

ALASKA LEGISLATURE SPECIAL COMMITTEE / SUBJECT FILES 8672
1490 SCOMM 55: JNT. SPEC. COMM. ON STATE TAX POLICY, 1986-1987

1290

**CONTRADICTIONS
BETWEEN THE OIL COMPANIES' PUBLIC STATEMENTS
AND THE FIGURES THEY REPORTED FOR ROYALTY
PURPOSES TO THE STATE**

(Based on December 1977 reports)

	<u>As Stated</u>	<u>As Reported</u>	<u>Difference</u>
1/3/77, ARCO			
Wellhead Price	\$7.58	\$6.41	(1.71)
TAPS Tariff	5.24	6.15	.91
Tanker to West Coast	.70	.88	.18
2/7/77, SOHIO			
Wellhead Price	7.25	6.14	(1.11)
TAPS Tariff	5.00	6.27	1.27
Tanker to West Coast	.75	.89	.14
3/21/77, ARCO			
Wellhead Price	7.20	6.41	(.79)
TAPS Tariff	5.60	6.15	.55
Tanker to West Coast	.70	.88	.18
3/21 and 23/77, SOHIO			
TAPS Tariff	5.00-6.00	6.25-6.28	0.25-1.28
Tanker to San Francisco or L.A.	.75	.89	.14
Wellhead (net back from San Fran. or L.A.)	7.00-8.00	6.14	(1.86) - (.86)
Tanker to Gulf Coast	2.75	3.61	.86
Wellhead (netback from Gulf Coast)	5.00-6.00	3.53	(2.47) - (1.47)
5/26/77, ARCO			
Wellhead Price	"about 7.00"	6.41	(.59)
TAPS Tariff	5.50-6.00	6.15	.15-.65
Tanker to West Coast	.75-.90	.88	(.02) - .13

For all Prudhoe Bay owners, the weighted average TAPS tariff (based on volume) reported in December was \$6.24 (as opposed to a weighted average tariff based on pipeline ownership percentages, of \$6.20), the weighted average tanker cost reported (based on volume) was \$1.12, and the weighted average wellhead price was only \$5.44. However, the companies did not pay royalties on the basis of that \$5.44; instead, they are claiming further deductions for "field costs," which the State believes are unauthorized. These deductions average 61.4 cents a barrel, reducing the average price actually paid for royalty purposes to \$4.79.

The purpose of mentioning all these prices and deductions is not to set the ground for any possible legislative resolution of these royalty matters, since the royalty questions are already being litigated. Rather, the point to be made is that the industry's interests and those of the State of Alaska do not always coincide; where they do not coincide, the industry has shown that it will readily part company to advance its own purposes. In royalty and in production tax, the industry's interests are served by low wellhead prices and so it has parted company on this matter, not only from the State, but also from its spokesmen who scant months before were unabashedly predicting prices from one to two dollars a barrel higher.

ELEMENTS AFFECTING FIELD VALUE

Earlier in this report it was mentioned generally how the wellhead value of our oil for production tax and royalty is affected by market prices and transportation charges. This section will describe in greater detail how the projected wellhead value of Prudhoe Bay oil has been affected by pricing decisions and transportation charges.

In general, the value of oil for purposes of computing production tax and royalty is determined by taking the market sales price or value for the oil and netting back any transportation charges from the point of sale to the field. Thus the market prices and transportation costs have an important and direct bearing on wellhead values.

Price Ceilings

In the department's oil and gas tax study, possible effects of federal ceilings for North Slope oil were discussed.

Alaska's Oil and Gas Tax Structure (February 1977), pp. V-37 to V-48. At that time the President had not yet recommended to Congress what price ceilings would be applicable to North Slope oil. The danger existed at that time that the federal government could establish a wellhead price ceiling substantially below that of imported crude or even other categories of new oil. That in itself apart from corporate price manipulation

could have substantially reduced severance tax and royalty revenues over time.

Subsequently, however, as stated earlier in this report, the FEA adopted regulations which placed North Slope oil under upper tier price ceilings and gave it exempt entitlement's treatment. 42 Federal Register 41567 (August 17, 1977). This essentially gave favorable pricing and entitlement treatment to North Slope production since the beginning price ceilings would be substantially above what was projected to be a wellhead value for North Slope oil and no entitlement penalties would be assessed against North Slope oil.

Market Prices

The starting point in any determination of wellhead value is market price received for the oil, which is then reduced by the transportation charges between the place of sale and the field where the oil is produced.

In the case of North Slope oil, some oil has been sold right at the mouth of the Trans Alaska Pipeline system (LACT meter) so that no net back of transportation charges is necessary. The market price of that oil in the field, in fact, becomes a value for computation of severance tax purposes assuming that the prices are truly arms-length

sales. Those sales taking place at the wellhead as reported in December Royalty reports are as follows:

<u>Company</u>	<u>Sales Price</u>
Getty	\$6.38
Mobil	6.23

Other companies have made sales at Valdez which include tariff charges on the transportation of the oil from the North Slope to Valdez. These sales are as follows:

<u>Company</u>	<u>Sales Price</u>
Amerada Hess	\$12.60
Exxon	12.30
Hunt Group	12.62
Sohio	12.53

The majority of the oil, however, has been transported by the producing companies and marketed in various locations outside the state. These sales prices and their destinations are:

<u>Company</u>	<u>Sales Price</u>	<u>Destination</u>
ARCO	\$13.44	West Coast
Exxon	13.16	West Coast
Phillips	13.38	West Coast
Sohio	13.30	West Coast
Sohio	13.42	Gulf Coast

Pipeline Tariffs

The largest element of transportation cost, and therefore the one having the biggest effect on wellhead value is the tariff charge of the Trans Alaska Pipeline System (TAPS)

which transports the oil from Prudhoe Bay, where it is produced, to Valdez, where it is loaded onto tankers and transported out of state.

During the months of May and June of 1977 the eight owner companies of the Trans Alaska Pipeline System filed with the Interstate Commerce Commission (ICC) initial tariffs for the transportation of oil from Prudhoe Bay to Valdez. Those initial tariffs ranged from \$6.04 to \$6.44 per barrel and taken together computed a weighted average tariff per barrel of \$6.20 based upon pipeline ownership.

Those initial filed tariffs were:

<u>Pipeline Carrier</u>	<u>Filed Tariff</u>
Amerada Hess	\$6.44
ARCO	6.04
BP	6.35
Exxon	6.27
Mobil	6.31
Phillips	6.22
Sohio	6.16
Union	6.09

Subsequent to the initial filing of pipeline tariffs, the ICC's Bureau of Investigations and Enforcement, the U.S. Department of Justice, the State of Alaska and Arctic Slope Regional Corporation all filed protests against the initial tariffs [Protest and Petitions For Suspension by the United States Department of Justice, June 15, 1977; Protest/Complaint of the State of Alaska Seeking the Suspension and Investigaiton

of Initial Rates and Tariff Provisions, June 15, 1977;
 Protest and Petition of The Bureau of Investigation and
 Enforcement for Suspension and Investigation, June 15, 1977;
 Protest and Petition for Suspension of Initial Rates and
 Tariffs by the Arctic Slope Regional Corporation, June 13, 1977].

The protests sought suspension and institution of a formal
 investigation of the rates published by the TAPS carriers.
 In its protest the State of Alaska set forth what it considered
 reasonable interim tariffs for TAPS as follows:

<u>Pipeline Carrier</u>	<u>Rate</u>
Amerada Hess	(Insufficient information)
ARCO	\$3.74
BP	4.42
Exxon	3.80
Mobil	3.59
Phillips	(Tariff had not been filed)
Sohio	4.04
Union	3.85

Protest/Complaint of the State of Alaska Seeking the Suspension
 and Investigation of Initial Rates and Tariff Provision,
 June 15, 1977 (p. 4).

On June 28, 1977, the Interstate Commerce Commission (ICC)
 suspended the initial filed rates for a seven-month statutory
 period and ordered an immediate investigation of the rates.
 At the same time that the ICC suspended the filed rates it
 stated that it would accept for filing a lower schedule of
 interim rates pending the outcome of the investigation.

That schedule was as follows:

<u>Pipeline Carrier</u>	<u>Interim Rate</u>
Amerada Hess	\$4.85
ARCO	4.91
BP	4.68
Exxon	5.10
Mobil	4.84
Phillips	4.83
Sohio	4.70
Union	4.84

Order of the Interstate Commerce Commission in Investigation and Suspension Docket No. 9164, Trans Alaska Pipeline System (Rate Filings) and No. 36611, Trans Alaska Pipeline System (Rules and Regulations), June 28, 1977.

Thus the initial tariffs, the proposed tariffs by the State of Alaska and the Interim Tariffs allowed by the ICC looked as follows:

<u>Pipeline Carrier</u>	<u>Filed Tariff</u>	<u>Alaska's Proposed Tariff</u>	<u>Interim Tariff</u>
Amerada Hess	\$6.44	--	\$4.85
ARCO	6.04	\$3.74	4.91
BP	6.35	4.42	4.68
Exxon	6.27	3.80	5.10
Mobil	6.31	3.59	4.84
Phillips	6.22	--	4.83
Sohio	6.16	4.04	4.70
Union	6.09	3.83	4.84

Several of the pipeline companies petitioned the Fifth Circuit Court of Appeals contending that the ICC was without authority to suspend the initial tariffs or to suggest maximum interim tariffs. Mobil Alaska Pipeline Company v United States,

No. 77-2392, (July 6, 1977); BP Pipeline Inc. v United States,
No. 77-2412 (July 8, 1977); Exxon Pipeline Co. v United States,
No. 77-2421 (July 11, 1977); ARCO Pipe Line Co. v United States,
No. 77-2437 (July 14, 1977).

The Fifth Circuit Court, however, dismissed the pipeline carriers petitions concluding that the ICC had acted lawfully. Mobil Alaskan Pipeline Company v United States, 557 P2d 775 (1977).

Some of the companies then filed motions in the U.S. Supreme Court for a stay of the Fifth Circuit decision. Four of the carriers also filed petitions for certiorari. The Supreme Court granted a stay of the Fifth Circuit decision and the certiorari petitions, and at the present time a decision on the seven month suspension and interim rates is pending before the Supreme Court. Order of November 28, 1977 Granting Certiorari in Mobil Alaska Pipeline Co. v United States, No. 77-452; Exxon Pipeline Co. v United States, No. 77-457; BP Pipeline, Inc. v United States, No. 77-551; ARCO Pipe Line Co. v United States, No. 602.

Concurrently with the litigation over interim rates the ICC and now its successor the Federal Energy Regulatory Commission (FERC) has been conducting its investigation of TAPS rates in order to set lawful permanent tariffs.

The investigation proceedings have separated into two phases. The first phase of the proceedings deals with such issues as the allowable rate base and the appropriate rate of return while the second phase of the investigation will deal with the amount of costs which may be claimed by the carriers as a part of the rate base.

All of the protestants, including the State of Alaska, argue that the TAPS tariffs filed by the pipeline companies are too high for several reasons. Joint Pre Hearing Brief of the United States Department of Justice, The State of Alaska and The Arctic Slope Regional Corporation, (December 30, 1977).

First, for example, it is being argued that the pipeline companies should earn a rate of return on the actual investment in the pipeline system rather than upon an inflated valuation of replacement cost. This approach would be consistent with rate bases used for most public utilities and would insure that pipeline owners would not receive a return on their investment more than once.

It is also being argued that the rate of return allowed to the pipeline companies on TAPS for the debt and equity portions of the pipeline should be no higher than that needed to reflect the relative risks involved and to compensate for the costs of servicing the debt.

In addition, the protestants have argued that the pipeline owners should be allowed only a return on prudent investments and not be allowed to include any costs due to mismanagement or inefficiency.

All of the arguments are aimed at the extremely excessive nature of the tariffs. One illustration of how the tariffs were "pumped-up" as high as they were is shown by the double counting of a rate of return on the pipeline owners debt. In the initial filing, the pipeline carriers computed their proposed tariffs high enough to cover their operating costs (including interest) plus a rate of return on the total valuation of the pipeline. In essence, the pipeline companies were claiming a double rate of return on that portion of the pipeline financed through debt. They were first recovering their interest expense on their debt in addition to a rate of return on the borrowed money itself. The ICC, however, - in its order suspending the rates, eliminated the double counting for purposes of setting interim rates by specifying that it would accept, on an interim basis, tariffs based upon a 10 percent rate of return on valuation with interest cost to be paid out of company's rate of return.

The effect of the excessive tariffs for the pipeline companies was extremely high rates of return and substantial profits for the pipeline companies. For example the degree of profit that would be yielded by the pipeline companies using

their originally filed tariffs was illustrated by the Commission as follows:

<u>Pipeline Carrier</u>	<u>on Equity</u>	<u>on Total Investment</u>	<u>on Valuation</u>
Amerada Hess	31.5%	13.8%	13.3%
ARCO	86.2%	13.1%	12.4%
BP	42.5%	14.2%	13.5%
Exxon	31.4%	13.2%	12.5%
Mobil	(no equity)	13.8%	13.1%
Phillips	38.2%	14.0%	13.1%
Sohio	40.6%	13.6%	13.1%
Union	71.1%	13.8%	12.7%
Average	46.0%	13.6%	12.9%

These inflated tariffs substantially reduced severance tax and royalty values and resulted in considerably reduced revenues. For example, shortly after the initial tariffs were filed the Department of Revenue estimated the loss of revenues would be as shown in the following table:

<u>Duration of High Tariffs</u>	<u>Reduced Royalty and Prod. Tax Revenue</u>
6 months	15.6
12 months	41.7
18 months	70.5

These initial tariffs were way beyond what others expected the pipeline companies would claim. Those third party estimates are shown on the following table.

<u>Date</u>	<u>Source</u>	<u>Amount</u>
11/76	Mortada International, <u>The Determination of Equitable Pricing Levels for North Slope Alaskan Crude</u> , pp. II-18, III-10, III-12, IV-24, VII-6 VII-7	4.20-4.50
4/76	Drexel Burnham & Co., <u>The North Slope: Paradise Lost?</u> pp. IV-11	4.60
1/7/77	Washington Analysis Corp., <u>Entitlements Program Impact on North Slope Profits</u>	5.00
2/28/77	Merrill, Lynch, Pierce, Fenner & Smith, Inc., <u>Institutional Report "Petroleum Notes, Prudhoe Bay Crude Oil, Entitlements Program</u> , p. 4	5.40
4/1/77	Wainright Securities Inc., <u>Industry Review, "Petroleum Industry, North Slope Oil and Gas,"</u> pp. 25 (Table 7), 43 (Table 10).	4.28*
	*includes 5¢ for TAPS liability fund	
4/15/77	The President of the United States, <u>Report to Congress on the Pricing of Alaska North Slope (ANS) Crude Oil</u> , pp. 63-64 (Table IX-3).	5.10

Even the Department of Revenue's extremely conservative estimate of \$5.54 (worst case scenario) of what the companies might claim fell substantially below what was actually filed. As shown earlier in this report the filed tariffs also exceeded substantially the public pronouncements of the companies themselves.

Tanker Tariffs

Another item having a direct impact on the wellhead value for calculation of the severance tax is the cost of marine transportation from Valdez to various points on the West Coast and Gulf Coast of the United States.

Unlike pipeline tariffs, the oil tanker transportation costs are not regulated by any government regulatory body since the tankers are not operating as common carriers. Instead the transportation charges are set by negotiation between the tanker company and the shipper, which in some cases may be between affiliated companies.

Since production began in June of 1977 tankers have been loading oil at Valdez and transporting it to various locations in the states of California, Washington and on the Gulf of Mexico. The charges claimed for this transportation have varied considerably between shippers and far exceed the expectation of third parties who estimated the amount of the charge.

Those tanker charges that have been claimed during the month of December are as follows:

<u>Company</u>	<u>Charge</u>	<u>Destination</u>
ARCO	\$.88	West Coast
Exxon	1.08	West Coast
Phillips	.81	West Coast
Sohio	.89	West Coast
Sohio	3.61	Gulf Coast

These tanker charges that have ranged from \$.88 to \$3.61 are substantially greater than what other third parties thought the charges would be. These estimates were as follows:

<u>Date</u>	<u>Source</u>	<u>Tanker Cost</u>
11/76	Mortada International, <u>The Determination of Equitable Pricing Levels for North Slope Alaskan Crude</u> , pp. II-13, III-10, III-12, IV-24, VII-6 and VII-7	
	Delivered to Los Angeles	.671*
	Delivered to Puget Sound	.459*
	*Figures in 1976 dollars	
4/76	Drexel Burnham & Co., <u>The North Slope: Paradise Lost?</u> , pp. IV-11	.50
1/7/77	Washington Analysis Corp., <u>Entitlements Program Impact on North Slope Profits</u>	
	Delivered to West Coast	.60
2/28/77	Merrill, Lynch, Pierce, Fenner & Smith, Inc., <u>Institutional Report, "Petroleum Notes, Prudhoe Bay Crude Oil, Entitlements Program,"</u> p. 4.	.55
4/1/77	Wainwright Securities Inc., <u>Industry Review, "Petroleum Industry, North Slope Oil and Gas,"</u> pp. 25 (Table 7), 43 (Table 10)	
	Delivered to Puget Sound	.50
	Delivered to San Francisco	.80
	Delivered to Long Beach	.70
	Delivered to Houston	2.45
4/15/77	The President of the United States, <u>Report to Congress on the Pricing of Alaska North Slope (ANS) Crude Oil</u> pp. 63-64 (Table IX-3)	
	Delivered to Puget Sound (120 MB/D)	.74
	Delivered to San Francisco (250 MB/D)	.96
	Delivered to Los Angeles (340 MB/D)	1.01
	Delivered to Gulf Coast (490 MB/D)	2.98

The Department of Revenue predicted a weighted average tanker charge of \$.59 to the West Coast and it too was much below the tanker charges claimed.

Transportation to more Distant Markets

Another factor complicating the determination of wellhead value is the West Coast surplus. When the new production from Prudhoe Bay combined with imports and California production, the amount of crude oil exceeded the physical capacity of the refineries on the West Coast to process it. As a result the surplus oil had to be, and still must be transported to other areas of the United States in order to be sold.

Currently, the North Slope surplus oil is being transported by Sohio through the Panama Canal by tanker to market destinations on the Gulf Coast. As production from Prudhoe Bay increases to 1.2 million barrels a day in March of this year, the surplus situation will worsen.

Several possible pipelines to transport surplus oil from the West Coast to eastern markets are on the drawing board, including: The Sohio Pipeline, Atlantic Richfield's proposed "Yoyo" of the Trans-Mountain line, the Kitimat line and the Northern Tier Pipeline. For the short term, however, no relief from the problem is in sight except the costly transshipment through the Panama Canal.

The extra transportation charge claimed by Sohio for shipment through the Panama Canal has been \$2.72 per barrel. This in

itself has greatly reduced the wellhead value on a major portion of the North Slope production.

FIELD VALUE

In taking the market prices received for Prudhoe Bay oil and netting back actual claimed transportation charges from the point of sale to the point of production, the producers are reporting wellhead values ranging from \$3.53 to \$7.70.

The lowest value is reported by Sohio for the oil which it is marketing on the Gulf Coast. Sohio begins with a market price on the Gulf Coast of \$13.42. From that amount it is deducting \$3.61 for tanker transportation from Valdez to the Gulf Coast and a \$6.28 TAPS pipeline charge from Prudhoe Bay to Valdez.

A schedule showing the various reported values for each of the producers follows. These reported values are taken from the December royalty reports as filed by the North Slope producers, and as stated earlier these values taken together produce a weighted average wellhead value for severance tax purposes of \$5.44.

Producer	Quantity	Sale	Market Price	Tanker Cost	TAPS Tariff	Reported Value*
Amerada Hess	119,585	Valdez	\$12.60	--	\$6.44	\$6.16
ARCO	4,507,962	West Coast	13.44	.88	6.16	6.40
Chevron	187,488	--	--	--	--	7.70
EXXON	3,913,000	West Coast	13.16	1.08	6.27	5.81
EXXON	514,699	Valdez	12.30	.15	6.27	5.88
EXXON	41,736	Fairbanks	12.30	--	6.274	6.026
Getty	121,920	Prudhoe Bay	6.38	--	--	6.38
Hunt Group	21,191	Valdez	12.62	--	6.14	6.48
Louisiana Land & Expl.	8,839	Valdez	11.89	--	6.04	5.85
Marathon	11,094	--	--	--	--	6.35
Mobil	465,495	Prudhoe Bay	6.23	--	--	6.23
Phillips	454,632	West Coast	13.38	.81	6.22	6.35
Placid	9,415	Valdez	12.62	--	6.14	6.48
Sohio	4,550,000	West Coast	13.30	.89	6.27	6.14
Sohio	6,097,000	Gulf Coast	13.42	3.61	6.28	3.53
Sohio	1,170,000	Valdez	12.53	--	6.25	6.28

*Not including field cost deductions

Although clearly not deductible under AS 43.55.140 for severance tax purposes in determining wellhead value, the producers have deducted so called "field costs" in determining wellhead value for royalty payments. These costs or deductions represent the costs of gathering, cleaning and dehydrating the oil from the point where the oil comes out of the ground to the point where it is metered into the Trans Alaska Pipeline. The state has taken issue with these deductions as well as all other producer calculations of wellhead value for royalty purposes in a lawsuit entitled State v Amerada Hess et. al., Superior Ct., No. 77-847, First Judicial District.

The amount of field costs deducted for royalty purposes have varied in amount among the producers and for December those deductions ranged as follows:

<u>Producer</u>	<u>Field Cost Deductions</u>
Amerada Hess	.68
ARCO	.64
Exxon	.53
Getty	.78
Mobil	1.11
Phillips	1.03
Placid	.77
Sohio	.60

Thus for royalty purposes the producers during the month of December reported values as follows:

<u>Producer</u>	<u>Royalty Value</u>
Amerada Hess	\$5.48
ARCO	5.77
Chevron	7.70
Exxon (West Coast)	5.28
Exxon (Valdez)	5.35
Exxon (Fairbanks)	5.50
Getty	5.60
Hunt Group	6.48
Louisiana Land & Exploration	5.85
Marathon	6.35
Mobil	5.12
Phillips	5.32
Placid	5.71
Sohio (West Coast)	5.48
Sohio (Gulf Coast)	2.87
Sohio (Valdez)	5.62

Thus with claimed field costs, Sohio for example, is claiming a wellhead value of \$2.87 for the oil which it is shipping to the Gulf Coast. The weighted average wellhead value of Prudhoe Bay oil for royalty purposes for all producers during the month of December is \$4.79 per barrel.

In contrast to the values being reported to the State of Alaska for severance tax and royalty purposes, an objective comparison of the value of North Slope oil using comparable market refining prices on the West Coast and reasonable transportation charges from the market to the North Slope oil field yields a value substantially above the reported values.

First of all, in computing a comparative market wellhead value, we begin with a free market price of oil of like quality to that of North Slope oil. That market price of oil, most comparable to North Slope oil is the price of oil imported to the West Coast and is computed as follows.

VALUE OF 27° ALASKA NORTH SLOPE (ANS) OIL
AT REFINERY DESTINATION

	<u>Los Angeles</u>
Saudi sales price FOB Ras Tanura	\$12.32
Class 2 tanker tariff (AFRA)	1.12
Import fee	-0-
Price for Saudi FOB refinery	13.44
Entitlement for Saudi	-2.37
Refiner's acquisition cost for Saudi	11.07
Entitlement given for ANS oil	2.37
VALUE (Max. price refiners would pay for ANS oil)	13.44

Thus the free market value at the refinery of Prudhoe Bay oil is \$13.44.

Secondly, reasonable transportation charges need to be computed and subtracted from the market price at the refinery. Again we have used third party bench marks in computing a comparison of wellhead value.

All the TAPS protestants including the State of Alaska, the U.S. Justice Department, the Arctic Slope Native Corporation, and the ICC staff have recommended TAPS tariffs substantially below what the companies originally filed. All of the TAPS

protestants except the ICC staff recommended TAPS tariffs below even the ICC interim tariffs. For purposes of this report, however, we have chosen the ICC interim rates as a bench mark for reasonable pipeline transportation costs even though these tariffs may in fact still be too high as permanent tariffs.

Those interim tariffs were:

<u>Pipeline Carrier</u>	<u>Interim Rate</u>
Amerada Hess	4.85
ARCO	4.91
BP	4.68
Exxon	5.10
Mobil	4.84
Phillips	4.83
Sohio	4.70
Union	4.84

Using the weighted average of these tariffs results in a pipeline transportation cost of \$4.83 per barrel.

For tanker transportation to the West Coast we have chosen a conservative estimate of .70 based upon third party calculations of average tanker costs to the West Coast.

Using these third party bench mark figures of refinery prices and transportation costs results in a market price net back to the field of \$7.91.

Also in contrast to the reported wellhead values are the projections of values by third parties as shown in the following table. Interestingly enough, however, these third party estimates coincide closely with our construction of an objective determination of a Prudhoe Bay wellhead value.

<u>Date</u>	<u>Source</u>	<u>Delivered Price</u>	<u>Tanker</u>	<u>TAPS Tariff</u>	<u>Wellhead Price</u>
4/76	Drexel Burnham & Co., <u>The North Slope: Paradise Lost?</u> pp. IV-11	13.00	.50	4.60	7.90
11/76	Mortada International, <u>The Determination of Equitable Pricing Levels for North Slope Alaskan Crude</u> , pp. II-18 III-10, III-12, IV-24, VII-6 and VII-7				
	Delivered to Los Angeles	13.05*	0.671*	4.20-4.50	7.88-8.18
	Delivered to Puget Sound		0.459*	4.20-4.50*	
	Average Case				7.90*
	*Figures in 1976 dollars.				
1/7/77	Washington Analysis Corp., <u>Entitlements Program Impact on North Slope Profits</u>				
	Delivered to West Coast	13.52	0.60	5.00	7.92
2/28/77	Merrill, Lynch, Pierce, Fenner & Smith, Inc., <u>Institutional Report, "Petroleum Notes, Prudhoe Bay Crude Oil, Entitlements Program,"</u> p.4				
	Delivered to West Coast	13.40	0.55	5.40	7.45
4/1/77	Wainwright Securities, Inc., <u>Industry Review, "Petroleum Industry, North Slope Oil and Gas,"</u> pp. 25 (Table 7), 43 (Table 10)				-
	Delivered to Puget Sound	13.27	0.50	4.28*	8.49
	Delivered to San Francisco	13.38	0.80	4.28*	8.30
	Delivered to Long Beach	13.32	0.70	4.28*	8.34
	Delivered to Houston	13.57	2.45	4.28*	6.84
	*includes 5¢ for TAPS liability fund				
4/15/77	The President of the United States, <u>Report to Congress on the Pricing of Alaska North Slope (ANS) Crude Oil</u> , pp. 63-64 (Table IX-3)				
	Delivered to Puget Sound (120 MB/D)	14.53	0.74	5.10	8.69
	Delivered to San Francisco (250 MB/D)	14.53	0.96	5.10	8.47
	Delivered to Los Angeles (340 MB/D)	14.53	1.01	5.10	8.42
	Delivered to Gulf Coast (490 MB/D)	14.83	2.98	5.10	6.75
	Weighted Average	---	--	--	7.77

INFLATION AND CHANGES IN WORLD OIL PRICES

In Alaska's Oil and Gas Tax Structure (p. VI-22), the Department of Revenue recommended last year that

"[t]o prevent the 'floor' from losing value through time it should escalate"

Suggested escalators then were the Gross National Product (GNP) deflator, which is the primary index of U.S. inflation, and the world market price of similar foreign oil. The GNP deflator during the last year has changed as follows:

GNP Deflator (1972 = 100)		
<u>Index Period</u>	<u>Index Amount</u>	<u>Change from 3rd Quarter 1976</u>
3rd Quarter 1976	134.56	--
4th Quarter 1976	136.35	+1.3%
1st Quarter 1977	138.13	+2.7%
2nd Quarter 1977	140.52	+4.4%
3rd Quarter 1977	142.25	+5.7%

With respect to world oil market prices, 1977 saw a period of two-tier pricing within OPEC come to an end. The split in OPEC developed when Saudi Arabia and the United Arab Emirates (UAE) refused to go along with the rest of OPEC in December 1976 in raising their State Sales Prices by 10 percent. Instead, Saudi Arabia and the UAE raised prices by only about 5 percent. In midyear this breach was closed, when the two nations raised their prices while the rest of OPEC forewent its previously announced increase scheduled

for that time. Since Saudi Arabian crudes are of all imports, most like Prudhoe Bay crude in refining characteristics, the midyear increase in price for those crudes is relevant to the appropriate cents-per-barrel floor for Alaskan oil production. Accordingly, the exact prices and percentages of change follow:

Changes in State Sales Prices (FOB)
by Saudi Arabia and the U.A.E.
During 1977

<u>Crude Type</u>	<u>1-1-77</u> \$/B	<u>1-9-78</u> \$/B	<u>%</u> <u>Change</u>	
Saudi Arabia				
Berri (39°)	12.48	13.22	+5.9]	+5.5% average
Light (34°)	12.09	12.70	+5.0]	
Medium (31°)	11.69	12.32	+5.4]	
Heavy (27°)	11.37	12.02	+5.7]	
U.A.E. (39°)	12.514	13.26	+6.0	

Source: Platt's OILGRAM Price Service

Besides these indicators, other indices are available and could be used. For example, a Consumer Price Index is calculated for the entire United States, and another one for Anchorage. Their changes are given below.

Changes in Consumer Prices Indices
for the United States and for Anchorage

<u>Index</u> <u>Month</u>	<u>Anchorage Index</u>		<u>United States Index</u>	
	<u>Index Amount</u> <u>(1967 = 100)</u>	<u>% Change</u> <u>from 10/76</u>	<u>Index Amount</u> <u>(1967 = 100)</u>	<u>% Change</u> <u>from 10/76</u>
Oct. '76	167.6	--	173.3	--
Jan. '77	169.4	+1.1	175.3	+1.2
Apr. '77	172.6	+3.0	179.6	+3.6
Jul. '77	177.4	+5.8	182.6	+5.4
Oct. '77	177.3	+5.8	184.5	+6.5

The table on the following page provides a comparison of U.S. price indices for crude petroleum and refined petroleum products, which the Bureau of Labor Statistics of the U.S. Department of Labor prepares and maintains.

**A Comparison of U.S. Price Indices for Crude Petroleum
and Petroleum Refined Products, December 1976 and
December 1977 (1967 = 100 unless otherwise indicated)**

	<u>Index</u> <u>12-76</u>	<u>Index</u> <u>12-77</u>	<u>%</u> <u>Change</u>
Crude Petroleum	264.4	288.1	8.96
Petroleum Products, Refined	287.6	313.7	9.08
Gasoline	263.4	279.5	6.11
REGULAR	242.2	255.8	5.62*
Dealer Tank-wagon to Retail Outlets	225.8	238.6	5.67*
Sales to Jobbers	267.1	283.3	6.07*
Commercial Consumers	256.4	267.9	4.49*
PREMIUM	214.9	229.8	6.98*
Dealer tank-wagon to Retail Outlets	204.9	218.7	6.73*
Sales to Jobbers	237.1	254.9	7.51*
Commercial Consumers	242.3	260.0	7.30*
UNLEADED	100.0	99.7	-.3
Dealer tank-wagon to Retail Outlets	100.0	99.9	-.1*
Sales to Jobbers	100.0	99.6	-.4*
Commercial Consumers	100.0	98.6	-1.4*
Light Distillate	323.2	381.2	17.95
Kerosene to Resellers	266.1	303.7	14.13*
Commercial Jet Fuel, Kerosene base	269.9	320.0	18.96*
Middle Distillate	349.8	394.2	12.69
Fuel Oil No. 2 to Resellers	282.0	319.9	13.44*
Diesel to Commercial Consumers	281.6	314.2	11.58*
Residual Fuels	480.4	510.5	6.27
Cargo shipments to Resellers	305.6	328.3	7.43*
Steam Electric Utilities	100.0	103.4	3.40*
Lubricating Oil Materials	274.3	333.4	21.55
Bright Stock	169.5	203.6	20.11*
Neutral Stock	152.6	192.8	26.34*
Pale Stock	98.0	115.8	18.16*
Finished Lubricants	178.6	197.5	10.58
Automotive Motor Oils	156.5	170.8	9.14
Industrial Oils	167.7	190.9	13.83*
Petroleum Grease	126.5	130.2	2.92*
Petroleum Wax	200.2	247.5	23.63

Source: U.S. Department of Labor
Bureau of Labor Statistics

*base year different than 1967

RECOMMENDATIONS

The present \$6.53 floor for "other oil" is inadequate.

As shown earlier (p. 38) an objective computation of the market value of Prudhoe Bay oil using comparable refinery market prices and reasonable transportation costs (determined from third party sources) yields a wellhead value of \$7.91.

Additionally, at the same time as the Department recommended a \$7.50 floor, the oil companies were speaking publicly of wellhead prices near and above that level. Numerous informed consulting firms were forecasting prices in this range, too (see p. 40). Aside from inflation and the price increases of Saudi Arabia and the UAE, nothing else has changed during 1977 that would alter the appropriateness of that figure. As such, \$7.50 plus 5.7 inflation as measured by the G.N.P. deflator yeilds a value of \$7.93.

Accordingly, the Department of Revenue recommends a floor of \$7.90. The cents-per-barrel amount that corresponds to this floor at a 12.25 percent rate is .96775 which, when rounded, is \$.968. AS 43.55.011(c) should be amended so that \$.968 replaces the \$.80 figure that is there now.

The Department also believes it is appropriate at this time to adjust the cents-per-barrel rate for "old oil" and the cents-per-Mcf rate only to the extent necessary to offset

the 5.7 percent inflation. Thus the \$0.60 figure in AS 43.55.011(c) should be changed to \$0.634, and the \$0.064 figure in AS 43.55.016(c) should be changed to \$0.068.

While AS 43.55.012(a) requires only that Department of Revenue make the recommendations above, the Department will further recommend a change in AS 43.55.012(a) itself so that a greater degree of stability may be incorporated into the production tax. As that statute reads now, the cents-per-barrel tax rates must come under review each and every year. This needlessly creates an uncertainty from one year to the next, which can eventually harm the investment climate for further oil and gas development.. The Department therefore recommends tying the cents-per-barrel and cents-per-Mcf rates to an index to offset the adverse effects of inflation on the meaningfulness of these floors. This would be done by repealing AS 43.55.012(a) in its entirety and enacting the following provision to replace it:

(a) The amounts set out in sec. 11(c) and sec. 16(c) of this chapter shall be increased or decreased by a percentage equal to the percentage of change in the Gross National Product Deflator published by the Bureau of Economic Analysis of the United States Department of Commerce, using 1972 as the base period for the deflator (1972 = 100). Changes in tax rates will be computed based on changes in the Gross National

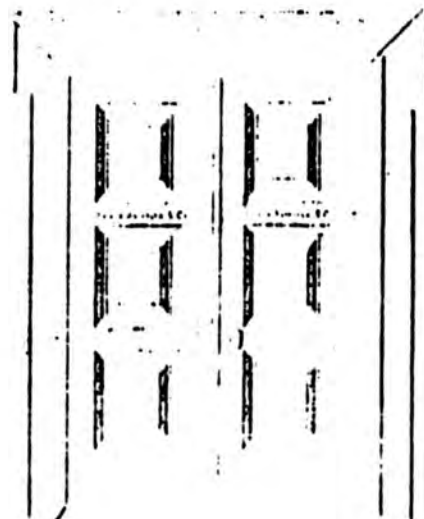
Product Deflator from the First Quarter 1978 Gross
National Product Deflator. The department shall post
the changes in the tax rates periodically and shall
notify every person producing oil within the state of
the changes.

FILE COPY

Prudhoe Bay Field
And
Trans-Alaska Pipeline System

COMPARATIVE STATE TAX
BURDEN STUDY

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ARTHUR ANDERSEN & Co.
FEBRUARY, 1979

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ARTHUR ANDERSEN & Co.

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February 23, 1979

To Members of the Alaska Oil and Gas Association:

We are pleased to submit to you the updated Comparative State Tax Burden Study of Prudhoe Bay Field production and the Trans-Alaska Pipeline System (TAPS). Consistent with the 1978 report, the study shows that the tax burden on oil and gas production in Alaska is significantly higher than in other states. The study also shows that the tax burden on TAPS is significantly higher than in other states.

The study was prepared by Arthur Andersen & Co. and is being submitted to you for your information and use.

The study was prepared by Arthur Andersen & Co. and is being submitted to you for your information and use. The study shows that the tax burden on oil and gas production in Alaska is significantly higher than in other states. The study also shows that the tax burden on TAPS is significantly higher than in other states.

The results of the study show that within the constraints of the assumptions in both the inflated and noninflated alternatives, the tax burden on oil and gas production in Alaska is significantly higher than in other states. The margin by which the State of Alaska's tax burden exceeds the other states in the study is substantially greater than in the 1978 report.

We appreciate this opportunity to have been of continuing service to you in this engagement.

Very truly yours,

Arthur Andersen & Co.

COMPARATIVE STATE TAX BURDEN

INTRODUCTION AND PURPOSE OF STUDY

The purpose of this study is to compare the state tax burden on the Prudhoe Bay oil production facilities, Sadlerochit oil pool reserves and the Trans-Alaska Pipeline System (TAPS) under existing Alaska laws compared to what the tax would be if Alaska adopted the laws of California, Kansas, Louisiana, New Mexico, Oklahoma, Texas, or Wyoming.

The [REDACTED]

[REDACTED] To best accomplish the comparison, [REDACTED] the four major owners of TAPS and the three largest percentage owners of Prudhoe Bay Sadlerochit oil pool reserves. These companies are the following: Atlantic Richfield Company [REDACTED] BP Pipelines, Inc. [REDACTED], Exxon Corporation [REDACTED] and The Standard Oil Company, an Ohio corporation [REDACTED] (See Exhibit I for ownership percentages.)

Period of Study-

The study compares the relative tax burdens of the eight states [REDACTED] The study summarizes, in total, the taxes for 25 years of operation of TAPS and of production from Prudhoe Bay Sadlerochit oil pool. Because known recoverable reserves in the Sadlerochit oil pool are expected to be substantially

depleted in terms of economic recovery in 25 years,¹ taxes have not been calculated on production from the 26th through the 32nd year although such period was considered by Pritchard & Abbott.²

General Approach to Study-

The study is performed under the following two alternatives:

In the first alternative, the total taxes are calculated based on noninflated public data. A constant price of \$13.30 per barrel is assumed for crude oil.³ Operating expenses and future capital expenditures of Prudhoe Bay production facilities, obtained from Pritchard & Abbott, are stated in terms of 1977 dollars. Operating expenses of TAPS are obtained from the ICC Order.⁴

The second alternative considers the effect of inflation on the relative positions of the various states in the study. Pritchard & Abbott's valuation of Prudhoe Bay Sadlerochit Pool Unit Area adjusted to reflect inflation is the primary source of data. Pritchard & Abbott inflates the price of oil until 1982 and then holds the price constant over the remaining life of production. Capital and operating expenditures are inflated seven percent and nine percent, respectively, until 1982 only. No inflation has been considered for years after 1982.

¹ Investigation and Suspension Docket No. 9164, (Interstate Commerce Commission, June 22, 1977), p. 5.

² Engineering Survey of Prudhoe Bay Sadlerochit Pool Unit Area (Pritchard & Abbott, 1977).

³ Royalty Reports to State of Alaska (Major field owners except Exxon, June, 1977; Exxon, July, 1977).

⁴ Supra. Note 1.

Sources of Information-

The study uses data obtained from the Order of the Interstate Commerce Commission (ICC) dated June 28, 1977, authorizing interim rates by the TAPS owners for calculation of expenses attributable to TAPS operations. In addition, the study utilizes this identical order as a means of valuation of the pipeline for calculation of ad valorem taxes in those states practicing a unit appraisal or economic approach to valuing property.

For estimating the future production from Prudhoe Bay oil reserves and estimating the valuation of the Prudhoe Bay production facilities, reliance is placed on data obtained from the Pritchard & Abbott report. Inquiry of interested parties has determined that no more accurate and reliable public information than the Pritchard & Abbott report utilized in the 1978 report has become available for estimation of future revenue and costs of Sadlerochit oil pool. In addition, since testimony on the TAPS tariff rate issue is currently before the Federal Energy Regulatory Commission with final settlement and adjudication requiring some, as of yet unascertainable, additional time, reliance has again been placed on the ICC Order as the best available public source of the estimated future revenue and costs of TAPS.

For purposes of the franchise tax, Form 12-K and Form P are used to determine the total capital and retained earnings of the owners' subsidiary pipeline companies. For calculation of franchise tax for Prudhoe Bay operations, capital and retained earnings of

Exxon parent is obtained from Exxon's Form 10-K. For calculation of franchise tax for Prudhoe Bay operations of ARCO and SOHIO, information of a proprietary nature (nonpublic information) has been obtained from the individual companies.

Nonpublic information has also been furnished by each owner company with respect to its sales, property, and payroll, both within and outside Alaska.

ASSUMPTIONS EMPLOYED IN STUDY

Scope of the Study-

For purposes of the 1978 and 1979 reports, the study is limited to a comparison of only those taxes attributable to the Prudhoe Bay oil production facilities, Sadlerochit oil pool reserves and TAPS. The tax liability arising from gas production from Prudhoe Bay and other producing areas, and oil and/or gas production from Cook Inlet have not been calculated.

Even though gas production from Prudhoe Bay was considered at the time of preparation of the study, the data is regarded as too speculative to yield meaningful tax results. Since the questions of gas pipeline cost and price of gas are still unresolved, the time for making projections with respect to gas production and transportation should be done at some time in the future when more reliable data is available. These observations also hold true for the Kuparuk and Lisburne fields. Moreover, since Alaska's severance tax is its primary source of tax revenue, and since its rate (higher of 10 percent of well-head value or 6.4¢/MCF) times the economic limit factor is the highest (or among the highest) of the states, it does not appear that a significant impact on relative state rankings would occur if and when Prudhoe Bay gas is considered.

Oil and gas production from Cook Inlet is not a significant contributor to taxes under any state's taxing system when compared to Prudhoe Bay and TAPS. The lack of materiality is due to the fact

that the reserves, production, investment, net income, that is, the facts used in measuring tax burden attributable to the Cook Inlet area, even though significant in and of themselves, are not comparatively significant. In addition, the Cook Inlet has been producing for about 18 years and, thus, has neither the remaining life of Prudhoe Bay nor the net-income-producing capacity of Prudhoe Bay and TAPS. .

Discussion with Industry
and Others-

Extensive discussions have been held with experienced employees of both Prudhoe Bay and TAPS and other companies owning oil production and oil pipelines, with various state tax administrative officers and employees, and with personnel within our firm who have expertise with respect to the various state taxes to obtain a better understanding of the administration or practice of the law with respect to the various taxes.

Tariff Rate-

The ICC valuation of \$9,733,600,000 is used as a starting point in both the inflated and noninflated alternatives in determining the valuation of TAPS for each of 25 years.⁵ An annual decline rate approximating three percent is applied to the outstanding valuation in the noninflated alternative to account for depreciation and obsolescence. The decline rate is based on condition percents utilized in ICC valuation methodology. Due to the effect of inflation on

⁵Interstate Commerce Commission, Op. Cit., Appendix 2, p. 2.

valuation in the first five years, the annual decline rate in the inflated alternative is somewhat less, approximating 2.5 percent. A seven-percent rate of return is applied to the ICC valuation to derive a net income after tax for purposes of calculating the TAPS tariff.⁶ (See Exhibits IV and XII.)

In addition to a seven-percent return on investment, all other cash outlays for the 25-year period have been determined. An average TAPS tariff rate is arrived at by dividing the sum of the return on investment and cash outlays by the total estimated 25-year throughput. Franchise taxes, not included in the 1978 report due to their immateriality, have been included for completeness in the updated study as a recoverable cost in arriving at the TAPS tariff.

The derived average tariff rate for the entire life of the pipeline is greater than the initial average ICC approved interim tariff rate of the owner companies because decreasing throughput in later years necessitates a greater recovery of cost per barrel.

The approach taken in the inflated alternative is to inflate the cash outlays for operation, maintenance, and dismantling costs through 1982 at a nine-percent rate. These projected cash outlays for the period 1983-2001 are then expressed in terms of 1982 costs. The return on investment is greater in the inflated alternative due to a lower annual decline rate, i.e., a higher average outstanding valuation. No adjustment for inflation is required for Federal and

⁶United States v. Atlantic Refining Co., C.A. No. 14060, D.D.C.,
December 23, 1941.

state income taxes since they are a product of a statutory rate and the return on investment. (See Exhibit XII.) The TAPS tariff is adjusted for the variation in ad valorem taxes between states to arrive at an adjusted TAPS tariff for each state in the study.

A TAPS tariff is derived only for purposes of allocating the total market price of Prudhoe Bay crude oil between production operations and pipeline operations in arriving at state taxes. The derived TAPS tariff in no way should be construed as purporting to represent any company's tariff entitlement under accepted ICC methodology.

Wellhead Value-

As in the 1978 report, the updated study assumes that in arriving at average wellhead value, 42-1/2 percent of the crude oil is shipped by tanker to the Gulf Coast for the period 1977 to 1979 and that by 1980 a pipeline will be available to transport the oil to the Midwest at a reduced per barrel cost.⁷ Forty-two and one-half percent of the crude oil is considered excess to the West Coast region throughout the entire 25-year period. The average wellhead value of the oil is therefore decreased to the extent of the incremental cost of transporting 42-1/2 percent of each barrel of crude oil from the West Coast to the Gulf Coast.

The inflated alternative provides for escalation in world oil price consistent with the nine-percent annual increase through

⁷ Alaska North Slope Crude Oil Pricing and Entitlements Treatment, (Federal Energy Administration, 1977), 42 Federal Register 13,119.

1982 in marine and lower-48 pipeline transportation costs used in Pritchard & Abbott. The TAPS tariff also reflects a similar escalation in operating costs. The 1982 transportation costs are considered to remain constant for the period 1983 through 2001.

Royalty Payments-

The study does not consider as a tax the payments made to the State of Alaska for its one-eighth royalty interest; thus, they have not been taken into account in the study.

Royalty Report-

The royalty reports furnished by the companies to the State of Alaska for June, 1977, except that of Exxon for July, 1977, are used as a starting point in the updated study for the world market price of crude oil, transportation charges, and field costs for the 25-year period.

Book/Tax Timing Differences-

Because timing differences reverse over the life of the pipeline, the income tax calculations in the report disregard differences between financial and tax reporting of such items as intangible drilling costs, accelerated depreciation, and accrued dismantling costs.

Average Life Method-

The study uses the average life method for the calculation of ad valorem taxes on TAPS in New Mexico and Texas, and Prudhoe Bay production facilities in Kansas and Texas. Under this method, property

is valued each year of its life at a constant amount, normally 62-1/2 percent of cost. Twelve and one-half percent of the 62-1/2 percent typically represents normal salvage value. The average life value during the first half of the life of the property is theoretically lower than true value, whereas the average life value during the second half of the life of the property is greater than the true value. Because it is difficult to value a pipeline each year, this method has historically been used in Louisiana and Texas. In addition, its use has been of value to local jurisdictions in planning revenue requirements and funding bond issues, since a constant source of tax revenue is determinable and made available. Since the salvage value of TAPS and Prudhoe Bay hardware is negative due to dismantling costs, the study uses 50 percent as the average life method rate.

Unit Appraisal Method-

The ICC valuation of \$9,733,600,000 is used as the best available public data indicator of the value of the pipeline for ad valorem tax valuation purposes in those states mandating a unit appraisal or economic approach to valuation. Deducted from ICC valuation for ad valorem tax purposes in California, Kansas, and Oklahoma is the amount of \$631 million for certain adjustments to value. (See Exhibits VI(a) and XIV(a).) This modification is an estimate and represents capitalization of taxes and certain other negotiated items involving equipment, camps, and roads. In addition, included in the valuation is the amount of \$650 million in 1977 dollars representing an estimate of the assumed Phase III expansion

of the pipeline. This addition is valued at \$700 million in the inflated alternative.

In contrast to the \$9,733,600,000 ICC valuation in the 1973 report, the value of TAPS for the State of Alaska for the year 1978 in the updated study is \$8,100,000,000, since this was the agreed-to amount on which the companies actually paid ad valorem tax in 1978.

Depreciation-

Depreciation (25-year life) of TAPS is obtained from the stated amount of total depreciation in the ICC Order authorizing interim rates. Depreciation on Prudhoe Bay production facilities is determined in the noninflated alternative by recovering total non-inflated capital expenditures for the first 25 years in the Pritchard & Abbott survey and, in the inflated alternative, by recovering total inflated capital expenditures for the first 25 years in the Pritchard & Abbott survey.⁸

⁸Pritchard & Abbott, Op. Cit., Table 6.

FINDINGS

The results of the study establish that in the noninflated

the following is a ranking of the

states under both alternatives. (See Exhibits II and X.)

	Alternative 1 Noninflated Data (In Thousands)	% of Each State to Alaska		Alternative 2 Inflated Data (In Thousands)	% of Each State to Alaska
Alaska	\$12,065,368	100%	Alaska	\$15,612,133	100%
Louisiana	8,762,786	73	Louisiana	11,751,669	75
New Mexico	7,736,278	64	Wyoming	9,653,264	62
Wyoming	7,447,105	62	New Mexico	9,542,374	61
Kansas	7,442,289	62	Oklahoma	9,431,789	60
Oklahoma	7,329,874	61	Kansas	9,396,709	60
Texas	6,485,759	54	Texas	8,485,517	54
California	6,040,652	50	California	6,488,529	42

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Whereas California represents 92 percent and 95 percent of the total tax burden of Alaska in the 1973 report in the noninflated and inflated alternatives, respectively, the percentage of its total tax burden to that of Alaska in the updated study has decreased to 50 percent and 42 percent, respectively.

When reviewing the noninflated studies alone, Alaska's total tax burden increased approximately 14.1 percent in the updated study due to the income tax in Alaska (basically separate accounting) increasing by \$1.8 billion and the ad valorem tax (lower valuation for TAPS) decreasing by approximately \$225 million. California's total tax burden, on the other hand, decreased by approximately 37.6 percent in the updated study due to Proposition 13 both lowering the ad valorem tax rate by more than one half (.05 versus .1119) and limiting the effect of inflation on the valuation of property including oil reserves to two percent per year in California through 1982.

The following tables compare, under both alternatives, the total tax burden computed in the 1978 report to that of the 1979 report. The difference between reports is quantified in the form of a percentage increase or decrease.

ALTERNATIVE I (NONINFLATED DATA)

<u>States as Ranked in 1979 Study</u>	<u>Tax Per 1979 Study</u>	<u>Tax Per 1978 Study</u>	<u>Percentage Increase (Decrease)</u>
1. Alaska	\$12,065,368	\$10,575,289	14.09%
2. Louisiana	8,762,786	8,980,934	(2.43%)
3. New Mexico	7,736,278	7,504,189	3.09%
4. Wyoming	7,447,105	7,387,420	.81%
5. Kansas	7,442,289	7,416,668	.35%
6. Oklahoma	7,329,874	7,375,749	(.62%)
7. Texas	6,435,759	6,375,031	1.74%
8. California	6,040,652	9,677,133	(37.58%)

ALTERNATIVE II (INFLATED DATA)

<u>States as Ranked in 1979 Study</u>	<u>Tax Per 1979 Study</u>	<u>Tax Per 1978 Study</u>	<u>Percentage Increase (Decrease)</u>
1. Alaska	\$15,612,133	\$13,004,851	20.05%
2. Louisiana	11,751,669	11,731,849	.17%
3. Wyoming	9,653,264	9,586,107	.70%
4. New Mexico	9,542,374	8,599,358	10.97%
5. Oklahoma	9,431,789	9,488,207	(.59%)
6. Kansas	9,396,709	9,364,662	.34%
7. Texas	8,485,517	8,390,476	1.13%
8. California	6,488,529	12,419,096	(47.75%)

DISCUSSION

Ad Valorem Taxes-

Alaska--Under Alaska law, when a pipeline begins operating, it is valued for ad valorem tax purposes with due regard to the economic value of the property based on the estimated life of the proven reserves then technically, economically, and legally deliverable to it unless the economic life of those reserves is materially shorter than the estimated physical life of the pipeline. If the economic life of the reserves is materially shorter than the estimated physical life of the pipeline, the full and true value is the actual cost reduced by an annual allowance for depreciation on a straight-line basis over the economic life.⁹

The study utilizes as the best evidence of economic value the agreed to valuation of \$8.1 billion on which ad valorem taxes were actually paid in 1978 (Exhibits VI(a) and XIV(a) reflect this amount plus the Phase III expansion.). This valuation in the noninflated alternative has been reduced by an annual decline rate based on condition percents utilized in ICC rate filings. In the inflated alternative, the annual decline rate is somewhat less due to the effect of inflation through 1982 on the reproduction cost in ICC valuation methodology. For purposes of the study, it is assumed that the taxpayer in 1997 will be able to sustain a finding that the

⁹A.S. Sec. 43.56.060.

economic life of proven reserves is materially shorter than that of the pipeline. Consequently, declines of 57.3 and 64.79 percent in the noninflated and inflated alternatives, respectively, are applied to the 1996 outstanding valuations based on ICC methodology in 1997 to reach depreciated historical cost valuations.

A 25-year average of the hardware tax valuation base from Pritchard & Abbott Table 6, which takes into account a 32-year life, is used to value the Prudhoe Bay Oil production facilities in the inflated alternative. A 25-year average valuation from the same table, adjusted to remove the effects of inflation, has been used to calculate the hardware tax of Prudhoe Bay production facilities in the noninflated alternative.

Since the State of Alaska assesses property at 100 percent of fair market value, the two-percent statutory tax rate is applied to both the valuation for Prudhoe Bay production facilities and TAPS to arrive at total ad valorem taxes in Alaska over a 25-year period.¹⁰

California--For purposes of valuing property in California, the valuation of TAPS is that per ICC with modifications, and for Prudhoe Bay production facilities, data from Pritchard & Abbott Table 6, adjusted to remove the effects of inflation for the noninflated alternative.

The updated study reflects the impact of Proposition 13 added in 1978 to the California constitution.¹¹ However, the study

¹⁰A.S. Sec. 43.56.010(a).

¹¹Constitution of California, Art. XIII A.

does not consider local license taxes. Therefore, total taxes in California may be understated because local jurisdictions in the wake of Proposition 13 have and are contemplating increasing the license tax on the value of oil and gas production. At the time of this writing, the amount of such tax is not subject to quantification.

Since California has a uniform statewide assessment rate of 25 percent, the California tax rate in the updated study is five percent which equals the sum, as provided for in Proposition 13, of one percent of the full cash value plus an estimated .25 percent for retirement of outstanding indebtedness and interest thereon multiplied by four ($5\% \times 25\% = 1.25\%$). In addition, the impact of inflation on valuation is limited as provided for in Proposition 13 to two percent per year applied for years through 1982 consistent with the assumptions in the updated study.

California assesses an ad valorem tax on oil reserves in the ground.¹² An estimate of the discounted future income stream of oil reserves in Prudhoe Bay is obtained from Pritchard & Abbott Table 8. This table is adjusted to take into consideration California taxes. The discount factor of 18 percent is increased to 19.25 percent since California specifically provides that the capitalization rate shall include a property tax component.¹³

Under California assessing practice, the valuation of the production equipment hardware is an offset to the valuation of the oil

¹²Revenue and Taxation Code, Sec. 107.

¹³Rule No. 25 (Cal. Adm. Code).

reserves in the ground since the production equipment is considered an integral cost of severing the minerals. California assesses hardware because it is a requirement under state law that land and improvements thereto be assessed separately.¹⁴ In the noninflated alternative the reserves tax exceeds the hardware tax during the first 14 years of production. Consequently, the ad valorem tax on Prodhoe Bay production facilities is a cumulative total of taxes from the 15th through the 25th year of the life of the field when the hardware tax exceeds that of the tax on the oil reserves. In the inflated alternative, the reserves tax exceeds the hardware tax also for the first 14 years of production, and, thus, from the 15th year through the 25th year, the hardware valuation is used as a basis for calculating ad valorem taxes. (See Exhibits VI(c), VI(b), XIV(b), and XIV(c).)

The one-eighth royalty payment to the state has not been deducted in arriving at the discounted future income stream. Under the Post De Luz Doctrine, a possessory interest on exempt land created after July 26, 1963, is taxed on the full value of the mineral interest.¹⁵

Kansas--The Kansas legislature has provided that all oil leases and oil wells be assessed and taxed as personal property. In addition, it has determined that personal property should be appraised at fair market value in money and assessed at a rate of 30 percent.¹⁶

¹⁴Constitution of California Sec. 13, Art. XIII.

¹⁵De Luz Homes, Inc. v. County of San Diego, 45 Cal. 2d 546 (1955).

¹⁶K.S.A. Secs. 79-329, 79-301, and 79-1439.

Oil production is taxed based on the present worth of recoverable oil over a reasonable length of time after deducting lease operating cost factors and adding to the resultant value the present worth of all lease and well equipment. The prescribed analytical technique in the 1978 Kansas Oil and Gas Appraisal Guide¹⁷ is based on applying a present worth factor, determined from a table, based on a rate of decline factor for the two preceding years' production and applying this present worth factor to total production. Certain prescribed operating cost allowances for production and injection wells are then deducted from this estimated gross income stream to arrive at the valuation of the working interest. Valuation of the oil reserves in Kansas for purposes of the study is based on the same technique as prescribed by the Kansas Department of Revenue.

Kansas utilizes an oil and gas equipment schedule that is based on the cost of the equipment. Through discussions with the Kansas Department of Revenue, it has been determined that the oil and gas equipment schedule has a built-in 60-percent average life method rate. The Prudhoe Bay production equipment for Kansas purposes is valued based on a manner similar to that in Texas in that the average life method rate of 50 percent is applied to the 25-year average of end of the year cost of hardware.

The fair market value of tangible personal property in Kansas means fair market value in money or what a willing buyer will pay a willing seller.¹⁸ By discussion with the Kansas Department of

¹⁷ 1978 Oil and Gas Appraisal Guide, Kansas Department of Revenue, November, 1977.

¹⁸ K.S.A. Sec. 79-501.

Revenue, it has been ascertained that pipelines are valued based on the unit appraisal method of market, income, and cost. Valuation of TAPS for Kansas purposes, like California, is based on ICC valuation with modifications.

Louisiana--The ad valorem tax in Louisiana is calculated under the new Louisiana state constitution which provides that beginning January 1, 1978, interstate pipeline and producing property hardware be valued under a unit appraisal approach. Prior to 1978, the average life method was utilized. Tangible property other than land and residential improvements is to be assessed at a uniform 15-percent rate.¹⁹ The average statewide tax rate of 60 mills is based on information obtained from state administrative officials and confirmed with industry sources.

A 25-year average of inflated hardware tax value from Pritchard & Abbott Table 6 is used as the basis for determining ad valorem taxes in Louisiana under the inflated alternative. In the noninflated alternative, the effect of inflation is removed from these hardware amounts. The ICC valuation with modifications is used as a valuation of TAPS for purposes of the noninflated alternative. The effect of inflation on the addition to the pipeline in 1980 is considered in the inflated alternative.

New Mexico--Pipelines in New Mexico are taxed based on a schedular approach. The pipeline schedule, which is updated every

¹⁹Louisiana Constitution of 1974, Sec. 18, Art. VII.

five years, is based on the average net book value of all pipelines in the state for that five-year period. Consequently, a new pipeline receives a benefit in that its cost is averaged with those of older lines. The use of net book values in arriving at valuations for the schedule is tantamount to the use of an average life method rate of 50 percent. Consequently, the study treats the valuation of TAPS for New Mexico purposes similar to other states which use a pipeline schedule. The average life method rate of 50 percent is applied to the average outstanding cost over 25 years.

The ad valorem tax on production under New Mexico law is included in the severance tax computation-- .015 of the .0424 severance tax rate represents the ad valorem tax on production. (See Exhibits VII and XV.) The taxable value of production is obtained by applying 150 percent to the value of each month's production after deducting royalties paid to the State of New Mexico.²⁰ To this taxable value is then applied the uniform statewide assessment rate of $33\frac{1}{3}$ percent and the average statewide tax rate to arrive at the 1.5-percent effective tax rate on production.

The oil and gas production equipment ad valorem tax in New Mexico is obtained by applying 27 percent to the value of oil production. The statewide uniform assessment rate of $33\frac{1}{3}$ percent and the statewide average tax rate of .03513 are then applied to this amount.²¹

²⁰ N.M.S.A. Sec. 72-22-5.

²¹ N.M.S.A. Sec. 72-24-3(B).

The valuation on Exhibits VI(b) and XIV(b) is the average yearly valuation for 25 years after multiplication by 27 percent.

Oklahoma--TAPS is valued under Oklahoma law based on a unit appraisal approach obtained from the ICC valuation with modifications.²²

Oklahoma imposes no tax on oil reserves, nor does it impose a tax on oil production equipment. A gross production tax is imposed upon oil in lieu of a property tax on oil reserves and oil production equipment.²³ The exemption of oil production equipment from property tax is limited to property used in producing operations, and from discussion with Oklahoma Tax Commission personnel, it has been determined that gathering lines, buildings, and certain other types of facilities extraneous to actual lifting of the crude oil from the ground are taxed under Oklahoma law. Therefore, the study includes a tax on that portion of the Prudhoe Bay production facilities representing items that Oklahoma would tax if the State of Alaska adopted the law of Oklahoma.

Texas--The valuation of TAPS and Prudhoe Bay production facilities under Texas assessment practice is based on historical cost obtained from ICC data and Pritchard & Abbott's Table 6, respectively. Unlike most other states where property is valued for ad valorem tax purposes at the state level, Texas has over 1,500 taxing jurisdictions, each of which values property itself or engages a

²²Oklahoma Constitution, Sec. 8, Art. X.
²³O.S. Tit. 63, Sec. 1001.

valuation firm for this purpose. Consequently, the practice of property valuation in Texas is fractionalized and inconsistent from jurisdiction to jurisdiction. Nonetheless, it has been the practice in Texas for at least 25 years to utilize what is commonly referred to as a Texas Pipeline Schedule having a built-in average life method concept and an assessment rate purported to represent 20 to 25 percent of the property's value.

Even though Texas law defines value to mean fair market value,²⁴ pipeline property is rarely, if ever, assessed at full value. In fact, the use of the pipeline schedule in Texas is not codified in the law.

The Texas Pipeline Schedule was created many years ago by various taxing jurisdictions, valuation firms, and industry representatives. It has been revised at least once and its assumed assessment ratio has been changed to reflect the increased cost of pipeline construction in Texas. Most pipeline companies in Texas are valued based on the Texas Pipeline Schedule or some derivative thereof. Even though the current climate in Texas is somewhat unsettled,²⁵ the vast majority of jurisdictions still use the Texas Pipeline Schedule or its derivative as a basis for valuing pipeline property.

The valuation of the TAPS pipeline under the Texas Pipeline Schedule would not be reasonable since the schedule was created many

²⁴Art. 7149 R.C.S.

²⁵Tenneco, Inc. v. Polk County, 560 S.W.2d 416 (Tex.Civ. App.-- Beaumont, 1977).

years ago based on the then prevailing historical cost of building a pipeline in Texas. Consequently, the calculation of ad valorem taxes for TAPS under Texas law is based on the Texas Pipeline Schedule methodology adjusted for the actual cost of TAPS. The average life method rate of 50 percent is applied to the historical cost of TAPS. The average statewide assessment and tax rates in Texas are then applied to arrive at ad valorem taxes on the pipeline.

The value of an oil and gas lease in Texas is assessable against the lessee.²⁶ Producing property hardware in Texas, in practice, has been valued at nominal amounts. Many jurisdictions place little or no value on the hardware and attribute the value of the entire property, that is, hardware and oil reserves, solely to the oil reserves. As a general "rule of thumb," the value placed on equipment is the present value of any future salvage proceeds from the equipment. In the more sophisticated appraisals of oil reserves in Texas, the value of the producing property hardware is deducted from the discounted future income stream in arriving at the value of the reserves. The validity of this offset is based on the argument that the value of the reserves should take into account the cost of the development of those reserves.

The study shows a separate calculation of the ad valorem tax on Prudhoe Bay production facilities and the oil reserves. (See Exhibits VI(b), VI(c), XIV(b), and XIV(c).) During those years

²⁶Opinion of Attorney General No. 0-6097, July 13, 1944.

of production in which the valuation of the oil reserves exceeds that of the hardware, the value of the hardware is deducted from the value of the oil reserves. In the latter years of the life of the field when the value of the hardware exceeds that of the oil reserves, the value of the hardware only is taxed. Because it is tenuous, at best, to compare the rather complex and costly hardware at Prudhoe Bay to any analogous situation in Texas, the study assumes that the hardware would be placed on an average life method rate of 50 percent of historical cost.

The average statewide assessment rate for Texas is obtained by averaging the assessment rate of all Texas counties, all road districts, a sampling of one school district in each county, and a sampling of cities located in Texas. The county and road district assessment rates are obtained from Texas Municipal Reports, Special Report No. 111, 1976. The average statewide school district assessment rate is obtained by averaging the assessment rates of the first school district listed alphabetically in each county in Texas Assessment Ratios, 2nd Edition, 1977. The average statewide city assessment rate is obtained by sampling the average assessment rate for the first city located in a county of a sampling of every eight counties listed alphabetically in Texas Assessment Ratios, 2nd Edition, 1977. The tax rates for each school district are obtained from the 1976-1977 Texas School Directory. The tax rates for the cities have been obtained from selected industry sources.

The ad valorem tax in Texas on oil reserves is calculated in a manner similar to that in California in that the starting point is Pritchard & Abbott's valuation of reserves in Alaska, Table 8. The figures of Pritchard & Abbott are adjusted to reflect the actual production tax and ad valorem tax under Texas law. A 2.5-percent effective property tax rate and a 4.6-percent effective severance tax rate as percentages of the producers' gross revenues are used to arrive at taxes deductible in obtaining the discounted future income stream of the reserves. As was the case in Pritchard & Abbott's valuation of oil reserves in Alaska, each year's income stream is discounted to the present based on an 18-percent capitalization rate. Since Pritchard & Abbott inflates the price of oil, capital expenditures, and operating expenses, the noninflated alternative is adjusted to remove the inflation effects of these numbers.

Wyoming--Discussion with personnel at the Wyoming Department of Revenue and Taxation and confirmed independently with industry sources indicates that in Wyoming pipeline equipment and producing property equipment is indexed to 1967 cost levels based on a percentage furnished each year by the state which for 1976 was approximately 48 percent. Property is assessed at a uniform 25-percent assessment rate. The average statewide tax rate of .06475 is obtained by averaging the most recent rates experienced by industry sources with that furnished by the Wyoming Department of Revenue. In addition, local jurisdictions impose an ad valorem tax calculated on the previous year's production. This production is assessed at 100 percent.

Severance Tax-

Alaska--Alaska provides for a severance tax of the higher amount obtained from two methods, the percentage of value method or the cents per barrel method.²⁷ The cents per barrel method results in a greater tax in the noninflated alternative. In the inflated alternative, the cents per barrel method results in a greater tax for years 1977 to 1979, whereas the percentage of production method results in a greater tax for years 1980 to 2001. The wellhead value for calculation of the severance tax is the world market price less all applicable transportation costs and tariffs.

Under the percentage of value method, the severance tax rate of 12.25 percent is applied to the total value of production. The tax is further limited by an economic limit factor (ELF) which in the study is calculated to be .826088. The economic limit factor for crude oil production of a lease or property equals one minus the ratio of the monthly production rate at the economic limit to the production during the month for which the tax is to be paid raised to a power of 460 times the well days in the month divided by the monthly production at the economic limit.²⁸

\$.80 per barrel is the value used for calculation of the tax per barrel under the cents per barrel method. This \$.80 value is subject to change by the Alaska legislature each year.²⁹ The study, however, assumes a constant value of \$.80 per barrel each year over

²⁷A.S. Sec. 43.55.011.
²⁸A.S. Sec. 43.55.013(b).
²⁹A.S. Sec. 43.55.012(a).

the life of production since the change requires legislative action. The tax under the cents per barrel method is also limited by the ELF.

California--The State of California imposes a severance tax based on the annual amount required to support its Division of Oil and Gas.³⁰ The amount of total revenues obtained from this tax in California is insignificant and is not considered in this study.

Kansas--The State of Kansas imposes the following taxes on the production, marketing, or use of oil in Kansas.³¹ The total of these taxes is considered de minimus to the results of the study.

Oil Production Tax - \$.002 per barrel

Oil and Gas Conservation Tax - \$.0025 per barrel

Plugging Abandoned Oil and Gas Wells - \$.0001
per barrel

Louisiana--Louisiana provides for a 12.5-percent severance tax rate and a uniform 25-cent per barrel reduction from wellhead value where the producer transports the oil by his own facilities.³²

New Mexico--New Mexico imposes four taxes on the severance and production of oil. The severance tax is at the rate of 45 cents per barrel for 1977 and 47.9 cents for each year thereafter in the noninflated study; whereas, the severance tax rate has been increased, in the inflated alternative, for each year through 1982 at the same rate as the market price of oil per Pritchard & Abbott.³³ The following

³⁰Public Resources Code, Sec. 3402.

³¹K.S.A. Secs. 65-171d-65-171f and 55-601-55-611.

³²Severance Tax Reg. 633:74-1.

³³N.M.S.A. 72-18-9; Supra, Note 2.

taxes are based on the value of production after deducting royalty payments.

	<u>Percent</u>
Oil and Gas Conservation Tax ³⁴	.19
Oil and Gas Emergency School Tax ³⁵	2.55
Oil and Gas Ad Valorem Production Tax ³⁶	1.50

Total Rate	4.24
	====

The total percent of 4.24 is applied to the taxable value of production. (See Exhibits VII and XV.) The Oil and Gas Ad Valorem Production Tax rate of 1.5 percent is an average statewide rate obtained from discussion with the State of New Mexico Oil and Gas Accounting Commission. For its derivation see the discussion under New Mexico ad valorem tax section.

Oklahoma--Oklahoma imposes a tax equal to seven percent of the gross value of crude oil production.³⁷ Oklahoma also imposes an excise tax equal to .085 percent of the gross value of each barrel of petroleum oil produced in the state. The excise tax is considered immaterial for the study.

Texas--Texas has a uniform production tax rate of 4.6 percent of production.³⁸

³⁴N.M.S.A. 72-20-1.

³⁵N.M.S.A. 72-21-1.

³⁶N.M.S.A. 72-22-1.

³⁷O.S. Tit. 68 Sec. 1001.

³⁸Tx.R.C.S., Tit. 122A, Art. 402.

Wyoming--Wyoming production is taxed at a four-percent rate.³⁹

Income Tax-

General Discussion--The following is a table showing the method of calculating income tax for Prudhoe Bay production activity and TAPS in each of the states tested in the study.

Alaska	
Prudhoe Bay Production Activity	Separate accounting
TAPS	Separate accounting
Other Alaskan Activity	Apportionment of worldwide income
California	Apportionment of worldwide income
Kansas	Consolidated return apportionment
Louisiana	
Prudhoe Bay Production Activity	Separate accounting
TAPS	Separate entity apportionment
New Mexico	Separate entity apportionment
Oklahoma	
Prudhoe Bay Production Activity	Separate accounting
TAPS	Separate entity apportionment
Texas	No income tax
Wyoming	No income tax

Alaska, California, Kansas, New Mexico, and Texas are members of the Multistate Tax Compact. The Compact permits multistate taxpayers to elect to apportion their income in accordance with the Uniform Division of Income for Tax Purposes Act (UDITPA).

The apportionment factor for each of the states using the UDITPA three factor formula is based on information of a proprietary nature furnished by the respective owners and tested for reasonableness. The factors are assumed to remain constant throughout the 25-

³⁹W.S. Sec. 39-227.1:1(a).

year period. The property factor is obtained by determining the ratio of the cost of property in Alaska to the cost of property worldwide. Property is valued at original cost before any depreciation. The payroll factor is arrived at by determining the ratio of total compensation paid to employees within Alaska to the total amount of compensation paid to employees everywhere. The sales factor is determined by the ratio of the percentage of sales of crude oil delivered to a purchaser within the State of Alaska to total sales worldwide. All states in the study utilize a destination sales clause; that is, crude oil delivered to an out-of-state purchaser is deemed an out-of-state sale.

From discussion with the major owners, it has been determined that relatively few sales of crude oil are projected to take place within Alaska. Most states have provisions in their law to allow for the elimination, substitution, or modification of one or more factors when required to properly reflect the taxpayer's activity in the state. Even though the amount of sales in Alaska is relatively minor compared to total sales worldwide, the study does not adjust any of the companies' factors for the effect of these provisions.

Income for both Prudhoe Bay Field operations and TAPS is calculated in total for a 25-year period. The public data for Prudhoe Bay Field operations is obtained, in large part, from Pritchard & Abbott Tables. This evaluation is used to obtain operating expenses, capital additions, and workover related costs.

The operating expenses for TAPS are obtained from the ICC Order. State taxes are those calculated in each respective state. Depreciation for Prudhoe Bay Field and TAPS facilities is obtained by recovering for each of these operations total capital additions over a 25-year period.

For all states except Alaska, an allocable amount of interest expense for ARCO and SOHIO is attributed to Prudhoe Bay operations. The interest expense of ARCO and SOHIO is based on company furnished proprietary information. It is assumed for purposes of the study that Exxon financed its portion of Prudhoe Bay Field development through working capital and, therefore, no allocable interest expense is attributed to its Prudhoe Bay Field operations.

In Alaska the deduction for interest expense for taxable years beginning after 1977 is calculated by applying to interest paid on a worldwide basis the ratio of real and tangible personal property in Alaska to real and tangible property on a worldwide basis. Only interest not capitalized for financial statement purposes is utilized in the computation. In addition, both producing and nonproducing properties are combined for purposes of the property factor.

Pursuant to the new Alaska oil and gas corporation income tax provision, a deduction for general overhead and administrative expense is allowed to explorers and producers of oil and gas. The allocable portion, based on the in-state acreage to out-of-state acreage, is limited to the lesser of worldwide overhead apportioned

to the state, in a manner similar to that afforded noncapitalized interest, or 12 cents for each barrel of the taxpayer's gross oil production. The study utilizes 12 cents per barrel as the basis for the overhead allocation. The cents-per-barrel method should both approximate the actual allocable overhead as well as provide the best information available.

The laws of Oklahoma and Louisiana also allow a deduction for general overhead and administrative expense to producers of oil and gas. For consistency purposes, the study has utilized 12 cents per barrel as a basis for allocating overhead to oil and gas production in those states.

Alaska--In 1978, the Alaska income tax law was amended to provide, beginning in 1978, that income from Alaska oil or gas production and pipeline transportation be determined by separate accounting. Taxable income of such companies from activities other than oil or gas production or pipeline transportation is determined by subtracting taxable income from combined net income and applying the Alaska allocation and apportionment formula, except that both the numerator and denominator of the property, payroll, and sales factors are calculated without reference to oil or gas production or pipeline transportation activity in Alaska.⁴⁰ Combined net income is based on the unitary method of taxation discussed in California below.

No 1977 Alaska income tax has been included in the study because the information with respect to such taxes is regarded as

⁴⁰A.S. 43.21.

proprietary (nonpublic). The omission of such tax does not materially affect the overall results of the study.

California--California utilizes the unitary method of taxation for income tax purposes. Under this method, the total worldwide income of all companies and their owned affiliates (50 percent or more) is apportioned to Alaska based on the UDITPA three factor formula. As in the 1978 study, the companies' worldwide income reported in their 1976 annual reports was used to calculate Alaska and California income tax pursuant to the unitary method of income taxation, i.e., apportionment of worldwide income.

Since British Petroleum Company Limited acquired greater than 50-percent control of SOHIO in 1978, the updated study considers BP-SOHIO as a combined group for the period 1978-2001.

In calculating the income tax of the combined BP-SOHIO group, no consideration is accorded a provision in the proposed U.S.-U.K. Income Tax Treaty, eliminated in 1978 by the U.S. Senate, that would prohibit states from including income of foreign affiliated corporations of a company doing business in a state when that corporation is controlled by a U.K. corporation which is, in turn, controlled by British shareholders.⁴¹

Kansas--Kansas provides that each taxpayer having income from business activity both within and without the state, other than certain excepted activities, allocate and apportion its net income

⁴¹Proposed United States-United Kingdom Tax Treaty, Article 9(4).

as provided under UDITPA.⁴² Kansas also provides for filing under either a separate entity or consolidated return basis. A consolidated return basis is used in the study for each of the owner companies.

Louisiana--Louisiana requires oil production companies not engaged in refinery operations in Louisiana to file based on separate accounting.⁴³ Consequently, a separate calculation of income tax is made for Prudhoe Bay operations assuming each owner company files using separate accounting in Louisiana. No owner company has refinery operations in Alaska that would disqualify this tax accounting method if Alaska adopted the law of Louisiana. Federal income taxes are deductible in arriving at net income in Louisiana.⁴⁴ The deduction for Federal income tax for purposes of the study is based on the statutory 46-percent U.S. tax rate. Louisiana also provides for a 38-percent depletion allowance calculated based on wellhead value,⁴⁵ but the deduction is limited to 50 percent of net income before deducting depletion and Federal income tax.

Separate calculations are also made for the TAPS owner companies using separate entity apportionment for the pipeline entities.

New Mexico--Discussion with the State of New Mexico Bureau of Revenue indicates that New Mexico has no unique filing requirements for pipeline companies and/or oil production companies. A

⁴²K.S.A. 79-3271-79-3284.

⁴³Texas Company v. W.A. Cooper, Collector of Revenue, 107
30.2d 676 (1953).

⁴⁴Art. 47:241.2.

⁴⁵La. R.S. Sec. 47:66.

company can file under either separate accounting, separate entity, or consolidated return basis. For purposes of the study, it is assumed that each of the owner companies elects to file under a separate entity basis in New Mexico. If each company files on a consolidated basis, the results are not materially different than those obtained under separate entity filing. The New Mexico Bureau of Revenue can compel a taxpayer to file under that method which most accurately reflects income for New Mexico tax purposes.

Oklahoma--As in Louisiana, oil production companies in Oklahoma are required to file on a separate accounting basis.⁴⁶ Also, Oklahoma provides for a depletion allowance of 22 percent of gross income from production. Oklahoma provides for a deduction for accrued Oklahoma state income tax which reduces the tax rate from a statutory four percent to an effective tax rate of 3.84 percent.

Oklahoma, in apportioning income from both within and without the state, provides that in the case of a pipeline enterprise a traffic unit factor be used in lieu of the sales factor. The traffic factor is based on the number of miles of transportation of oil value within Oklahoma to the number of miles of transportation of oil value everywhere.⁴⁷

Texas and Wyoming--Neither Texas nor Wyoming has an income tax.

⁴⁶ O.S. Sec. 2358(3)(a).

⁴⁷ O.S. Tit. 68. Sec. 878(g)(3).

Franchise Tax-

Alaska--Alaska charges a nominal flat fee as an annual franchise tax on domestic and foreign corporations. The rate is \$50 for a domestic corporation and \$100 for a foreign corporation.⁴⁸

California--The franchise tax in California, since it is measured by the net income derived from business in California, is treated as an income tax in the study.

Kansas--In Kansas, each foreign corporation pays an annual franchise tax in an amount equal to \$1 for each \$1,000 of the corporation shareholders' equity attributable to Kansas. The maximum franchise tax is \$2,500 per company.⁴⁹

Louisiana--The annual franchise tax rate of \$1.50 per thousand is applied to the greater of apportioned assessed value of real and personal property or apportioned capital. Capital includes capital stock, surplus, undivided profits, and borrowed capital. Capital totals and apportionment factors are derived from Forms P, 10-K, 12-K, as well as other proprietary information furnished by the owner companies.

The apportionment factor applied to assessed value is the average of a receipts factor (ratio of total receipts in Louisiana to total receipts everywhere) and a property factor (ratio of assets located in the state to assets located everywhere).⁵⁰

⁴⁸A.S. Sec. 10.05.717.

⁴⁹K.S.A. Sec. 17-7505.

⁵⁰La. R.S. Sec. 47:601-615.

The calculations are made on a company-by-company basis for one year and then multiplied by 25 for purposes of a 25-year comparative study. (See Exhibits IX(a) and XVII(a).) In applying the 25-year factor, the following assumptions are utilized.

- (1) Capital stock, surplus, borrowed capital, and apportionment factors remain constant.
- (2) An average outstanding valuation derived from the property tax schedule is utilized for assessed value of the property, and
- (3) An average outstanding undivided profits account balance is determined by adding average book income, that is, book income less applicable Federal and state taxes averaged over 25 years, to the 1976 account balance with no provision for dividends.

New Mexico--Each domestic and foreign corporation engaged in business in this state is subject to an annual franchise tax. The rate of tax is 55 cents for each \$1,000 or fraction thereof of the book value of its outstanding stock for 1977 and net worth for the period 1978-2001. Such capital is apportioned to New Mexico based on property and business within the state.

Oklahoma--The rate of tax is \$1.25 per \$1,000 of capital employed within the state. The maximum franchise tax is \$20,000 per company. For purposes of this study, we have assumed that the maximum franchise tax is applicable.

Texas--The annual franchise tax rate is \$4.25 per thousand. The franchise base is the greater of apportioned (based on gross receipts) capital (capital does not include debt) or county-assessed

value of Texas property.⁵¹ The statute provides for an 80-percent reduction in franchise tax where an intangibles tax liability exists.⁵² All oil pipeline companies whether or not common carriers are subject to the intangibles tax.⁵³ The intangibles tax is computed as follows: net operating income (Federal income tax is generally allowed as a deduction although not specifically allowed by statute) is capitalized at seven percent; the resulting valuation is reduced by book value and then assessed at 25 percent; then the assessed valuation is subject to a 1.25-percent tax rate.⁵⁴

For purposes of the study, average net operating income and outstanding book value are utilized in calculating the intangibles tax for one representative period. The result is then multiplied by 25 for purposes of the 25-year comparative study.

Wyoming--The franchise tax is applied to the assessed valuation of corporate property located and employed within the state. The study assumes that the maximum tax rate applicable is \$50 per every \$1,000,000 of assessed valuation.

Sales and Use Tax-

Sales taxes generally are measured as a percentage of retail sales price or gross receipts from sales of tangible personal property. Sales or receipts qualifying for sales tax vary from state to state due to the many statutory exemptions and peculiarities of

⁵¹Tx. R.C.S. Tit. 122A Arts. 12.01-12.02.

⁵²Tx. R.C.S. Tit. 122A Art. 12.01(2).

⁵³Tx. R.C.S. Tit. 122 Art. 7105.

⁵⁴Tx. R.C.S. Tit. 122 Arts. 7098-7116.

state law. The use tax is a supplement to the sales tax law. Items subject to use tax are items bought out-of-state for in-state use or consumption. The following is a table of state sales and use tax rates. In depicting the sales/use tax liability, the tables assume that 50 percent of materials and services utilized in the expansion of the production and pipeline facilities during the period 1977-2001 will be subject to the use tax.

<u>State</u>	<u>Sales</u>	<u>Use</u>	<u>Use Tax Liability</u> <u>1977-2001</u> (Thousands)
Alaska*	None	None	None
California*	4.75%	4.75%	\$211,858
Kansas*	3.00%	3.00%	133,805
Louisiana*	3.00%	3.00%	133,805
New Mexico*	3.75%	3.75%	167,257
Oklahoma*	2.00%	4.00%	178,407
Texas*	4.00%	4.00%	178,407
Wyoming*	3.00%	3.00%	133,805

*Local tax rates are additional and vary from state to state.

Possible sales or use tax on equipment or services which have already been purchased and put to use are beyond the scope of the study.

Miscellaneous Taxes-

Several states have levied taxes in conjunction with their severance tax for purposes of oil conservation and regulation activities. These taxes are generally levied based on the annual budgetary requirement of the conservation or regulatory department involved and are insignificant in amount. They are ignored for purposes of this study.

The only additional tax noted in the review of the applicable state laws is a New Mexico pipeline tax based on mileage and diameter.

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It is estimated the tax would approximate only about \$250,000 over the life of the project.

EXHIBITS

- I. Percentage Ownership Interests
- II. Summary of Total Taxes (Noninflated)
- III. Calculation of Wellhead Value of Prudhoe Bay Oil (Noninflated)
- IV. TAPS Tariff Determination (Noninflated)
- V. Summary of Total Taxes by Major Owners (Noninflated)
- VI. Ad Valorem Tax Summary (Noninflated)
 - (a) Calculation of ad valorem tax on pipeline (Noninflated)
 - (b) Calculation of ad valorem tax on Prudhoe Bay Field Hardware (Noninflated)
 - (c) Calculation of ad valorem tax on oil reserves (Noninflated)
- VII. Calculation of Severance Tax (Noninflated)
- VIII. Income Tax Summary (Noninflated)
 - (a) Calculation of Alaska taxable income (Noninflated)
 - (b) Calculation of California taxable income (Noninflated)
 - (c) Calculation of Kansas taxable income (Noninflated)
 - (d) Calculation of Louisiana taxable income (Noninflated)
 - (e) Calculation of New Mexico taxable income (Noninflated)
 - (f) Calculation of Oklahoma taxable income (Noninflated)

IX. Franchise Tax Summary	(Noninflated)
(a) Calculation of Louisiana franchise tax	(Noninflated)
(b) Calculation of New Mexico franchise tax	(Noninflated)
(c) Calculation of Texas franchise tax	(Noninflated)
(d) Calculation of Texas intangibles tax on pipeline	(Noninflated)
(e) Calculation of Wyoming franchise tax	(Noninflated)
X. Summary of Total Taxes	(Inflated)
XI. Calculation of Wellhead Value of Prudhoe Bay Oil	(Inflated)
XII. CAPS Tariff Determination	(Inflated)
XIII. Summary of Total Taxes by Major Owners	(Inflated)
XIV. Ad Valorem Tax Summary	(Inflated)
(a) Calculation of ad valorem tax on pipeline	(Inflated)
(b) Calculation of ad valorem tax on Prudhoe Bay Field Hardware	(Inflated)
(c) Calculation of ad valorem tax on oil reserves	(Inflated)
XV. Calculation of Severance Tax	(Inflated)
XVI. Income Tax Summary	(Inflated)
(a) Calculation of Alaska income tax	(Inflated)
(b) Calculation of California taxable income	(Inflated)
(c) Calculation of Kansas taxable income	(Inflated)
(d) Calculation of Louisiana taxable income	(Inflated)
(e) Calculation of New Mexico taxable income	(Inflated)
(f) Calculation of Oklahoma taxable income	(Inflated)

XVII. Franchise Tax Summary

(Inflated)

(a) Calculation of Louisiana franchise
tax

(Inflated)

(b) Calculation of New Mexico franchise
tax

(Inflated)

(c) Calculation of Texas franchise
tax

(Inflated)

(d) Calculation of Texas intangibles
tax on pipeline

(Inflated)

(e) Calculation of Wyoming franchise
tax

(Inflated)

COMPARATIVE STATE TAX BURDEN STUDYPERCENTAGE OWNERSHIP INTERESTS

	Prudhoe Oil Pool Percent
Atlantic Richfield Company	20.2745
Exxon Corporation	20.2745
SOHIO Petroleum Company	53.1552

Subtotal	93.7042
Other entities	6.2958

Total	100.0000
	=====

	Trans-Alaska Pipeline System (TAPS) Percent
ARCO Pipe Line Company	21.00
BP Pipelines, Inc.	15.84
Exxon Pipe Line Company	20.00
SOHIO Pipe Line Company	33.34

Subtotal	90.18
Other entities	9.82

Total	100.00
	=====

EXHIBIT II
NONINFLATED

COMPARATIVE STATE TAX BURDEN STUDY

SUMMARY OF TOTAL TAXES

(In Thousands)

<u>Rank</u>	<u>State</u>	<u>Exhibit</u>	<u>Ad Valorem Tax</u>	<u>Severance Tax</u>	<u>Income Tax</u>	<u>Franchise Tax</u>	<u>Total Tax</u>	<u>Percentage of Each State to Alaska</u>
1	Alaska	V	\$4,021,389	\$4,707,640	\$3,336,339	\$ N/A	\$12,065,368	100%
2	Louisiana	V	2,006,948	5,378,304	1,098,034	279,500	8,762,786	73
3	New Mexico	V	1,198,132	5,314,289	1,194,336	29,521	7,736,278	64
4	Wyoming	V	5,625,395	1,817,935	N/A	3,775	7,447,105	62
5	Kansas	V	6,583,660	N/A	858,188	441	7,442,289	62
6	Oklahoma	V	3,241,956	3,051,740	1,032,678	3,500	7,329,874	61
7	Texas	V	4,003,438	2,080,796	N/A	401,525*	6,485,759	54
8	California	V	4,247,704	N/A	1,792,948	N/A	6,040,652	50

* Includes intangibles tax on pipeline.

EXHIBIT III
NONINFLATED

[illegible]

- (4) Average of market price per June, 1977, royalty reports submitted to State of Alaska, except July, 1977, royalty report by Exxon.
- (5) See Exhibit IV.
- (6) Average of tanker cost to West Coast per June, 1977, royalty reports submitted to State of Alaska, except July, 1977, royalty report by Exxon.
- (7) Affrontato (percentage) cost to SCHIO of transportation cost to West Coast per June, 1977, royalty reports submitted to State of Alaska, except July, 1977, royalty report by Exxon.
- (8) Assumes that a pipeline would be available on January 1, 1981, to move all firm entitlement to Mid-Continent. Tariff at \$1.50 per barrel (derived from physical) through Administration (March 1981) and 10¢ per barrel thereafter (March 1981).
- (9) Actual cost to Exxon of royalty administration charges, West Coast, per June, 1977, except July, 1977, royalty report by Exxon.
- (10) Weighted average per June, 1977, royalty reports submitted to State of Alaska, except July, 1977, royalty report by Exxon.

EXHIBIT IV
NONINFLATED

COMPARATIVE STATE TAX BURDEN STUDY

TAPS TARIFF DETERMINATION

1977-2001

(In Thousands)

	Alaska	California	Kansas	Louisiana	New Mexico	Oklahoma	Texas	Wyoming
Oil spill funds (A)	\$ 100,000	\$ 100,000	\$ 100,000	\$ 100,000	\$ 100,000	\$ 100,000	\$ 100,000	\$ 100,000
Operation and maintenance (B)	5,677,269	5,677,269	5,677,269	5,677,269	5,677,269	5,677,269	5,677,269	5,677,269
Depreciation (C)	9,964,650	9,964,650	9,964,650	9,964,650	9,964,650	9,964,650	9,964,650	9,964,650
Interest (D)	8,619,000	8,619,000	8,619,000	8,619,000	8,619,000	8,619,000	8,619,000	8,619,000
State taxes (E)	3,986,983	3,382,063	4,030,487	2,272,425	2,110,027	3,770,807	1,778,350	1,555,100
Dismantling costs (F)	1,049,000	1,049,000	1,049,000	1,049,000	1,049,000	1,049,000	1,049,000	1,049,000
Federal income tax (G)	8,661,253	8,661,253	8,661,253	8,661,253	8,661,253	8,661,253	8,661,253	8,661,253
Return on investment (H)	10,100,000	10,100,000	10,100,000	10,100,000	10,100,000	10,100,000	10,100,000	10,100,000
Total	\$48,158,155	\$47,553,235	\$48,201,659	\$46,443,597	\$46,281,199	\$47,941,979	\$45,949,522	\$45,726,272
Throughput (25 years) (barrels)	8,688,000	8,688,000	8,688,000	8,688,000	8,688,000	8,688,000	8,688,000	8,688,000
Average tariff rate	\$5.54	\$5.47	\$5.55	\$5.35	\$5.33	\$5.52	\$5.29	\$5.26

(A) Estimate furnished by owner companies.

(B) \$.938 per barrel less ad valorem tax component.

(C) Recover entire cost from Interstate Commerce Commission order plus Phase III expansion.

(D) 8.582 percent interest rate, principal of \$8,034,480 paid on linear basis.

(E) Maximum state rate applied to sum of (G) and (H) plus ad valorem tax and franchise tax.

(F) \$41.96 million per year for 25 years.

(G) 48/52 applied to (H) for 1977 and 1978; 46/54 applied to (H) after 1978.

(H) 7 percent of total outstanding valuation for 25 years (\$144,285,720).