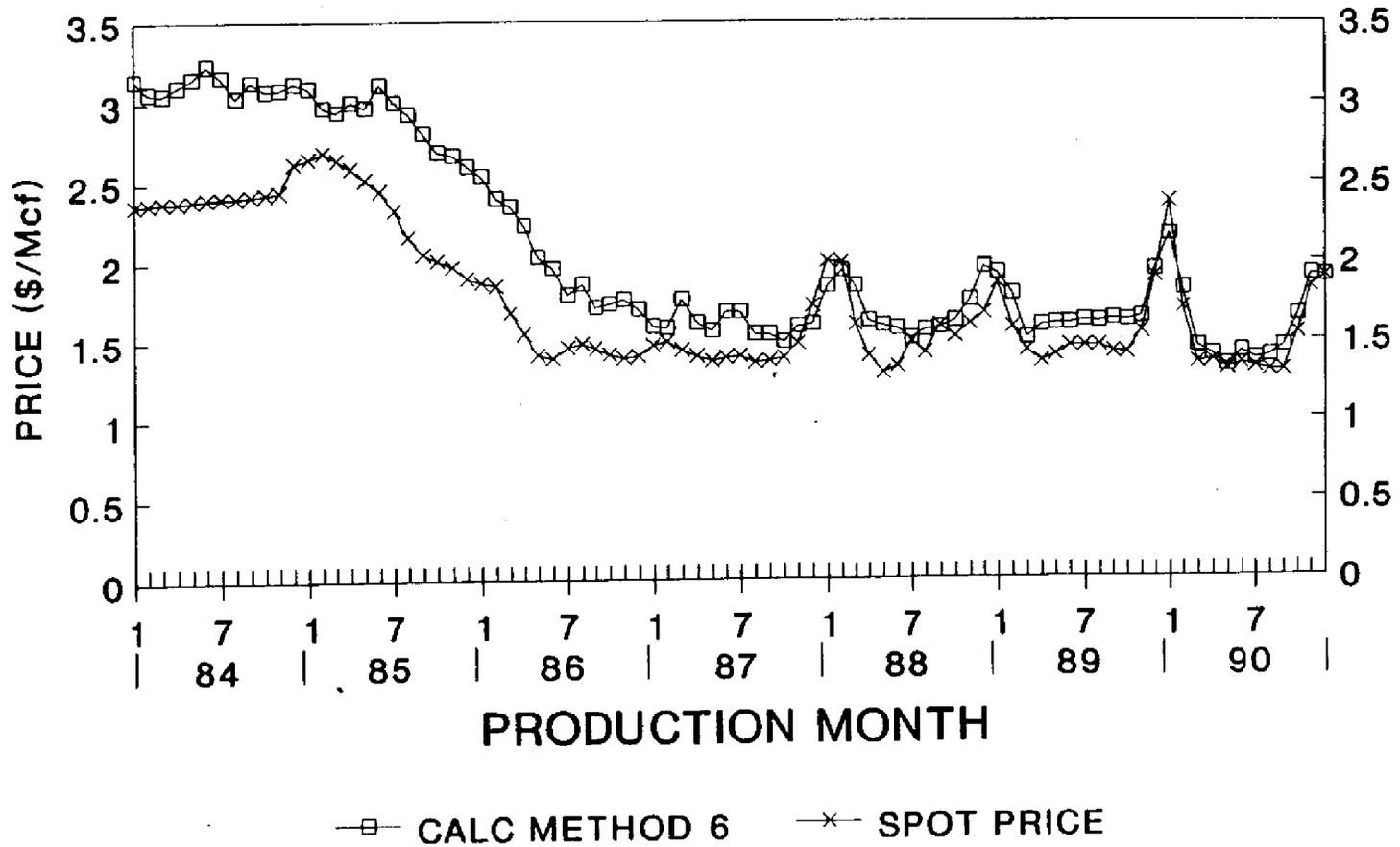


Figure 8

MAJORITY PRICE COMPARISON Calculation Method 6 and Spot Price



ANADARKO AREA LEASES AND ASSOCIATED FIELDS

LEASE NUMBER	FIELD NAME	FIELD CODE
5050552450 6070216940 6070261530	ALDEN NE	008565
5180051160 5180051170 5180076520 5180078900	ALPHA SE	012967
5180072370 5180073520 5180080080 5180080090 5180080100	ALTONA	013928
5050228780 5050229730 5050229740 5050250940 5050250950 5050250970 6070162920 6070191850	APACHE	021810
6070309400 6070309410 6070333420 6070333430 6070338150 6070338160 6070338170 6070338180 6070338220 6070605670 6070624600 6070627830 6070628710	APACHE EAST	021849
6070624540	APACHE NORTH	009672
5050446620 6070630720 6070633370	APACHE SOUTH	021903
6070338590 6070338650 6070628210 6070629760 6070632760 6070632900	APACHE TOWNSITE	021970

ANADARKO AREA LEASES AND ASSOCIATED FIELDS

LEASE NUMBER	FIELD NAME	FIELD CODE
5180073730	ARAPAHO	022975
6150001780	AVERY	031583
6150034610		
6150036070		
6150051240		
6150051250		
6150014240	BEBEE-KONAWA SW	050565
6150049790		
6150051540	BELMONT, WEST	054258
5180076860	BESSIE EAST	058656
6070261060	BINGER	065004
6070261080		
6070261090		
6070261100		
6070261110		
6070261120		
6070261130		
6070261140		
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6070266180		
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6070281290		
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6070282490		
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6070283580		
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6070290510		

AMADARKO AREA LEASES AND ASSOCIATED FIELDS

LEASE NUMBER	FIELD NAME	FIELD CODE
6070290520	BINGER	065004
6070290530		
6070291160		
6070291170		
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6070291230		
6070291240		
6070291940		
6070297400		
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6070608160		
6070608170		
6070610080		
6070623390		
6070626160		
6070626170		
6070626180		
6070629360		
6070261230	BINGER NE	065066
6070290390		
6070290410		
6070316650		
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6070631150		

ANADARKO AREA LEASES AND ASSOCIATED FIELDS

LEASE NUMBER	FIELD NAME	FIELD CODE
6070318280	BINGER SOUTH	065084
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6070318300		
6070318310		
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6070334830		
6070610040		
6070611480		
6070611490		
6070611500		
6070611510		
6070611520		
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6070612030		
6070612120		
6070614270		
6070614280		
6070614330		
6070621970		
6070627610		
6070630900		
6070631210		
6070631220		
6070631470		
6070631480		
6070631490		
6070631720		
6070632230		
6070632240		
6150028800	BROOKSVILLE	094688
6070613930	BROXTON NORTH	000450
6070613940		
5050438180	BROXTON SOUTH	096610
5050446700		
6070632140	BROXTON WEST	096672
5050515340	BRYAN NORTH	098222
5110015990		
5110013540	BRYAN, NE	098191
5110013590	BUENA VISTA NORTH	101121
5050407550	CACHE CREEK	111291
5050407730		

ANADARKO AREA LEASES AND ASSOCIATED FIELDS

LEASE NUMBER	FIELD NAME	FIELD CODE
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5180058030	CANTON NW	117956
5180078600		
6070238490	CARNEGIE SW	120839
6070246770		
6070631110	CARNEGIE, WEST	120870
5180072740	CARPENTER NE	121256
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5180072920		
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5050058100	CEMENT	128985
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505029267A		
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ANADARKO AREA LEASES AND ASSOCIATED FIELDS

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6070254040 6070620820	CHICKASHA NW	138022
5180070480 5180070490 5180070500 5180072240 5180087130 5180087140 5180087150 5180087930 5180096030 5180096040 5180096050 5180099040 5180099050 5180099090 5180099120 5180099130 5180099160 5180099170 5180099180 5180099300 5180099320 5180099850 5180099980 5180101820 5180102930 5180102940 5180103570	CLINTON	148733
5180072040 5180072060 5180072070 5180072080 5180075150 5180075160 5180075170 5180075180	CLINTON EAST	148745

ANADARKO AREA LEASES AND ASSOCIATED FIELDS

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5180076820		
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5110006580	CODY, SW	151074
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ANADARKO AREA LEASES AND ASSOCIATED FIELDS

LEASE NUMBER	FIELD NAME	FIELD CODE
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6150047350 6150047360	CUSHING	175162
5180064840 5180070380 5180070390 5180072680 5180073200	CUSTER CITY EAST	175425
6070046820	CYRIL NW	176798
6070338040 6070338190 6070338200 6070338210 6070338230 6070343910 6070606920	CYRIL WEST	001016
5180060020 5180060030 5180060040 5180060050 5180081360	EAGLE CITY	210401
5180102090	EAGLE CITY SOUTH	210432
6070297840 6070297880 6070297890 6070297900 6070297910 6070297920 6070297930 6070297940 6070297950 6070327890 6070327900 6070327910	EAKLY-WEATHERFORD TREND	010255

ANADARKO AREA LEASES AND ASSOCIATED FIELDS

LEASE NUMBER	FIELD NAME	FIELD CODE
6070327920	EAKLY-WEATHERFORD TREND	010255
6070327930		
6070327940		
6070327990		
6070328000		
6070328010		
6070328980		
6070333680		
6070333690		
6070333700		
6070333710		
6070333720		
6070333730		
6070333750		
6070333850		
6070333860		
6070333870		
6070333880		
6070333890		
6070333900		
6070333910		
6070333920		
6070334010		
6070334020		
6070334030		
6070334040		
6070334050		
6070334190		
6070334200		
6070334260		
6070334270		
6070334420		
6070334430		
6070334440		
6070334450		
6070334460		
6070334470		
6070334580		
6070334720		
6070334730		
6070334740		
6070334750		
6070337770		
6070337780		
6070337790		
6070337800		
6070337840		
6070337870		
6070600140		
6070603000		
6070603010		
6070604780		
6070604790		
6070604800		
6070604810		
6070610050		
6070610090		
6070610470		
6070611710		

ANADARKO AREA LEASES AND ASSOCIATED FIELDS

LEASE NUMBER	FIELD NAME	FIELD CODE
6070611720	EAKLY-WEATHERFORD TREND	010255
6070612080		
6070612188		
6070614180		
6070614190		
6070614340		
6070614350		
6070614370		
6070616960		
6070616980		
6070617010		
6070618650		
6070618930		
6070619620		
6070626040		
6070626280		
6070627880		
6070627940		
6070633240		
6070633250		
6070633260		
6070633270		
6070633280		
6070633290		
6070633680		
6150012940	EARLSBORD	211176
6150041090		
5180043240	ELM GROVE	221399
5180043250		
5180043260		
5180043270		
5180044870		
5180044880		
5180059750		
5180061370		
5180061440		
5180061450		
5180061680		
5180074880		
5180075010		
5180075020		
5180079830		
5180083550		
5180083560		
5180083570		
5180094990		
5050428620		
6070152850		
5180001440	FAY EAST	237350
5180001450		
5180001960		

ANADARKO AREA LEASES AND ASSOCIATED FIELDS

LEASE NUMBER	FIELD NAME	FIELD CODE
5180002030	FAY EAST	237350
5180059980		
5180059990		
5180061560		
5180063460		
5180063470		
518006347A		
5180092520		
5180092530		
6070323780	FLETCHER NE	245160
6070323790		
6070323800		
6070323810		
6070323820		
6070335340		
6070342500		
6070342540		
6070342560		
6070342570		
6070342580		
6070601300		
6070605360		
6070605620		
6070612450		
6070627710		
6070627720		
6070628140		
6070628150		
6070629680		
5180041900	FONDA, SE	247753
5180063910		
5180075200		
5180075230		
5180076780		
5180078610		
5180078830		
5180081250		
5180081560		
5180081710		
5180081750		
5180089640		
5180051260	FONDA, SW	247760
5180051270		
5180085280		
5180073610	FONDA, WEST	000605
5180073620		
5180087020		
5180087030		
5180087040		

ANADARKO AREA LEASES AND ASSOCIATED FIELDS

LEASE NUMBER	FIELD NAME	FIELD CODE
5050228430	FORT SILL NORTH	250822
5100002730 5110012800	GARR NORTH	266208
5180076030	GEARY NW	268532
5180048470 5180048480 5180048490 5180057340 5180057360 5180059440	GEARY SW	268557
5180055780 5180055790 5180055800 5180055810 5180057670 5180059590 5180059600 5180059610 5180059620 5180059630 5180064700 5180066040 5180066050 5180066060 5180066070 5180066080 5180066090 5180066150 5180066160 5180072320 5180076490 5180078360 5180078370 5180078380 5180092440 5180092450 5180094980	GREENFIELD NW	288926
6150044900 6150044910 6150044920	GRISSE	291902
5180068920 5180069880 5180069890 5180069900 5180069910 5180069920 5180069930	HAMMON EAST	300293

ANADARKO AREA LEASES AND ASSOCIATED FIELDS

LEASE NUMBER	FIELD NAME	FIELD CODE
5180069950	HAMMON EAST	000293
5180072760		
5180072770		
5180072780		
5180072790		
5180072800		
5180072810		
5180072820		
5180072830		
5180072860		
5180072870		
5180072880		
5180072890		
5180081610		
5180082780		
5180085270		
5180088250		
6070241640	HANBURY DISTRICT	302607
6070264420		
6070324670	HANBURY NE	302638
6070328620		
6150049250	HOTULKE-WEST EARLSBORO	334152
5180089560	MUCMAC, NORTH	336522
6070603520	HUNTLEY WEST	340200
6070603530		
6070603540		
6070603550		
6070603560		
6070603570		
6070603580		
6070605440		
6070611150	HYDRO	341648
6070625120		
6070625130		
6070625140		
6070626230		
6070626240		
6070626250		
6070626270		
6070631170		
5180070450	INDIANAPOLIS	345665
6070628700	LAVERTY, NW	010787

ANADARKO AREA LEASES AND ASSOCIATED FIELDS

LEASE NUMBER	FIELD NAME	FIELD CODE
5110014310	LIBERTY	413142
5110004130	LIBERTY, NE	413359
6150032720	LITTLE AXE	417575
5180071980	LONGDALE, SE	426063
5180072630		
5180072640		
5180072650		
5180072660		
5180078630		
5180078640		
6070600250	LOOKEBA	426649
5100001510	MARAMEC	445766
5100001550		
5100002140		
5110008360		
5110008370		
5110011070	MARAMEC NORTH	445859
5110011080		
5050480030	MARCH NORTH	446324
5110002520		
5110003570		
5110003580		
5110003720		
6070042020		
6150027860		
5110015420	MARLAND NORTH	448556
5110016520		
5050438100	MARLOW DISTRICT	448649
5110012740	MARSHAM	451191
6070048220	MAUD	453175
6150001520		
7140008320		
7140047250		
6070631120	MIDWAY	472745

ANADARKO AREA LEASES AND ASSOCIATED FIELDS

LEASE NUMBER	FIELD NAME	FIELD CODE
6070632320 6070632330 6070632820	MIDWAY	472745
6070308220	MINCO EAST	476527
5180007610	MINCO WEST	476546
6070603030	MOORE WEST	483914
5050458900 6150038710	MORVIN	486828
5180075240 5180079880	NOBSCOT NW	510045
5050470360 5110018200 6070030140 6070030150 6150012150 6150028310 6150032810 7140007620	NORFOLK	511564
5100008430 5110003780 5110010840 5110017950	NORFOLK WEST	511657
5180081800	OAKWOOD NORTH	518240
5180007530 5180007540 5180007550 5180007830 5180013230 5180013250 5180013260 5180013270 5180013280 5180013290 5180022190 5180022200 5180040390 5180079930 5180079970 5180080030 5180080070 5180089580	OKARCHE NORTH	521278

ANADARKO AREA LEASES AND ASSOCIATED FIELDS

LEASE NUMBER	FIELD NAME	FIELD CODE
5180089590	OKARCHE NORTH	521278
5180096470		
5180096480		
5180096490		
5180096500		
5180104510		
5180092960	OKEENE, NW	521495
5180092970		
5180092990		
5180093000		
5180093010		
5100099010	OTOE CITY	530400
5110003610		
5110006640		
5110006710		
5110008070		
5110008940		
5110011230		
5110014240	OTOE CITY EAST	530431
5110016430	OTOE CITY SE	530524
6070013210	PECK	546956
6070021970		
6150006200	PINK SOUTH	557566
6150049760		
6150050190		
6150050890		
6070013220	PLEASANT MOUND	560341
6150043690		
6150043700		
6150043710		
6150043720		
6150043730		
6150032800	PLEASANT MOUND, NORTH	560352
6150033650		
6150034470		
6150034480		
6150034490		
5110000190	PONCA CITY	564139
5110000620		
5110000640		
5110001260		

ANADARKO AREA LEASES AND ASSOCIATED FIELDS

LEASE NUMBER	FIELD NAME	FIELD CODE
5110001290	PONCA CITY	564139
5110001490		
5110001740		
5110001750		
5110002260		
5110002270		
5110002350		
5110002360		
5110002740		
5110003150		
5110003180		
5110003670		
5110003710		
5110003740		
5110008560		
5110009390		
5110009730		
5110009740		
511000974A		
5110009750		
5110010180		
5110017820		
5110001310	PONCA CITY SOUTH	564263
5110010090	PONCA CITY SW	564294
6150051460	PRAGUE	569952
5180012870	PUTNAM	575633
5180049810		
5180070110		
6150031700	RAVENDALE	587739
6070006090	RAVENDALE, NE	587770
6070022220		
6150034650		
6150039710	RED HILL NORTH	000777
5050486940	RED ROCK WEST	591948
6070132140		
5180075470	RICHLAND, NORTH	599907
5180075480		
5180075490		
6150038660	RIPLEY	59559

ANADARKO AREA LEASES AND ASSOCIATED FIELDS

LEASE NUMBER	FIELD NAME	FIELD CODE
6070634820	ROULETTE CREEK	615378
6150031760	ROULETTE CREEK, NORTH	615409
6150038280		
6150042660		
6150046250		
6150046260		
6150046270		
6150046280		
6150051570		
6150011210	SACRED HEART	623542
5050494120	SCHLEGEL NORTH	637748
5050505760		
5110011590		
6150028900		
6150036130	SCHLEGEL SW	637841
5180073740	SEGER	642730
5180082400		
5180082410		
5180082420		
5180083680		
5180083690		
5180085060		
5180085070		
5180085090		
5180085100		
5180085110		
5180087080		
5180063610	SEILING, NE	643119
5180073390		
5180076280		
5180076290		
5180084250		
5180090560		
5030082000	SHADY GROVE WEST	646638
6150018920	SHAWNEE	648715
6150043470	SHAWNEE LAKE, SE	648848
6150039420	SHAWNEE SW	648994

ANADARKO AREA LEASES AND ASSOCIATED FIELDS

LEASE NUMBER	FIELD NAME	FIELD CODE																																	
6150039430	SHAWNEE SW	648994																																	
6150039450																																			
6150039460																																			
6150039470																																			
6150039480																																			
6150039490																																			
6150039500																																			
6150039510																																			
6150039520																																			
6150039530																																			
6150039540																																			
6150049350																																			
6150049970																																			
6150050340																																			
6150050350																																			
6150050690																																			
6150050840																																			
6150050850																																			
6150050870																																			
6150051920																																			
7140056960	SHAWNEE, NE	648901																																	
7140068100			6150034530	SKELLYVILLE	000814	6150040040	6150048190	6150048200	6150048210	5050422570	SOLDIER CREEK	664781	5050422580	5050422590	5050428830	5050433950	5050436250	6150005380	SPORN	670299	6150044740	SPORN NE	670361	6150044750	6150044760	5180058270	SQUAW CREEK	672624	5180058280	518005828A	5180059820	5180059830	5180059850	5180063380	5180063390
6150034530	SKELLYVILLE	000814																																	
6150040040																																			
6150048190																																			
6150048200																																			
6150048210																																			
5050422570	SOLDIER CREEK	664781																																	
5050422580																																			
5050422590																																			
5050428830																																			
5050433950																																			
5050436250																																			
6150005380	SPORN	670299																																	
6150044740	SPORN NE	670361																																	
6150044750																																			
6150044760																																			
5180058270	SQUAW CREEK	672624																																	
5180058280																																			
518005828A																																			
5180059820																																			
5180059830																																			
5180059850																																			
5180063380																																			
5180063390																																			
5180063450																																			
5180064720																																			

ANADARKO AREA LEASES AND ASSOCIATED FIELDS

LEASE NUMBER	FIELD NAME	FIELD CODE
5180064740	SQUAW CREEK	672624
5180064750		
5180068850		
5180082250		
5050512370	ST LOUIS	674097
6150011220		
6150017260		
6150039210		
6150039220		
6150039230		
6150046040		
6150050070		
7140040730		
6070137660	STERLING	679832
6070151850		
6070171950		
6070171960		
6070328640		
6070328650		
6070328660		
6070328670		
6070630710		
6070631430		
6070631440		
6070631450		
6070631460		
6070631960		
5110011360	STONEBLUFF DISTRICT	681909
5180069020	STRONG CITY DISTRICT	010199
5180069030		
5180069040		
5180069060		
5180069070		
5180069100		
5180069960		
5180069970		
5180069980		
5180069990		
5180070560		
5180072330		
5180072340		
5180072380		
5180072390		
5180072400		
5180072410		
5180073250		
5180073260		
5180073330		
5180073340		
5180073350		
5180073360		

ANADARKO AREA LEASES AND ASSOCIATED FIELDS

LEASE NUMBER	FIELD NAME	FIELD CODE
5180073370	STRONG CITY DISTRICT	010199
5180086050		
5180086080		
5180086110		
5180086120		
5180086130		
5180086140		
5180086150		
5180086160		
5180086170		
5180086180		
5180086190		
5180086200		
5180086210		
5180086220		
5180086230		
5180086240		
5180086250		
6150027180	STROUD	685102
5050550250	SUMNER DISTRICT NORTH	688512
5100145490		
6150036870	TECUMSEH NW	700050
6150036880		
5180063560	THOMAS SOUTH	705107
5180068860		
5180068890		
5180070410		
5180072670		
5180073380		
5180074770		
5180086030		
5180086040		
5050454150	TONKAWA	712851
5050455790		
5050456730		
5050459740		
5050489760		
5110006180		
5110006190		
5110015360		
6070036470		
5180076790	TRIVOLI, SW	718403
5180076800		
5050537410	TROUSDALE	718664

ANADARKO AREA LEASES AND ASSOCIATED FIELDS

LEASE NUMBER	FIELD NAME	FIELD CODE
6070621400 6070621430 6070621450 6070623180 6070625050 6070633830 6070633840	VERDEN	736118
5180081740	VICI, EAST	737519
5050092560 5050352030 5050352060 5050358590 5050491240 6070049470 6070049480 6070231470 6070343140 6070601390 6070609070 6070609120 6070611900 6070615020 6070630530	WALTERS DISTRICT	747419
5050493640	WANETTE	748225
6070600750 6070600760 6070605630 6070605780 6070613160 6070613170 6070613180 6070613190 6070613200 6070620770 6070620780 6070620790	WASHITA CITY-CADDO	004198
5100119050 5100119090 5110001380 5110011740 5110013130	WATCHORN EAST	750984
5110014990	WATCHORN, SW	751139
5180076090	WATONGA SOUTH	751945

ANADARKO AREA LEASES AND ASSOCIATED FIELDS

LEASE NUMBER	FIELD NAME	FIELD CODE
5180001170	WATONGA-CHICKASHA TREND	751774
5180001180		
5180002250		
5180004310		
5180004330		
5180004340		
5180004350		
5180004360		
5180004370		
5180004840		
5180004850		
5180004970		
5180005060		
5180005080		
5180005150		
5180005920		
5180005930		
5180006110		
5180007920		
5180007930		
5180008210		
5180008260		
5180008270		
5180008290		
5180008390		
5180008530		
5180008540		
5180008550		
5180008560		
5180008570		
5180009000		
5180009010		
5180009020		
5180009090		
5180009180		
5180009190		
5180009230		
5180009240		
5180009250		
5180009260		
5180009270		
5180009320		
5180009430		
5180009440		
5180009460		
5180009550		
5180009560		
5180009570		
5180009580		
5180009590		
5180009610		
5180009620		
5180009760		
5180010110		
5180010120		
5180010140		
5180010150		
5180010160		
5180010170		

ANADARKO AREA LEASES AND ASSOCIATED FIELDS

LEASE NUMBER	FIELD NAME	FIELD CODE
5180010180	WATONGA-CHICKASHA TREND	751774
5180010390		
5180010400		
5180010410		
5180010420		
5180010440		
5180013310		
5180014260		
5180017950		
5180017960		
5180017970		
5180017980		
5180017990		
5180018000		
5180018010		
5180018020		
5180018040		
5180018050		
5180018140		
5180018210		
5180018220		
5180019540		
5180019550		
5180019700		
5180019730		
5180022160		
5180031320		
5180038390		
5180038470		
5180041510		
5180041540		
5180041580		
5180041600		
5180041870		
5180042180		
5180042580		
5180042690		
5180042700		
5180042710		
5180042740		
5180042750		
5180042990		
5180043590		
5180043600		
5180043620		
5180044700		
5180044970		
5180046040		
5180046190		
5180046200		
5180048660		
5180048670		
5180048680		
5180048700		
5180048710		
5180048720		
5180049790		
5180052400		
5180052430		

ANADARKO AREA LEASES AND ASSOCIATED FIELDS

<u>LEASE NUMBER</u>	<u>FIELD NAME</u>	<u>FIELD CODE</u>
5180052520	WATONGA-CHICKASHA TREND	751774
5180052530		
5180053830		
5180053860		
5180053870		
5180053880		
5180053890		
5180053920		
5180055960		
5180055990		
5180056000		
5180056010		
5180056020		
5180056030		
5180057460		
5180057660		
5180057690		
5180057750		
5180057780		
5180058160		
5180058170		
5180058180		
5180058190		
5180059490		
5180059500		
5180059580		
5180059730		
5180060060		
5180061550		
5180061710		
5180061720		
5180061950		
5180061960		
5180062100		
5180062110		
5180062350		
5180063540		
5180064890		
5180064900		
5180066220		
5180066250		
5180066440		
5180066450		
5180067330		
5180067360		
5180067370		
5180067380		
5180067390		
5180071910		
5180072360		
5180074930		
5180075080		
5180076040		
5180076050		
5180076100		
5180076120		
5180078110		
5180078120		
5180078520		

ANADARKO AREA LEASES AND ASSOCIATED FIELDS

LEASE NUMBER	FIELD NAME	FIELD CODE
5180078530	WATONGA-CHICKASHA TREND	751774
5180078660		
5180080140		
5180080300		
5180081370		
5180081380		
5180081390		
5180081400		
5180081450		
5180081460		
5180083530		
5180088130		
5180088140		
5180088150		
5180088160		
5180088910		
5180092400		
5180092410		
5180092420		
5180092430		
5180092460		
5180094520		
5180098200		
5180098210		
5180098220		
5180098230		
5180098630		
5180104530		
6070161280		
6070161290		
6070225760		
6070254020		
6070254030		
6070256040		
6070260970		
6070261690		
6070261700		
6070261710		
6070264220		
6070264390		
6070264400		
6070264410		
6070274750		
6070276690		
6070280460		
6070280470		
6070280480		
6070280490		
6070280500		
6070280510		
6070280520		
6070280530		
6070280540		
6070280550		
6070280560		
6070280570		
6070280580		
6070290380		
6070297280		

ANADARKO AREA LEASES AND ASSOCIATED FIELDS

LEASE NUMBER	FIELD NAME	FIELD CODE
6070297290	WATONGA-CHICKASHA TREND	751774
6070297300		
6070312760		
6070312790		
6070312800		
6070313310		
6070313360		
6070313370		
6070313380		
6070313390		
6070314440		
6070316190		
6070316210		
6070316220		
6070316240		
6070316250		
6070316270		
6070317300		
6070335310		
6070344180		
6070627590		
6070632160		
6070632170		
6070632180		
6070632190		
6070632190		
6070632200		
6070632210		
6070632220		
6072061700		
5180076130	WEATHERFORD	753767
5180082300		
5180082310		
5180082730		
5180088080		
5180090660		
5180101300		
5180101450		
5180101480		
5180101500		
5180101520		
6150035120	WELLSTON, WEST	757828
6150035130		
5110007070	WESTPOINT EAST	759967
5110007730		
7110017930	WHITE EAGLE, NW	000280
6020082220	WILBURTON	767826

ANADARKO AREA LEASES AND ASSOCIATED FIELDS

LEASE NUMBER	FIELD NAME	FIELD CODE
5050512330 5110008570 5110016210	YALE EAST	784953
5100040110	YALE WEST	785077
5050526950 5100002700 5100002990 5100003020 5100099760 5100145250 5100145260 5100145310 5100145740 5100145790 5100145920 5100147000 5110003250 5110004040 5110005280 5110005290 5110010860 5110011600 5110012180 5110012190 5110012220 5110012230 5110012810 6070000390 6070022940	YALE-OUAY	784984

FIELD AND LEASE STATISTICS
 OKLAHOMA TAX COMMISSION GAS SALES DATA
 ANADARKO AREA MAJORITY PRICE STUDY

FIELD CODE	FIELD NAME	NUMBER OF LEASES	DATA PROVIDED ?
008565	ALDEN NE	3	YES
012967	ALPHA SE	4	YES
013928	ALTONA	5	YES
021810	APACHE	8	YES
021849	APACHE EAST	13	YES
009672	APACHE NORTH	1	NO
021903	APACHE SOUTH	3	YES
021970	APACHE TOWNSITE	6	YES
022975	ARAPAHO	1	YES
031583	AVERY	5	YES
050565	BEBEE-KONAWA SW	2	NO
054258	BELMONT, WEST	1	NO
058656	BESSIE EAST	1	YES
065004	BINGER	87	YES
065066	BINGER NE	7	YES
065084	BINGER SOUTH	31	YES
094688	BROOKSVILLE	1	NO
000450	BROXTON NORTH	2	NO
096610	BROXTON SOUTH	2	NO
096672	BROXTON WEST	1	NO
098222	BRYAN NORTH	2	YES
098191	BRYAN, NE	1	YES
101121	BUENA VISTA NORTH	1	NO
111291	CACHE CREEK	9	NO
117956	CANTON NW	2	YES
120839	CARNEGIE SW	2	NO
120870	CARNEGIE, WEST	1	NO
121256	CARPENTER NE	7	YES
128985	CEMENT	34	YES
130504	CERES SOUTH	10	YES
138022	CHICKASHA NW	2	YES
148733	CLINTON	27	YES
148745	CLINTON EAST	21	YES
148826	CLINTON SOUTH	18	YES
000511	CLOUDCHIEF NW	2	YES
150981	CODY	1	NO
151074	CODY, SW	1	NO
154659	COLONY NW	12	YES
156716	CONCHO	1	NO
168481	CRANE SE	5	YES
169814	CRESCENT STAR, SOUTH	2	NO
175162	CUSHING	2	YES
175425	CUSTER CITY EAST	5	NO
176798	CYRIL NW	1	NO
001016	CYRIL WEST	7	NO
210401	EAGLE CITY	5	YES
210432	EAGLE CITY SOUTH	1	NO
010255	EAKLY-WEATHERFORD TREND	96	YES
211176	EARLSBORO	2	NO
221399	ELM GROVE	19	NO
228506	ESSAQUANAHDALE	2	NO
237350	FAY EAST	12	YES
245160	FLETCHER NE	20	YES
247753	FONDA SE	12	YES
247760	FONDA SW	3	YES
000605	FONDA, WEST	5	YES

FIELD AND LEASE STATISTICS
 OKLAHOMA TAX COMMISSION GAS SALES DATA
 ANADARKO AREA MAJORITY PRICE STUDY

FIELD CODE	FIELD NAME	NUMBER OF LEASES	DATA PROVIDED ?
250822	FORT SILL NORTH	1	NO
266208	GARR NORTH	2	NO
268532	GEARY NW	1	NO
268557	GEARY SW	6	YES
288926	GREENFIELD NW	27	YES
291902	GRISSO	3	YES
000293	HAMMON EAST	24	YES
302607	HANBURY DISTRICT	2	YES
302638	HANBURY NE	2	NO
334152	HOTULKE-WEST EARLSBORO	1	YES
336522	HUCMAC, NORTH	1	NO
340200	HUNTLEY WEST	8	YES
341648	HYDRO	9	YES
345665	INDIANAPOLIS	1	NO
010787	LAVERTY, NW	1	NO
413142	LIBERTY	1	NO
413359	LIBERTY, NE	1	NO
417575	LITTLE AXE	1	NO
426063	LONGDALE, SE	7	YES
426649	LOOKEBA	1	NO
445766	MARAMEC	5	YES
445859	MARAMEC NORTH	2	YES
044632	MARCH NORTH	7	YES
448556	MARLAND NORTH	2	YES
448649	MARLOW DISTRICT	1	NO
451191	MARSHAM	1	YES
453175	MAUD	4	YES
472745	MIDWAY	4	YES
476527	MINCO EAST	1	NO
476546	MINCO WEST	1	NO
483914	MOORE WEST	1	NO
486828	MORVIN	2	YES
510045	NOBSCOT NW	2	YES
511564	NORFOLK	8	YES
511657	NORFOLK WEST	4	YES
518240	OAKWOOD NORTH	1	NO
521278	OKARCHE NORTH	24	YES
521495	OKEENE, NW	5	YES
530400	OTOE CITY	7	YES
530431	OTOE CITY EAST	1	YES
530524	OTOE CITY SE	1	YES
546956	PECK	2	NO
557566	PINK SOUTH	4	YES
560341	PLEASANT MOUND	6	NO
560352	PLEASANT MOUND NORTH	5	YES
564139	PONCA CITY	26	YES
564263	PONCA CITY SOUTH	1	YES
564294	PONCA CITY SW	1	NO
569952	PRAGUE	1	NO
575633	PUTNAM	3	YES
587739	RAVENDALE	1	YES
587770	RAVENDALE, NE	3	NO
000777	RED HILL NORTH	1	NO
591948	RED ROCK WEST	2	YES
599907	RICHLAND, NORTH	3	YES
602659	RIPLEY	1	YES

FIELD AND LEASE STATISTICS
 OKLAHOMA TAX COMMISSION GAS SALES DATA
 ANADARKO AREA MAJORITY PRICE STUDY

FIELD CODE	FIELD NAME	NUMBER OF LEASES	DATA PROVIDED ?
615378	ROULETTE CREEK	1	YES
615409	ROULETTE CREEK, NORTH	8	NO
623542	SACRED HEART	1	NO
637748	SCHLEGEL NORTH	4	YES
637841	SCHLEGEL SW	1	YES
642730	SEGER	12	YES
643119	SEILING NE	6	YES
646638	SHADY GROVE WEST	1	YES
648715	SHAWNEE	1	NO
648848	SHAWNEE LAKE, SE	1	NO
648994	SHAWNEE SW	21	NO
648901	SHAWNEE, NE	2	NO
000814	SKELLYVILLE	5	YES
664781	SOLDIER CREEK	6	NO
670299	SPORN	1	YES
670361	SPORN NE	3	YES
672624	SQUAW CREEK	14	YES
674097	ST LOUIS	9	YES
679832	STERLING	14	YES
681909	STONEBLUFF DISTRICT	1	YES
010199	STRONG CITY DISTRICT	41	YES
685102	STROUD	1	YES
688512	SUMNER DISTRICT NORTH	2	YES
700050	TECUMSEH NW	2	YES
705107	THOMAS SOUTH	9	YES
712851	TONKAWA	9	YES
718403	TRIVOLI SW	2	YES
718664	TROUSDALE	1	NO
722392	TURNER WEST	2	NO
727797	UNION CITY	1	NO
727824	UNION CITY SW	1	NO
736118	VERDEN	55	YES
737519	VICI, EAST	1	NO
747419	WALTERS DISTRICT	15	NO
748225	WANETTE	1	YES
004198	WASHITA CITY-CADDO	12	YES
750984	WATCHORN EAST	5	YES
751139	WATCHORN, SW	1	NO
751945	WATONGA SOUTH	1	NO
751774	WATONGA-CHICKASHA TREND	266	YES
753767	WEATHERFORD	11	YES
757828	WELLSTON, WEST	2	YES
759967	WESTPOINT EAST	2	NO
000288	WHITE EAGLE, NW	1	YES
767826	WILBURTON	1	YES
784953	YALE EAST	3	NO
785077	YALE WEST	1	YES
784984	YALE-QUAY	25	YES

TOTAL LEASES: 1367

Data is available for 99 out of a total of 160 fields or 62 % of the fields.
 These 99 fields encompass 1,209 leases out of a total of 1,367 or 88 % of all
 leases.

Table 3

**OKLAHOMA MAJORITY PRICE STATISTICS
BY CALCULATION METHOD
JANUARY 1984 THROUGH DECEMBER 1990
SOURCE: OKLAHOMA TAX COMMISSION**

<u>Calculation Method</u>	<u>Volume</u>	<u>% of Total</u>	<u># of Records</u>	<u>% of Total</u>	<u># of Maj. Prices</u>
1	429,557,000	11.4	105,428	15.8	9,239
2	468,200,000	12.5	112,913	16.9	9,745
3	883,716,000	23.5	268,324	40.2	4,255
4	1,377,794,000	36.7	357,913	53.6	5,017
5	3,430,196,000	91.3	612,773	91.8	6,876
6	3,756,812,000	100.0	667,711	100.0	<u>7,422</u>

Total Majority Prices: 42,656

Note: Operators in the fields containing the Anadarko Area leases reported 667,711 lines of information to the Oklahoma Tax Commission representing gas sales volumes of 3,756,812,000 which are the statistics associated with calculation method 6. The percentages provided for the other calculation methods assume that calculation method 6 represents 100 percent of the volume and number of records.

Table 4

**COMPARISON OF VOLUMES REPORTED TO THE OKLAHOMA TAX COMMISSION
(CALCULATION METHOD 1) AND VOLUMES REPORTED TO THE EIA¹**

<u>NGPA Category</u>	<u>Calculation Method 1 Volume</u>	<u>EIA Volume</u>	<u>(EIA Volumes) Percent of Total</u>
102	104,030,993	255,316,000	40.4
103	74,017,954	86,663,000	13.7
104A	10,016,075		
104B	7,929,533		
104C	4,832,545		
104D	3,514,150		
104E	840,445		
104F	5,739,645		
104G	21,566,952		
104K	5,924,579		
104(Total) ²	60,363,924	100,072,000	15.8
105	0	6,755,000	1.1
106	0	30,753,000	4.9
107	0	138,079,000	21.8
108	0	2,460,000	0.4
109	0	11,993,000	1.9
TOTAL	238,413,171	632,091,000	
104A -	post 1974 gas		
104B -	1973 - 1974 biennium gas, small producer		
104C -	1973 - 1974 biennium gas, large producer		
104D -	recompletion or replacement gas, small producer		
104E -	recompletion or replacement gas, large producer		
104F -	flowing gas, small producer		
104G -	flowing gas, large producer		
104K -	minimum rate gas		

¹ Volumes reported to the Oklahoma Tax Commission represent the volume of gas reported sold in fields involving the Anadarko Area leases from 1984 through 1990. The EIA data is the volume of gas purchased by interstate pipeline companies for the same fields from 1984 through 1987.

² Calculation method 1 104 totals do not include volumes of 104 gas reported with no subcategory.

Table 5

CALCULATION METHOD 1 - VOLUME SUMMARY3 SAMPLE MONTHS

<u>NGPA Category</u>	<u>12/84 Volume</u>	<u>6/86 Volume</u>	<u>12/90 Volume</u>
102	15,295,673	1,192,028	1,404,030
103	7,922,226	502,747	2,705,129
104 (no subcategory)	14,896,987	5,723,422	4,239,351
104A	1,308,807	255,570	9,500
104B	293,650	300,201	6,686
104C	835,151	120,557	2,741
104D	162,211	59,925	30,711
104E	505,041	42,413	1,675
104F	340,918	195,816	46,823
104G	1,620,052	1,214,039	207,548
104K	446,551	145,124	31,762

104A - post 1974 gas

104B - 1973 - 1974 biennium gas, small producer

104C - 1973 - 1974 biennium gas, large producer

104D - recompletion or replacement gas, small producer

104E - recompletion or replacement gas, large producer

104F - flowing gas, small producer

104G - flowing gas, large producer

104K - minimum rate gas

Table 6

Comparison of NGPA 102 and 103 Calculation Method 1 Volumes
with Calculation Method 6 Volumes by Field - 1984 - 1990
Source: Oklahoma Tax Commission Data

<u>Field Name</u>	<u>Calc 6 Volume</u>	<u>Calc 1 102 Volume</u>	<u>Calc 1 103 Volume</u>	<u>Calc 1 102 & 103 as a % of Calc 6</u>
Alpha SE	3,038	102	1,890	65.6
Apache East	62,384	625	1	1.0
Apache Townsite	3,847	0	118	3.1
Arapaho	56,708	10,330	0	18.2
Binger	11,587	0	1,378	11.9
Binger NE	2,785	0	615	22.1
Binger South	33,211	125	0	0.4
Canton NW	1,102	23	862	80.3
Carpenter NE	40,799	2,885	25	7.1
Cement	82,422	38	63	0.1
Chickasha NW	25,494	4	23	0.1
Clinton	54,453	550	0	1.0
Clinton East	100,048	7,623	2	7.6
Colony NW	34,705	160	0	0.5
Concho	214	184	0	86.0
Crane SE	1,955	10	37	2.4
Custer City East	8,329	121	170	3.5
Eagle City South	10,313	72	519	5.7
Eakly-Weatherford	520,768	15,661	305	3.1
Elm Grove	85,337	445	223	0.8
Fay East	40,232	0	238	0.6
Fletcher NE	38,056	21	0	0.1
Fonda SE	435	0	85	19.6
Fonda SW	108	0	3	2.8
Fort Sill North	623	0	292	46.9
Geary SW	15,631	0	15	0.1
Greenfield NW	17,737	0	439	2.5
Hammon East	31,579	4,107	0	13.0
Hucmac North	159	7	45	32.7

Table 6 (cont)

<u>Field Name</u>	<u>Calc 6 Volume</u>	<u>Calc 1 102 Volume</u>	<u>Calc 1 103 Volume</u>	<u>Calc 1 102 & 103 as a % of Calc 6</u>
Huntley West	417	4	0	1.0
Indianapolis	3,799	176	4	4.7
Longdale SE	456	0	51	11.2
Lookeba	17,353	1,091	14	6.4
Maramec	178	0	38	21.4
Maramec North	1,452	6	951	65.9
Marlow District	3,811	135	300	11.4
Minco East	7,112	70	807	12.3
Nobscot NW	11,339	0	120	1.1
Norfolk	821	0	224	27.3
Norfolk West	753	0	44	5.8
Oakwood North	25,013	0	900	3.6
Okarcho North	813	0	27	3.3
Okeene NW	54,152	109	10,128	18.9
Putnam	262,409	8,847	12,439	8.1
Richland North	43,080	2,344	5,068	17.2
Schlegel North	454	320	33	77.8
Seger	43,861	351	0	0.8
Seiling NE	12,892	912	859	13.7
Skellyville	1,223	0	447	36.6
Squaw Creek	20,165	50	2,154	10.9
St Louis	3,550	0	8	0.2
Sterling	5,016	0	54	1.1
Strong City	261,333	27,035	386	10.5
Stroud	4,632	1	649	14.0
Thomas South	53,387	91	1,560	3.1
Trivoli SW	313	66	0	21.1
Union City	41,478	572	1,485	5.0
Verden	50,319	5	0	0.1
Wanette	33	0	3	9.1
Watonga-Chick.	809,104	11,616	11,616	4.5
Weatherford	49,368	2,023	339	4.8

Table 6 (cont)

<u>Field Name</u>	<u>Calc 6 Volume</u>	<u>Calc 1 102 Volume</u>	<u>Calc 1 103 Volume</u>	<u>Calc 1 102 & 103 as a % of Calc 6</u>
Wellston West	1,522	15	0	1.0
Wilburton	626,224	5,036	2,134	1.1
Yale West	249	0	248	99.6
Yale-Quay	1,128	64	363	37.9
Total	3,703,267	104,031	74,018	4.8

Note: Volumes are expressed in MMcf.